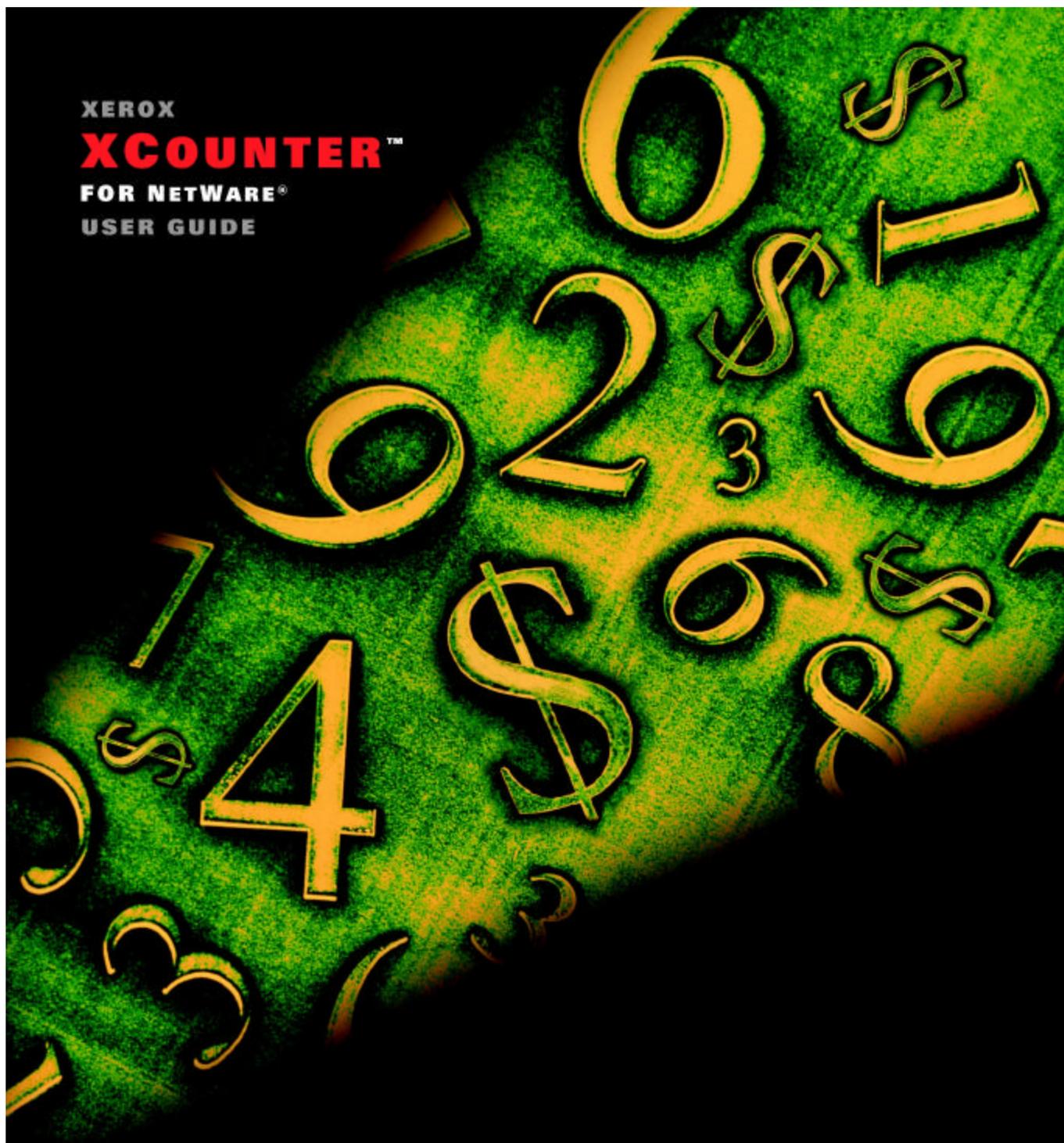


XEROX
XCOUNTER™
FOR NETWARE®
USER GUIDE



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Product Description

Overview

XCounter is an enterprise printer Accounting/Queue management software package that controls and monitors printing resources over most wide and local area networks. This software offers two distinct features. First, XCounter provides comprehensive accounting. The accounting functionality is down to the user level, allowing organizations to track and manage printer usage. The flexible reporting, allows reports to be customized to meet specific business needs. For even further report customization, XCounter utilizes industry standard comma delimited files for quick and easy importing into a number of report writers. XCounter includes the following three types of page accounting:

Standard Page Accounting-	Tracks print job statistics transparent to user.
Charge-Back Page Accounting-	Tracks print job statistics as well as charge-back information input by the user.
Debit/Credit Page Accounting-	Tracks print job statistics as well as controls printing usage based on the user account balance. The cost of each printed page is deducted from the user account balance.

The second key feature offered by XCounter is queue management. System administrators can easily re-prioritize job queues, delete print jobs, copy print jobs or redirect print jobs to other queues via a simple drag and drop function. Print queues may be configured with a set of job rules. These rules allow the print jobs to be deleted, re-prioritized or automatically redirected based on the byte size or page size of the print job. Notification of print job deletion or redirection is then sent to the client via network broadcast or email.

XCounter runs as a native Novell NLM. It is a unique product in that it offers seamless printer page accounting, print job statistics and queue management in a heterogeneous network environment with network printers from any printer manufacturer.

XCounter for Netware runs on Novell 3.x, 4.x and 5.x in bindery mode, Novell Netware 4.x and 5.x in NDS mode or Netware 5.x in NDPS mode.

Because it is a server based software application, it will seamlessly fit into a network requiring no additional dedicated hardware.

Introduction

XCounter™ for Netware™

This version of XCounter is an NLM (Netware Loadable Module) which tracks printer usage on queues located on Novell Netware file servers. Features include:

- Counts pages on PostScript, PCL and TIFF printers.
- Maintains user account balances using the bindery or NDS. Keeps a log file of all print activity in a single location on the network.
- Windows users may have a popup window for billing print jobs to clients/job numbers.
- Generates print activity reports based on - user, group, printer, queue, print server, paper size, or client code.
- Rules based printing for load balancing based on maximum and minimum byte sizes and/or page counts – jobs can be deleted or moved to the end of the queue, or moved to another print queue.
- Individual prices may be set for different paper sizes, and delete print jobs that use an invalid paper size.
- Queue manipulation allows administrator to change print job priority within the queue or change the number of copies. Drag and drop functionality allows administrator to copy or move jobs to other print queues. Jobs can be released from the queue at a set time. Job rules may be configured to queues to allow jobs to automatically be deleted, re-prioritized within the queue or moved to a different queue, based on job byte size or page count. Multi-platform functionality also allows administrator to drag and drop print jobs from NT print queues to Novell print queues or vice versa.
- Launch menu allows for printer specific applications to run from within XControl. The tool bar has a Launch Menu which can be configured to launch multiple applications i.e. printer specific management programs or report writer applications. The Xerox Network Printers web page is also launched from the tool bar.
- XCounter is entirely Year 2000 compliant. All dates have 4 digit year quantities
- Printer monitoring via SNMP provides update information regarding printer and consumable status.

Program Components and Utilities

XCounter for Netware incorporates the following NLM's, application programs and utilities:

- **XCOUNT3X.NLM (Bindery)**
- **XCOUNT4X.NLM (Bindery and NDS)**
- **XCOUNTDP.NLM (NDPS)**

Netware Loadable Modules that are loaded on Netware 3.x, 4.x and 5.x server to monitor print queues.

- **XControl.EXE (Windows 95/98/Me/NT/2000)**

Printer/queue management and XCounter configuration program.

- **XManager.EXE (Windows 95/98/Me/NT/2000)**

A comprehensive account balance management program that also creates statistical reports on printer activity.

- **XPlotmgr.EXE (Windows 95/98/Me/NT/2000)**

A print job submission utility with time scheduling and XPopup support.

- **ACCOUNT.EXE (Windows 95/98/Me/NT/2000)**

A command-line account balance management utility.

- **XImport.EXE**

A command-line utility for the importation of client code information.

- **XBalance.EXE (Windows 95/98/Me/NT/2000)**

A utility for users to check their account balance.

- **XPopup.EXE (Windows 95/98/Me/NT/2000)**

A utility which pops up a window after each print job, allowing users to enter additional information for the logging of the job, such as client matter numbers, job codes, or shared login accounting.

- **XADDRESS.EXE (Windows 95/98/Me/NT/2000)**

XAddress is a login script utility, which maps network addresses, to Net BIOS (Windows Network) computer names. This information is then written to the XCounter log file.

Software/Hardware Requirements

XCounter for Netware 3.x, 4.x and 5.x minimum server requirements:

- A server that meets or exceeds Novell's operating requirements. Please refer to Novell installation documentation for this specification.
- 2MB minimum additional RAM for XCounter NLM and accounting for 48 printer queues. Each additional print queue requires 40K bytes of RAM memory.
- Disk space required is 250K for program storage. The accounting log file will grow depending on number of print queues tracked, and the activity associated with these queues. Each entry in the accounting log may vary in size. This is directly related to the manner in which the network is initially set-up and administered. For instance, the User ID field can be longer, depending where the user is in the NDS tree. The document name field may also vary in size. Under the most extreme conditions, a log file entry for one job could be as high as 975 bytes in size. However, a size of about 128 bytes or less per entry would be an average in most cases. This log file may be stored in any volume on any network server.
- **XControl** is intended to run on a Pentium processor running from a Windows 95/98/Me, Windows NT 3.5.1 workstation, Windows NT 4.0/2000 workstation or server with a minimum 32 MB of memory. For Novell environments, XControl requires Novell Client 32/ Intranet ware Client for Novell networks (for Novell 3.x, 4.0, and 5.0 Bindery and 4.1, 5.0 NDS networks). This feature is standard on NT 4.0, but is not bundled with Windows 95/98/Me or Windows NT 3.5.1. Client 32 is provided as a convenience on the XCounter CD-ROM or can alternatively be installed from the Novell Web page <http://www.novell.com>.
- **XManager** can run from a Windows 95/98/Me, Windows NT 3.5.1 workstation, Windows NT 4.0/2000 workstation or server with recommended minimum 32 MB of memory. Hard disk requirement for program storage is 2MB.
- **XPlotmgr** can run from a Windows 95/98/Me, Windows NT 3.5.1 workstation, Windows NT 4.0/2000 workstation or server with a minimum of 32 MB of memory. The hard disk requirement for program storage is 274KB.
- **XPopup 32 bit** can run from a Windows 95/98/Me, Windows NT 3.5.1 workstation or Windows NT 4.0/2000 workstation or server. The hard disk requirements for program storage are 238KB.
- **XBalance 32 bit** can run from a Windows 95/98/Me, Windows NT 3.5.1 workstation or Windows NT 4.0/2000 workstation or server. The hard disk requirements for program storage are 47KB.

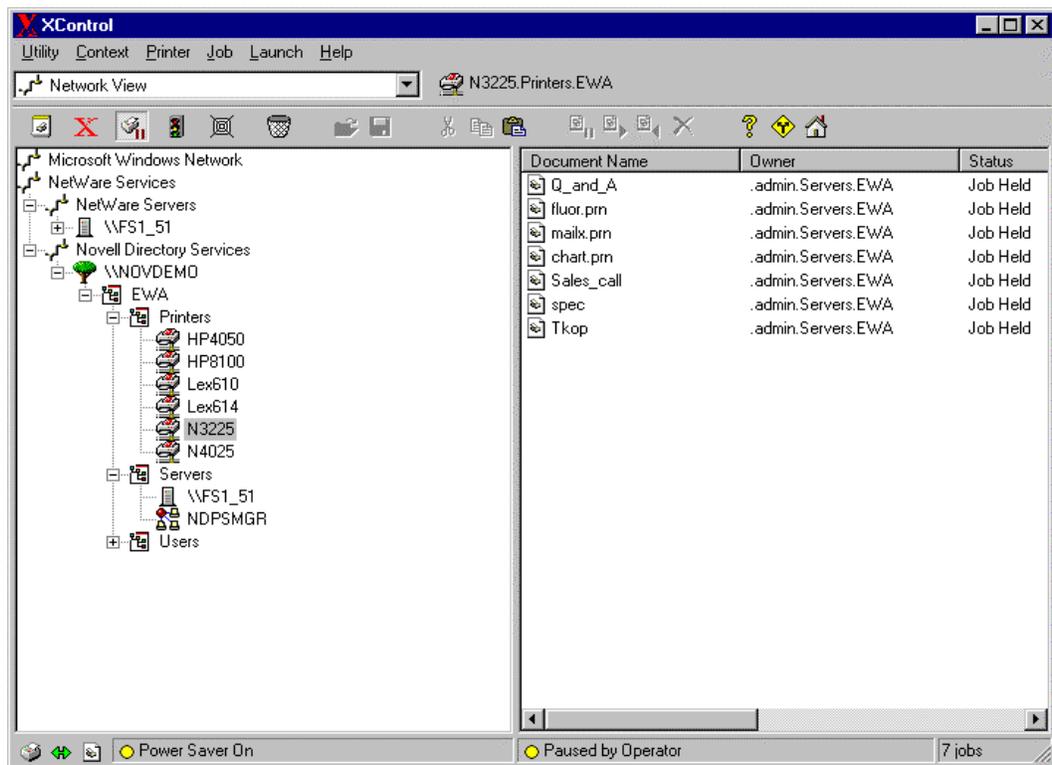
Important Concepts

XCOUNTER Configurations

- Use XControl to set up configuration settings for servers and queues. The Novell 32 bit Client for Windows (formerly called Client 32) is required to run any of the XCounter administration utilities.
- Queue configurations determine how XCounter handles each print job serviced in that queue. Many options (such as those pertaining to accounting) are specific to XCounter, others (Job notify, Banners, Form feed) provide extensions to Novell's printing services, allowing global print job configurations for jobs in selected queues to be defined.
- If queue configurations are modified, the XCounter NLM's do not need to be restarted. They will need to be restarted however, if queues are added or removed.
- XCounter NLM's only service queues located on the file server where they are running. If require multiple file server support, then will an XCounter NLM will need to be run on each file server where queues are defined.
- Server configurations are global and affect all queues managed by XCounter on the server.
- There are 3 NLM's included with XCounter, XCOUNTER3X.NLM for bindery mode, and XCOUNTER4X.NLM for NDS mode. NDPS.NLM for NDPS mode.
- When installing XCounter with NDPS ensure that the NDPS Manager is at version 2.20e or above.
- If a server needs to be configured in bindery mode, then select the server from the Netware Servers list in XControl.
- If a server in NDS mode needs to be configured, then browse the NDS tree in XControl and select a server from the context where it is located.
- When the XCounter 60 day trial period expires, all tracking will cease. When the password key purchased and applied, tracking will resume without any re-configuration of the program.

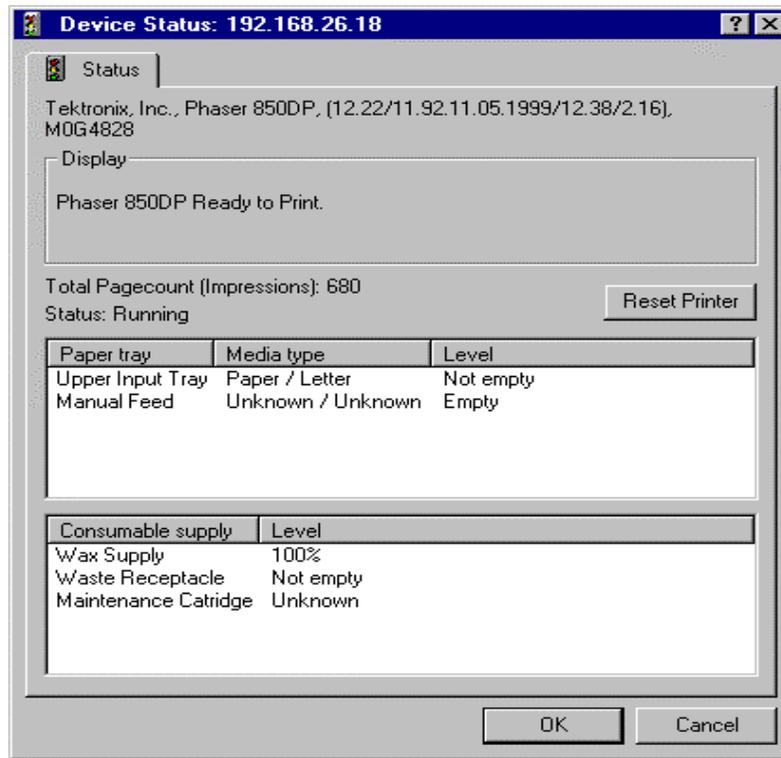
XControl

The XControl program is the primary interface to the XCounter program. The program provides a window into the network-printing environment. Various configurations, print queue monitoring and external program launch capabilities are provided within this program. The drag and drop functionality, drop down menus and tool bar provide a fast and effective way to manage network printing.

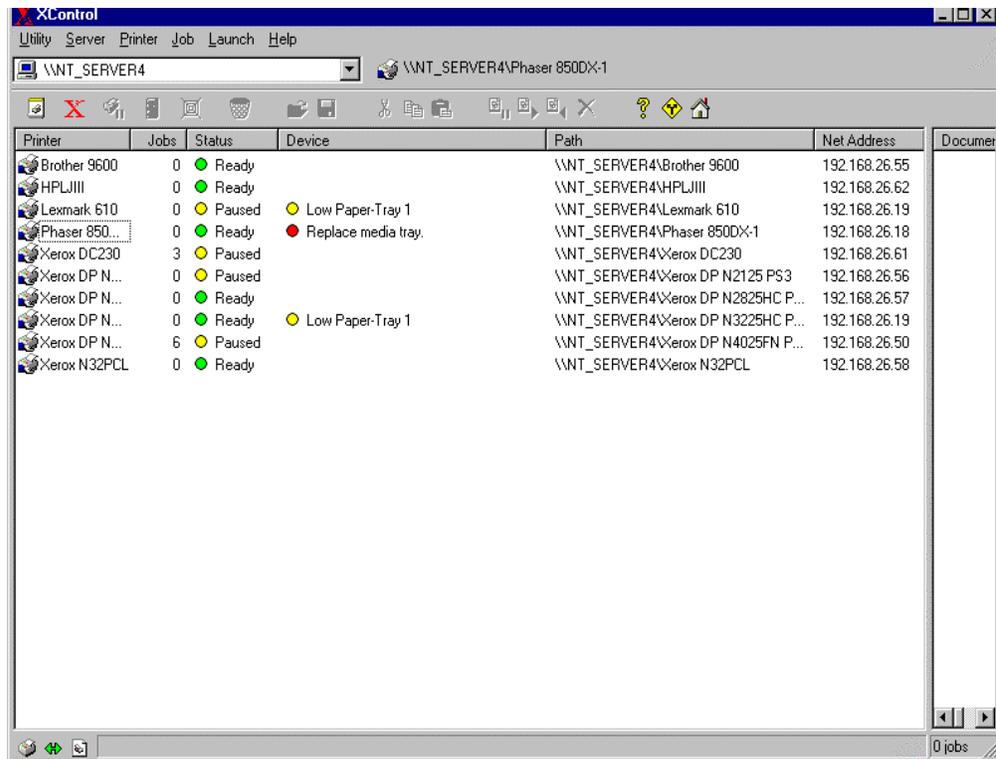


The following printer queue functions are available on the tool bar:

- **Create Printer** This button launches the add printer utility to facilitate installing additional printers.
- **XCounter configuration** This button launches the XCounter configuration program.
- **Pause printer** Individual printers can be paused by selecting the printer and pressing this button.
- **Device status** The printer status may be obtain from SNMP compliant printers.



Status may be obtained from Individual printers by selecting the printer and pressing the device status on the tool bar. To display all printers select the "Server" drop down menu and select "Zoom"



- Connect to web printer Select the printer and press this button to launch the printer web page.
- Purge all jobs Press this button to delete all jobs in the printer queue.
- View job in queue Select a job in the printer queue and press this button to view job. This button launches a document viewer for this purpose.
- Save job in queue Select a job in the printer queue and press this button to save the spooler file. This spool file can be used to assist technical support in diagnosing printing problems.
- Cut job Select a job in the printer queue and press this button to delete from the printer queue and save to the clipboard.
- Copy job Select a job in the printer queue and press this button to copy from the printer queue to the clipboard. The Shift and Ctrl key may be used to select multiple print jobs.
- Paste job Select printer queue and press this button to copy print job from the clipboard to the printer queue.
- Pause job Select a job in the printer queue and press this button to pause the print job. The Shift and Ctrl key may be used to select multiple print jobs.
- Resume job Select a paused job in the print queue and press this button to release the pause. The Shift and Ctrl key may be used to select multiple print jobs.
- Delete job Select a print job in the printer queue and press this button to delete the print job. The Shift and Ctrl key may be used to select multiple print jobs.
- Help Press this button for context sensitive help.
- Preferences Press this button to set XControl user preferences
- Home Press this button to connect to the Xerox web site.
<http://www.xerox.com/>

Quick Start Installation

XCounter for NetWare can be installed and configured to operate in three specific Novell environments.

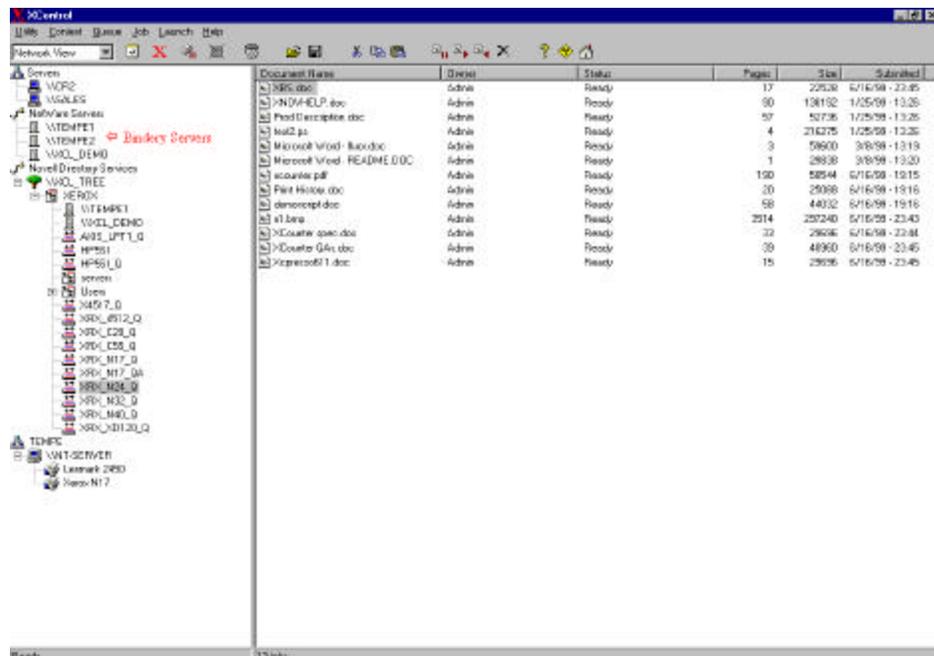
- Bindery Emulation Mode (BE)
- Novell Directory Services Mode (NDS)
- Novell Distributed Print Services Mode (NDPS)

Note: Prior to installing XCounter, ensure that all printers that require tracking are operational on the network. The XControl program is used to install and configure XCounter. This XControl program may be run locally on a network-attached workstation or from a shared network folder accessed through the network.

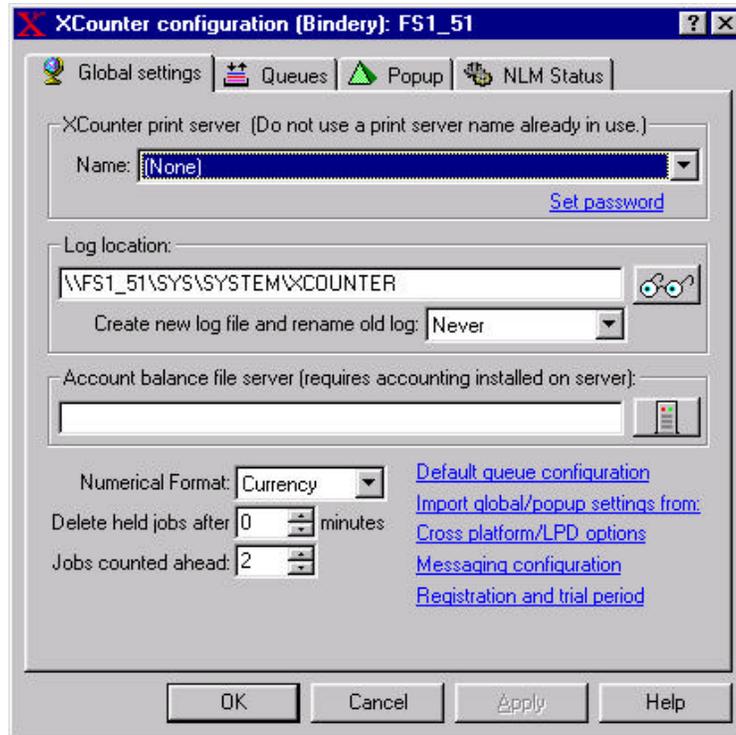
- Insert the XCounter CD into the CD-Rom drive
- Choose the installation type required NetWare or NT
- Select "Setup" and follow installation prompts

Bindery Mode Installation

- Launch XControl from the Start/Programs/XCounter for NetWare menu.
- From the graphic interface select "NetWare Servers" and then the Server on which XCounter is to be installed. Press the "X" button on the tool bar.

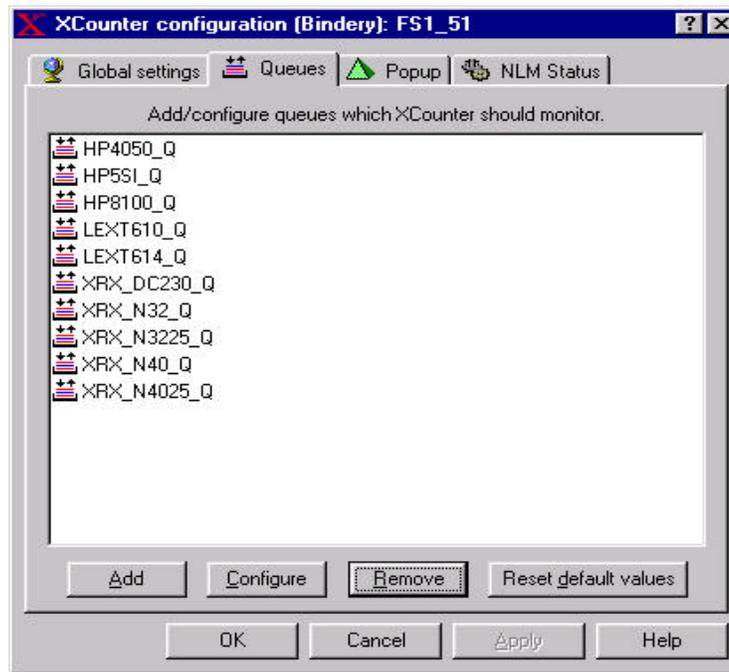


- At this point the “XCounter configuration (Bindery)” window will appear. XCounter must have a unique print server association. Select “Create new print server” from the drop down dialog box. Enter a unique print server name in the area provided. Select the “Set password” link and enter a password for this print server.

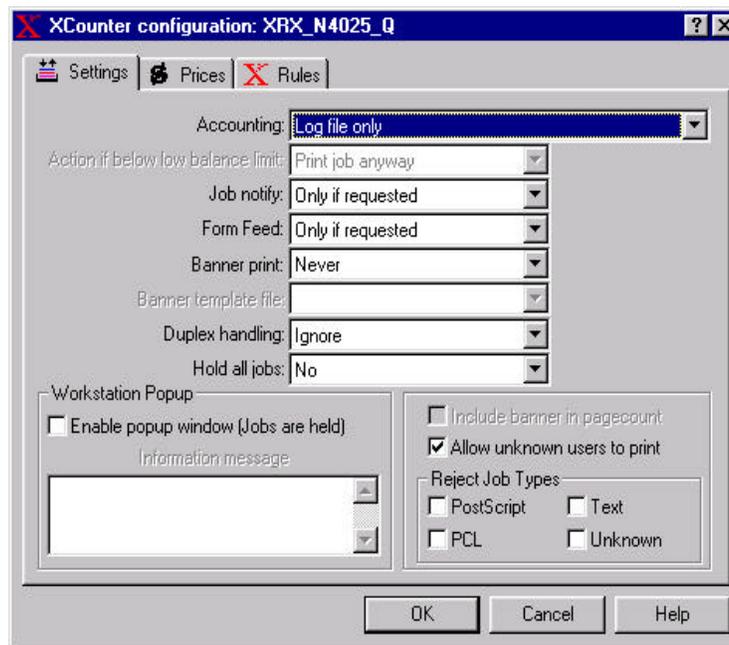


- The XCounter log file location will default to the sys: system directory on the server that XCounter is installed on. This file can be stored anywhere on the network. To select a different location for this log file, press the browse button and select the path and location desired.
- The remaining options may be left at their default value or configured as required.
- For XCounter to monitor existing printer queues, they must be enabled. Select the “Queues” tab and press the “Add” button to display a list of available queues. Select the queues to be monitored. XCounter will track all queues that are displayed in the “Queues” window.

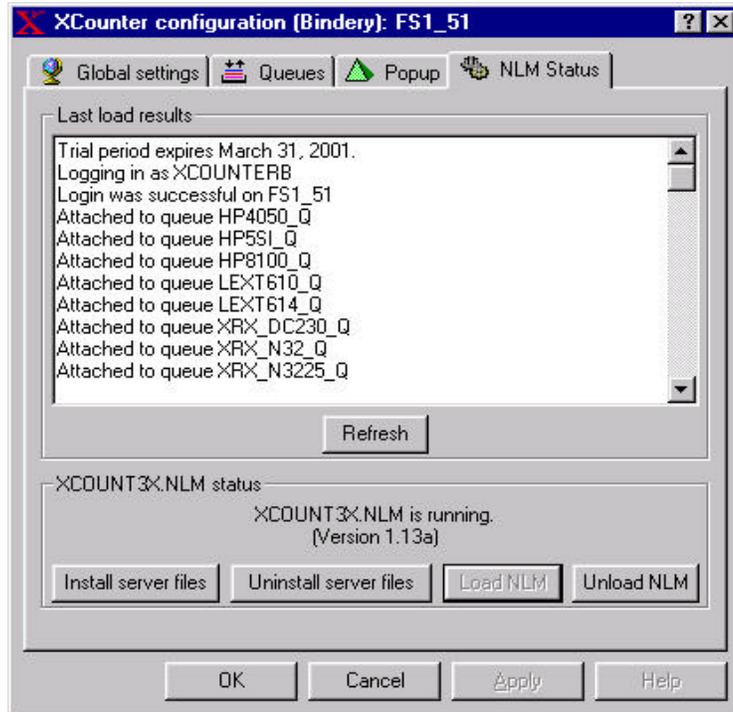
Note: XCounter provides numerous queue and server configuration options that can be set to meet custom requirements, please refer to the sections “Server Configuration” and “Printer Queue Configuration” for more detailed information on these options.



- Each queue can be individually configured or all queues may be globally configured with the same settings. To configure a queue select it and press the “Configure” button. These queue options may be left at their default value or configured as required.



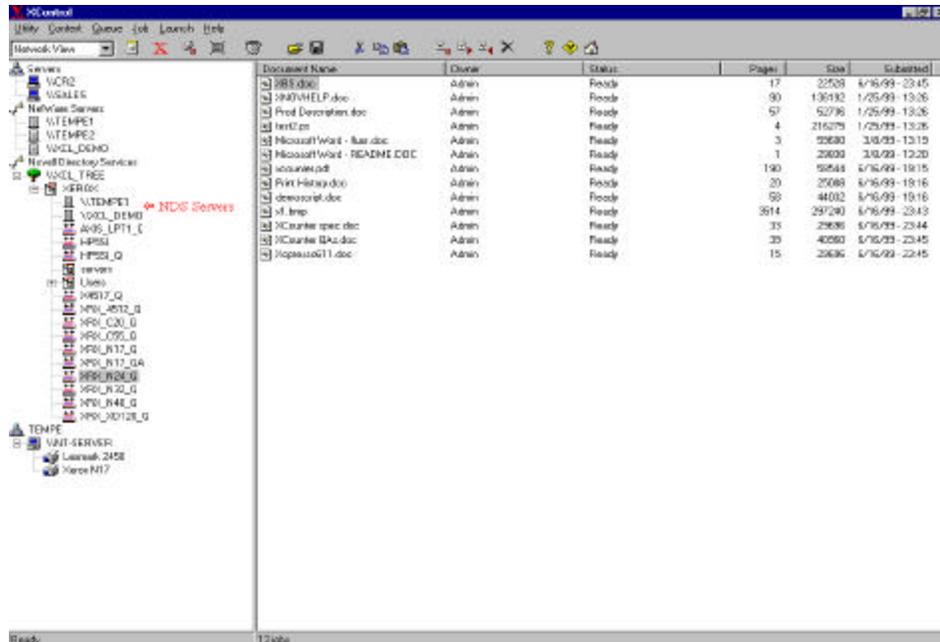
- The XCounter NLM may now be loaded. From the “XCounter Configuration (Bindery)” window select the “NLM Status” tab. Press the “Install server files” button. To load the NLM press the “Load NLM” button. Notice that the NLM status is “XCOUNT3x NLM is running” The display will also indicate which printer queues are attached to XCounter.



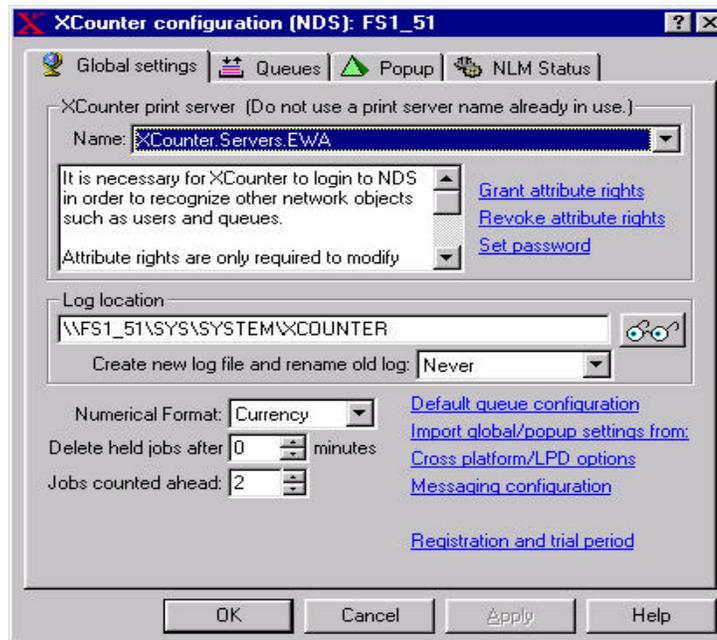
- Congratulations, you have installed XCounter for NetWare in a bindery environment. To verify proper operation of this program, send a print job to a printer queue attached to XCounter. Select this printer queue from within XControl, right mouse click and select “XCounter/Print History”. A print history report will be displayed that will contain information regarding the print job. Repeat this procedure to attach additional printers to XCounter.

NDS Installation

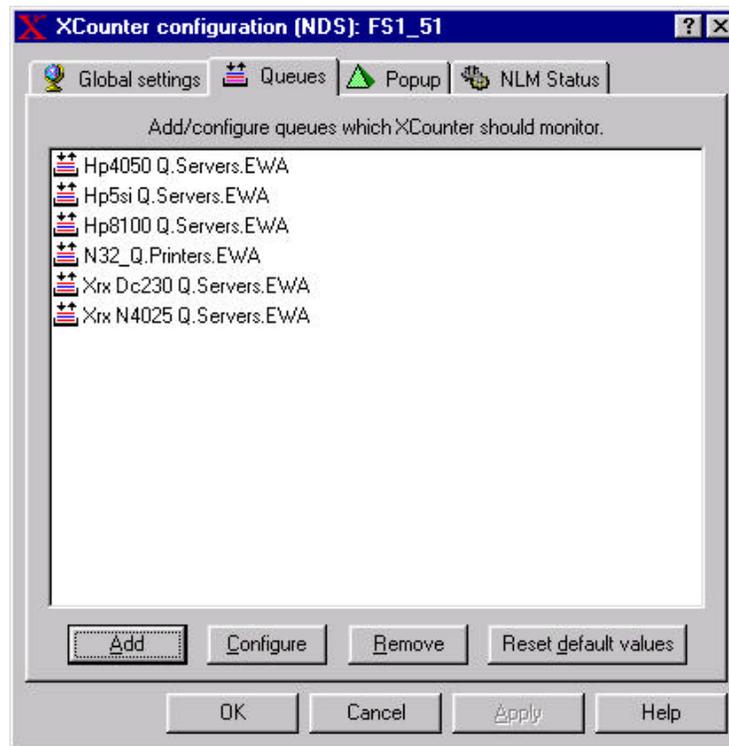
- From the graphic interface select “Novell Directory Services” and then the Server on which XCounter is to be installed. Press the “X” button on the tool bar.



- At this point the “XCounter configuration (NDS)” window will appear. XCounter must log into the NDS tree to recognize users, groups, and printers on the network. NDS requires XCounter to have a unique print server object in the NDS tree. Select “Create new print server” from the drop down dialog box. Enter the context and unique print server name in the area provided. Select the “Set password” link and enter a password for this print server.

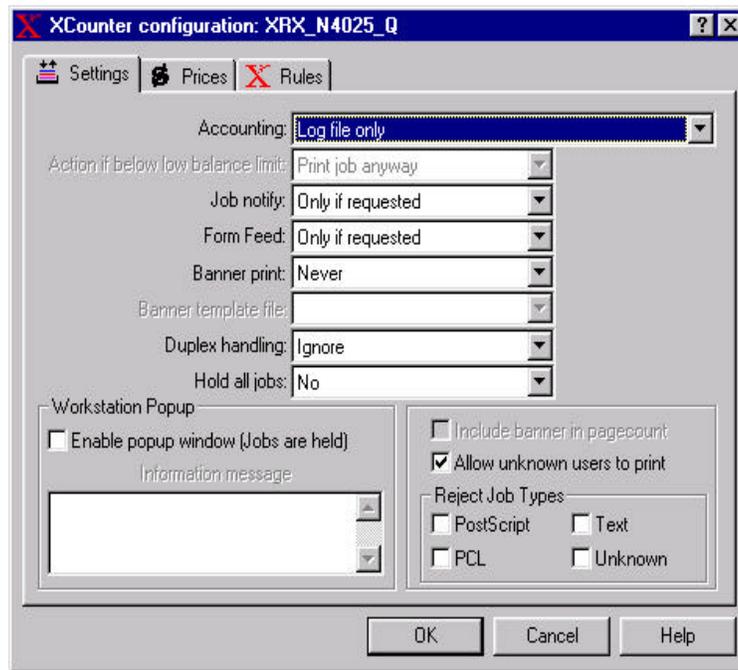


- The XCounter log file location will default to the sys: system directory on the server that XCounter is installed on. This file can be stored anywhere on the network. To select a different location for this log file, press the browse button and select the path and location desired.
- The remaining options may be left at their default value or configured as required.
- For XCounter to monitor existing printer queues, they must be enabled. Select the “Queues” tab and press the “Add” button to display a list of available queues. Select the queues to be monitored. XCounter will track all printer queues that are displayed in the “Queues” window.

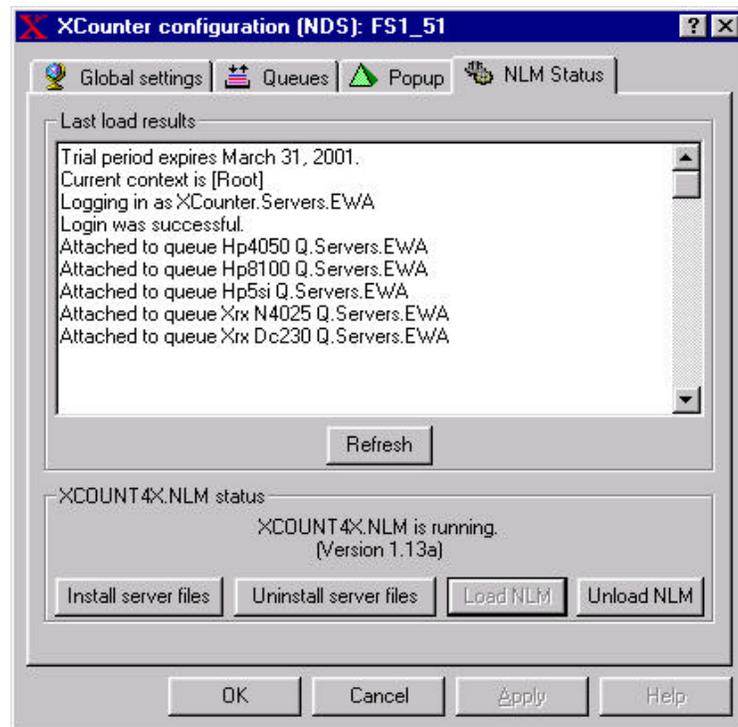


- Each queue can be individually configured or all queues may be globally configured with the same settings. To configure a queue select it and press the “Configure” button. These queue options may be left at their default value or configured as required.

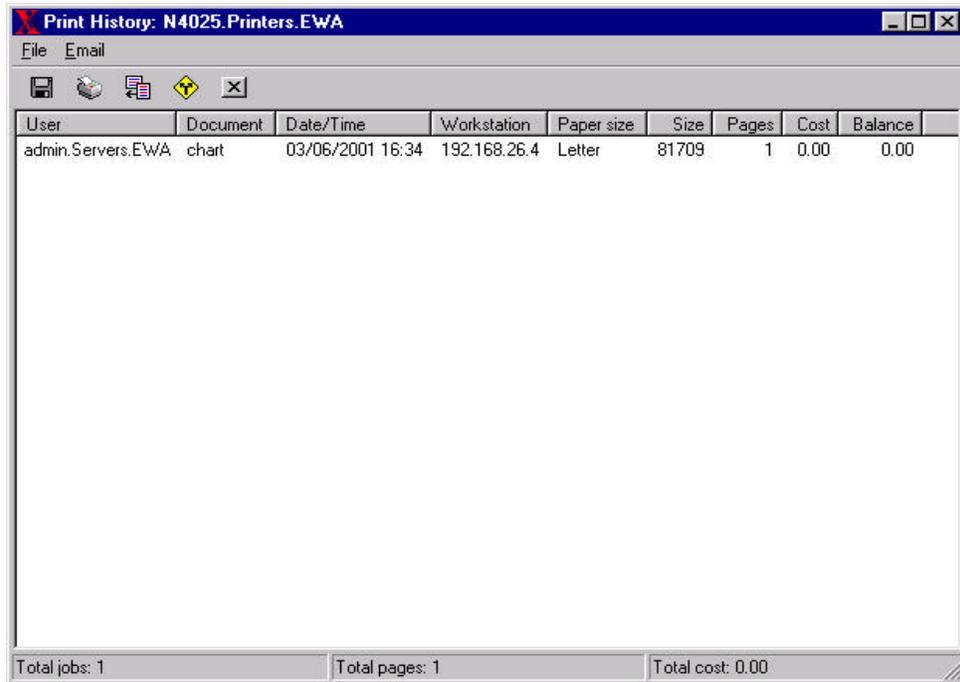
Note: XCounter provides numerous queue and server configuration options that can be set to meet custom requirements, please refer to the sections “Server Configuration” and “Printer Queue Configuration” for more detailed information on these options.



- The XCounter NLM may now be loaded. From the “XCounter Configuration (NDS)” dialog box select the “NLM Status” tab. Press the “Install server files” button. To load the NLM press the “Load NLM” button. Notice that the NLM status is “XCOUNT4x NLM is running” The display will also indicate which printer queues are attached to XCounter.

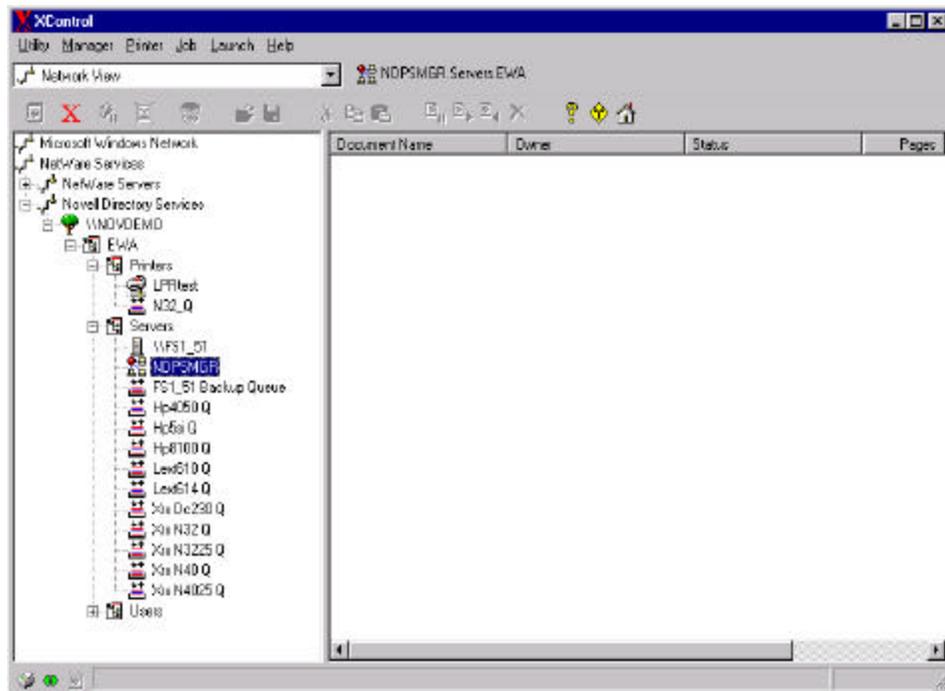


- Congratulations, you have installed XCounter for NetWare in a NDS environment. To verify proper operation of this program, send a print job to a printer queue attached to XCounter. Select this printer queue from within XControl, right mouse click and select "XCounter/Print History". A print history report will be displayed that will contain information regarding the print job. Repeat this procedure to attach additional printers to XCounter.

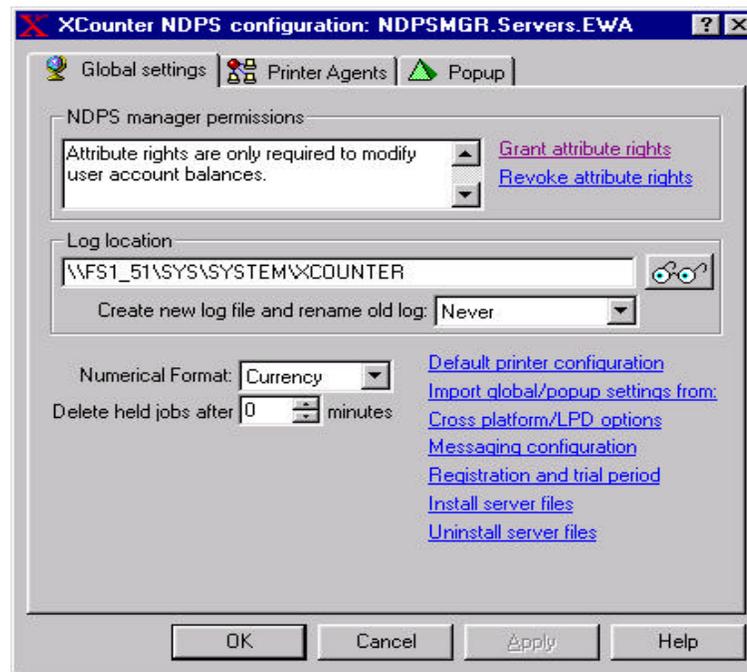


NDPS Installation

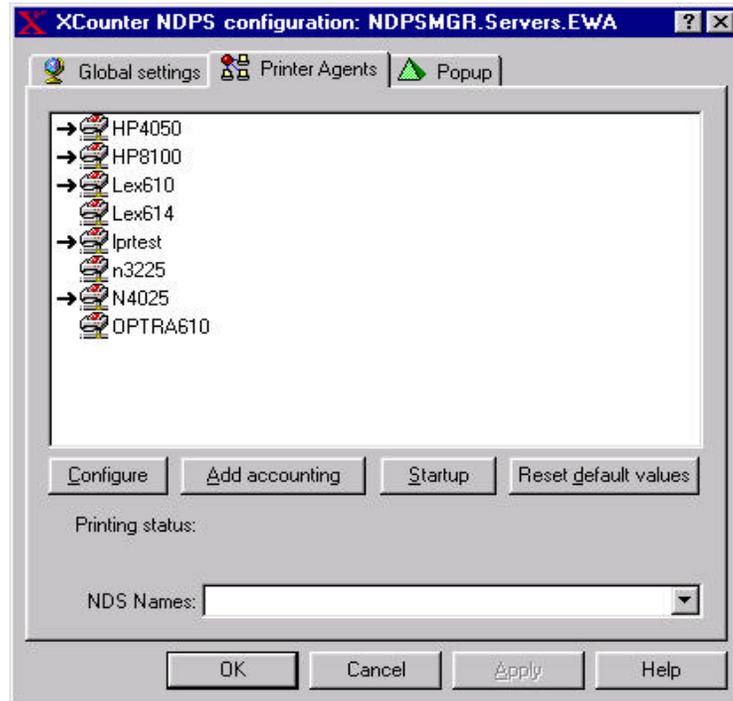
- From the graphic interface select “Novell Directory Services” Select the context where the NDPS Manager is located and then select the NDPS Manager. Press the “X” button on the tool bar.



- At this point the “XCounter NDPS configuration” window will appear.

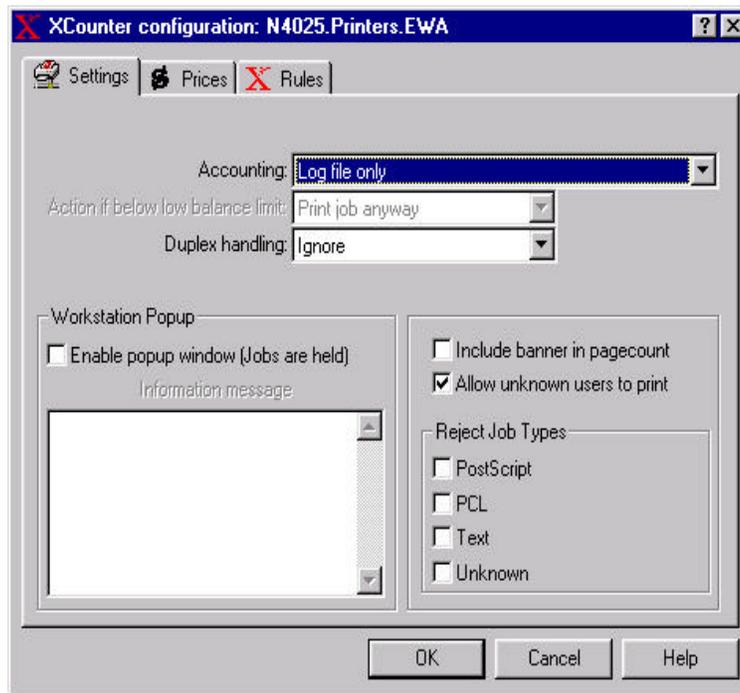


- The XCounter log file location will default to the sys:system directory on the server that XCounter is installed on. This file can be stored anywhere on the network. To select a different location for this log file press the browse button and select the path and location desired.
- Select the “Install server files” link to install the required XCOUNTDP.NLM
- The remaining options may be left at their default value or configured as required.
- To monitor existing NDPS printers, XCounter accounting must be enabled for each printer agent that requires tracking. To enable XCounter accounting, select the “Printer Agents” tab, notice that all the printer agents associated with the selected NDPS Manager will be displayed. Select the printer agent that XCounter is to monitor and press the “Add accounting” button. The Printer Agent must be restarted after accounting has been either added or removed. To restart, select the printer and press the “Shutdown” and then the “Startup” button. Repeat this process for all NDPS printers that require XCounter accounting. Notice the black arrow on each printer agent that XCounter is tracking.



- Each printer agent can be individually configured or all printer agents may be globally configured with the same settings. To configure a printer agent select it and press the “Configure” button. These printer agent options may be left at their default value or configured as required.

Note: XCounter provides numerous printer and server configuration options that can be set to meet custom requirements, please refer to the sections “Server Configuration” and “Printer Queue Configuration” for more detailed information on these options.



- Congratulations, you have installed XCounter for NetWare in a NDPS environment. To verify proper operation of this program, send a print job to a NDPS printer attached to XCounter. Select this printer agent from within XControl, right mouse click and select "XCounter/Print History". A print history report will be displayed that will contain information regarding the print job. Repeat this procedure to attach additional printers to XCounter.

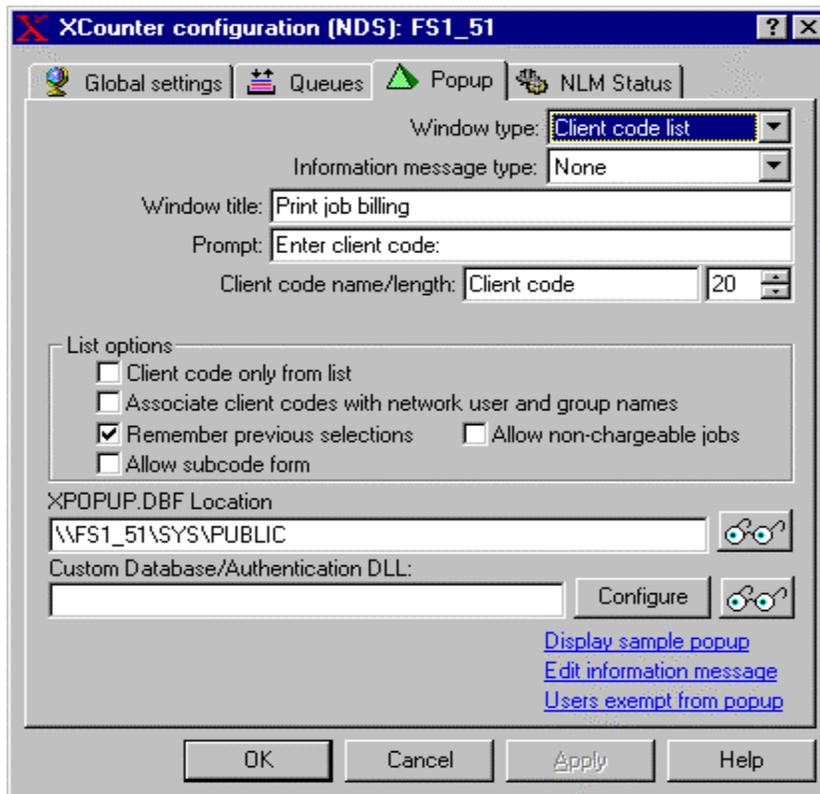
Installing XPopup support (Bindery and NDS)

Once XCounter software has been installed and configured for Standard Page Accounting, the client charge back accounting method may be implemented if required. To install this type of accounting, there must be a client code database installed. To install this client database, please refer to the section “Maintaining the XPopup database”. Once this client database has been established, the following procedure may be used to install and configure the server for the XPopup client:

- Launch XControl from the Start/Programs/XCounter for NetWare menu.

From the graphic interface select Server on which XCounter is installed on and press the “X” button on the tool bar.

- An XCounter configuration dialog box will appear. Select the “Popup” tab and the Popup configuration window will appear.

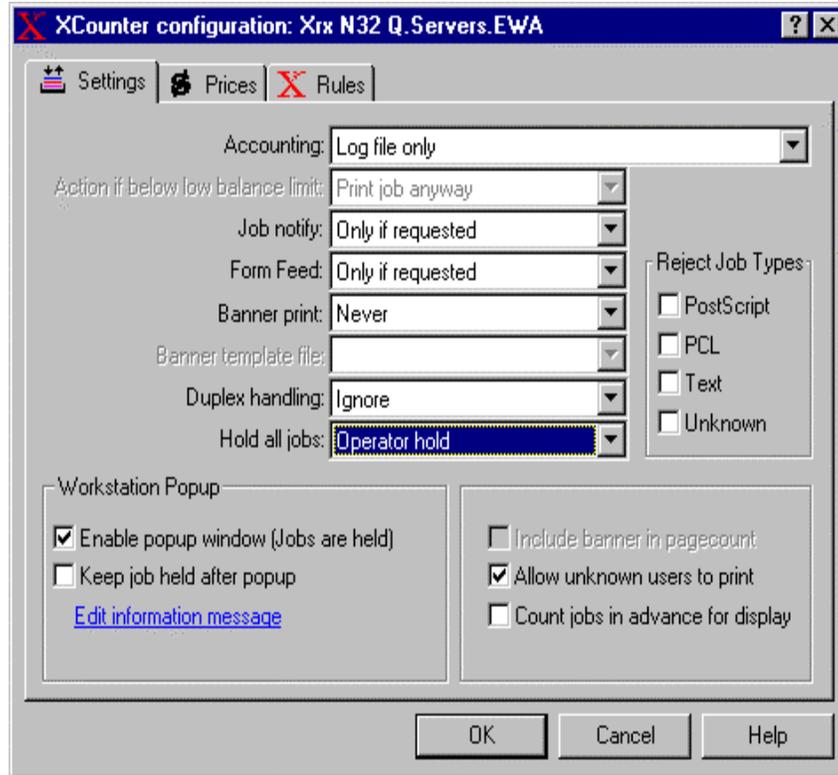


- Select the “Window type” and make any other required modifications or option changes then “Apply” the changes. Please refer to the section “Server popup configuration” for more detailed information.

The printer configuration specifies whether or not the XPopup client is enabled. This means that only printers that require the XPopup client need to be configured. Repeat the following procedure if additional printers require XPopup client support:

- Return to the main XControl window.

From the graphic interface, select printer on which the XPopup client is to be enabled on and press the “X” button on the tool bar. A printer configuration window will appear.



- Select the “Enable popup window” this will enable the XPopup client for this printer. Notice that the “Hold all jobs” will indicate “Operator hold and User hold”. This pause function will prevent printing until the information is received from the client workstation.

Note: The server NLM must be unloaded and reloaded after this configuration change, otherwise the XPopup function will not be enabled. Once the server NLM has been restarted, the XPopup function is enabled. This will require the XPopup.exe program to be loaded on all client workstation/s printing to this printer. If the Xpopup.exe program is not loaded, the print jobs will be place on indefinite hold.

- Load the XPopup on client workstation and send a print a job to this printer. Depending on the window type configured, the client popup window will look similar to the popup shown below. Please refer to the section “Running XPopup” for more information on loading XPopup.exe.

Print job billing

Printer: N40

Document: Client Billing

Enter client code: 77701 / 8989890

Client code	Description
77701	Recruiting Group
77702	Pro-Bono
77703	Personal Time
77706	Professional Activities Group
77707	Miscellaneous Firm Business

Matter number	Description
0010	Recruiting Committee Activi...
0050	Recruiting-In Firm Intvws/A...
0070	Recruiting - Law Schools

Print it Cancel job Reload list Search

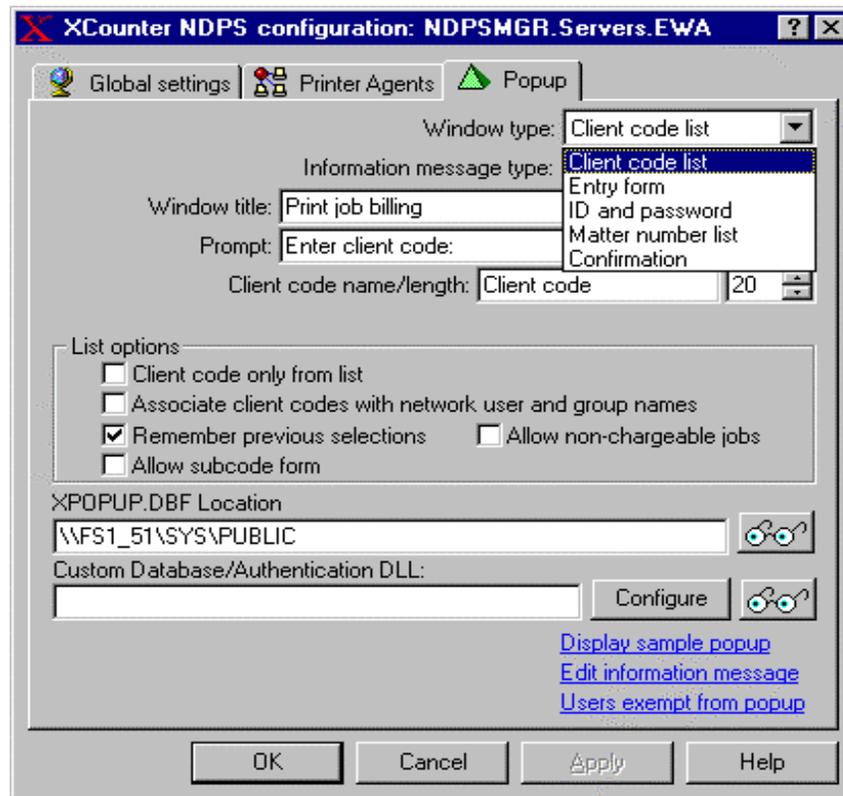
Congratulations, you have now installed XCounter XPopup support. To verify proper operation of this program, select this configured printer from within XControl, right mouse click and select “XCounter/Print History”. A print history report will be displayed that will contain information regarding the print job including the client (and if enabled, subcode) information.

Note: The XCounter program provides numerous printer and server configuration options that can be set to meet custom requirements. Please refer to the sections “Server Configuration” and “Printer Configuration” for more detailed information on these options.

Installing XPopup support (NDPS)

Once XCounter software has been installed and configured for Standard Page Accounting, the client “Charge Back Accounting” method may be implemented if required. To install this type of accounting, there must be a client code database installed. To install this client database, please refer to the section “Maintaining the XPopup database”. Once this client database has been established, the following procedure may be used to install and configure the server for the XPopup client:

- From the XControl graphic interface select “Novell Directory Services” Select the context where the NDPS Manager is located and then select the NDPS Manager. Press the “X” button on the tool bar.
- An “XCounter NDPS configuration” window will appear. Select the “Popup” tab and the Popup configuration window will appear.

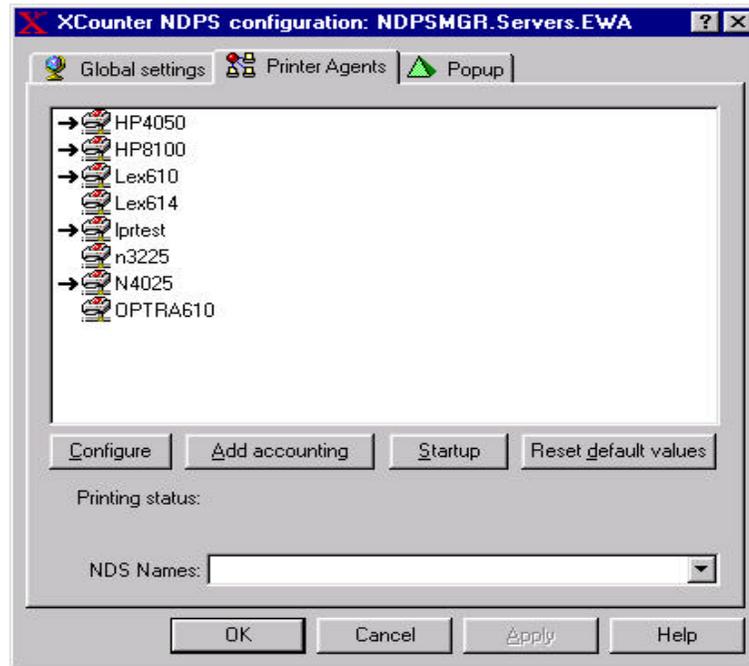


- Select the “Window type” and make any other required modifications or option changes then “Apply” the changes. Please refer to the section “Server configuration” for more detailed information.

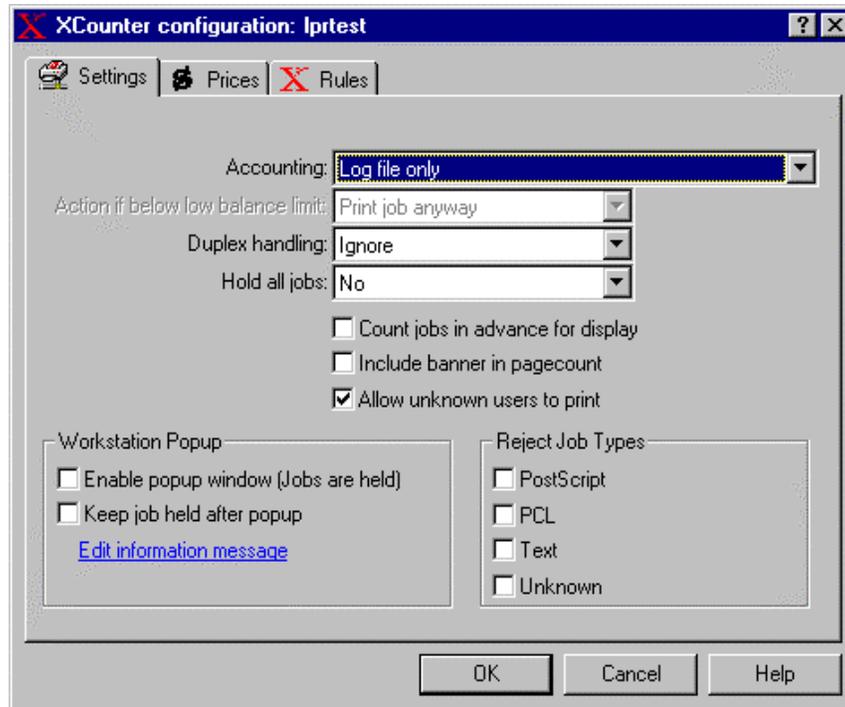
Note: The XCounter program provides numerous printer and server configuration options that can be set to meet custom requirements. Please refer to the sections “Server Configuration” and “Printer Configuration” for more detailed information on these options.

- The printer agent configuration specifies whether or not the XPopup client is enabled. This means that only printers that require the XPopup client need to be configured. Repeat the following procedure to enable additional printer agents for the XPopup client:

- Select the “Printer Agents” tab. A window with a list of all NDPS printers associated to the selected NDPS Manager will be displayed.



- From this window select the printer agent and press the “Configure” button. A printer configuration window will appear.



- Select the “Enable popup window” this will enable the XPopup client for this printer. This pause function will prevent printing until the information is received from the client workstation.

Note: This will require the XPopup.exe program to be loaded on all client workstation/s printing to this printer. If the Xpopup.exe program is not loaded, the print jobs will be place on indefinite hold.

- Load the XPopup on client workstation and print a job to this printer. Depending on the window type configured, the client popup window will look similar to the popup shown below. Please refer to the section “Running XPopup” for more information on loading XPopup.exe.

Client code	Description
77701	Recruiting Group
77702	Pro-Bono
77703	Personal Time
77706	Professional Activities Group
77707	Miscellaneous Firm Business

Matter number	Description
0010	Recruiting Committee Activi...
0050	Recruiting-In Firm Intvws/A...
0070	Recruiting - Law Schools

Congratulations, you have now installed XCounter XPopup support. To ensure proper operation of this program, select this configured printer from within XControl, right mouse click and select “XCounter/Print History”. A print history report will be displayed that will contain information regarding the print job including the client (and if enabled, subcode) information.

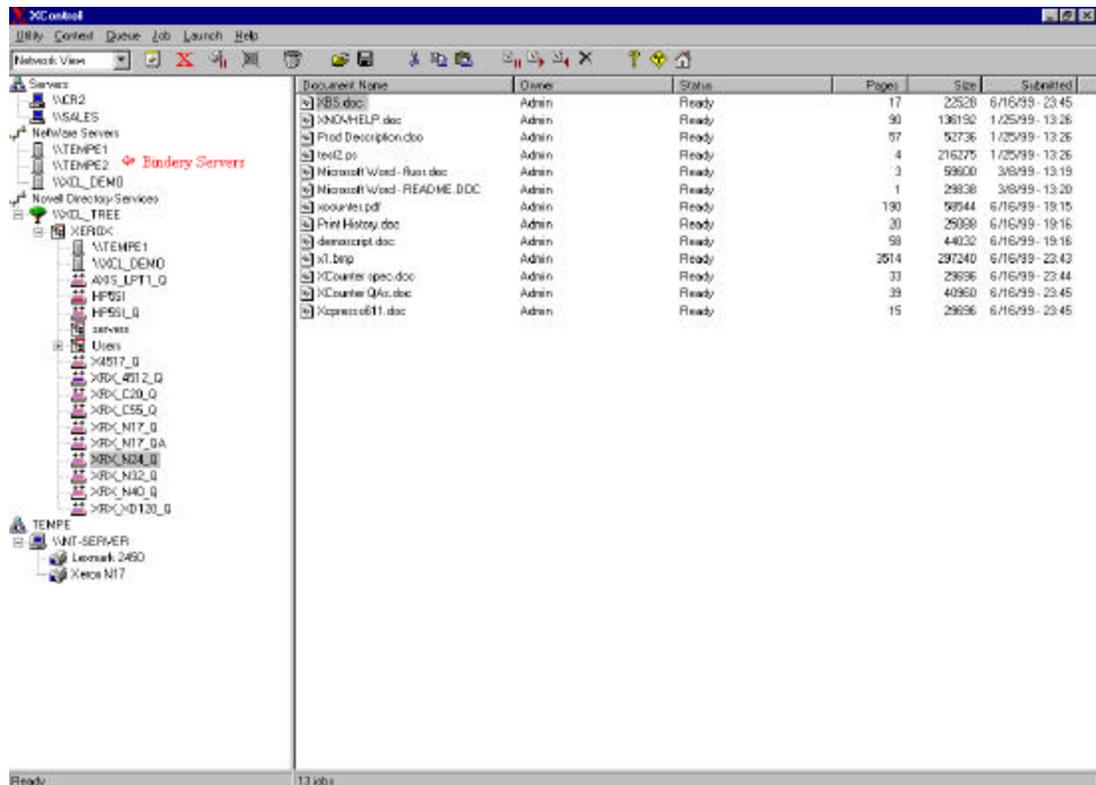
Server configuration

After running the SETUP wizard, run XControl and select the file server where queues are to be monitored.

XCOUNT3X.NLM

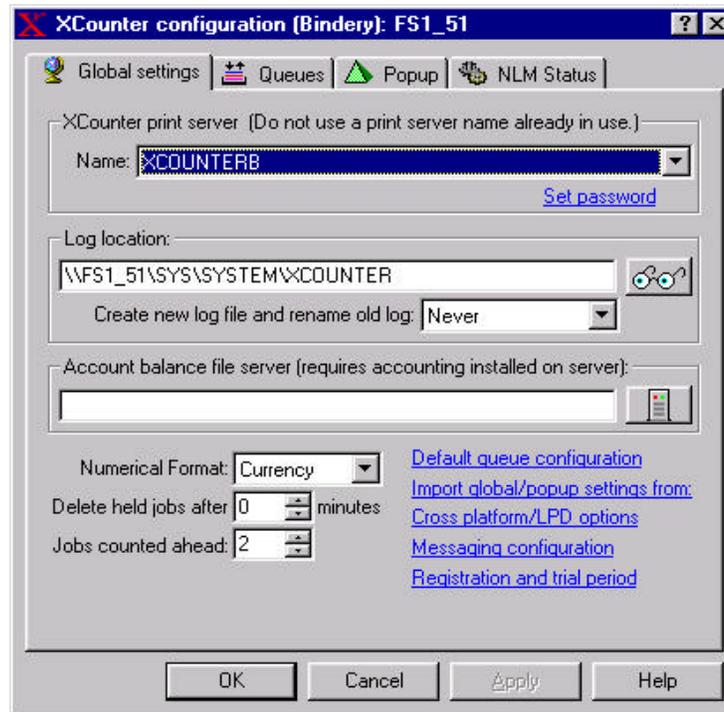
XCOUNT3X.NLM is a bindery-only version of XCounter. It will run on any version of Netware 3.11 and later. When running XCOUNT3X.NLM on Netware 4.x servers, bindery emulation is required. A Netware 4.x server may have up to 16 containers in its bindery context. XCOUNT3X.NLM cannot see any objects (Users, Queues, etc.) in any container unless that container is listed as a Bindery context. Please see the SET BINDERY CONTEXT console command (in the Netware documentation) for more details.

If a server is to be configured in bindery mode, select a server from the “Netware Servers” list in XControl.



Global Settings Bindery Mode

Right click on the server and select XCounter, Configuration (or press the red **X** button on the toolbar to configure the server.)



Print Server (Bindery)

XCOUNTER.NLM requires a print server account that it uses to login and manage print queues.

Note: The print server account used by XCounter should not be in use by other print servers on the network. Sharing print server names will result in conflicts that may cause XCounter and the other print server to function incorrectly.

If XCounter needs to access other file servers for writing log files or recording account balances, then this print server account should also be present on the other file servers. If passwords are set in XControl, it will automatically synchronize the passwords on all servers that are accessed by XCounter.

Note: The remote loading and unloading of NLM's in XControl, requires Netware 4.10 or later.

Set Password

Passwords

Passwords are supported but not required. However, it is recommended that passwords be used, as users can login to the network using print server accounts without passwords, enabling them to access XCounter data. XCounter reads the password from the file \SYS\SYSTEM\XCOUNTER\NLM3X.PWD. However, XControl only creates this file on the current server that is being configured, even if the passwords are synchronized on other servers. This file can be copied from one server to another if necessary.

Account Balance File Server (Bindery only.)

If XCounter will be enforcing user account balances/quotas, all balances can be kept on one central server in a multiple server setup. This requires that users have identical login names on both the server where XCounter is running and the account balance server.

If user account balances/quotas are required in bindery mode, it is necessary to install Netware accounting on the server. For Netware 3.x, run SYSCON and select Accounting; otherwise run NWAdmin and view the details of the server.

If the account balance server goes down, any queues that have an accounting setting of "User account balances and Log file" will have counting (and printing) paused until XCounter can reconnect to the server.

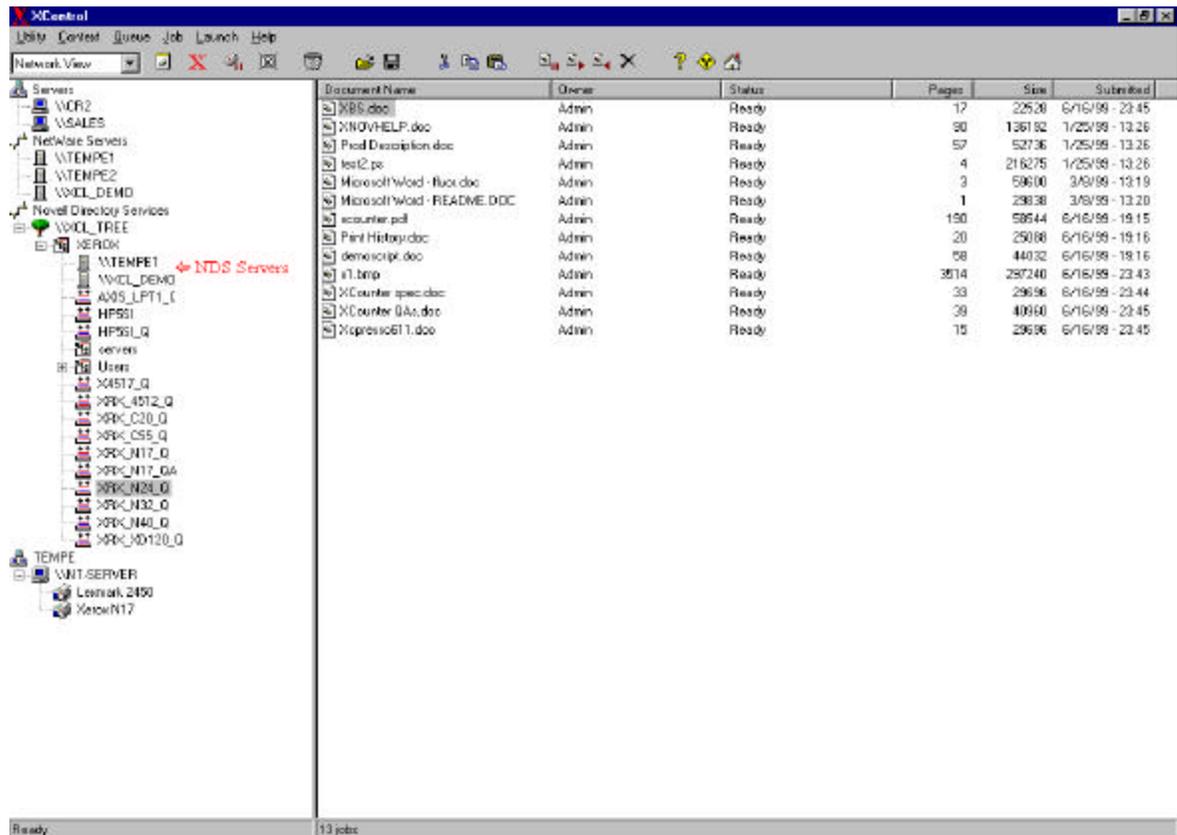
The account balance file server setting is not required. However, if it is left blank, any necessary accounting will default to the server where XCounter is running.

Note: When XCounter accesses a remote server, it will use a licensed connection on that server

XCOUNT4X.NLM

XCOUNT4X.NLM requires Netware 4.10 or later versions.

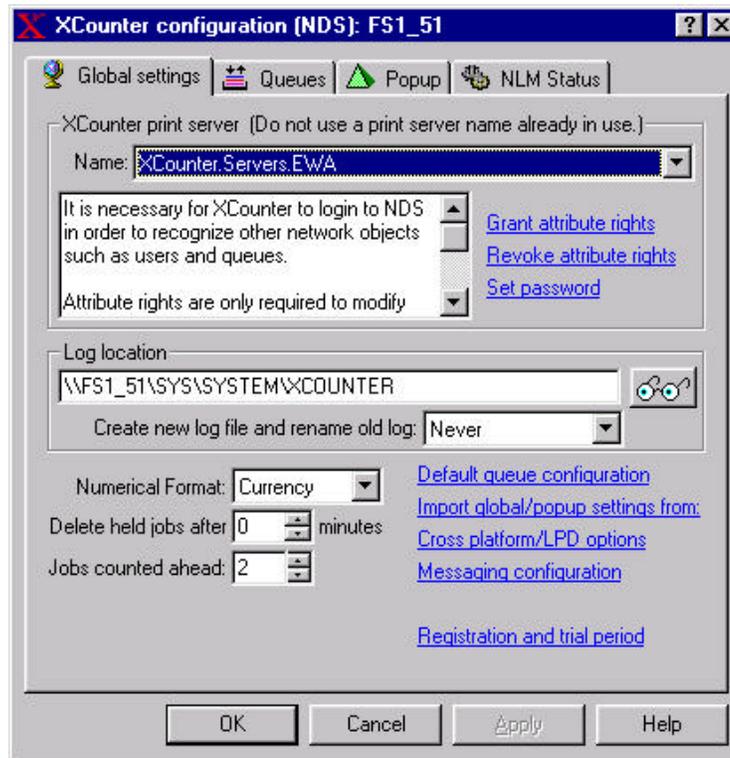
If a server is configured in NDS mode, the NDS tree must be browsed in XControl and the server selected from the context where it is located.



Since bindery is a subset of NDS, XCOUNT4X.NLM supports bindery print queues; however, they are accessed and recorded using their NDS names. If XControl is used to view print histories and reports from bindery queues that are managed by XCOUNT4X.NLM, make sure that the NDS tree is browsed and not the bindery queue list.

Global Settings NDS Mode

Right click on the server and select “XCounter, Configuration” (or press the red **X** button on the toolbar to configure the server.)



Print Server (NDS)

XCOUNTER4X.NLM requires a print server account that it uses to login and manage print queues.

XControl creates an NDS printer object called:

(PrintServerName:) XCounter Queues Counted,

where: PrintServerName is the name of the print server used by XCounter. This printer object is used to store XCounter’s queue list and is not used for any printing.

Note: The print server account used by XCounter should not be in use by other print servers on the network. Sharing print server names will result in conflicts that may cause XCounter and the other print server to function incorrectly. : Do not delete this printer object or the XCounter queue list will be deleted.

Attribute Rights

This section primarily deals with credit/debit type accounting. This type of accounting is used when the tracking, monitoring and enforcing of print quotas is required. When using this type of accounting, ensure that the option, "Accounting" in the printer configuration is set to "Account balances and Log file" otherwise, set it at "Log file only" for Standard Page Accounting.

Unfortunately, NDS does not provide a global method for allowing objects to modify other objects' Account Balances, except by granting Read/Write or Supervisor rights to "All Attributes Rights" or "All Properties Rights" as shown in NWAdmin. Therefore, these rights must be assigned explicitly in order to maintain user account balances.

If XCounter is not granted these rights, then balances will not be modified. XControl provides a method to assign accounting rights to the XCounter print server - it can assign a print server the ability to modify the account balances of all users in a specified context. XControl will grant/revoke Read/Write rights to "All Attributes Rights" for the XCounter print server.

Set Password

Passwords

Passwords are supported but not required. However, it is recommended that passwords are used, as users can login to the network using print server accounts without passwords, enabling them to access NDS (if attribute rights have been granted to the XCounter print server) and XCounter data.

Log Location

A record of all print jobs is kept in the file "xcounter.log". It can be located on any volume on any Netware server, allowing all of the print data to be kept for multiple servers in one location. If the remote server goes down, XCounter will keep the log file in the local :SYS\SYSTEM\XCOUNTER directory. When the remote server becomes available, XCounter will automatically reconnect and move any log data stored locally into the remote server's log file.

XCounter can close and rename the transaction log file at defined intervals. However, this feature is only supported when XCounter is running on the server where the log is located. These intervals are daily, weekly, monthly, and yearly. The action will take place at 12:00AM daily, 12:00AM Sunday weekly, 1200AM on the last day of the month, or 12:00AM December 31. The log file rename syntax is in numeric format Year_Month_Day. If "Never" is selected, the log file will grow indefinitely and will need to be monitored manually.

Note: When XCounter accesses a remote server, it will use a licensed connection on that server.

Numerical Format

The numerical format determines how costs and balances are displayed and reported. This option works together with the printer media prices configuration to allow either charging by the page or by currency.

- **Pages** -One accounting unit = One page. Use this option to allocate printing quotas in number of pages.
- **Currency** -Accounting is kept in terms of local currency. Use this to option to allocate printing quotas in terms of currency.

The type and format of the local currency is determined from the local Windows settings.

Delete Held Jobs

Held print jobs can be deleted after a specified number of minutes. A value of zero (0) disables this feature.

Jobs counted ahead

When utilizing server hardware that contains a slower speed processor (250Mhz and below) printing output speed could be degraded. This is due to the fact that XCounter counts the print job before releasing it to the printer. By increasing this option value, XCounter would process multiple jobs while releasing one job to the printer. The default of 2 should be optimum for most situations.

Note: This option should only be used when printing speed is degraded because of slow server processing. If this number is increased there may be a chance of print jobs being accounted for and manually deleted from the queue before printing occurs.

Default Queue Configuration

All printer queues can be individually configured for XCounter. However, if there are multiple queues that require monitoring, and all queues are using the same XCounter configuration, then a global default queue configuration would be optimum for setting up existing as well as future printer queues. When XCounter loads, it looks for a printer's individual configuration. If one is not found, then it uses the server's default queue configuration. If the default configuration has not been saved, then

XCounter uses the following default queue settings:

Accounting:	Log file only
Action if below low balance limit:	Delete job
Job Notify:	Only if requested
Form Feed:	Only if requested
Banner print:	Never
Banner template file:	Blank
Duplex handling:	Ignore
Hold all jobs:	Disabled
Include banner in page count:	Disabled
Allow unknown users to print:	Enabled
Reject job types:	None
Enable popup window:	Disabled
All prices:	Zero
All paper sizes:	Enabled
Plotter area accounting:	Disabled
Charge per job:	Disabled
Default size:	Letter
Rules:	None

Cross Platform/LPD Options

If print jobs are submitted to queues from other platforms where there is no Netware authentication, XCounter can attempt to look up a valid Netware user name from either banner name or document name information. On NDS servers, XCounter can search the tree for a valid user account starting at a specified context.

If a valid Netware user name is not found, then jobs can be deleted by leaving the Allow unknown users to print box unchecked in queue configurations.

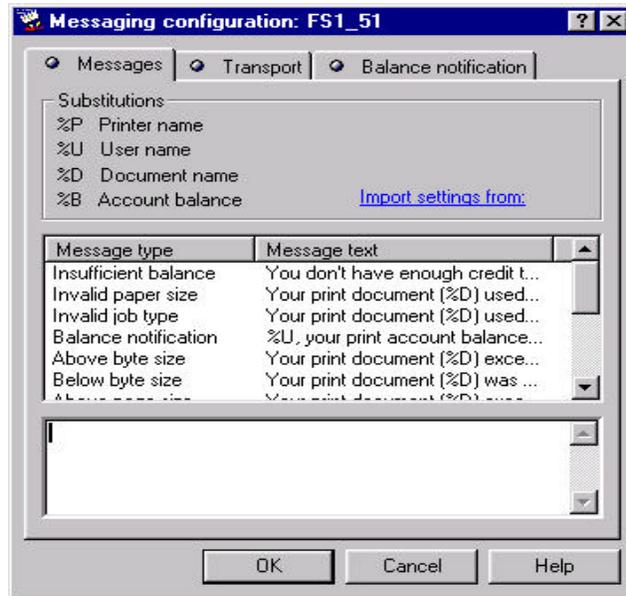
A particular object must own these types of print jobs, such as, the file server, the print server, or a user. For example, Novell's PLPD.NLM allows a default user to be specified for all print jobs, if it doesn't map UNIX to Netware names automatically. On NDS servers, a full NDS name for the user must be specified.

To enable this feature, the job owner field must be left blank.

See also section "Queue configuration".

Messages

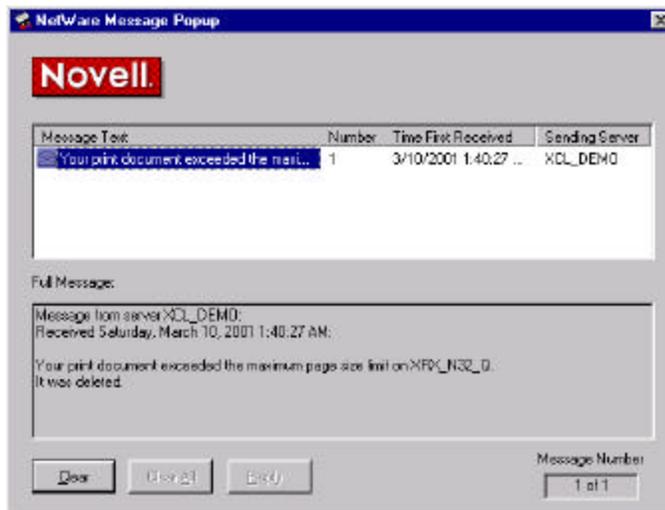
Custom broadcast messages can be configured and sent to the user when XCounter acts on rules or other events, such as when an invalid paper size is sent to a printer.



These messages can be edited in the edit window to meet custom requirements. By utilizing the substitution parameters such as printer name, user name, document name and account balance, these user messages can be made to appear more personal and informative. When a job rule is acted on, then two message settings are combined into one message - one for the rule itself, and one for the action that was taken. For example, if the action taken on exceeding the page size limit is to delete the job, the following two messages are combined and sent to the user.

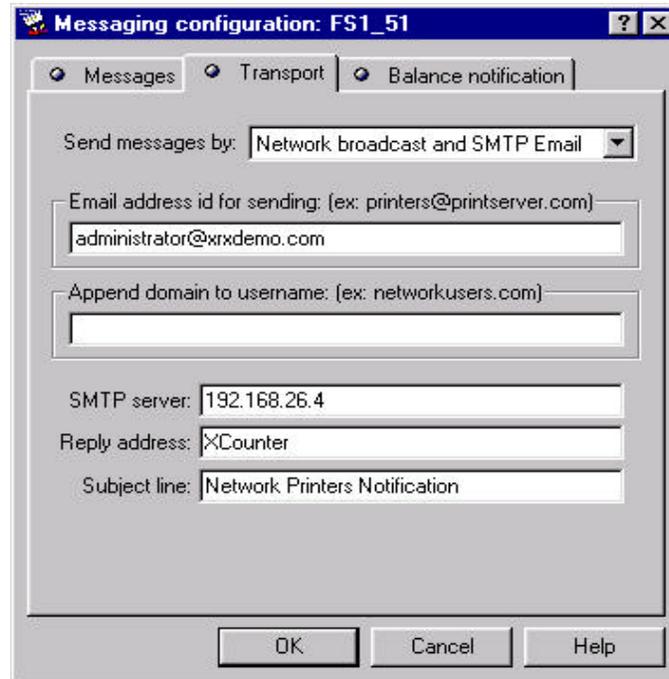
- “Your print document exceeded the maximum page size limit on %P.”
- “It was deleted.”

The following message would appear on the client workstation via network broadcast.



Message Transport

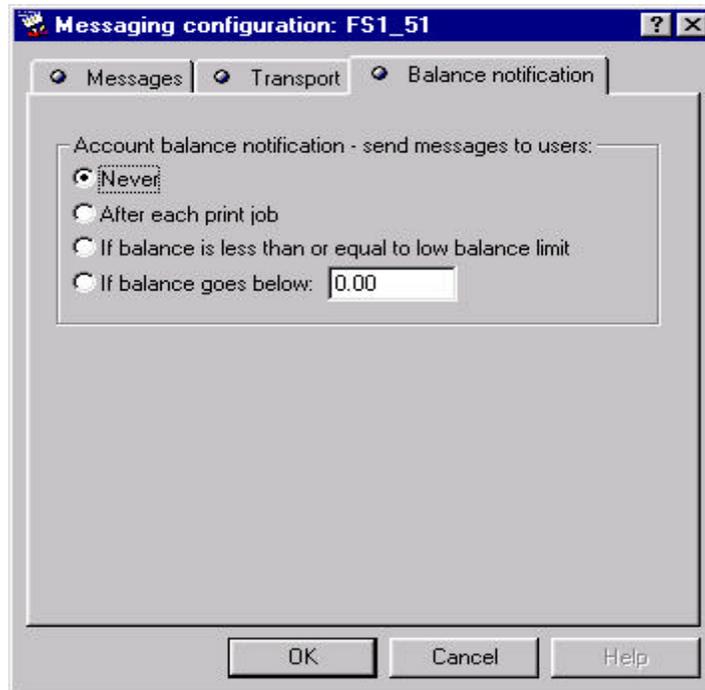
The printer notification messages can be sent via network broadcast, email or both. These messages will be sent to the logged on user and/or to the email address specified.



- Send message by- Network broadcast, SMTP Mail or both Network broadcast and SMTP mail.
- Email address ID for sending- is the address that is used as identification to the SMTP server.
- Append domain to username (optional)- The domain is added to the end of the username before sending. For example, if a username is joe.accounting.company and the domain is company.com, then the full email address to which messages are sent will be joe@company.com. Appending a domain may not be necessary if the SMTP server relays messages to local usernames.
- Reply address- If users are to be able to reply to XCounter email messages, then enter a valid email address for replies.
- Subject line- enter an optional email subject, such as "Printer notification message". If left blank, the document name will be used.

Balance notification

When using Credit/Debit type accounting, XCounter can be configured to send notification messages back to the users.



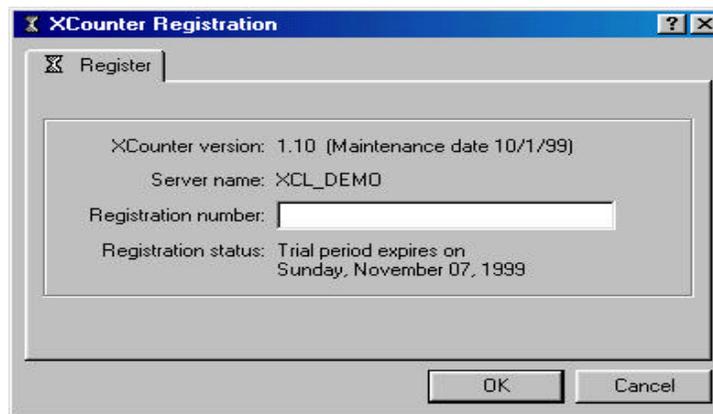
By selecting the appropriate button, these account balance notifications can be configured and sent under the following conditions:

- Never
- After each print job
- If balance is less than or equal to the low balance limit
- If balance goes below a specified limit

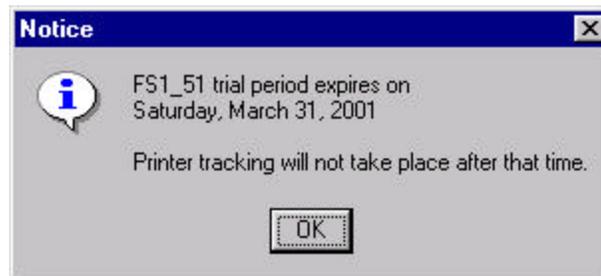
The message that is sent to user may be customized to meet specific requirements by entering the message in the edit window.

Note: Ensure that the NLM is re-started after any configuration changes are made.

Trial Period



If XCounter is to be run in the 60-day trial period mode, the time clock starts when the NLM is first loaded. During this trial period, the following type of reminder message will be displayed each time XControl is started.



After the 60-day trial period has expired, it will become necessary to purchase and obtain a password key from Xerox to enable XCounter to function. XCounter software cannot be re-loaded on a server that the time period has expired.

Note: It will not be possible to extend this time period passed the sixty days.

Information Required to for Registration

When registering XCounter for NetWare, the "Server name" for each server, onto which XCounter will be loaded, will be required, before the registration number can be obtained.

If a demo version of XCounter is already installed this information can be obtained from the "Registration and Trial period" screen found from within XControl server configuration. (See the above registration screen for this required information)

Registering XCounter

To register XCounter a registration number must be obtained from Xerox.

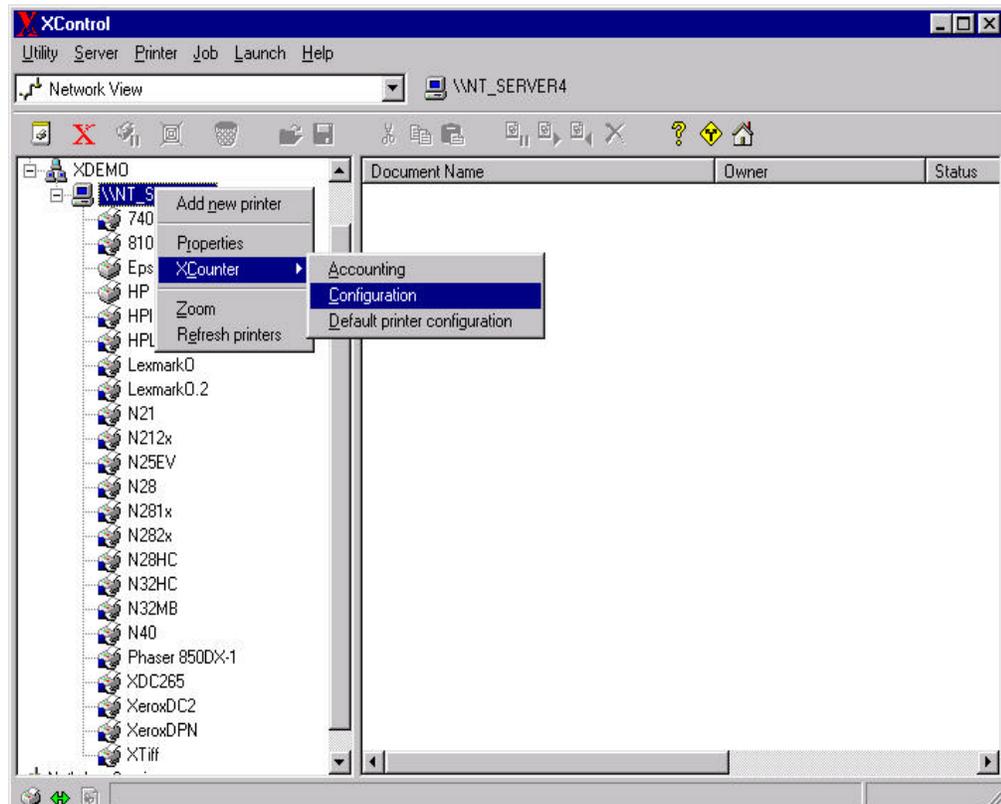
Please contact your Xerox sales representative to purchase and obtain the XCounter registration number.

When registering XCounter for NetWare, the server name onto which XCounter will be loaded will be required before the registration number is generated. When applied, the registration number will unlock XCounter for unlimited use on the server that was registered. (Refer to the section on “Information Required to Obtain Password” for more information)

Note: The XCounter registration password locks XCounter to the registered print server. The same password cannot be used to install XCounter on a server with a different server name.

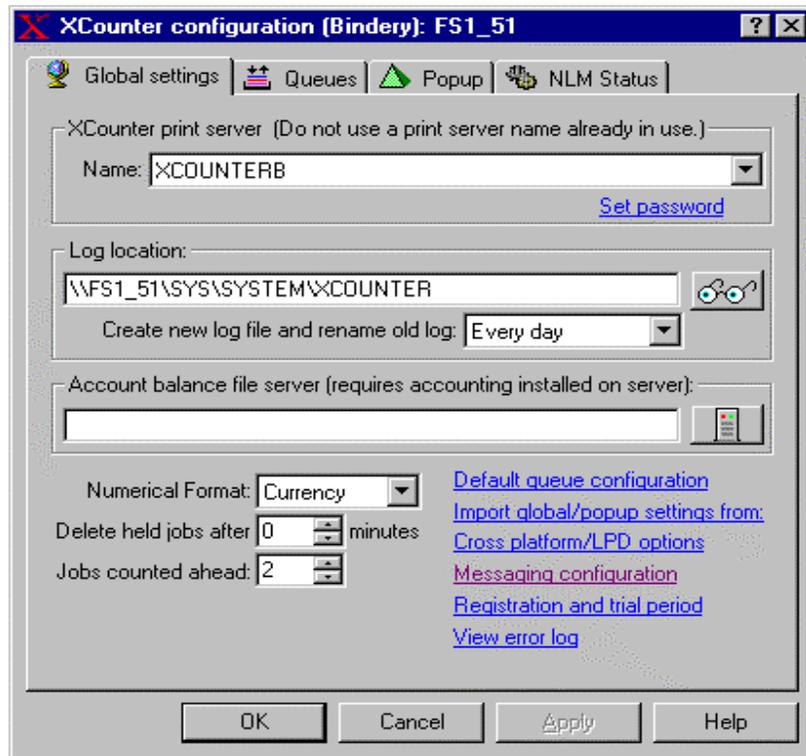
The following procedure will register XCounter:

- After receiving the registration number from Xerox, start “**XControl**”

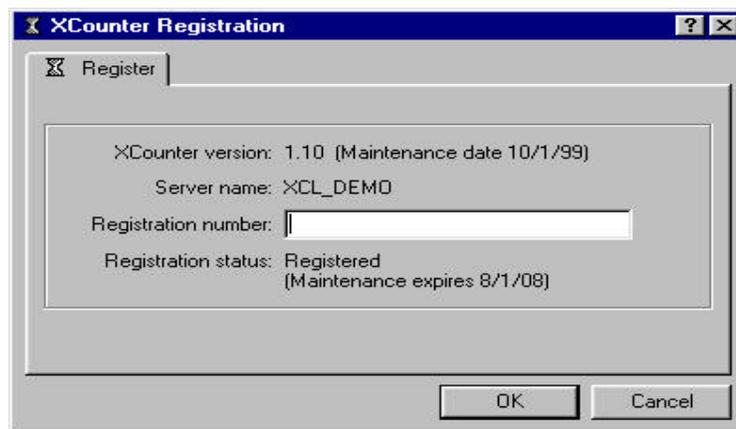


From the network view select the server that XCounter is installed on.

- When using NetWare, select the server mode, bindery or NDS as required.
- Select the red “X” on the tool bar or right mouse button XCounter\configuration.



- The XCounter configuration screen will appear.
- Select the “**Registration and trial period**” link at the bottom right corner of the configuration screen.
- The XCounter Registration screen will appear.



- Enter the registration number in the space provided and press “**OK**”.
- The Registration status will change to “**Registered**”.

The XCounter Registration screen will show the expiry date of the maintenance contract if purchased.

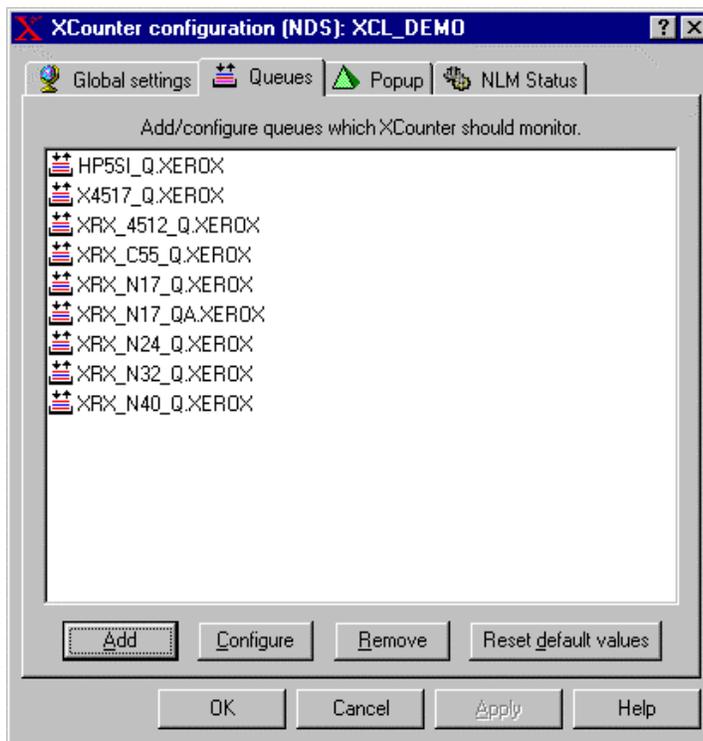
View Error Log

If any XCounter error is posted on the server console, it will be written to the “ERRORLOG.TXT” file located in the sys:system\xcounter directory. This file can be viewed by selecting this link.

Queue configuration

Queues

- Launch XControl from the Start/Programs/XCounter for NetWare menu.
- From the graphic interface select Server on which XCounter is installed and press the “X” button on the tool bar.
- Select the “Queues” tab. This will display the “Queues” window that will display any queues defined on the server that XCounter is monitoring.



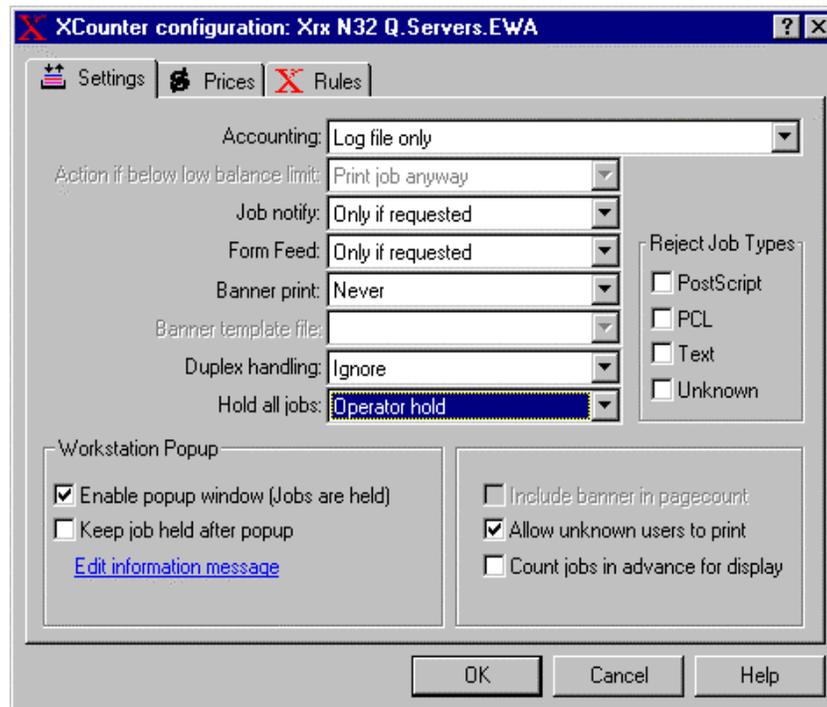
This window contains configuration buttons that allows the administrator to:

- “Add” This button displays a window containing all available printer queues attached to the selected server. From this window the administrator may select which printers are to monitored and tracked by XCounter.

- “Configure” This button launches the XCounter printer queue configuration settings
- “Remove” This button, allows the administrator to remove any printer queue from the list of printer queues being monitored by XCounter. Select the printer queue that no longer requires XCounter to monitor and press this button
- “Reset default config” This button resets XCounter printer queue information to the default setting

Note: All queues to be monitored by XCounter must be in the queues list. XCounter will not monitor any queues not in the list. The printer queues to be monitored by XCounter must be located on the server where the XCounter NLM is running. If queues are located on multiple servers, then the XCounter NLM must be loaded on each individual printer server. Each queue can have its own settings or prices, if nothing is configured for a queue, then the server’s default queue configuration is used.

Queue Configuration



Accounting

(Bindery/Netware 3.x only) If XCounter will be maintaining user account balances/quotas, accounting Novell accounting must be installed on the same file server as XCounter. Accounting on Netware 3.x can be installed by using the “SYSCON” utility, Accounting.

Action if below low balance limit

If a user whose balance is below his/her low balance limit submits a print job, XCounter can:

- Print job anyway
- Delete job
- Pause job

Job Notify

XCounter can be configured to send print job notifications to the user as follows:

- "Never"
- "Only If Requested"
- "Always"

Note: If "Only If Requested" is selected, then banners are printed only if they are specified in the print job's configuration, or on the CAPTURE or NPRINT command line.

Form Feed

XCounter can be configured to send a form feed to the printer as follows:

- "Never"
- "Only If Requested"
- "Always"

Note: If "Only If Requested" is chosen, then a form feed is issued only if they are specified in the print job's configuration, or on the CAPTURE or NPRINT command line.

Banner Print

XCounter can be configured to send a banner sheet to the printer as follows:

- "Never"
- "Only If Requested"
- "Always"

Note: If "Only If Requested" is chosen, then banners are printed only if they are specified in the print job's configuration, or on the CAPTURE or NPRINT command line. If a banner template file is configured, then XCounter will include a detailed banner after the print job and turn off the banner flag of the print job. Otherwise XCounter will turn on the banner flag of the print job, and the print server that services the job will print the banner the way it normally does.

Banner Template File

XCounter may be configured to send a customized banner with the print job. Select from the following banner templates:

- **None:** No banner printed
- **PCL4 (Letter):** HP LaserJet Series II or equivalent - letter size paper
- **PCL5 (Letter):** HP LaserJet III or equivalent - letter size paper
- **PCL5/PJL (Letter):** HP LaserJet 4 or equivalent - letter size paper
- **Postscript (Letter):** Any Postscript printer - letter size paper
- **PCL4 (A4):** HP LaserJet Series II or equivalent - A4 size paper
- **PCL5 (A4):** HP LaserJet III or equivalent - A4 size paper
- **PCL5/PJL (A4):** HP LaserJet 4 or equivalent - A4 size paper
- **Postscript (A4):** Any Postscript printer - A4 size paper

On printers that support PJL and multiple printer languages such as PCL and PostScript, it is recommended that one of the PJL banners is used so that the printer can effectively separate the banner print data from the rest of the print job.

Duplex Handling

XCounter has two options for handling duplex printing. If the printer driver is configured for duplex printing, and a print job is sent to the printer, XCounter can either account for all pages sent to the printer or divide the page count in half. The two options are as follows:

- **Ignore-** XCounter will leave the page count alone.
- **Divide page count in half-** XCounter will check for duplex print jobs in the data stream and divide the total page count by 2.

XCounter detects duplex printing from print data stream sent to the printer. If the printer hardware is setup to print duplex by default, and a print job contains no information about duplex data, then XCounter will not detect a duplex print job. The printer hardware must be setup to print single-sided by default and allow users to specify duplex options using printer drivers.

Hold all jobs

XCounter can pause all jobs automatically. Users will have to release each job in order for them to be printed - this can be done from the Explorer Printers list or Print Manager.

- **User hold:** XCounter pauses the job in the usual manner.
- **Operator hold and User hold”:** This is an XCounter function that holds a print job until released by the XPopup program that is normally loaded on the user workstation. Normal users will not be able to resume a print job without the XPopup program loaded.

If XPopup is being used for client print job billing or password protection, XCounter will need to always place jobs at least on user hold. XPopup looks only for held jobs and releases them once the client code or password is entered.

Reject job types

Most printer manufacturers today offer both Postscript and PCL resident on the printer. However, this does not mean that all printers support multiple Printer Description languages (PDL's). When an unsupported PDL job is sent to a printer, undesirable results usually occur in the form of large amounts of unreadable printed output. To prevent this from happening, XCounter can be configured to reject/delete the print job and notify the user of such action. Any combination of the following PDL's can be accepted or rejected/deleted:

- **PostScript**
- **PCL**
- **Unknown** (RAW data types)
- **Text**
- **EMF** (Microsoft Enhanced Metafile)
- **JNL** (data types)

Note: An Unknown print job typically occurs when a user sends a binary data file to a printer, or if XCounter can't recognize a printer language such as Epson ESC/P2. If an Unknown print job is not rejected, it will be counted as a plain Text job.

Include banner in page count

When this option is selected, XCounter adds the banner page to the total page count. If this option is not selected, XCounter does not include the banner in the total page count.

XCounter will not print a banner after a zero (0) page job.

Allow unknown users to print

If the server is handling print jobs from other platforms (such as Macintosh or Unix) where users are not required to logon to the server in order to print, it is possible that the print job owner name cannot be found in the bindery or NDS. XCounter can automatically map Netware usernames from the banner field or the print job description. (See Global Settings - Cross platform/LPD options for more details.)

Leave this box unchecked if XCounter is to delete these jobs.

Count jobs in advance for display

- When this option is selected, XCounter will display the actual page count and the cost of the job, if selected, in the XControl window. If the client XPopup is utilized, this page count and cost information is also displayed at the client workstation in the XPopup window.

Note: If enabled an increase in CPU utilization may be encountered depending on the print job size and/or server hardware being used

Enable Popup Window

Selecting this option enables XPopup to issue a popup window on the client workstation. This allows users to enter additional information to be logged pertaining to the job, such as client/matter numbers, job codes. This option requires that print jobs be placed on "Operator hold and User hold" in order to prevent users from releasing the print job using other utilities, such as Print Manager or Explorer printer lists.

Keep job paused after popup

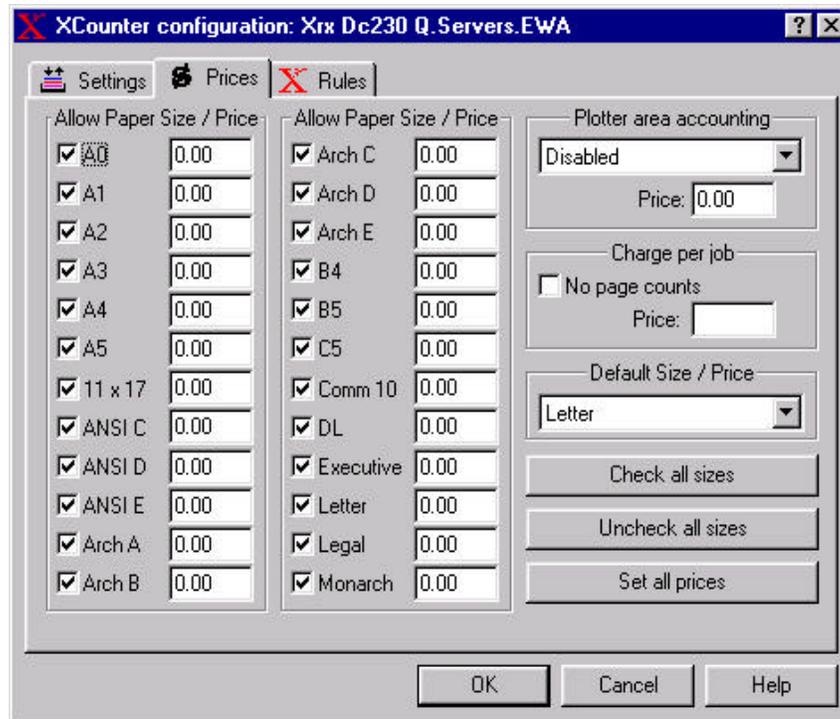
This option when selected, will retain the super pause function on the print job until it is manually released.

Edit Information Message

The XPopup window can be configured to display a custom message for each printer. The information typed into the edit window will be displayed inside of the XPopup window at the user workstation.

Note: This option is useful in situations where different displayed information is required for each printer.

Prices



Each printer has multiple per-page prices that refer to a number of commonly used paper sizes. A check box will be seen for each paper size (allow paper size) and a price entry field.

To allow jobs to use a particular paper size, check its corresponding box.

To associate a cost per page, enter a price to charge for each page that prints with that paper size. To track pages printed, and disregard cost totals, leave prices at zero.

If the price value is negative, XCounter will add the number of pages in each print job (multiplied by the per-page price) to the user's account balance, otherwise XCounter will subtract the number of pages in each print job (multiplied by the per-page price) from the user's account balance.

Any print job using a paper size, which is unchecked, will be deleted, and a broadcast message will be sent to the user who submitted the job. This prevents users from requesting a paper size not supported or used by a particular printer, such as an A4 job on a letter sized printer - which would cause the printer to pause.

Plotter area accounting

This option when enabled allows plotters supporting either a Postscript or HPGL2 PDL to track costs by square foot or square meter.

Charge Per Job

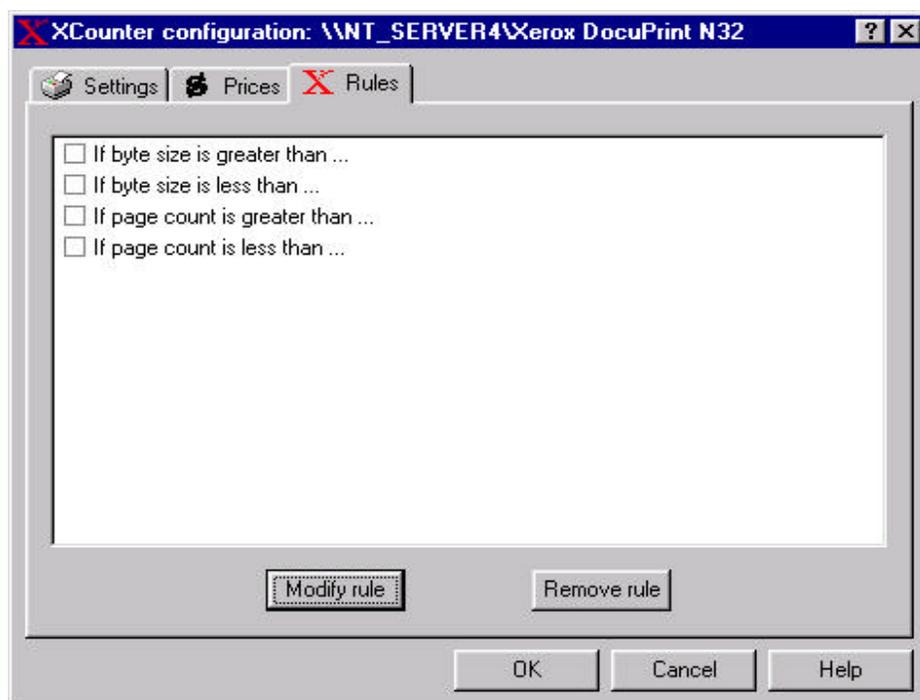
By setting the Charge Per Job field, this will override all paper size prices and charge one price for all jobs that print on the printer. No pages will be counted. This setting is useful for devices such as pen plotters that use unsupported page count languages such as HPGL.

Default Size/Price

In cases where the paper size cannot be determined, such as plain text print jobs or printer drivers which perform minimal page formatting, this (required) setting will tell XCounter which paper size price to use.

XCounter's Postscript paper size detection works best on drivers that use Level 2 features. They are present in the standard drivers that ship with Windows 95/98 and NT. In Windows 3.x they are present in the Adobe PS 2.x and 3.x drivers. On the Macintosh they are present in the LaserWriter 8.x and PS Printer drivers. If only one paper size is supported, then this shouldn't be a concern.

Print Job Rules

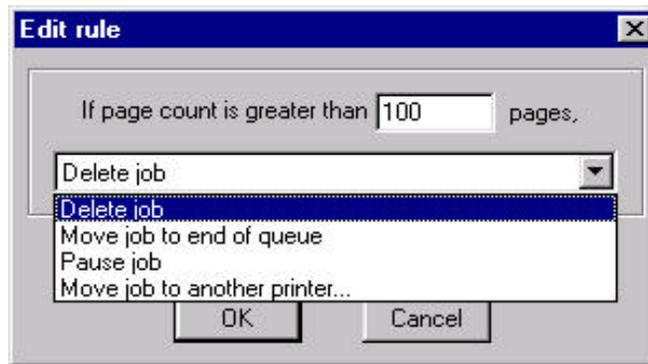


XCounter's print job rules allows defined actions to be taken on prints jobs sent to network-attached printers. These print job rules are as follows:

- If byte size is greater than a specified amount, then an action can be performed.
- If byte size is less than a specified amount, then an action can be performed.
- If page count is greater than a specified amount, then an action can be performed.
- If page count is less than a specified amount, then an action can be performed.

Print Job Rule Actions

The following predefined actions can be associated the print job rules.

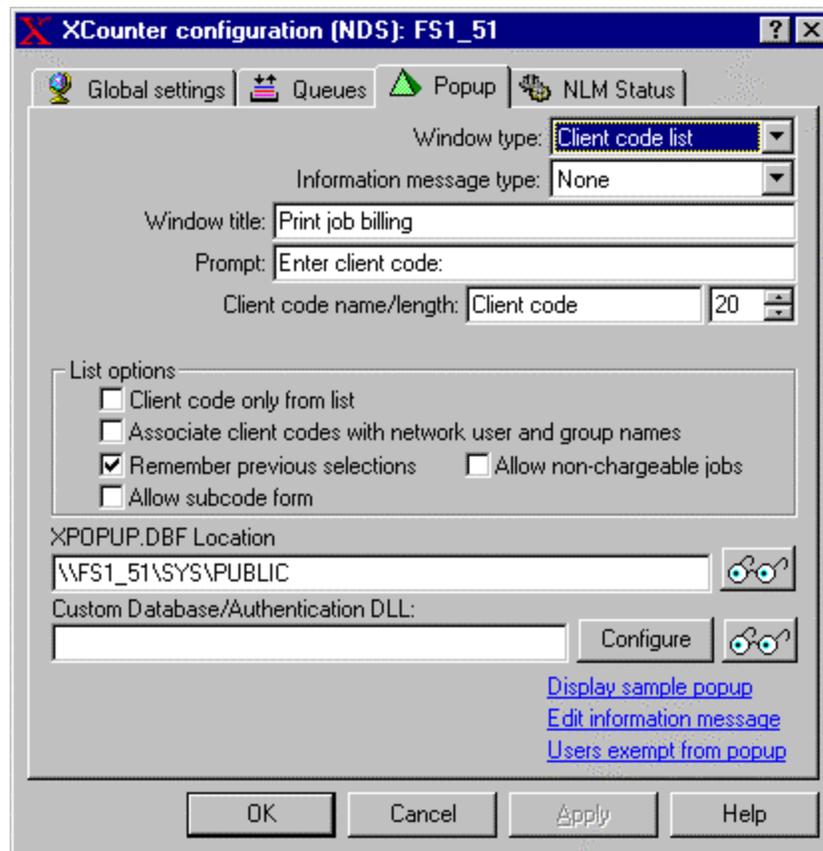


- Delete job
- Move job to end of queue - if smaller jobs are to be printed before larger jobs, XCounter can move the larger jobs to the end. However, jobs will only be moved once to the end of the queue.
- Move job to another printer.

Note: When jobs are moved to another printer, the following limitations apply:

- If jobs are printing using the RAW data type, ensure that the printer drivers are compatible.
- Watch that rules on multiple printers don't result in jobs moving back and forth between printers. Be certain that if a job is moved to another printer, that the destination printer's rules will allow it to print.
- Ensure that users have permission to print to the destination printer. If the user does not have permission, then the job will not be moved.

XPopup Server Configurations



This configuration window allows the administrator to customize the functionality as well as the visual presentation of the client XPopup program on the client workstation. XCounter provides four types of client popup window configurations.

- **Client code list** The user is presented with a pre-configured list of client codes which when selected, are logged and stored in the xcounter.log file.
- **Entry form** The user is presented with a generic form where they may type in any client code desired. This information is logged and stored in the xcounter.log file. If using client code and subcode, they must be separated by a "/" character, for example razzl/eng All information before the "/" will be placed in the client code field of xcounter.log; everything after the "/" will be placed in the subcode field of xcounter.log .

- ID and password The user is presented with a logon dialog box requiring a valid user ID and password. This ID and password can be either configured to accept a network logon ID and password or to check the PrinterPopupUsers database for a valid ID and password. This window type is usually used with shared logon printer accounting.
- Matter number list The user is presented with a pre-configured list of client/sub codes. This is similar to the client code list except that the database is 2-dimensional. Each client code can have an associated list of subcodes (matter numbers). When user selects a client code, the relevant subcode/s are displayed
- Confirmation The user is presented with an information window and a confirmation “Print it” or “Cancel” function.

XPopup - Information Message Type

XCounter can be configured to include an optional information message in the XPopup window. This information window can be associated to individual printers or globally to all printers. Select the “Edit information message” link to compose the global printer message. Select the “Edit information message” link in the printer configuration to compose the individual printer message.

Note: This message window is not available when using the “Matter number list” window type.

XPopup - Window Title/Prompt

The popup window title and prompt (for the client code) can be configured to display information to meet end user requirements. A sample XPopup window may be viewed from the Popup configuration window.

XPopup - Client Code and Subcode Naming

If the XPopup is to refer to the client code and subcode using different terminology, such as “Job numbers” or “Matter numbers”, enter them here. The total length of client code and subcode is limited to 20 characters for each field.

XPopup – Client code/Matter code list Options

- Client code only from list

If this box is checked, then the user must select a client code from the list, or type in a code manually. However, if the manually typed in client code is not in the list, the job will not print. If the matter list window type is enabled, then sub code can either be selected from the list or any alpha/numeric information typed in.
- Subcode only from list

If this box is checked, then the user must select both a client code and a subcode from the list, or type in codes manually. However, if the manually typed in client code is not in the list, the job will not print.
- Associate client codes with network user and group names

If this box is checked, then the network user and group names user and group names client/sub codes will be associated to the user/groups as defined in XManager. This option is used to specify which client/sub codes are displayed within XPopup to each user.
- Remember previous selections

If this box is checked then the client popup window will retain the last 20 entries for quick retrieval. If this box is unchecked then the client XPopup window will not retain any entries.
- Allow non-chargeable jobs

If this box is checked then a printer with defined prices, will print the job with a 0.00 cost in the “Cost” field of the xcounter.log file. However, an entry of “NB=cost of job” in the “Features” field will be included for accounting purposes.

XPopup - Entry form Options

- Remember previous selections

If this box is checked then the client popup window will retain the last 20 entries for quick retrieval. If this box is unchecked then the client XPopup window will not retain any entries.
- Allow subcode form

If this box is checked then the client may type up to 20 alpha numeric characters in a subcode box provided in XPopup program. This information is then logged.

- Allow non-chargeable jobs
If this box is checked then a printer with defined prices, will print the job with a 0.00 cost in the “Cost” field of the xcounter.log file. However, an entry of “NB=cost of job” in the “Features” field will be included for accounting purposes.
- Verify entry in client code database
If this option is enabled, then the client code as entered into the XPopup window is verified. If an incorrect value is entered into the XPopup window, an error will occur preventing the print job from printing. There are two XPopup display modes associated to this option. The “Normal” mode will display characters as they are typed. The “Display as password” mode will display an asterisk * for each character typed.

XPopup – ID and password Options

- Allow network passwords
If this box is checked then both the internal XCounter user database as well as network user ID and password can be used to authenticate users for printing. If this box is not checked then only the internal XCounter user database will be used for authentication.

XPOPUP.DBF Location

This is the location that the xpopup.dbf file resides. The file location of xpopup.dbf can be located on any network server. The default location for this file is SYS:PUBLIC on the server that XCounter is installed. If required, use the browse button to select a different path for this file

Custom Database/Authentication DLL

XCounter provides an internal database for the client/matter codes or user authentication information. This internal database work very well in most situations, however, the need may arise that would require XCounter to attached to an existing customer database. XCounter provides this program hook area for a custom written DLL file that can be used to attach the XPopup.exe to an alternate database. This alternate database can be used for client/matter or a user authentication. Please contact Xerox for information regarding this custom DLL

Display sample

This tool allows the administrator to test the XPopup for type and customized look. Any parameters or descriptions changed on the XPopup configuration screen will be displayed on the sample popup.

Edit informational message

XCounter can be configured to include an optional information message in the XPopup window. This area will allow the administrator to edit the global message sent to the all clients that print on printers configured to use the XPopup program. By using the substitution parameters the information message may be customized for a more personalized message.

To configure a message for an individual printer, ensure that the informational message type is set to "Individual printers" and select the "Edit information message" link in the printer configuration. This type of informational message will utilize the same subsection parameters as the global message but will only send the informational message when that printer is selected.

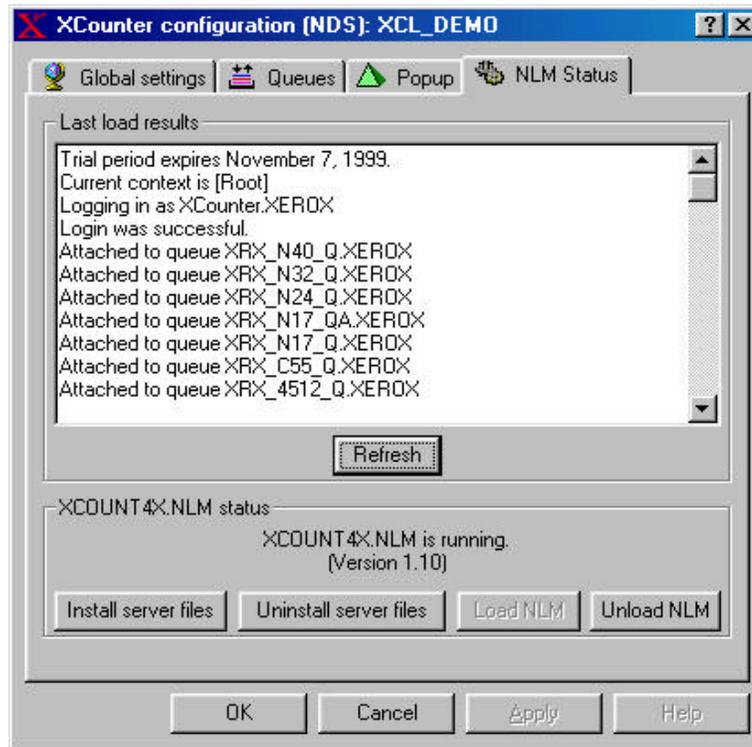
Note: This message window is not available when using the "Matter number list" window type.

XPopup - Users Exempt From Popup

When a queue is configured to support an XPopup window, all jobs will be automatically placed on hold. Print jobs from certain users may be required to be excluded from this pause condition, such as an incoming print job from a fax server. If the fax server software is logging into the network using a specified user account, then add this user to this list. XCounter will not pause the job, so that it can print without user intervention. XCounter will still track the print job, but the client code and subcode fields will be empty in the xcounter.log file.

NLM Status

This configuration window allows the administrator to monitor the NLM status, install server files, uninstall server files, load NLM and unload NLM



Install Server Files

XCounter uses the \SYS\SYSTEM\XCOUNTER directory to store configuration and support files. When SETUP.exe is run to install the XCounter software from the workstation, it does not install any files on the file server. Likewise, if the XCounter software is uninstalled from the workstation, it does not remove any files from the server.

- Pressing the “Install server files” button will install NLM’s and banner files on the selected server.
- Pressing the “Uninstall server files” button will remove NLM’s and banner files off the selected server. This function will not delete any configuration or log files from the server.
- If the server is a Netware 4.x or above, the XCounter NLM maybe loaded or unloaded remotely by Pressing the appropriate “Load NLM or Unload NLM” button. A remote NLM status display is also available to ensure proper loading/unloading of the XCounter NLM. NetWare 3.x servers must be loaded via rconsole or from the physical server console.

If copying server files manually, they can be located in:

d:\XCounter\Netware\Server

where d:\XCounter represents the XCounter installation directory.

The NLM's should be copied to the server :SYS\SYSTEM directory.

The BAN files (banner template files) should be copied to the server :SYS\SYSTEM\XCOUNTER directory.

XCounter can also be run from the file server console command prompt. The command line syntax is:

Load Xcount3X (Bindery)

Load XCOUNT4X (NDS)

XCounter can be configured to run at server boot time by adding one of the above lines to the :SYS\SYSTEM\AUTOEXEC.NCF file.

Accounting

User accounting - Balances and Quotas

Netware 3.x servers

User account balances are maintained using the Novell accounting feature. If this feature is to be used, then it must be enabled by using the NetWare SYSCON utility.

Note: If accounting for tracking connect time or disk usage is enabled, and the account balances are not in currency units, then the user account balances will not appear to be consistent if XCounter is used. Please check to make sure none of these features are enabled on the file server before implementing XCounter. Netware creates the file `\SYS\SYSTEM\NET$ACCT.DAT`. This file contains binary records of all accounting transactions on the file server, as well as logins, etc. This file should be monitored and deleted periodically.

Netware 4.x servers

It is not necessary to install accounting, as NDS already has built-in account balance properties/attributes for users. If NetWare accounting for tracking connect time, or disk usage, and XCounter are enabled, and the account balances are not in currency units, the user account balances will not appear to be consistent. Please ensure none of these features are enabled on the file server before implementing XCounter in this fashion.

All servers

The cost for each print job is defined in the queue's configuration. If money is being collected for printing, and the cost of each print job from a user's account balance is being deducted, then positive prices should be used. Negative prices should be used to keep a running total of print activity in user account balances.

XManager can be used to modify user/group account balances and low balance limits. XManager can optionally keep records in XCOUNTER.LOG.

No record will be kept of any accounting transactions in SYSCON/NETADMIN/NWADMIN.

Account Balances and Low Balance Limits

If Accounting="User accounting and log file" in the queue configuration, then XCounter will maintain user account balances using the Novell Accounting feature (Bindery version) or NDS. For each print job, the account balance is charged (the number of pages printed) * (the Queue paper size price). To enforce the queue low balance limit options, a user's account balance must not exceed the low balance limit, or else printing is denied.

The XCOUNTER.LOG log file

XCounter keeps a track of all print activity in the log file xcounter.log. Users using XManager should be granted Read/Write privileges in this directory. It can be located on any volume on any Netware server, allowing all of the print data to be kept for multiple servers in one location

The xcounter.log file is written in ASCII delimited format. XManager generates reports and print histories by reading this file. The log file can also be imported into a spreadsheet report writer or database program for more detailed analysis.

Note: When XCounter accesses a remote server, it will use a licensed connection on that server. If the remote server goes down, XCounter will keep the log file in the local `\SYS\SYSTEM\XCOUNTER` directory. When the remote server becomes available, XCounter will automatically reconnect and move any log data stored locally into the remote server's log file.

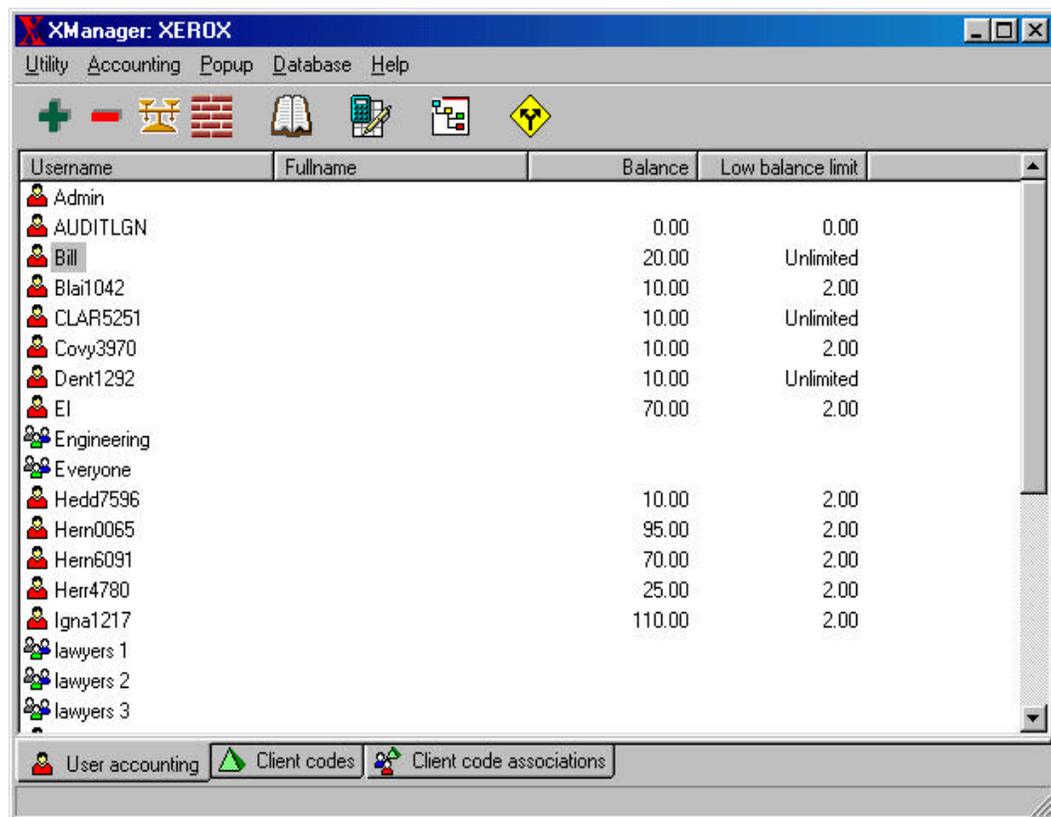
ASCII Delimited Field Names:

- UserName- user which submitted job
- Document name- Document name as specified by the application sending job
- Queue name- Printer queue name defined by NetWare
- Date- Date print job was submitted
- Time- Time print job was submitted
- Workstation- Computer from which printing or accounting transaction originated
- Client code- information inputted from client workstation
- Subcode- information inputted from client workstation
- Paper size- media size job was printed on

- Features- (Color/Monochrome, Duplex, Number of copies)
- Size in bytes- job size in bytes sent to the printer
- Page count- number of pages sent to printer or pages calculated by XCounter. This depends on the options selected in the printer configuration. (Duplex, Banner page)
- Cost- associated page cost as specified by the printer configuration
- Account Balance- user/group account balance after print job

XManager

XManager is a utility program for maintaining user account balances, viewing user print histories, generating printing reports and maintaining the client code database. XManager runs under Windows 95, 98/Me, or NT/2000 with Novell's Client 32. If users wish to modify other users' account balances, Read/Write access to "All Properties" needs to be assigned in each context where users are located. A user that has been granted accounting rights will also need to be given read/write permission in the `\SYS\SYSTEM\XCOUNTER` directory so that their transactions can be added to the `XCOUNTER.LOG` file. XManager may be launched by either double clicking on the program icon or by right clicking on a selected server in XControl and selecting XCounter, Accounting. XManager



Multiple users may be selected to perform various operations. However, operations on groups may only be performed one at a time. There are four accounting functions that are associated with user/group accounting.

- Deposit- By selecting a user or group, this button allows the administrator to increment the account balance.
- Charge- By selecting a user or group, this button allows the administrator to decrement the account balance.
- Set balance- By selecting a user or group, this button allows the administrator to set the account balance to a desired amount. Account balance displays are updated only when users are selected
- Set low balance limit- By selecting a user or group, this button allows the administrator to set the account low balance limit.

Printer History

XCounter provides real time print history reports by printer, user and group. These detailed reports allow the administrator instance access to user, group or printer activity. By selecting the "Preferences" button on the XManager tool bar, the preferences may be modified to allow customization including viewer type and fields displayed. XCounter can be configured to use one of the following viewers:

- XManager viewer
- HTML Web browser
- Microsoft Excel

From within the XManager viewer, the output of the print history file can be printed, saved to disk or emailed directly via the network email system.

User	Document	Printer	Date/Time	Paper size	Features	Size
WSPR\chus	Microsoft Word - 63259232.01	\\NYHOME\23\KEROX	09/12/2000 15:15	Letter		7071
WSPR\chus	Microsoft Word - 63259232.01	\\NYHOME\23\KEROX	09/12/2000 15:16	Letter		6502
WSPR\howardm	Microsoft Word - 63161690.01	\\NYHOME\23\KEROX	09/12/2000 15:51	Letter		372279
WSPR\penfoldn	Microsoft Word - 63170849.01	\\NYHOME\23\KEROX	09/12/2000 16:06	Letter		62065
WSPR\chus	wysiwyg://16/http://www.ual.com	\\NYHOME\23\KEROX	09/12/2000 16:11	Letter		55832
WSPR\mcmakin	Microsoft Word - 63250548.02	\\NYHOME\23\KEROX	09/12/2000 16:50	Letter		43702
WSPR\lipschir	Legal Research	\\NYHOME\23\KEROX	09/12/2000 16:58	Letter		701594
WSPR\howardm	Microsoft Word - 63161690.01	\\NYHOME\23\KEROX	09/12/2000 17:15	Letter		400281
WSPR\mcmakin	http://www1.justicelink.com/webpage...	\\NYHOME\23\KEROX	09/12/2000 17:21	Letter		37823
WSPR\mcmakin	Microsoft Word - 63258528.01	\\NYHOME\23\KEROX	09/12/2000 17:56	Letter		370967
WSPR\mcmakin	Microsoft Word - 63259332.01	\\NYHOME\23\KEROX	09/12/2000 18:19	Letter		287170
WSPR\penfoldn	Microsoft Word - NHPcv.doc	\\NYHOME\23\KEROX	09/12/2000 18:23	Letter		61505
WSPR\penfoldn	Microsoft Word - NHPcv.doc	\\NYHOME\23\KEROX	09/12/2000 18:37	Letter	/Cp=10	64294
WSPR\penfoldn	http://www.mta.nyc.ny.us/mnr/html/pl...	\\NYHOME\23\KEROX	09/12/2000 18:50	Letter		158975
WSPR\kondom	WRT:Transcript Handler - By Wit	\\NYHOME\23\KEROX	09/12/2000 19:34	Letter		12862
WSPR\mcmakin	Microsoft Word - 63259332.01	\\NYHOME\23\KEROX	09/12/2000 20:17	Letter		295619
WSPR\chus	Microsoft Word - #63258416 v1 - Bent...	\\NYHOME\23\KEROX	09/12/2000 21:12	Letter		283785
WSPR\howardm	Microsoft Word - 63161690.01	\\NYHOME\23\KEROX	09/13/2000 10:58	Letter		407783
WSPR\lipschir	Microsoft Word - 63259423.01	\\NYHOME\23\KEROX	09/13/2000 11:18	Letter	/Cp=2	16744
WSPR\howardm	http://biz.yahoo.com/p/a/aig.ht	\\NYHOME\23\KEROX	09/13/2000 12:14	Letter		117628
WSPR\howardm	http://biz.yahoo.com/p/a/aif.ht	\\NYHOME\23\KEROX	09/13/2000 12:15	Letter		89532
WSPR\howardm	http://www.scarsdalegolfclub.co	\\NYHOME\23\KEROX	09/13/2000 13:26	Letter		97553
WSPR\samsona	https://www.telecharge.com/even	\\NYHOME\23\KEROX	09/13/2000 15:52	Letter		16949
WSPR\samsona	https://www.telecharge.com/even	\\NYHOME\23\KEROX	09/13/2000 15:52	Letter		17956
WSPR\samsona	https://www.telecharge.com/even	\\NYHOME\23\KEROX	09/13/2000 15:53	Letter		15276
WSPR\samsona	https://www.telecharge.com/even	\\NYHOME\23\KEROX	09/13/2000 15:53	Letter		56596
WSPR\samsona	Microsoft Word - 63247798.01	\\NYHOME\23\KEROX	09/13/2000 16:06	Letter		15706
WSPR\samsona	Microsoft Word - 63248252.01	\\NYHOME\23\KEROX	09/13/2000 17:26	Letter		53911
WSPR\mcmakin	Microsoft Word - Labels2	\\NYHOME\23\KEROX	09/13/2000 17:36	Letter		11073
WSPR\mccartha	Microsoft Word - 63175459.05	\\NYHOME\23\KEROX	09/13/2000 18:16	Letter		2895564
WSPR\mccartha	Microsoft Word - 63175459.05	\\NYHOME\23\KEROX	09/13/2000 18:16	Letter		40490
WSPR\mcmakin	Microsoft Word - #63258416 v1 - Bent...	\\NYHOME\23\KEROX	09/13/2000 18:16	Letter		279719

Total jobs: 5325 Total pages: 60163 Total cost: 0

- Real time printer histories may be obtained by selecting the printer in XControl, right clicking, and choosing XCounter, Print History.
- Running the XManager program and selecting the user or group desired and selecting print history from the tool bar may obtain real time printer histories, by user or group.

Creating Reports

The XManager program includes a report generator. This report generator allows reports to be customized to meet different requirements. Available reports are:

User- printer, client code

Printer- User, paper size, client code, hourly job usage, hourly page usage, hourly traffic Mb, daily job usage, daily page usage, daily traffic Mb, features job usage, features page usage

Client code- user, printer

Group- Network groups

Deposit-

Applying a date filter to the report will allow reporting on specific dates as required. The preferences can be modified to allow customization including log file/s to be used, viewer type and fields displayed.

XCounter can be configured to use one of the following viewers:

- XManager viewer
- HTML Web browser
- Microsoft Excel

From within the XManager viewer, the output of the custom reports can be printed, saved to disk or emailed directly via the network email system.

User	Client code	Jobs	Pages	Cost
WSPR\Administrator		8	8	0
WSPR\Administrator	999998/001562	1	1	0
WSPR\boyhand		11	411	0
WSPR\boyhand	999998/001104	1	2	0
WSPR\boyhand	018950/001564	6	1050	0
WSPR\boyhand	008018/000176	5	420	0
WSPR\buddool		33	188	0
WSPR\cannizzm		18	77	0
WSPR\cannizzm	999998/001104	7	8	0
WSPR\chengt		1	2	0
WSPR\chus		623	6581	0
WSPR\corsiglc		2	75	0
WSPR\downings		1	2	0
WSPR\drittok		2	28	0
WSPR\hdttemp3		1	1	0
WSPR\howardm		542	3958	0
WSPR\inwehe	999998/001104	1	1	0
WSPR\kanea		99	1217	0
WSPR\kondom		251	5503	0
WSPR\lipschir		650	8980	0
WSPR\lopezs		1	25	0

Selecting the “Reports” button on the XManager toolbar can generate reports.

Reports

Warning: Mixing numerical formats Pages and Currency will result in unreliable cost totals!

Report on:

By:

Date filter:

None (Entire file) Dates from:

To:

A reports dialog box will appear, select the appropriate type of report and preferences desired then select “Create report”.

XPopup Print job client billing and Password Security

XPopup Overview

To setup a Windows 95, 98/Me, or NT/2000 workstation on the network requiring XPopup support, it will be necessary to run XPopup.exe on each workstation where this feature is required. This popup allows the user to input additional information before printing will occur. This additional information is then logged. When a print job is submitted, XCounter pauses the job until the user enters the information, and then releases it.

XPopup is activated for each printer queue by checking the “Enable popup window” box in the XCounter queue configuration. XCounter uses “Operator hold and User hold” automatically if XPopup is enabled.

XPopup can be used for the following applications:

- Billing print job costs to client/job numbers: The popup window prompts the user for a client code that is recorded in the XCounter.log file. XManager generates reports displaying the amounts of printing the users are doing for their clients. The client code can represent: client/matter numbers, job codes, project numbers etc.
- Identifying print jobs: The popup window is a simple form where users can type anything required.
- Password protecting print jobs: The popup window prompts the user for his/her network password. If it is correct, then the job is printed. Otherwise the job is deleted.
- Shared logon printer accounting: The popup window prompts the user for his/her network password. If it is correct, then the job is printed. Or, if it matches an account in the XCounter shared logon user database, it is printed. Otherwise, the job is deleted.
- Billing print job costs to network groups: a list of network groups to which the user belongs, and associated client codes are displayed. Users that work for different departments can allocate printing costs to the department for whom he/she is currently working.

Running XPopup

To have XPopup automatically run when a user logs on, use the following procedure:

- Activated XPopup “Enable popup window” for each printer the XCounter queue configuration. XCounter uses “Operator hold and User hold” automatically if XPopup is enabled.
- Windows 95/98/Me/NT/2000 Create a shortcut to the XPopup.exe in the Start Menu, Programs or add XPopup.exe to a login script. See section “XPopup.exe”
- Windows NT 3.51 Add XPopup.exe to the Program Manager Startup group, or add XPopup.exe to a login script.

Note: The popup window will not occur if a utility other than XCounter places the job on user hold.

XPopup Local Settings

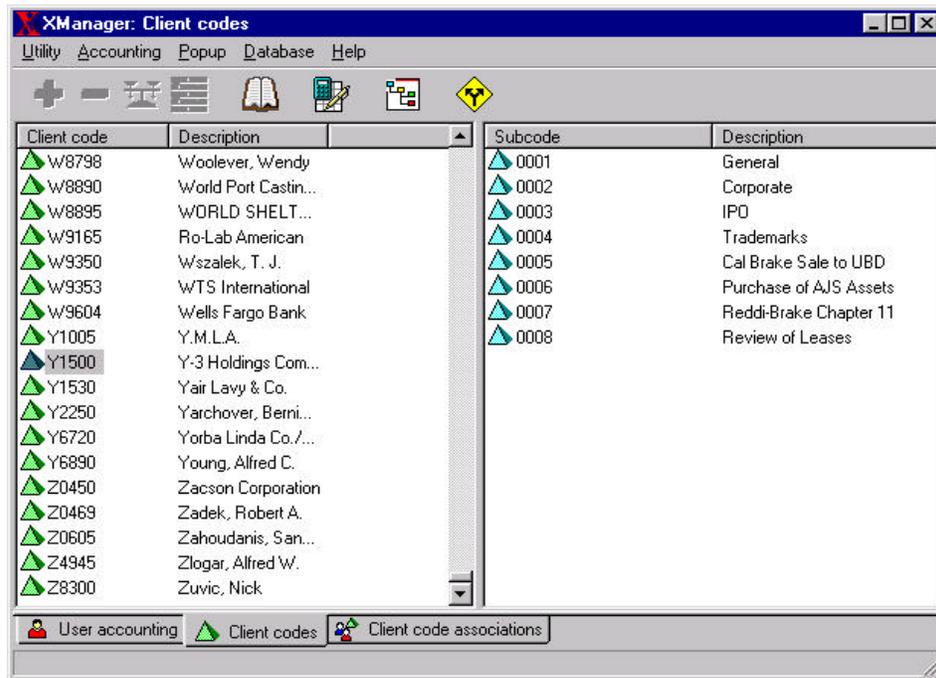
When the XPopup Preferences menu is selected, the user will see a list of file servers to which printer connections have been made. XPopup will poll each of these servers for popup jobs once per specified interval (in seconds). Each poll consists of only 2 NCP packets. However, any servers that are not running XCounter, or are hosting queues where the popup is not required, can be deselected in order to reduce network traffic.

XPopup can display in English, French, German, Spanish, Portuguese, Finnish, Dutch, Czech, Swedish, Danish and Italian.

Maintaining the XPopup Database

The XPopup database can be updated either by using XManager or XImport.

XManager provides comprehensive tools to maintain the XPopup database. These tools allow the administrator to add new codes, delete codes, rename code, modify descriptions, remove deleted records, re-index database and import data.



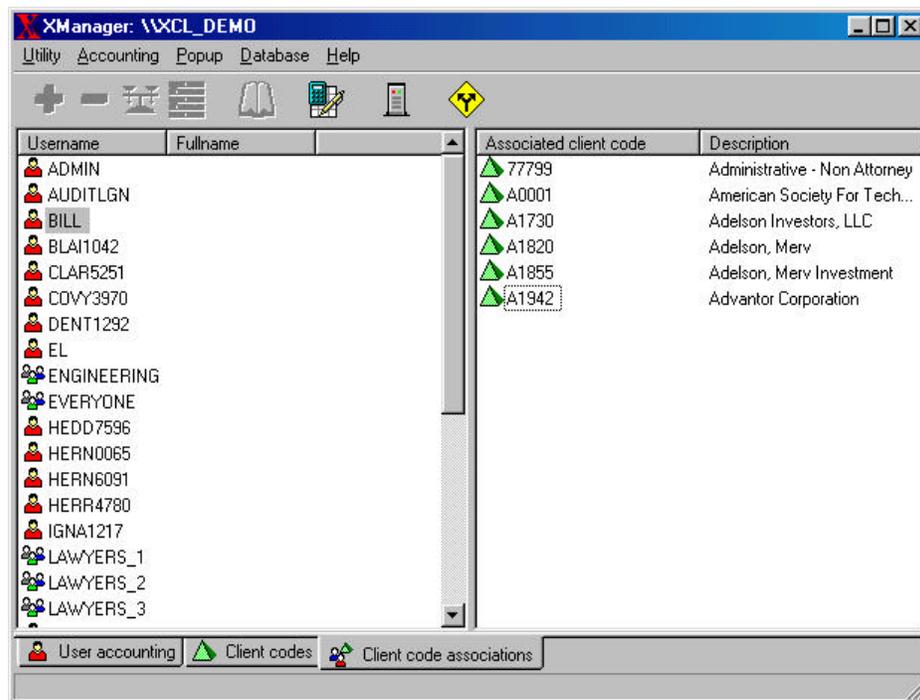
To enter the Popup maintained mode, press the green pyramid tab at the bottom of the XManager window. This will display any client codes previously entered if any. Selecting a client code will display all subcodes associated to that client code. These windows will be blank if no codes have been established.

Selecting the appropriate client or subcode and the selecting the popup menu will allow modifications to the client or subcode such as: adding subcode/s to the client code, deleting client or sub code, renaming client or subcode and modifying descriptions. If client codes are deleted, then all associated sub codes will also be deleted.

Select the Print History button on the tool bar to view a list of all print jobs for a particular client code.

Select Reports button on the tool bar to calculate totals for all client codes.

Client Code Associations



This feature allows different client code lists for separate groups and/or users to be specified. Users will only see client codes that are associated with their login name or groups to which they belong. A separate database file is maintained for this purpose, called XASSOC.DBF.

In XManager, select the Client code associations tab at the bottom. A list of users and groups are shown on the left, and the associated client codes are on the right. Right-click on any object in this view for a Popup menu.

It is possible to associate multiple client codes to multiple users/groups in one operation, or cut, copy, and paste associations from one user/group to another. Client codes can also be copied from the Client codes view in XManager, and pasted into an association list. Users who belong to multiple groups will see multiple group codes and sub codes.

Database Functions

- Remove deleted records - when client codes are deleted, the space is not reclaimed from the file. This operation compresses the file to eliminate space from deleted records and speeds up file load times, and also re-indexes the file.
- Re-index - Refreshes the index for the database files. It is recommended that the database is re-indexed after importing multiple new entries.
- Importing data - Files containing client code lists can easily be imported into xpopup.dbf. If a record already exists when importing, it will not be modified or overwritten.

Importing Comma Delimited Text Files

The importation of client and subcodes into the xpopup.dbf file is a two-step process. The client code must be imported prior to any subcodes being imported. To import a comma-delimited file, the following syntax must be adhered to. Each record occupies a single line in the file. The format of the client code importation should be:

ClientCode,,Description

- The client code is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The client code description field is optional and can be left blank. The length of this field is a maximum of 50 characters.

Note: The field delimiter is the “,” when using the comma delimited file format.

The format of the subcode importation should be:

ClientCode,Subcode,Description

- The client code is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The subcode is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The subcode description field is optional and can be left blank. The length of this field is a maximum of 50 characters.

Note: Do not import a subcode record unless its associated client code record exists. It is recommended that the database be re-indexed after importing multiple records.

Importing an Equitrac Client Number EQT File

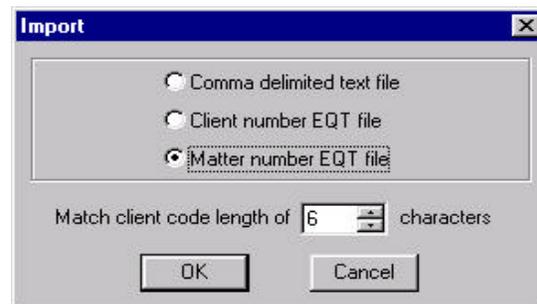
If the company is using Equitrac OneTrac system for cost control on copiers, the same data that is used at the copier terminal can be imported into XCounter. The importation of client and subcodes into the xpopup.dbf file is a two-step process. The client code must be imported prior to any subcodes being imported. To import an .eqt file into XCounter, the following syntax must be adhered to. Each record occupies a single line in the file. The format of the client code importation is as follows:

ClientCode1=Description1

- The client code is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The client code description field is optional and can be left blank. The length of this field is a maximum of 50 characters.

Note: The field delimiter is the “=” when using the eqt file format.

XManager will need to know the client code field length before importing the new or modified subcodes. This information is required to separate the client code from the sub code in order to associate the subcode to the appropriate client code in the XPopup database. Ensure that this option is set correctly otherwise, the subcodes will not import it into the XPopup database.



The format of the subcode importation should be:

ClientCode1Subcode1=Subcode Description

- The client code is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The subcode is any alphanumeric character. The length of this field is a maximum of 20 characters.
- The subcode description field is optional and can be left blank. The length of this field is a maximum of 50 characters.

Note: There is no delimiter between the client code and the subcode. Do not import a subcode record unless its associated client code record exists. It is recommended that the database be re-indexed after importing multiple records.

Password Protecting Print Jobs

If the site requires extra security for printing, XPopup can be implemented to require users to enter their network logon user ID's and passwords in order to authenticate print jobs. When the user prints, a window pops up requesting a username and password. If the ID and password are verified, the job is released for printing, and logged to the specified user. Use the following procedure to enable this feature:

Launch XControl from the Start/Programs/XCounter for NetWare menu.

- From the graphic interface select Context/Server on which XCounter is installed and press the "X" button on the tool bar and select the Popup tab.
- Configure Window type=ID and password.

Note: The network password is not transmitted along with the print job in any way, and it is immediately erased from memory as soon as it is verified

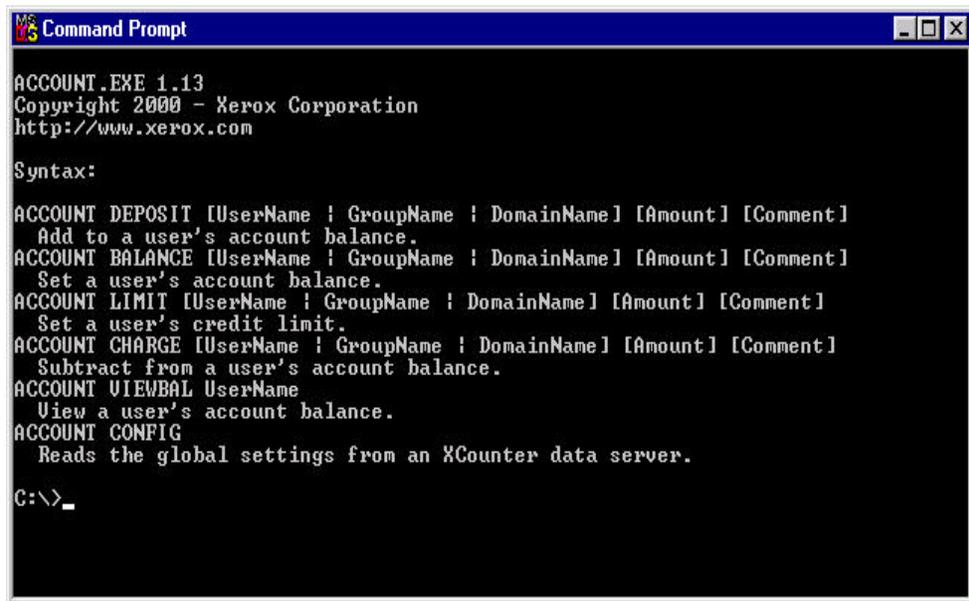
XCounter Utilities

XCounter includes utilities to assist in the automation of certain administrator tasks. These utilities include XAccount.exe, XBalance.exe, XImport.exe and XPopup.exe. When correctly configured, these utilities can enhance the performance of XCounter as well as reducing administration time.

XAccount.exe

XAccount.exe is a console command-line utility for Windows 95/98/Me NT/2000. This utility consists of six commands that can be used to type in accounting commands. By utilizing an external scheduling program, the accounting function can be automated by batch processing.

- Type **XACCOUNT** to list command-line options.



```
Command Prompt
ACCOUNT.EXE 1.13
Copyright 2000 - Xerox Corporation
http://www.xerox.com

Syntax:
ACCOUNT DEPOSIT [UserName ! GroupName ! DomainName] [Amount] [Comment]
    Add to a user's account balance.
ACCOUNT BALANCE [UserName ! GroupName ! DomainName] [Amount] [Comment]
    Set a user's account balance.
ACCOUNT LIMIT [UserName ! GroupName ! DomainName] [Amount] [Comment]
    Set a user's credit limit.
ACCOUNT CHARGE [UserName ! GroupName ! DomainName] [Amount] [Comment]
    Subtract from a user's account balance.
ACCOUNT VIEWBAL UserName
    View a user's account balance.
ACCOUNT CONFIG
    Reads the global settings from an XCounter data server.

C:\>_
```

Xaccount.exe uses the Global Settings information stored in XCounter.INI on an XCounter server.

XAddress

XAddress is a utility that translates network addresses into Windows Net BIOS computer names for tracking in the XCOUNTER.LOG file. If XAddress is enabled, the workstation field in the xcounter.log file will appear as \\ComputerName instead of the usual NetworkNumber/NetworkAddress entry. XAddress requires Windows 95, 98/Me, or NT/2000. Users must be granted write permission to \\SYS\PUBLIC\XADDRESS.INI file .

XAddress scans all of a workstation's connected to the login server and writes an entry for each workstation into:

```
\\SYS\PUBLIC\XADDRESS.INI.
```

This entry maps the computer's network address to the Windows computer name.

XADDRESS.EXE can be added to the Startup program group, or to a login script:

```
#COMMAND /C SYS:PUBLIC\XADDRESS.EXE
```

Note: XAddress requires NWCALLS.DLL, This file is included on the XCounter distribution CD. Workstations that have Client 32 installed will have this DLL installed.

XBalance.exe

XBalance is a small Windows utility for users to view their account balances quickly.

XBalance requires Windows 95/98/Me NT/2000 and can be added to the Startup group or to any login script. It will update the balance display if it is left running; likewise, it will also display the balance when it is minimized.

XBalance obtains the balance information through communication with the XCounter Data Server. Creating XCounter.INI in the same directory where XBalance.exe is stored can configure this connection. Use the following format:

```
[Preferences]
DataServer=\\Sales
```

where \\Sales is the name of the computer running the XCounter Data Server service. The double-backslash before the computer name is required.

Otherwise, the user will be asked to choose from a list of computers.

XBalance remembers the last server accessed by storing XCounter.INI in the same directory where XBalance.exe is stored. If XBalance is kept in a shared directory and unauthorized users are not to change the server setting, create XCounter.INI as shown above, and allow users only read privileges in that directory.

XBalance supports and displays the following languages English, French, German, Spanish, Portuguese, Finnish, Dutch, Czech, Swedish, Danish and Italian.

XImport.exe

The XImport utility is a command line utility for importing and updating the XPopup database. When this utility is utilized in conjunction with an external scheduler program, the XPopup database can be automatically imported at a predefined time. The command syntax of the XImport utility is:

```
XIMPORT [T | C | M] IMPORTFILE EXPORTFILE.DBF
```

T	Text file import
C	Equitrac client number import
M=x	Equitrac matter number import x=client code length

XImport is a general utility that imports a complete database or updates an existing one. If the XPopup database is not deleted during the update process, the

XImport program will not overwrite existing record data. Instead, it will only update new records, maintaining the structure to the existing XPopup database.

The following XImport sample batch file illustrates how to import a comma delimited text file into the XPopup.dbf:

```
echo off
if exist c:\xcounter\xpopup.dbf del c:\xcounter\xcounter.dbf      "deletes current Xpopup.dbf files"
if exist c:\xcounter\xpopup.cdx del c:\xcounter\xpopup.cdx      "deletes current Xpopup.cdx files"
ximport T client.txt c:\xcounter\xpopup.dbf                     "imports client file into XCounter"
ximport T matter.txt c:\xcounter\xpopup.dbf                     "imports matter file into XCounter"
```

The following XImport sample batch file illustrates how to import a EQT file : into the XPopup.dbf:

```
echo off
if exist c:\xcounter\xpopup.dbf del c:\xcounter\xcounter.dbf      "deletes current Xpopup.dbf files"
if exist c:\xcounter\xpopup.cdx del c:\xcounter\xpopup.cdx      "deletes current Xpopup.cdx files"
ximport C client.eqt c:\xcounter\xpopup.dbf                     "imports client file into XCounter"
ximport M=5 matter.eqt c:\xcounter\xpopup.dbf                   "imports matter file into XCounter"
```

XPopup.exe

Typically XPopup should be setup to run as soon as the users login to the network. This may be accomplished by either loading XPopup.exe at startup or add a line to the system login script:

- #COMMAND /C DRIVE:PATHXPOPUP [/options]

XPopup.exe has the following command line options:

- /hideicon This switch runs XPopup.exe hidden, without an icon.
- /noexit This switch runs XPopup.exe with the Exit option disabled on the task menu.
- /term Terminates XPOPUP
- /preload=serverName This switch enables XPopup.exe to read the XPopup configuration from the defined server, and loads the client code database if required. Normally these operations are not performed until the first print job occurs. If the client database is large, there may be somewhat of a delay (after the first print job only) due to the time it takes to load the client database. Enabling this option will improve this delay by preloading the database in the background.

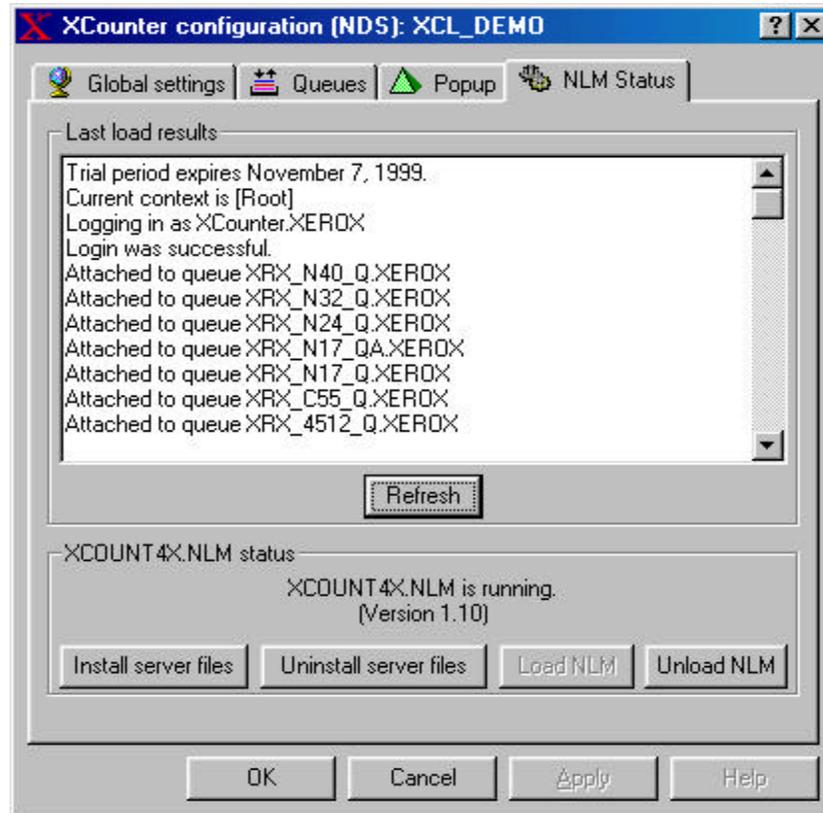
Updating XCounter Software

XCounter software will be updated periodically to include product enhancements. To install updated XCounter for NetWare software, the following process must be followed:

- Run the setup program from the XCounter update software. This process will update all required XCounter client files. The following process will update the server files

Note: Remote administration is possible from any Windows 95/98/Me or NT/2000 workstation/server on the network

- From the XControl screen highlight the server where XCounter is loaded. This can be either in bindery or NDS mode. Right click on the server and select XCounter, Configuration (or press the red "X" button on the toolbar.)
- Select the NLM Status tab on the server configuration menu.



- Note the XCounter NLM software loaded and version number. (E.g. XCOUNT4X.NLM or XCOUNT3X.NLM)
- Press the unload NLM button. This will unload the XCounter NLM from the server.
- Press the Install server files button. This will install the updated XCounter server files.
- Press the Load NLM button. This process runs the XCounter NLM. The status panel will display the load operation to ensure proper loading.
- Note the XCounter version number. This number should now reflect the updated XCounter software version.

Note: Networks operating on Novell NetWare 4.1 or above can use XControl to perform remote tasks on the server. These tasks include Starting, Stopping XCounter NLM's and installing or uninstalling server files. If the NetWare version 3.x the server files may be copied to the server using XControl but the unloading and loading of the XCounter NLM will have to be done via rconsole or at the physical server console.

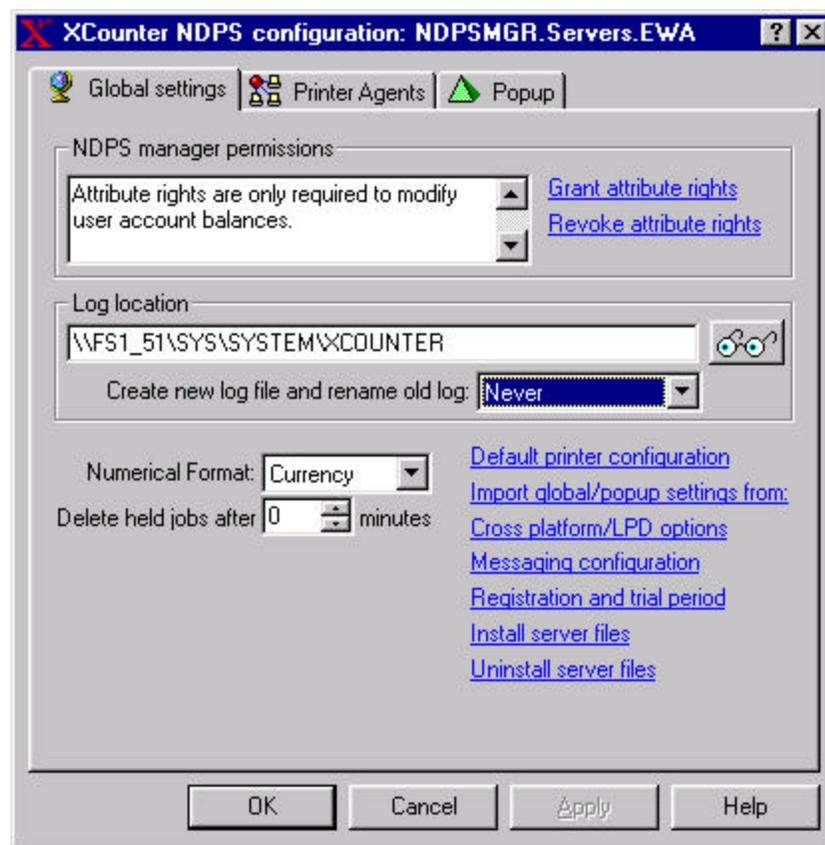
NDPS Software Update

This procedure is for updating an existing XCounter for NetWare installation utilizing NDPS printing.

- Run the setup program from the XCounter update software. This process will update all required XCounter client files. The following process will update the server files

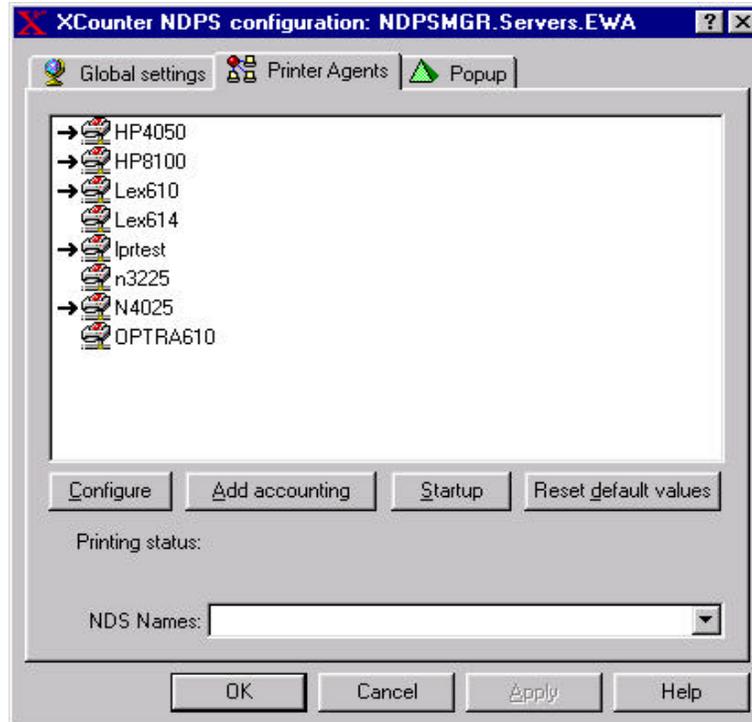
Note: Remote administration is possible from any Windows 95/98/Me or NT/2000 workstation/server on the network

- From the graphic interface select “Novell Directory Services” Select the context where the NDPS Manager is located and then select the NDPS Manager. Press the “X” button on the tool bar.



- Select the “Install server files” link to install the updated XCOUNTRDP.NLM. A conformation window will appear indicating a successful file copy.
- The Printer Agents must be restarted for the updated XCOUNTRDP.NLM file to take effect.

- Select the “Printer Agents” tab



- To restart, select the printer/s and press the “Shutdown” and then the “Startup” button. Repeat this process for all NDPS printers that require XCounter accounting. This restart process may alternatively be accomplished for all printers by unloading and re-loading the NDPSM.NLM at the server console.
- At the server console, display the server task “XCounter for NDPS. Ensure that the version number reflects the updated software.



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