PrintController™

User Manual

Sept 2006

UniPort

INDEX

Background

PrintController is a print-management, tracking & billing system for the enterprise and the small / medium business.

The flexibility of printer distribution and usage in today's office environment, contributes to an effective workflow, but it makes it difficult to track who is printing what, where, when, and why are they printing it.

PrintController is the ideal solution for control & billing. PrintController is a powerful print management and auditing system, providing the user with all the necessary tools to monitor, allocate, and optimize the printing costs.

Monitoring the print-server provides comprehensive real-time and statistical information on printer usage and the cost of printing - data that can be broken down according to the department, project, name or other ID of employee, printer and customer.

The data created can be utilized to optimize cost-efficiency of all the printing activities & to create print billing where needed.

PrintController manages different types of printers on the enterprise network, such as IP printers, shared network printers, and local printers.

Color Management

A user needs to have permission on PrintController to print in color.

PrintController has the ability to distinguish and track color and non-color printing for the same printer & within same print job.

Billing Mechanism

"Comment" dialog box, for entering detailed billing of, departments, individuals, projects and customers.

Reporting Tools

Powerful report generator, based on any number of criteria and neatly summarizing printing activity.

Database Export

Export print usage data to external applications.

System Architecture

Server based application; no installation on client PC is required, optional only for advanced features.

User Training

No change in user's printing method – so no training is required.

Report Generator

PrintController report generator provides a powerful management tool to the enterprise management; it provides 3 different types of reports:

Billing Reports

The billing reports can be sorted by User, Department, Printers, Job / Project, Customer, Color Vs B&W printing, and paper type. In order to provide the user with flexible management reports, all the reports can be ranked and listed according to each of the parameters.

Time analysis reports

Time analysis reports provide the user with reports related to print loads within a defined time window; this can be a day, a week, a month, a quarter, and a year. These reports can help the customer streamline the print load balance, and increase the efficiency.

Failure analysis reports

The failure analysis reports provide the user with reports related to print failures within a defined time window. These reports help the customer analyze printer's downtime and levels of service.

Pre-Requisites

Hardware / Software requirements:

1. Pentium 4, 512 MB RAM.

2. Network interface card.
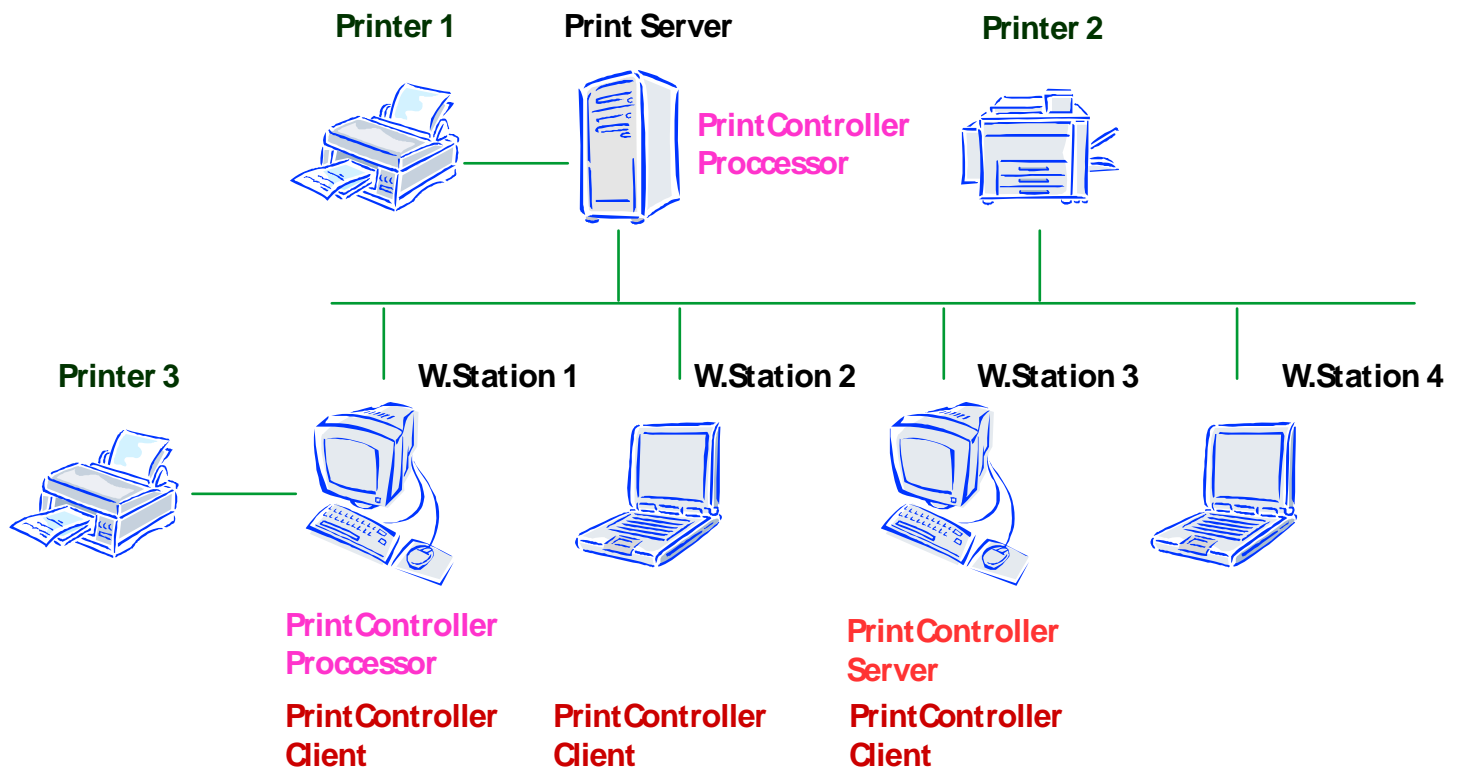
3. Windows 2000 / XP / 2003.

Concept

In terms of printing in the office environment you may find:

- Dedicated Print Servers - share locally defined Printer 1 and 2 with all Work Stations.

- Not dedicated Printer Servers - W. Station_1 has local printer attached which it shares with others.

- Work Stations - don't have local printers attached, they are using shared network printers.

- Network Printer 2 could be installed locally on more then one computer
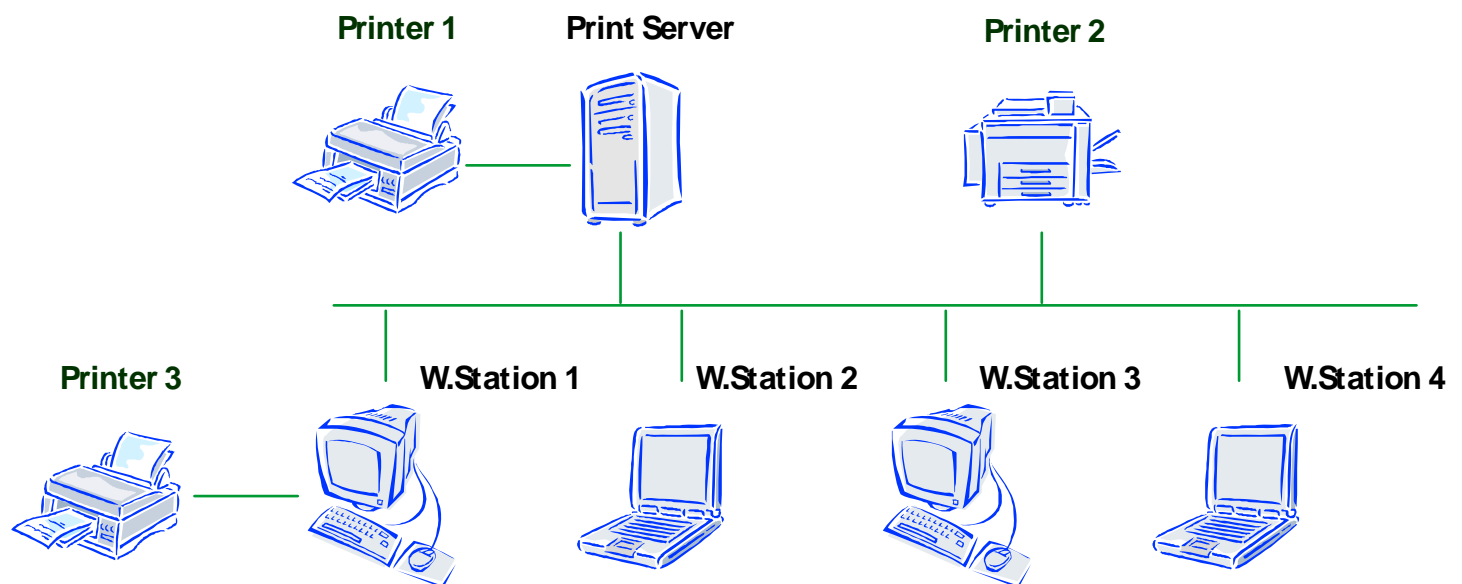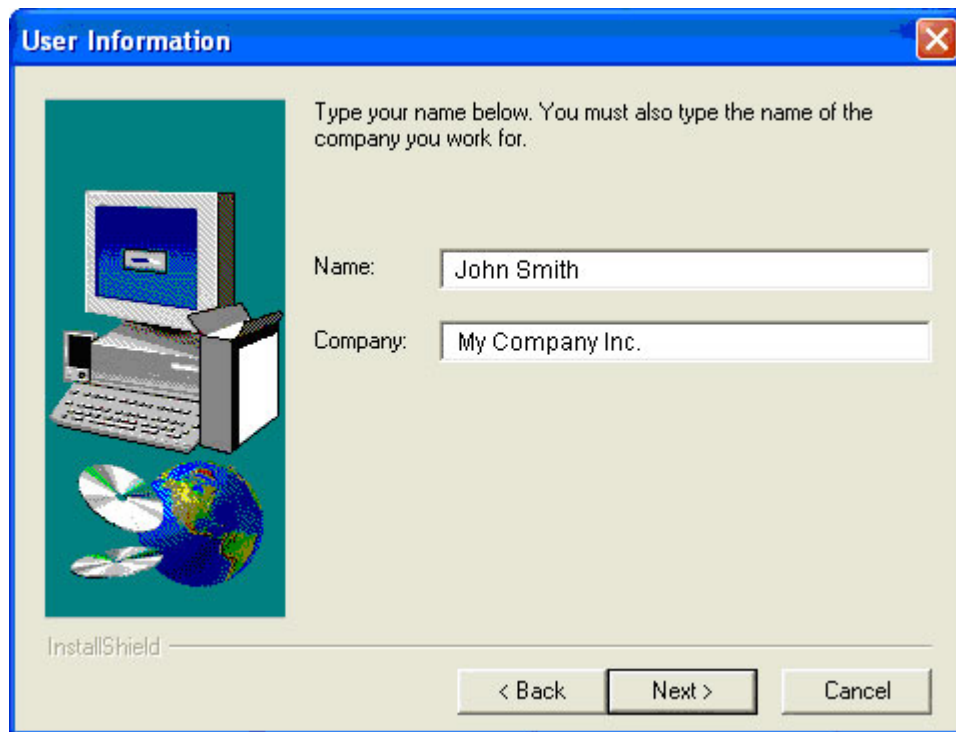
PrintController consist of four modules that could be installed on different computers

Name	Function	On which computer to be installed
PrintController Server	Collect information and prepare reports	Any ONE computer which is always on during working hours
PrintController Processor	Prepare print job information and sends to server	Every computer that has attached local printer to be monitored
PrintController Report Tool	Prepare reports . **(Optional)**	Any computers on which is more convenient to prepare reports.
PrintController Client	Add comments to print job for billing and etc. **(Optional)**	Every appropriate work station

Printer 1   **Print Server**   **Printer 2**

PrintController Proccessor

Printer 3   **W.Station 1**   **W.Station 2**   **W.Station 3**   **W.Station 4**

PrintController Proccessor

PrintController Client

PrintController Client

PrintController Server

PrintController Client

PrintController Server Setup

Before proceeding, make sure that all the programs that are currently running have been exited. Double click the **Setup.exe** file. Click "**Next"** at the "Welcome" Dialog box.

Enter: Name, Company, and Click "**Next"**

Browse and define the installation location on the disk and Click "**Next".**

Click "**Next**" on dialog box.

Click "**Next**" on dialog box.

Start Copying Files

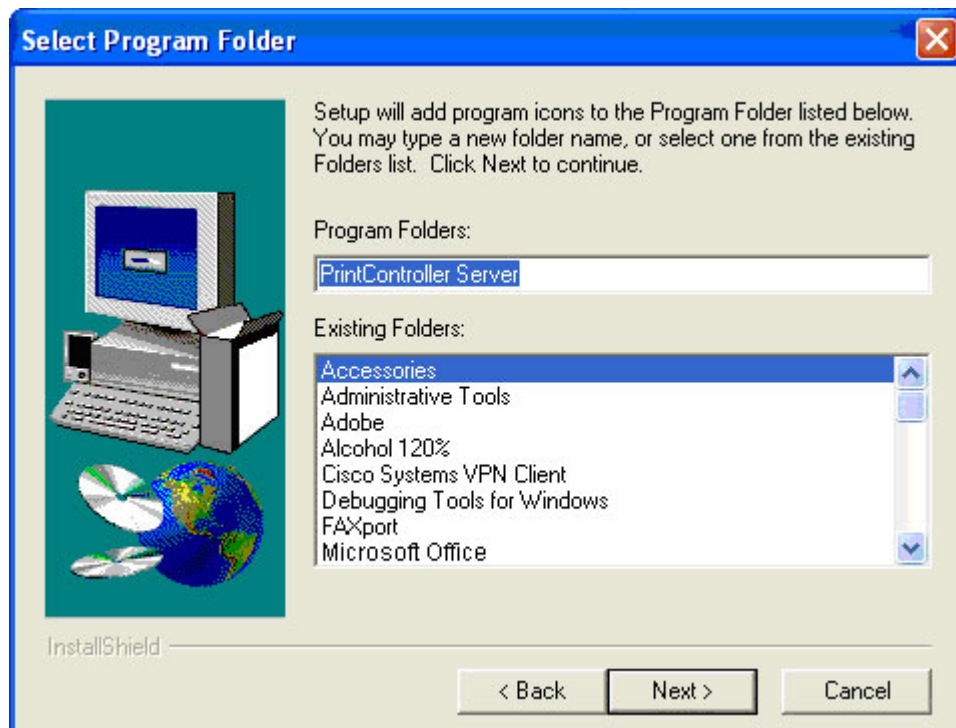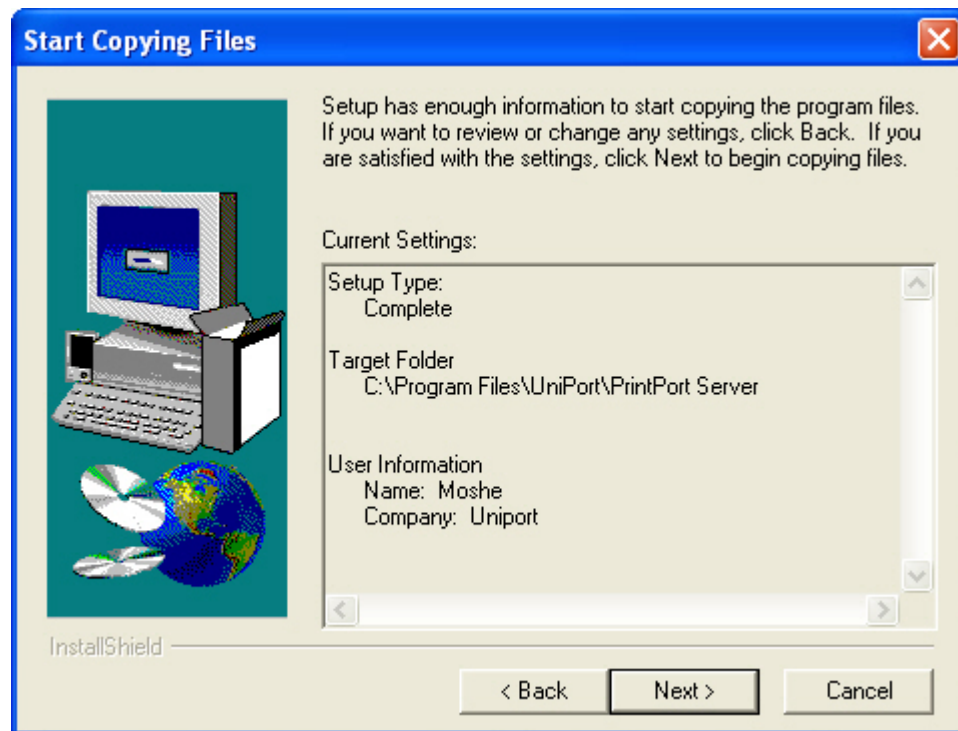Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

Current Settings:

Setup Type:
    Complete

Target Folder
    C:\Program Files\UniPort\PrintPort Server

User Information
    Name: Moshe
    Company: Uniport

InstallShield

< Back   Next >   Cancel
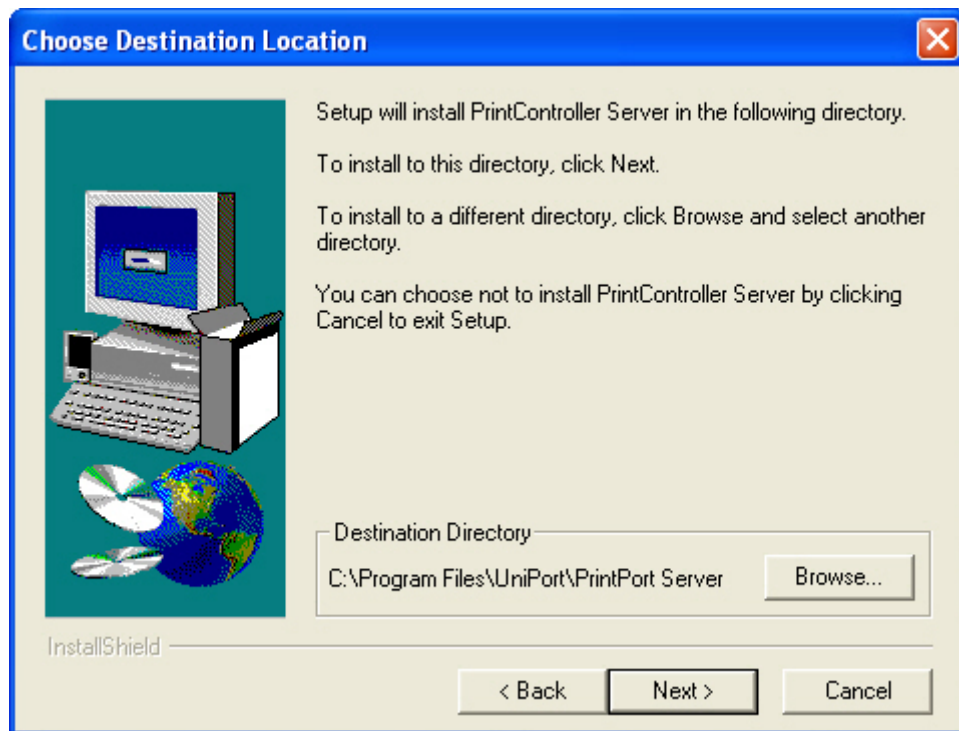
Click "**Finish**" and exit setup.

Setup Complete

Setup has finished copying files to your computer. Setup will now launch the program. Select your option below.

☐ Yes, Launch the program file

Click Finish to complete Setup.

InstallShield

< Back   Finish
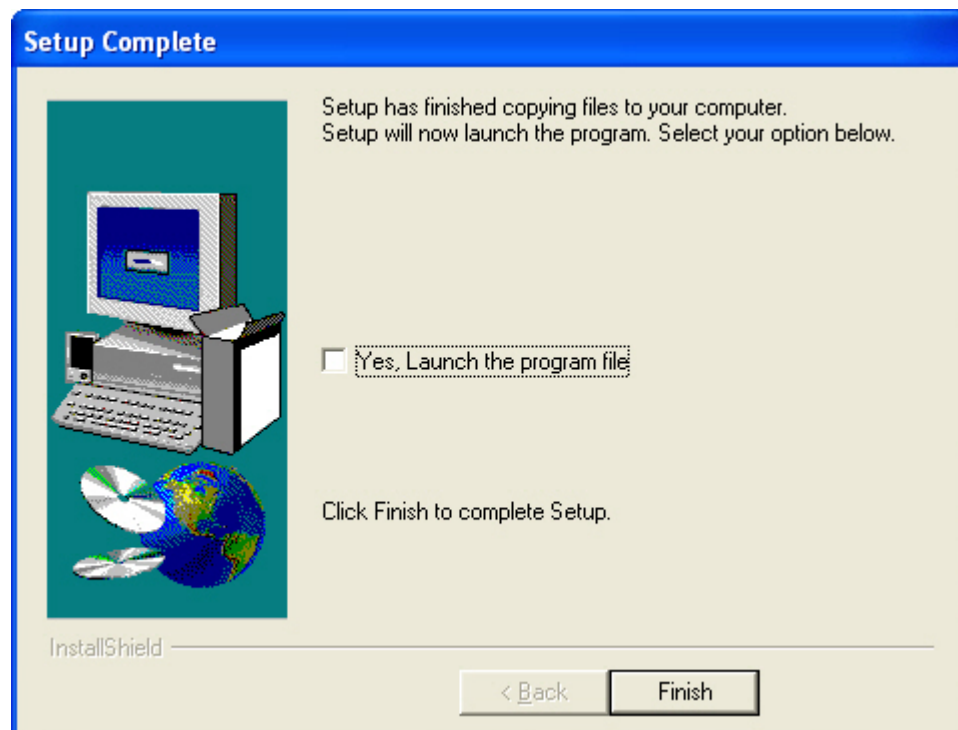
PrintController Print Processor Setup

PrintController print processor is the agent of PrintController responsible for capturing the print jobs before they are sent to the printers. Any printer that is designated to be managed by PrintController needs to have PrintController print processor installed on its print server.

PrintController can manage network printers as well as private printers, provided that the print processor is installed for each printer.
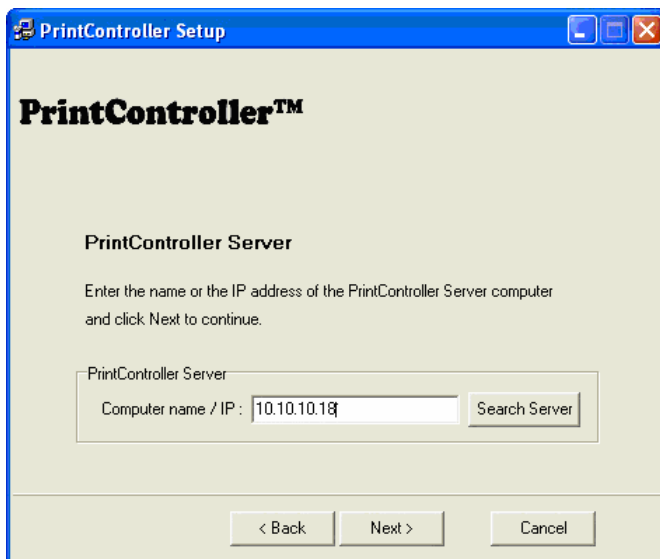
1. Click "Next" on the Welcome dialog box.
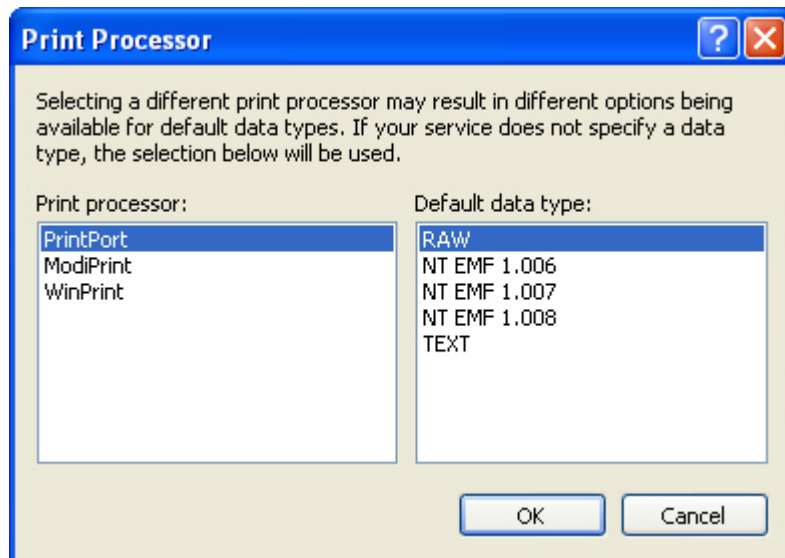
2. Click "Next" on the Destination Folder dialog box.

3. Click "Search Server" and "Next".

4. Chose the printer on which the Print Processor will be installed and click "Next"

Now when Print Processor is installed, the printer's print processor will indicate that the "Print processor" is: "PrintPort" and the "Default data type" is "RAW". (Printer Property -> Advanced Tab -> Print Processor)

PrintController Client Setup

PrintController offers a special feature for customers who have a need to log special printing activities, specific projects that need a separate billing, customers who need to be billed for documents printed on their behalf (for example Lawyers, Accountants who bill their customers for print jobs).

PrintController offers special Client software that resides on the PC of the user that needs such a function. After that client is installed, any printout sent by the user will open a dialog box on the screen, in which the user can enter the billing details of the specific print job.
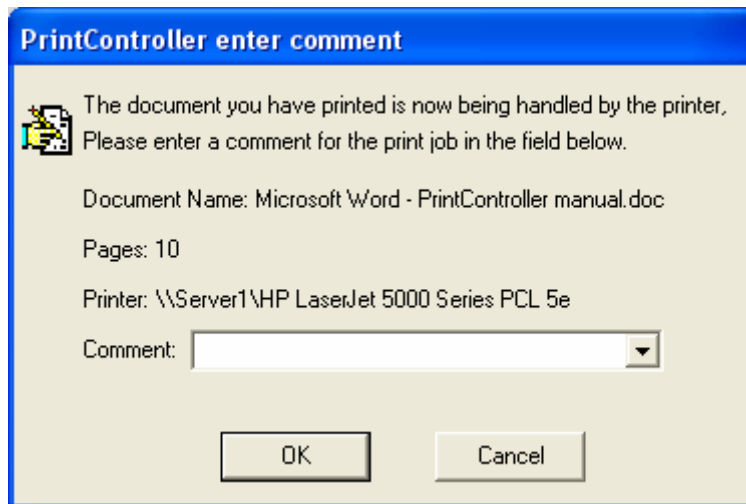
Double click the **Setup.exe** file, click "Next" on the Welcome dialog box.

Click "Next" and click "OK" when the "client service started OK" dialog box pops up.

Once the client is installed, every print job will pop up the "Comments" dialog box. Enter the specific billing name/number of the print job, and click "OK".
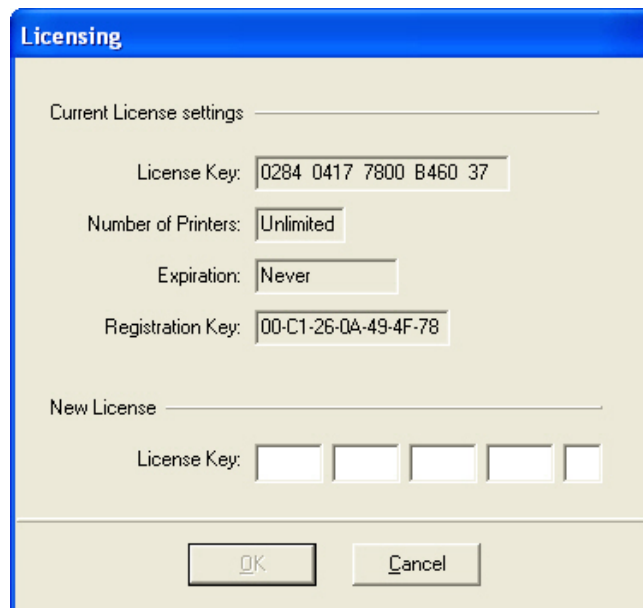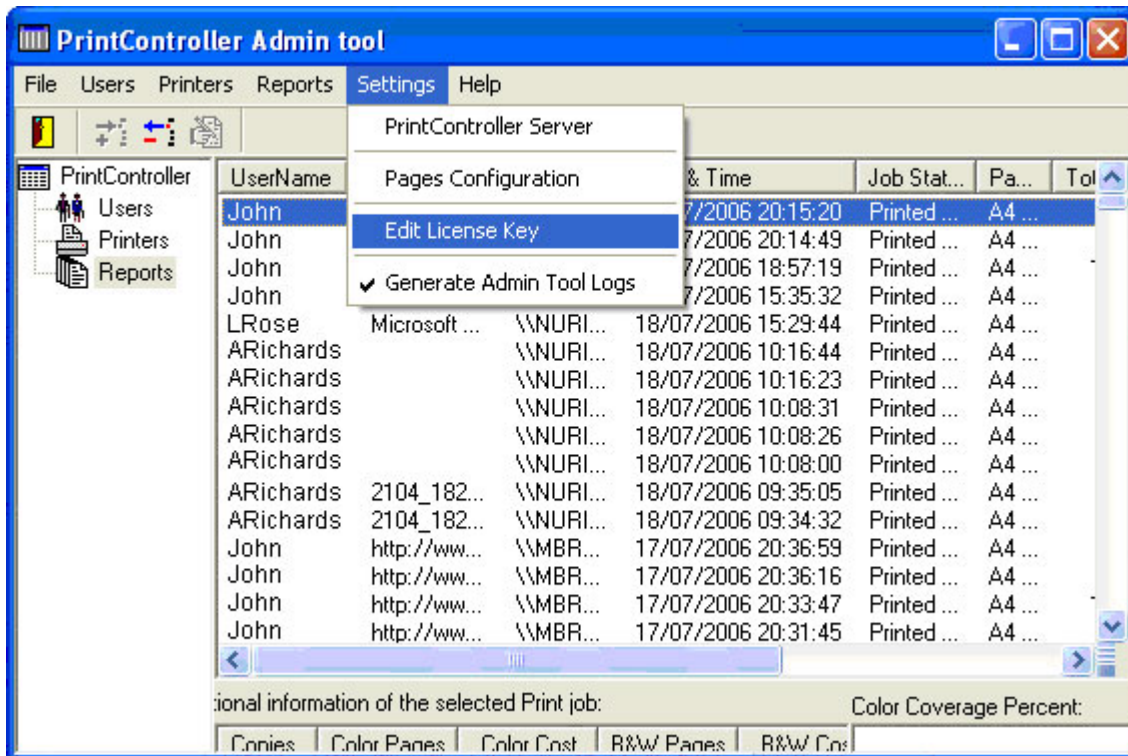
PrintController Administration

PrintController server manages the printing operation of the enterprise, allowing the system manager to manage, the **System Settings**, the **Printers**, the **Users**, and creation of a variety of reports using the **Report Generator**.

Set license key

PrintController software license key is set according to the number of printers that are managed by PrintController. In case new printers are added, there is a need to get an updated license key. The "Edit License Key" function is used for editing the software license key.

PrintController server settings

The PrintController server settings, is used to setup the following administrative functions:

How PrintController service is initiated.
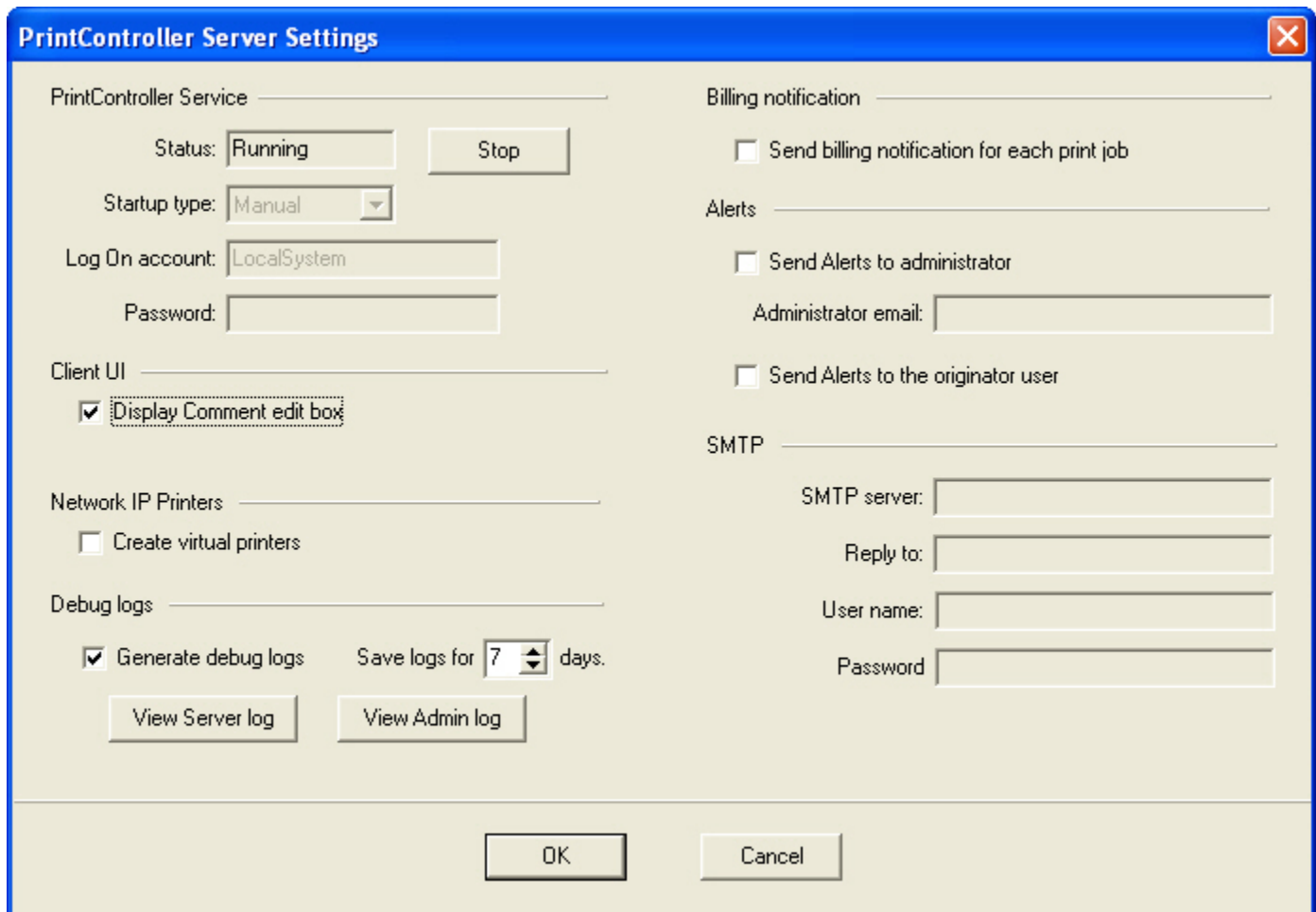
Display comment edit box to users.

Grouping IP Printers

Billing notifications to users.

Alerts.

SMTP setup.

Debug Log setup.

Page Configuration Setup

It is possible to specify for each page size a cost. PrintController comes with about 100 most common page sizes in the industry.

"A4" and "Letter" were chosen to be the reference price per page. All other page sizes are a derivative of them, and their price is calculated based on the ratio to the reference pages.

Enter the "Basic cost per page" and click "Apply" to update the page prices.

In case of a variable page sizes, as plotters, the page price will be calculated by square units (Inch, cm, mm), and appear in the reports as "Custom (H x W)".

Cost per Page

Basic cost per page

B&W cost: 0.06 $ Color cost: 0.30 $

Costs according paper size

Description	ID	Ratio (%)	B&W cost	Color cost
10 x 11 inch sheet	45	120	1.20	3.60
10x14 inch sheet	16	150	1.50	4.50
11x17 inch sheet	17	200	2.00	6.00
12 x 11 inch sheet	90	140	1.40	4.20
15 x 11 inch sheet	46	175	1.75	5.25
6 3/4 Envelope 3 5/8 x 6 1/2 inch	38	70	0.70	2.10
9 x 11 inch sheet	44	100	1.00	3.00
A2 420 x 594 mm	66	400	4.00	12.00
A3 297 x 420 mm	8	200	2.00	6.00

Custom paper size

The cost of Custom sizes which are not listed on the above list will be calculated automatically according the printed area and the cost per square unit, the system will use the cost of A4 (210 x 297 mm) as a reference for calculating the cost per square unit.

Units

⦿ Inches

○ Centimeters

○ Millimeters

Cost

Cost per B&W square Inch: 0.0006206 $

Cost per color square Inch: 0.0031031 $

OK   Cancel   Apply

Users

Add Users / Edit Users

It is possible to, Add Users, Edit Users details, Import Users from Active Directory, and Delete Users.

A user is added to the system after he makes his first print job, the only information that will be created at that time is the "User Name". It is possible to add more user details by using the "Edit" function.

For manually adding a user click on the "add user" icon, or "add user" in the menu, and a user profile screen will pop up, enter all user details and click the "Ok" button.

For editing a user click on the "edit user" icon, or "edit user" in the menu, and a user profile screen will pop up, edit the user details and click the "Ok" button.

The user's e-mail address is used for receiving print confirmation details. The "Allow Color Print" box is used to identify the users in the organization who are allowed to print color printouts.

The "Get self confirmation" value is used for long printout warnings, the user is notified when the print job exceeds the set value, and needs to confirm the print job.

The "Monthly quota" value is used to set the maximum number of pages that the user is allowed to print. When a user reaches his monthly quota, he is not able to print jobs on any printer in the organization, unless his monthly quota was extended.

To delete a user mark a user on the "user list", click on "delete user" icon, or click on "Delete User", and click the "Yes" button to confirm.
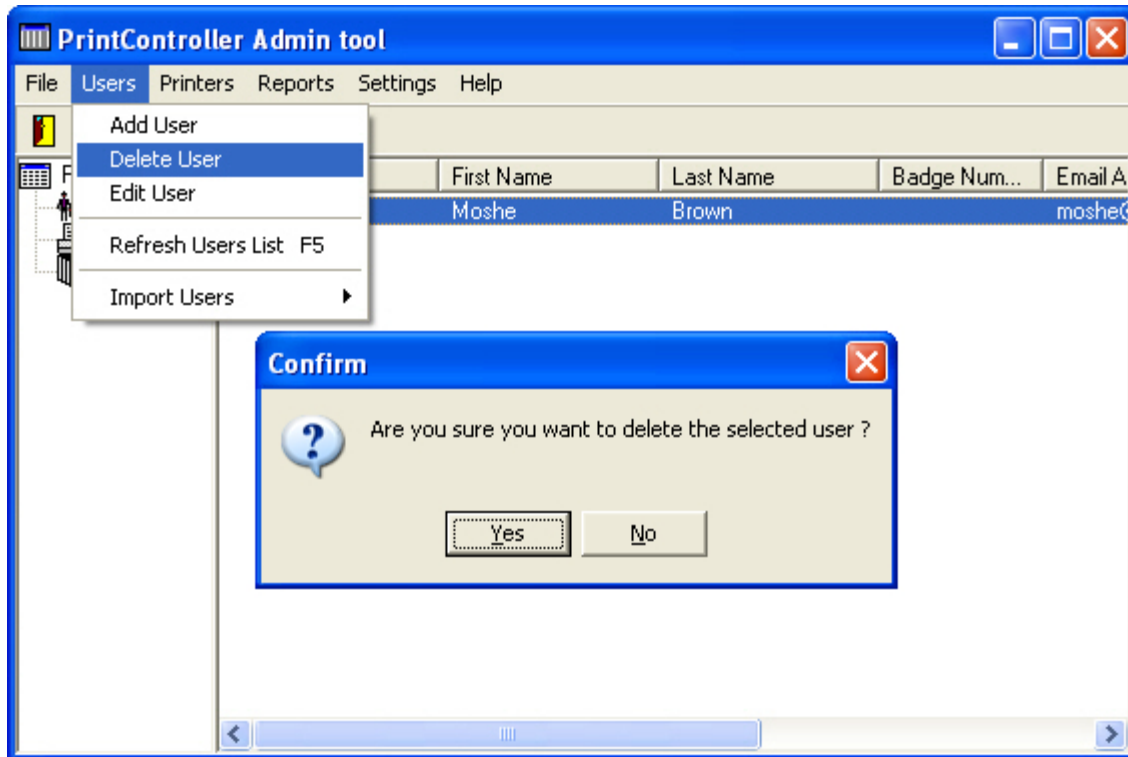
To edit a user click on "Edit User" icon, once the user screen pops up, edit the user information and click the "OK" button to confirm.
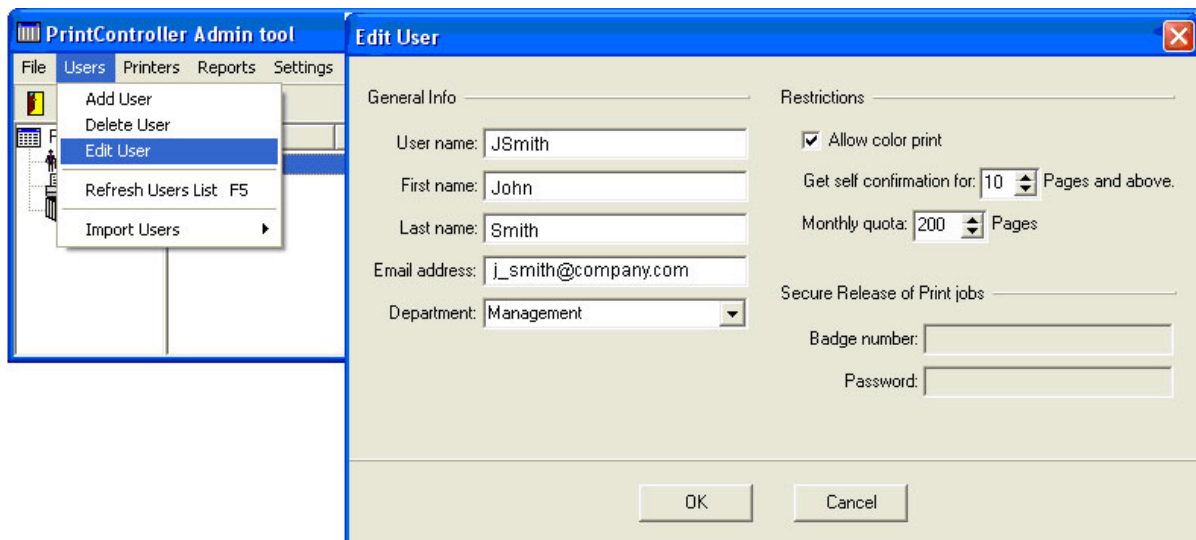
To input users from Active Directory, click on the "Import Users from Active Directory" and the import screen will pop up. Enter the Active Directory Server's IP address, in the "Server" Field, and the system administrator's name and password.

In the "Mapping" area, chose the user details that will be imported, and click on the "Next" button.
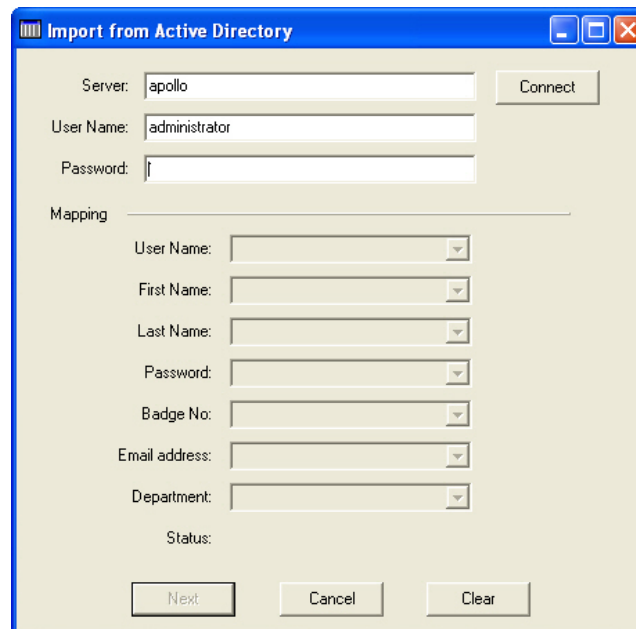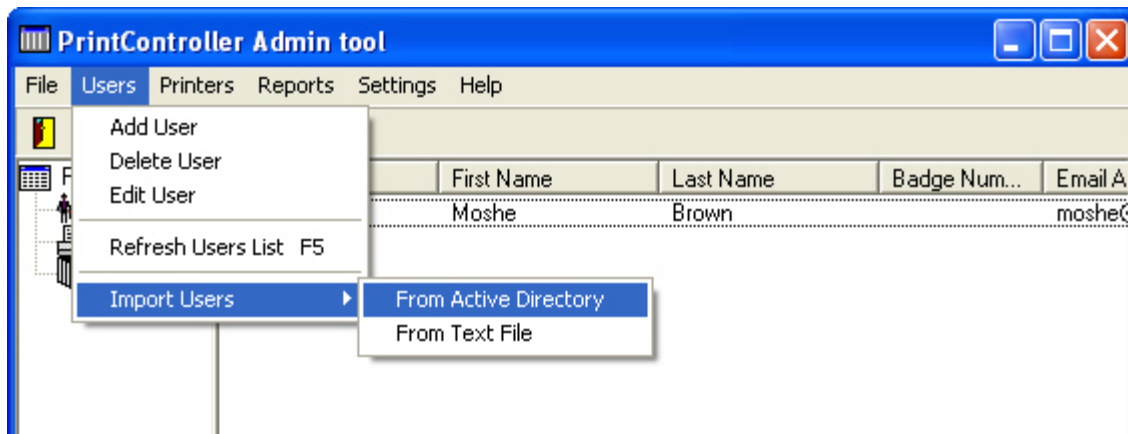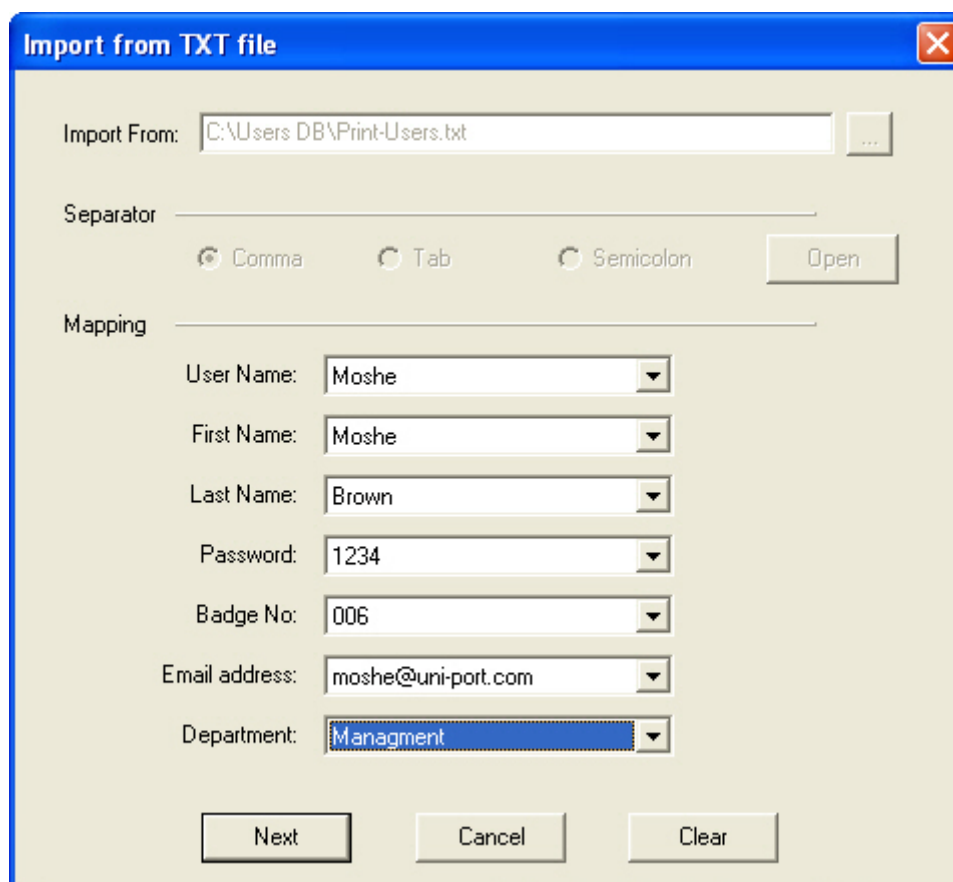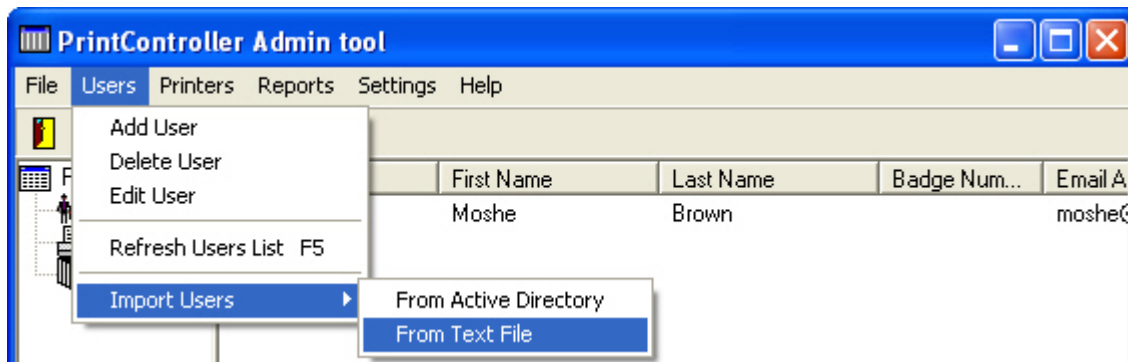

The user list from the active directory will pop up.
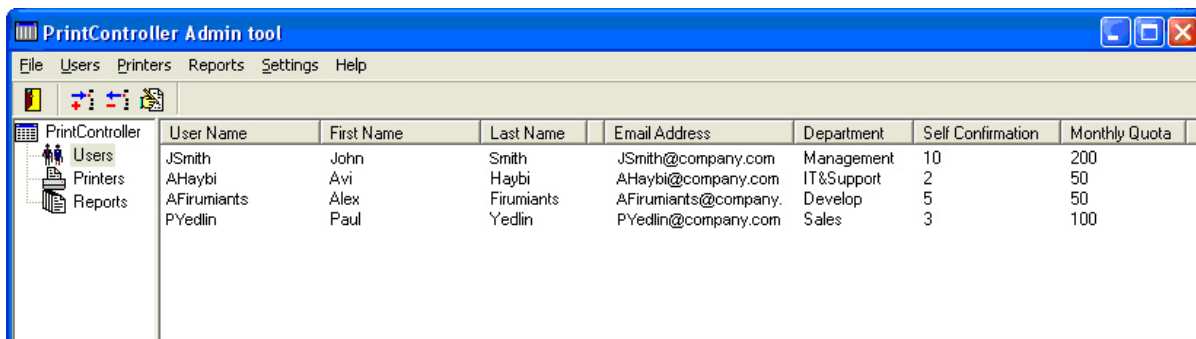
To import users from text file, click on the "Import Users from text file" and the import screen will pop up. Browse for the text file path, and mark the type of data separator.

In the "Mapping" area, chose the user details that will be imported, and click on the "Next" button.
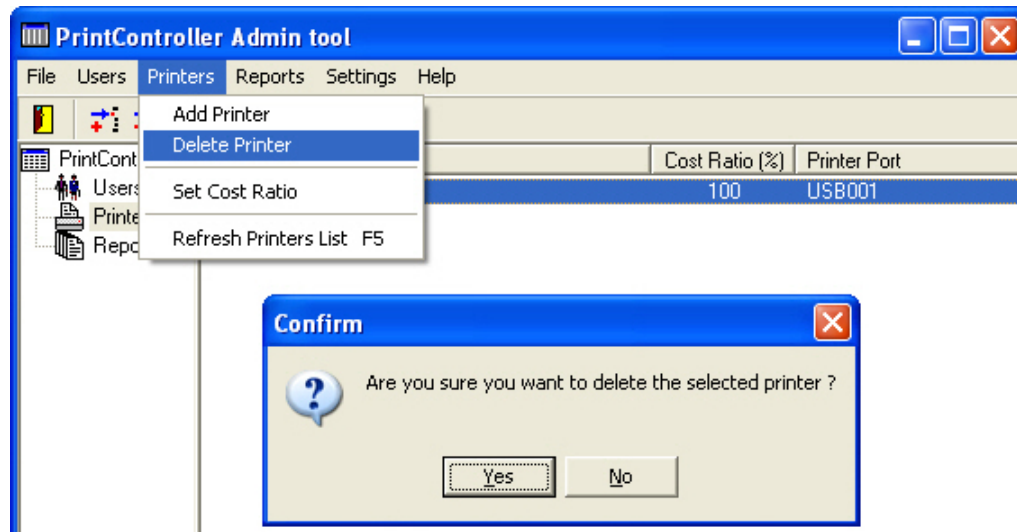
Printers

PrintController will add automatically any printer when a first print job is sent to it. Printers can also be added manually by clicking "Add Printer" on the menu.
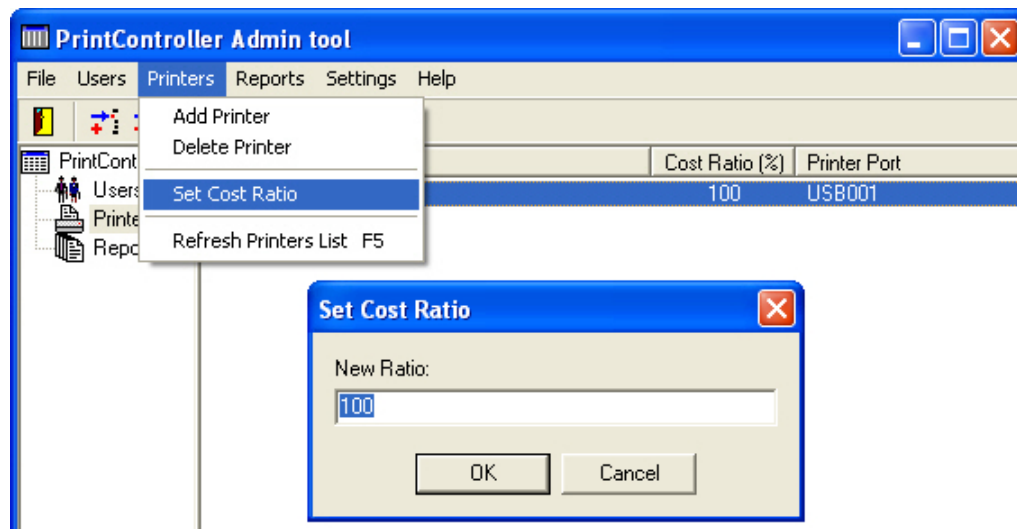
PrintController manages IP printers by grouping all clients who use a particular IP printer and assigning a virtual name for the printer.

To delete a printer from PrintController's printer list, mark the specific printer on the printer list, click on "Delete Printer" on the menu, and then confirm by clicking "Yes".

It is also required to change the print processor of the deleted printer to use "WinPrint" instead of "PrintPort". (Control panel, choose printer, properties, advanced, print processor, choose "WinPrint", and click OK).

It is possible to set a specific cost for each printer; the specific cost is in relation to the paper size cost that is setup in an earlier stage. What is needed to set for each printer is the ratio between the cost of printing a specific page on the printer vs. the standard page size cost. For example when a specific printer cost per page is 10% more than the standard cost, it is needed to enter in the "Set Cost Ratio" 110, or when it is 10% less expensive, then is needed to enter 90.
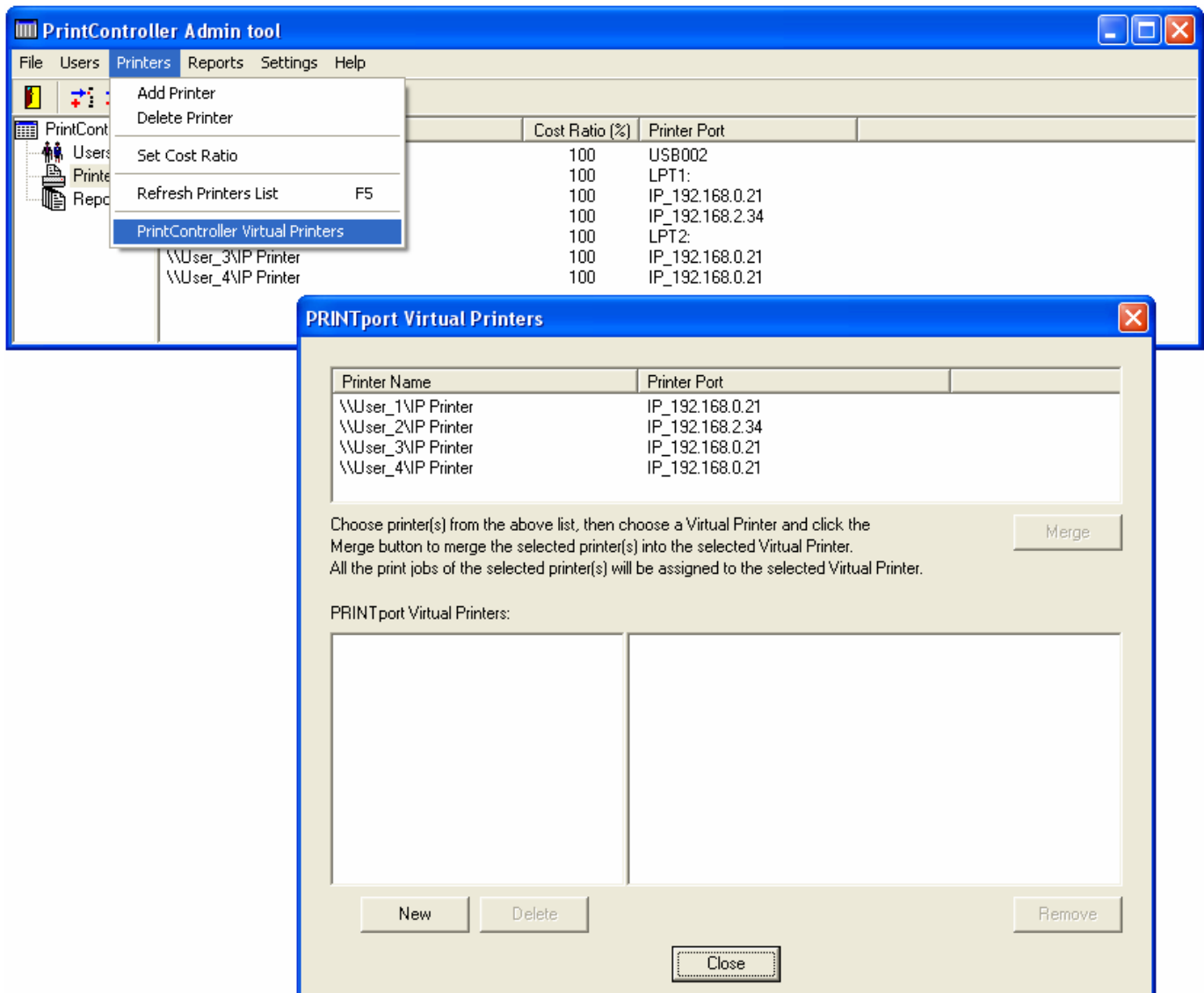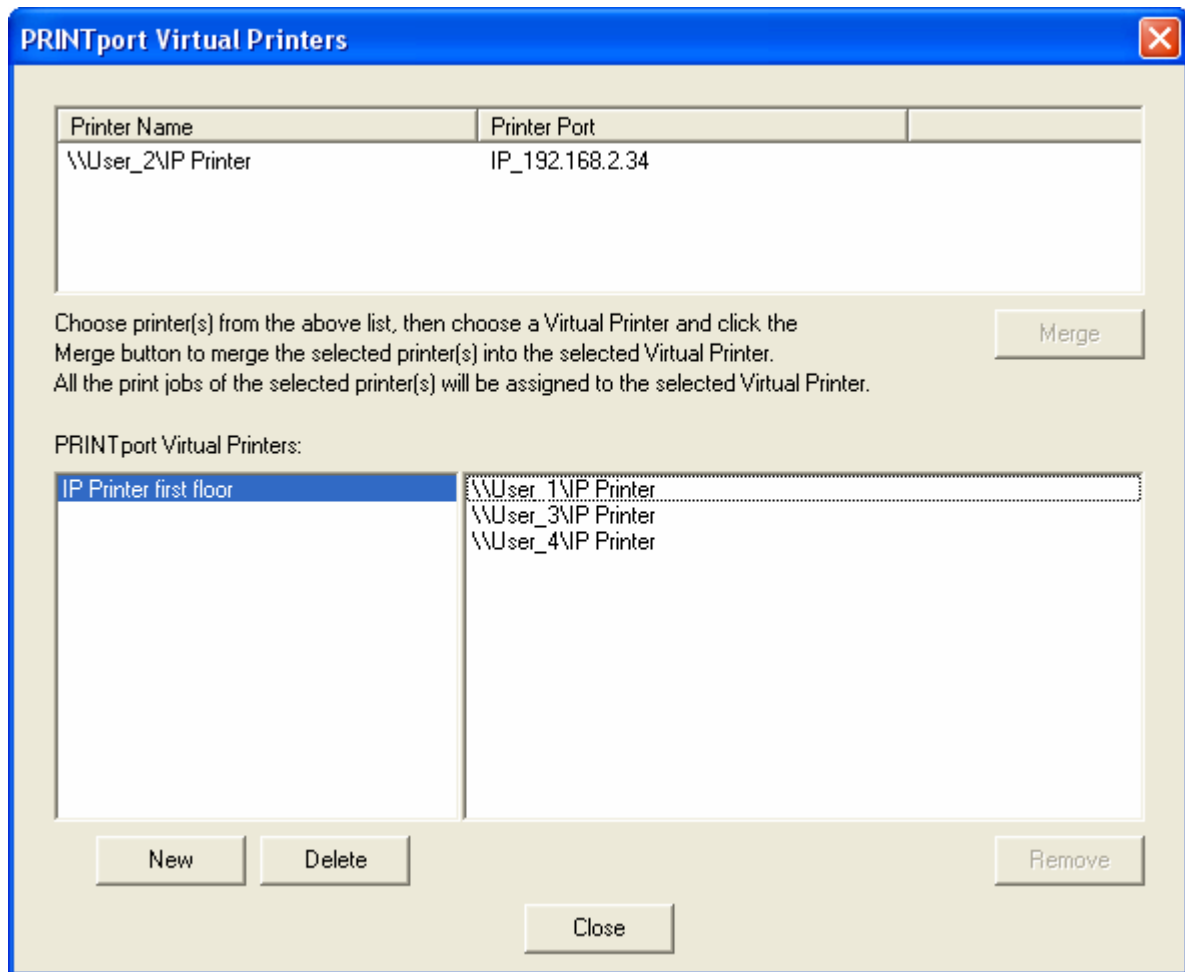
Virtual Printers

By clicking "Printers" on the main screen, a list of all installed printers will be displayed.
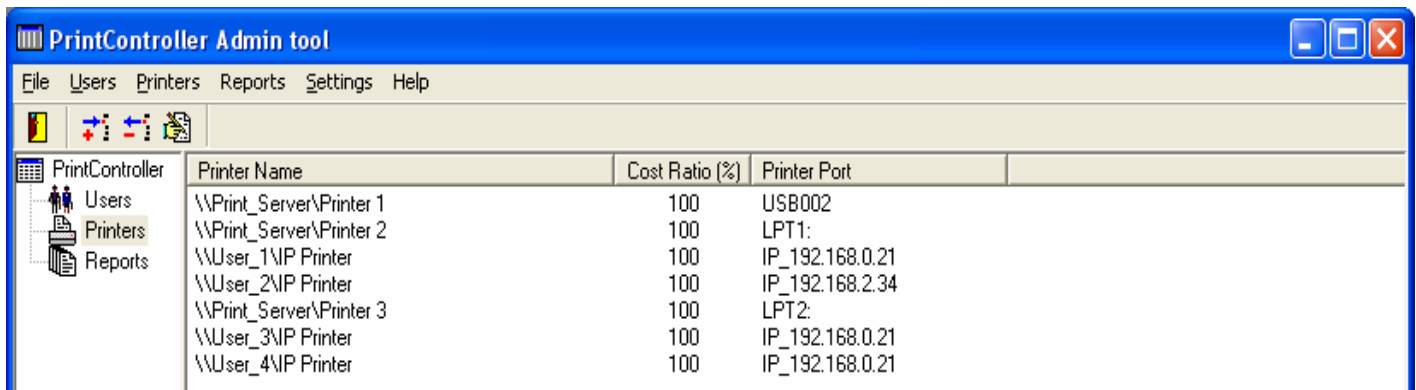

In order to group all clients who use a particular IP printer, and to assign a virtual name for the printer, click "PrintController Virtual Printers".

Click the "New" button to create a new virtual printer, enter the name of the printer (for example "IP Printer first floor"), then choose the IP printer(s) from the list (for example all the IP printers with IP address of 192.168.10.21 as shown in previous page), and click "Merge". All the print jobs of the selected printer(s) then will be assigned to the selected virtual printer.

After the grouping is done, the printers list will have one virtual printer name that represents all previous IP printers. It is possible to create virtual printers as necessary. When a virtual printer is deleted, all IP printers grouped under it, will be returned to the printers list.
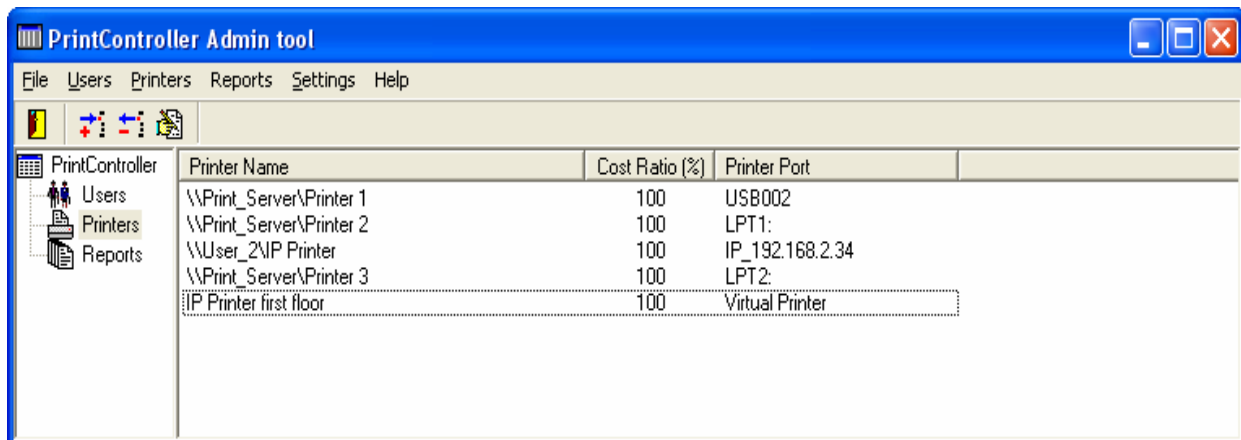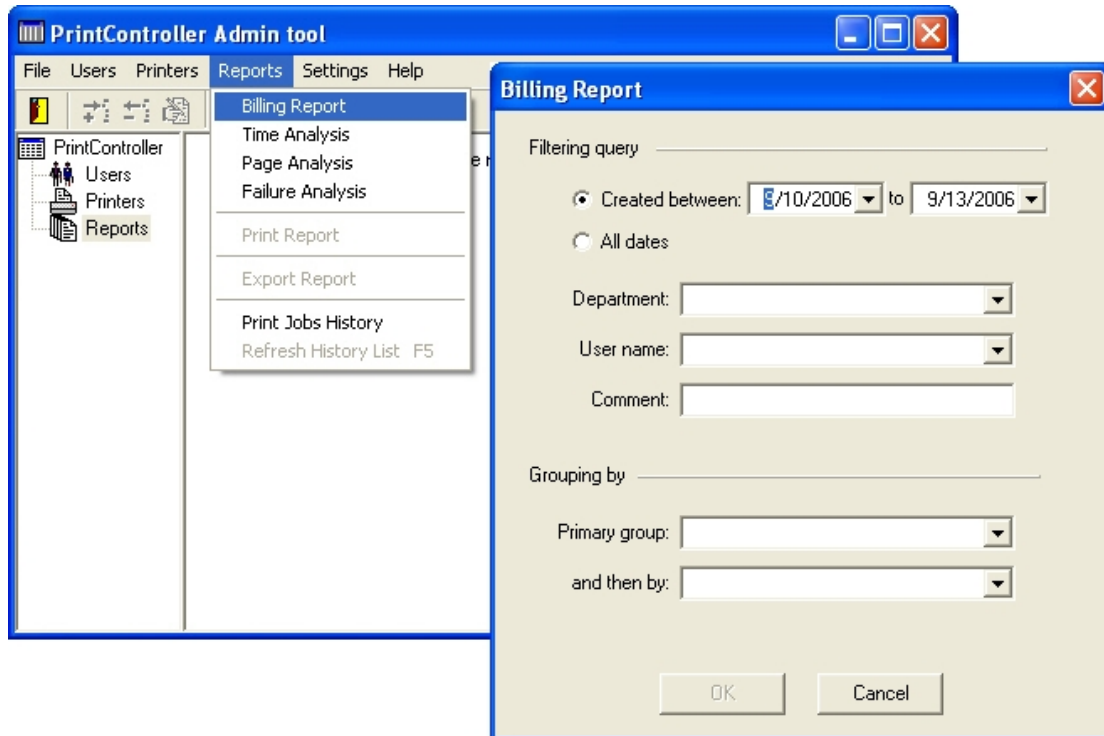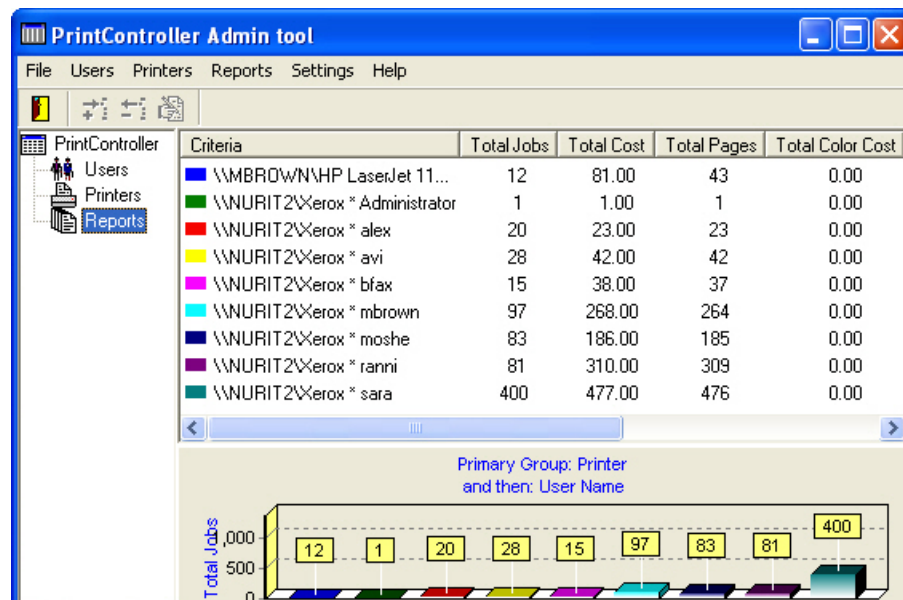
Reports

PrintController report generator provides a powerful management tool to the enterprise management; it provides several different types of reports.

Billing Reports

The billing reports can be sorted by, Department, User, and Comments (the Comments field can represent Specific Projects, Customers, Specific Jobs, etc.), grouped by: Department, Users, Printers, and Comments.


The billing report provides a table and graphical presentation, and includes the following information: Total Jobs, Total cost, Total Pages, Total Color cost & # of pages, Total Black & White cost & # of pages. All reports can be ranked and listed according to each of the parameters.
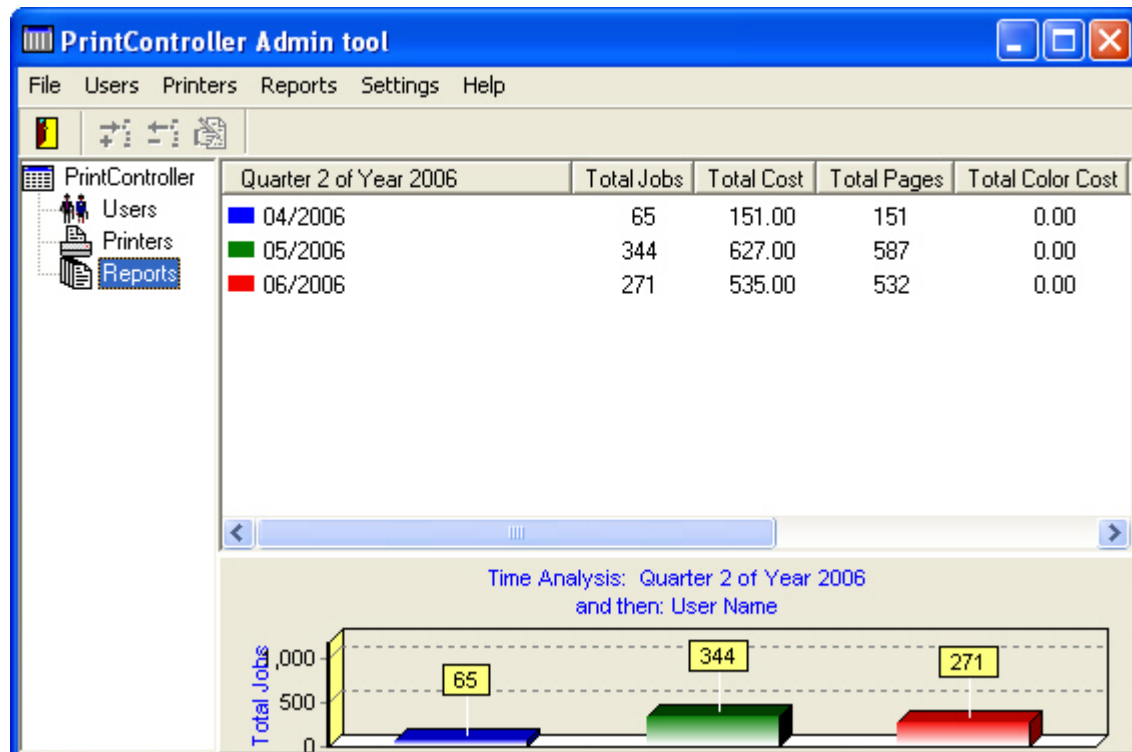
Time analysis reports

Time analysis reports provide the user with reports related to print loads within a defined time window; this can be a day, a week, a month, a quarter, and a year. These reports can help the customer streamline the print load balance, and increase the efficiency.
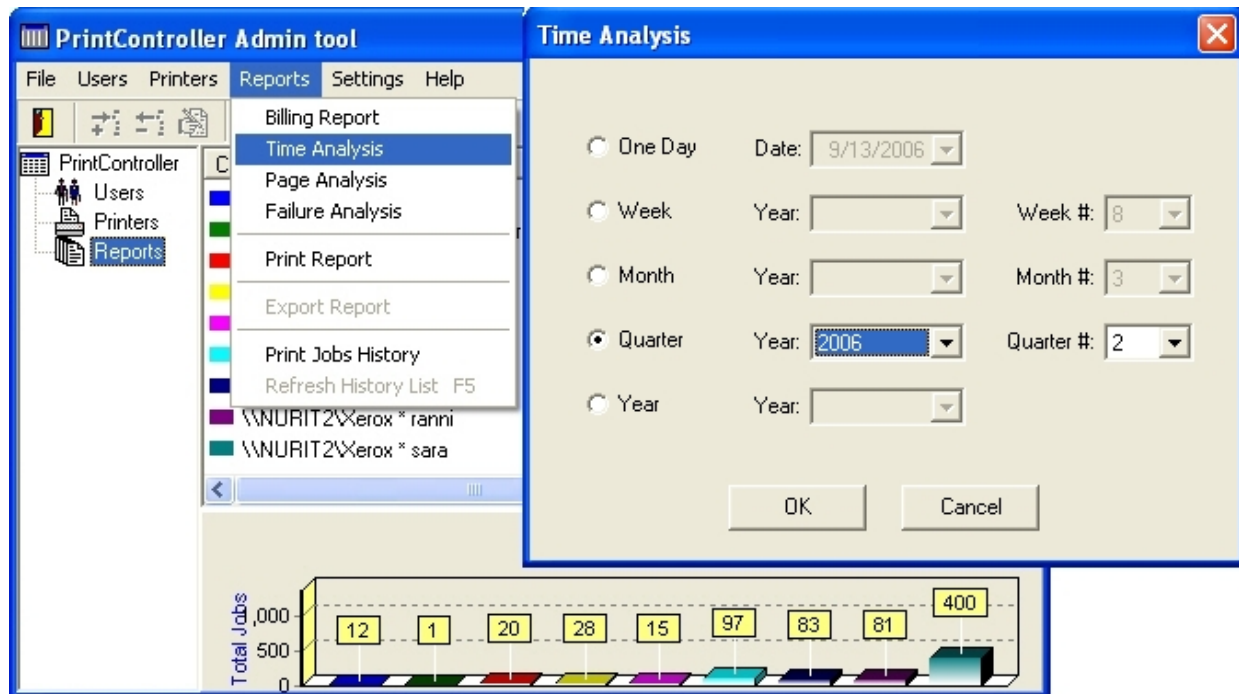

This specific report shows the printing activity during three quarters (Q1, Q2, Q3). The information provided in the report, helps the system manager analyze the printing activity trends, and make decisions accordingly.
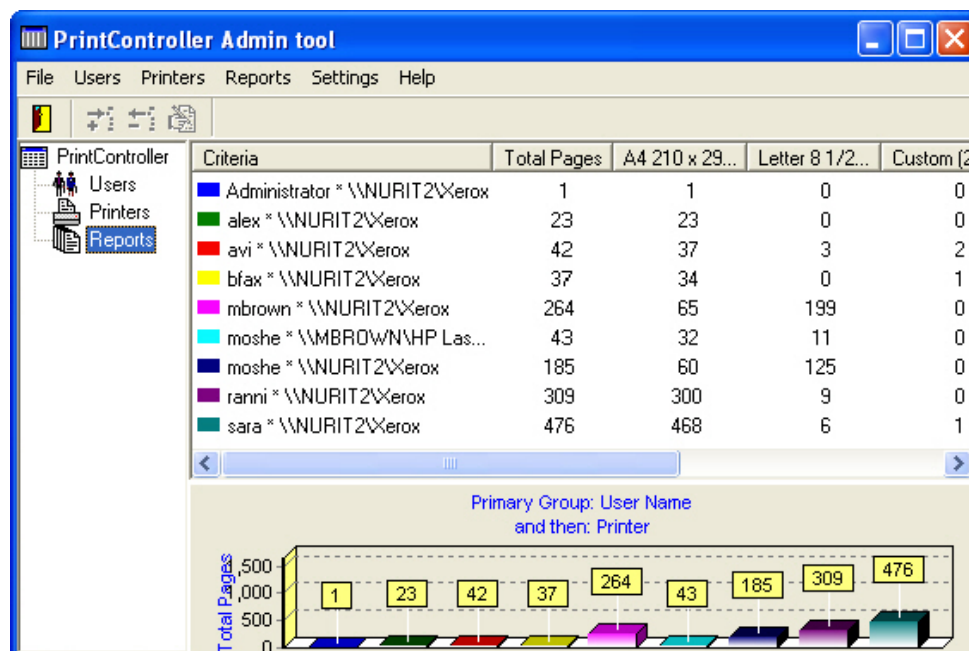
Page Analysis

The page analysis reports can be sorted by, Department, User, and Comments (the Comments field can represent, Specific Projects, Customers, Specific Jobs, etc.), grouped by: Department, Users, Printers, and Comments.
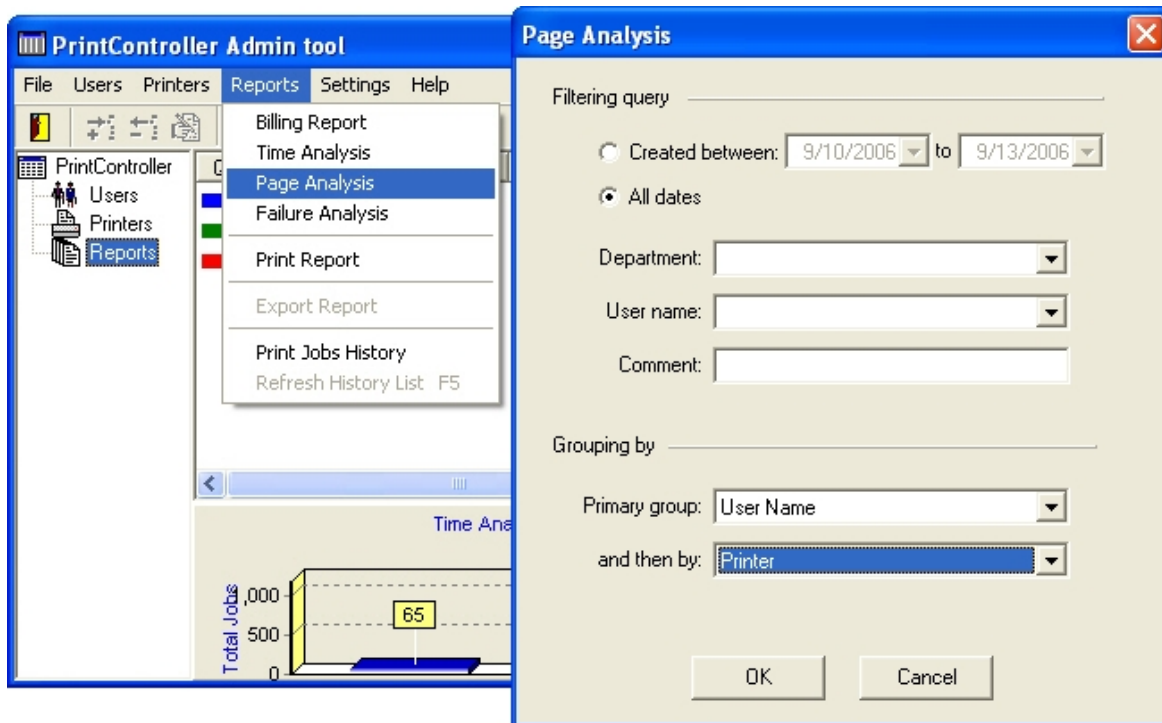

The Page Analysis report provides a table and graphical presentation. The system analyzes the 4 most common page sizes and displays on the report each of them separately, all other page sizes are displayed in the "Other" column.

Failure analysis reports

The failure analysis reports provide the user with reports related to print failures within a defined time window. These reports help the customer analyze printer's downtime and levels of service.
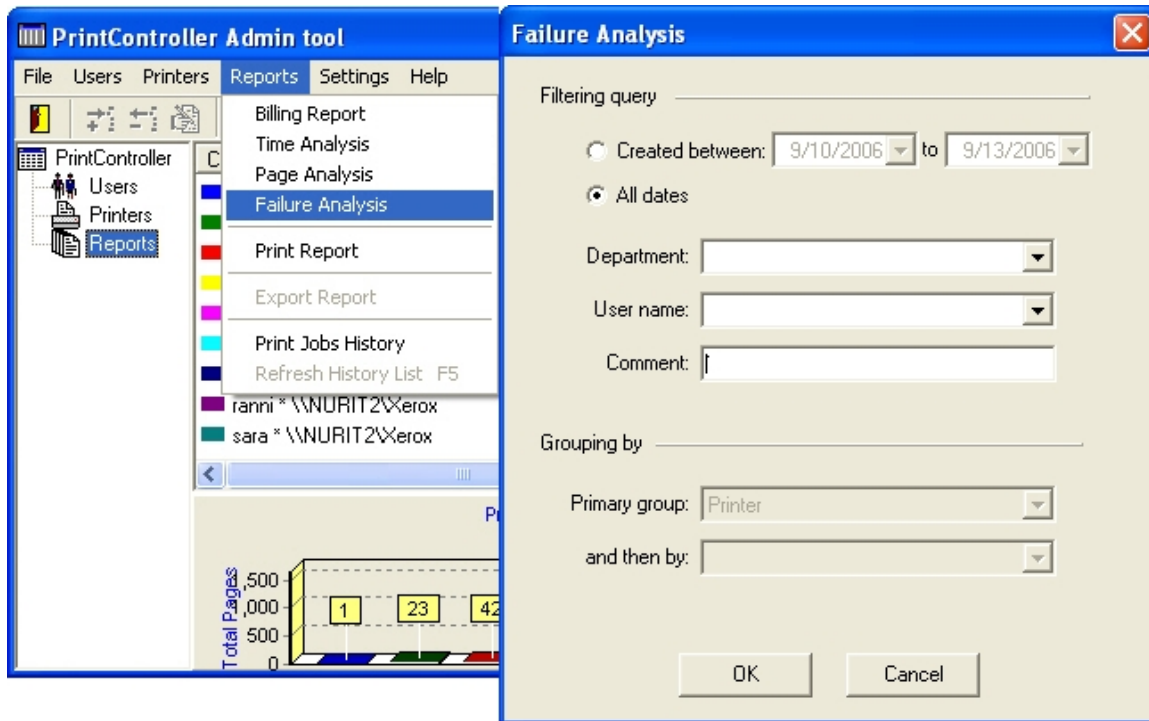

This report indicates the number of print job failures, in relation to total print jobs. This information helps the system manager make decisions in regards to the improvement of level of service.
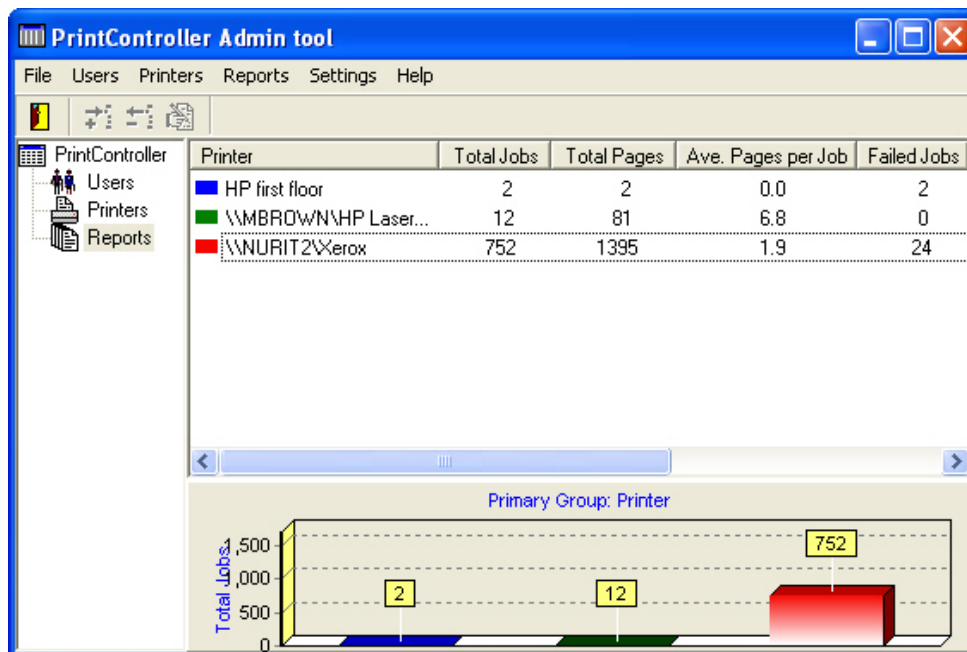
Any report on the screen can be printed out, chose the "Print Report" function, select a printer and print.

In situations when the reports data base needs to be exported to an external application, it is possible to use the "Export Report" function.

In order to view a complete report, it is possible to use the "Print Jobs History" function. Chose the dates and select the categories, and the print jobs history will appear on the screen.
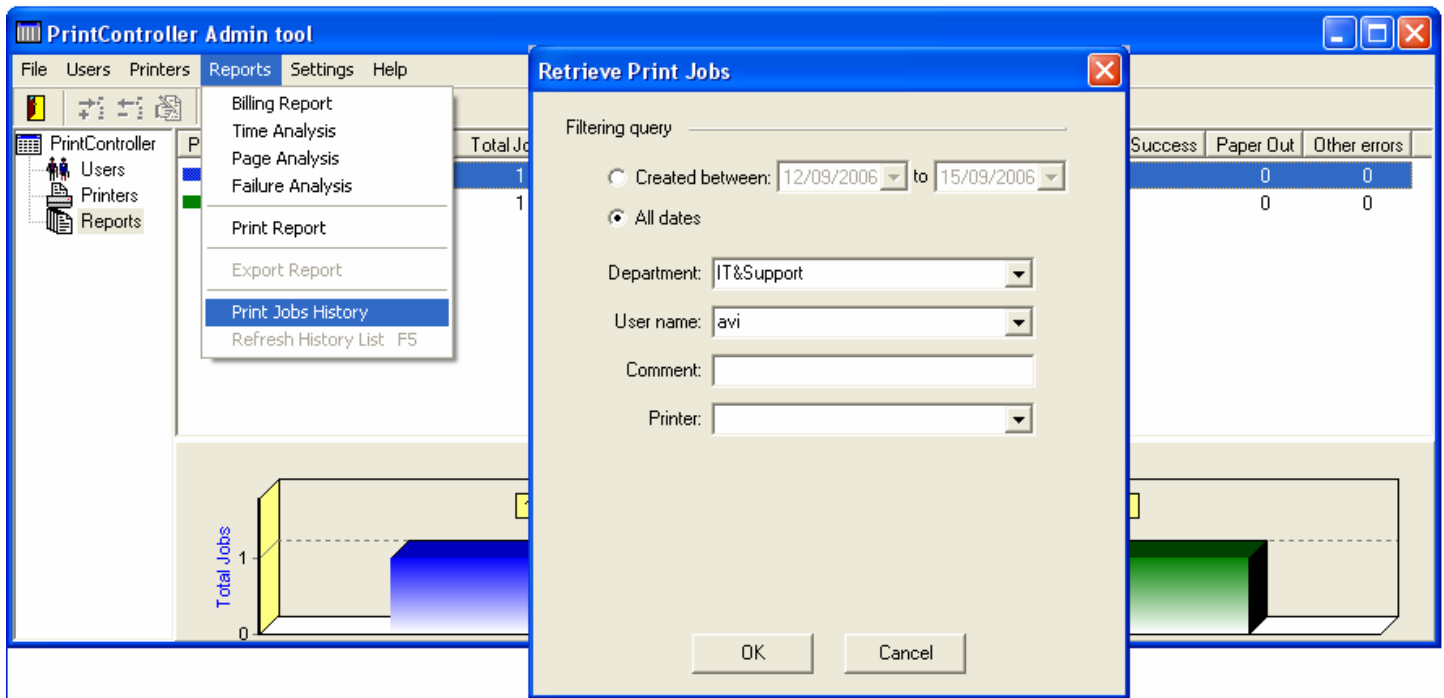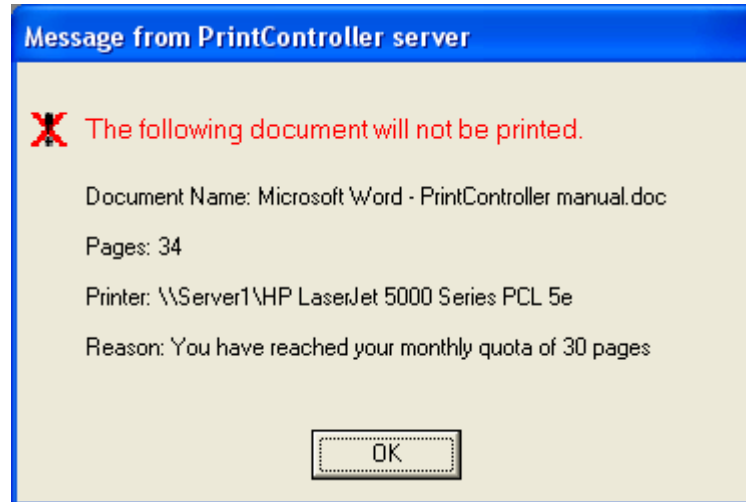

The following screen shot shows a more detailed report. The report can be sorted by clicking on the title of any column.

User Quota

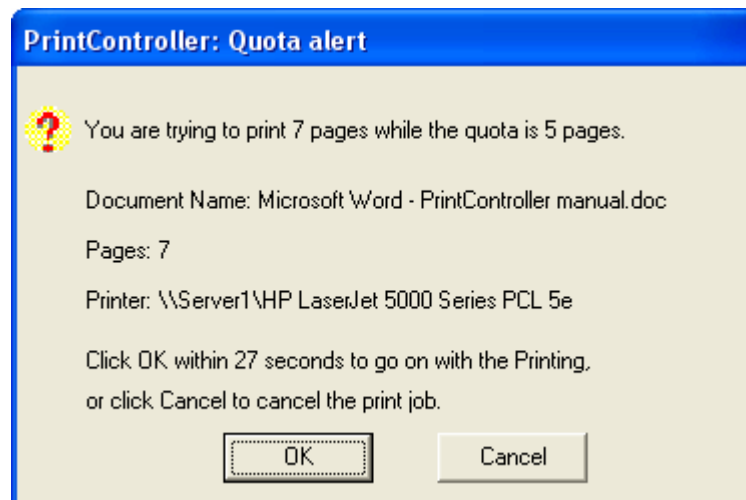When a user reaches his monthly quota, he is not able to print jobs on any printer in the organization, unless his quota was extended.

Message from PrintController server

✗ The following document will not be printed.

    Document Name: Microsoft Word - PrintController manual.doc

    Pages: 34

    Printer: \\Server1\HP LaserJet 5000 Series PCL 5e

    Reason: You have reached your monthly quota of 30 pages

   [OK]

Long Printout warning

When a user attempts to print a long print job, a message will pop up asking the user to confirm that he really intends to print that many pages. In case the user confirms by clicking the "OK" button, the job is sent to be printed, in case the user does not confirm until the 30 seconds count-down timer stops, then the job will no be printed.

This mechanism was designed to eliminate situations when a user wants to print one page out of a large print job, and by mistake marks to print the whole job.

PrintController: Quota alert

❓ You are trying to print 7 pages while the quota is 5 pages.

    Document Name: Microsoft Word - PrintController manual.doc

    Pages: 7

    Printer: \\Server1\HP LaserJet 5000 Series PCL 5e

    Click OK within 27 seconds to go on with the Printing,

    or click Cancel to cancel the print job.

       [OK]   [Cancel]
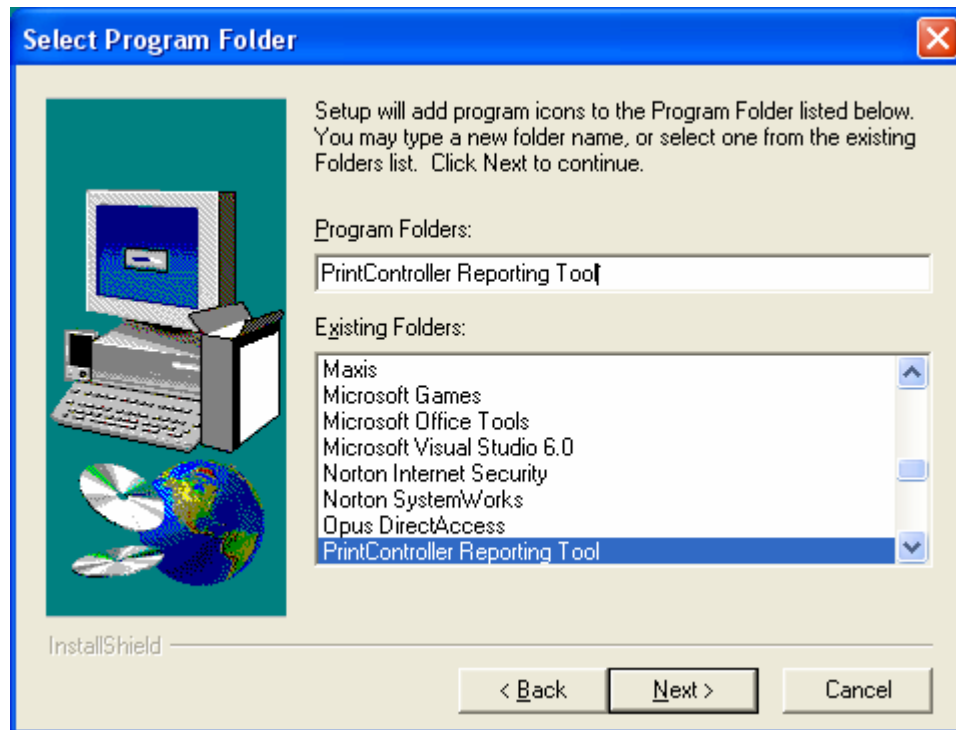
PrintController Reporting Tool Setup

The Remote Monitor allows running PrintController's reports from any designated desktop PC on the network. Double click the **Setup.exe** file. Click "**Next"** at the "Welcome" Dialog box.
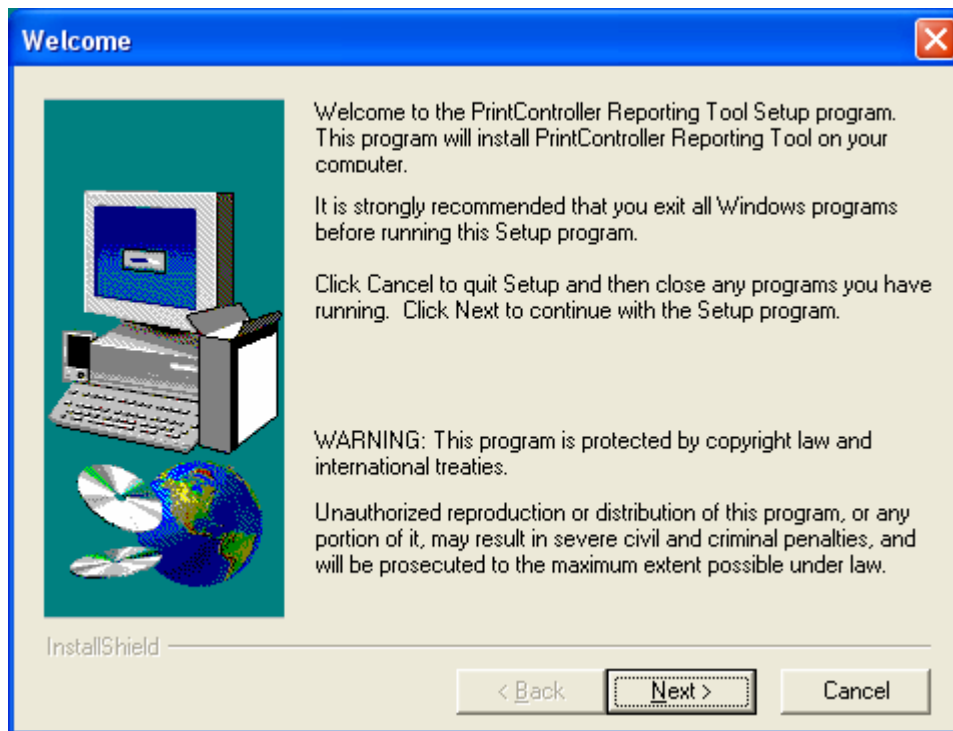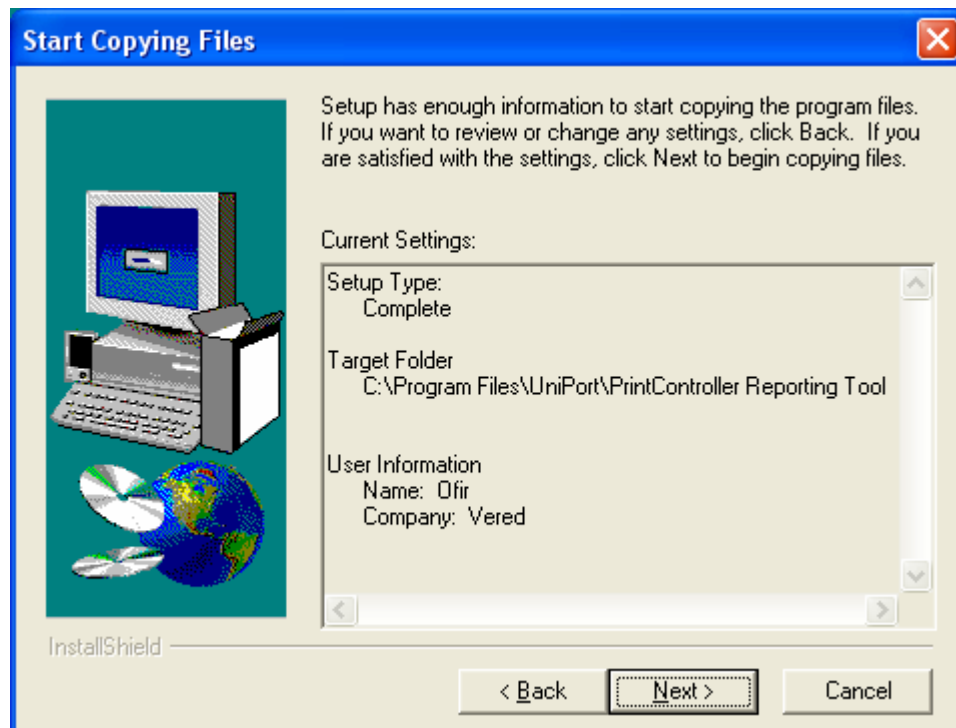

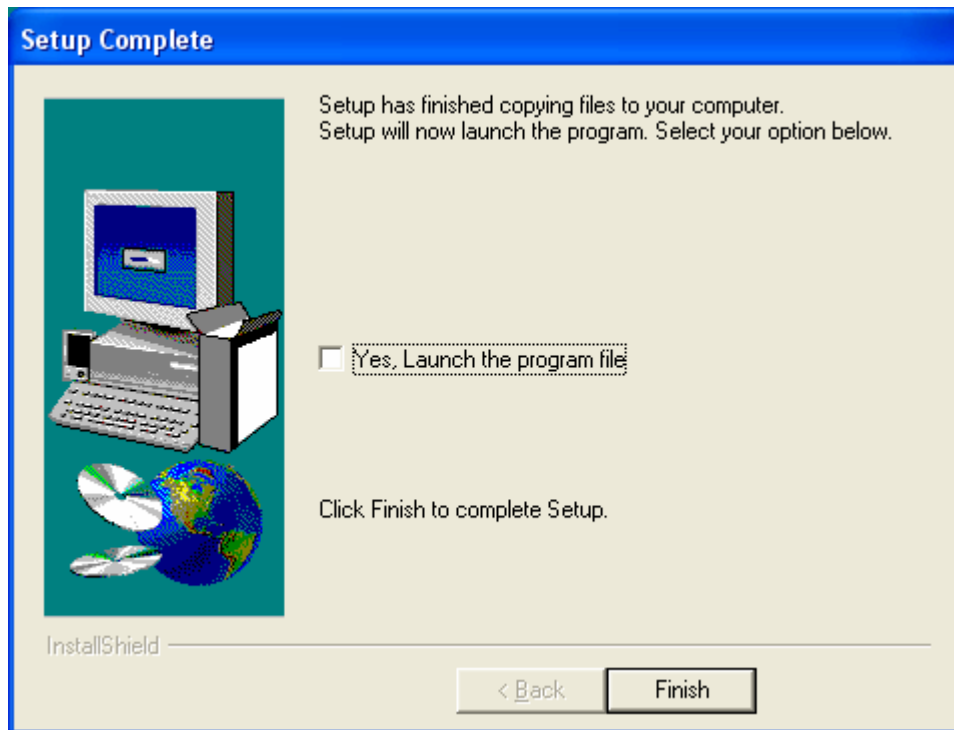Browse and define the installation location on the disk and Click "**Next".**
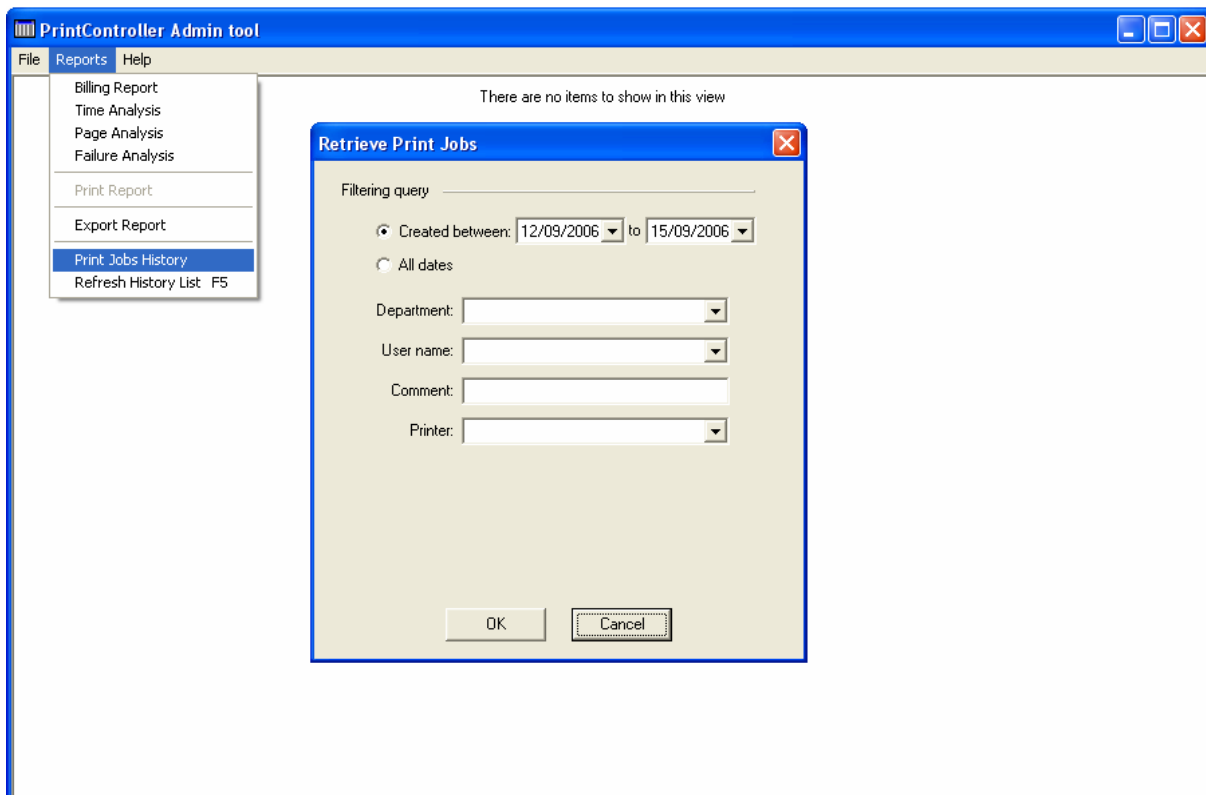
Click "**Next**" on dialog box.

Click "**Next**" on dialog box.

Click "**Finish"** and exit setup.

Remote Monitor allows running all of PrintController's reports from any designated desktop PC on the network.

PrintController version 2.1 is the property of Uniport Ltd.