

**Reform.12**

**Modular Object Scanning Technology**

**Print To Me**

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## About Print To Me

Print To Me allows users to print documents from a PC to any Ricoh MFP as opposed to printing to a predetermined MFP or printer. MFPs are constantly being used by other employees, or can be unavailable due to paper jams, lack of supplies, or malfunctions. Printing documents to Print To Me enables users to access them from any MFP on the network, therefore if one MFP is unavailable, users can go to the next without reprinting the document or having to worry about privacy. Print To Me also employs LDAP authentication for a secure printing environment. Both wired and wireless users will benefit from having a single printer (Print To Me) installed on their computers while giving them the flexibility to retrieve their printed documents from any MOST enabled Ricoh Device.

## Workflow with Print To Me

- User prints a document to Print To Me through a standard Print Driver.
- The Print To Me software recognizes the user, computer and document name that is printed. All of this information is stored on the MOST server.
- The user can go up to any MFP on the network, login into MOST and print their documents.
- MOST identifies the user and lists the user's documents on the MFP screen. The users can then request the print job, preview the print job, or delete it.
- The user can select the document or documents needed, and print them directly to the MFP. They also have the ability to delete the document after printing.
- All login requests and communication between the MFP and the MOST server are encrypted using 1024 bit RSA Key encryption.

## System Requirements

- Reform 12 Enterprise or Reform 12 PDC
- MOST Plugin
- Print To Me Plugin
- For Evaluation and Demonstration: Windows XP, Windows 2003 Server, Windows Vista, Windows 7 or Windows 2008 Server (64 Bit Operating Systems are Supported)
- For Production Systems: Windows 2003 Server or Windows 2008 Server (64 Bit Operating Systems are Supported)

All required Reform software downloads can be found at [www.fabsoft.com](http://www.fabsoft.com) >> Downloads section.

## Hardware Requirements

Please reference both the Reform 12 Documentation and MOST Documentation regarding Hardware Requirements.

## Prerequisites

1. Make sure both Reform and MOST are installed and working correctly with your Ricoh MFPs. You should be able to login from the MFPs successfully, if not, please refer to the MOST installation and setup guide.
2. The MOST Server must be on the same domain as the Active Directory server.
3. Enable LDAP in the MOST Manager. This setting is located in the MOST Manager by going to **Edit >> Settings** and navigating to the **Authentication** tab. A Domain must be specified if using the Active Directory server type. Please consult the MOST Manual for more information about the Authentication tab. Users should be able to login to the MOST on the MFP using their Active Directory/LDAP user name.

## Installation

To install Print To Me to your existing Reform 12 installation, you will need to download and run the Print To Me installation executable



Step through the prompts until the setup begins. Allow the Print To Me installation to complete.

The default installation directory for Reform 12 and its plugins is **C:\Program Files\Reform...**. If you have changed the path during the Reform installation routine, or if you are using a 64 bit operating system, please refer to the appropriate path instead of the default one referenced throughout this documentation.

## Plugin Registration and Licensing

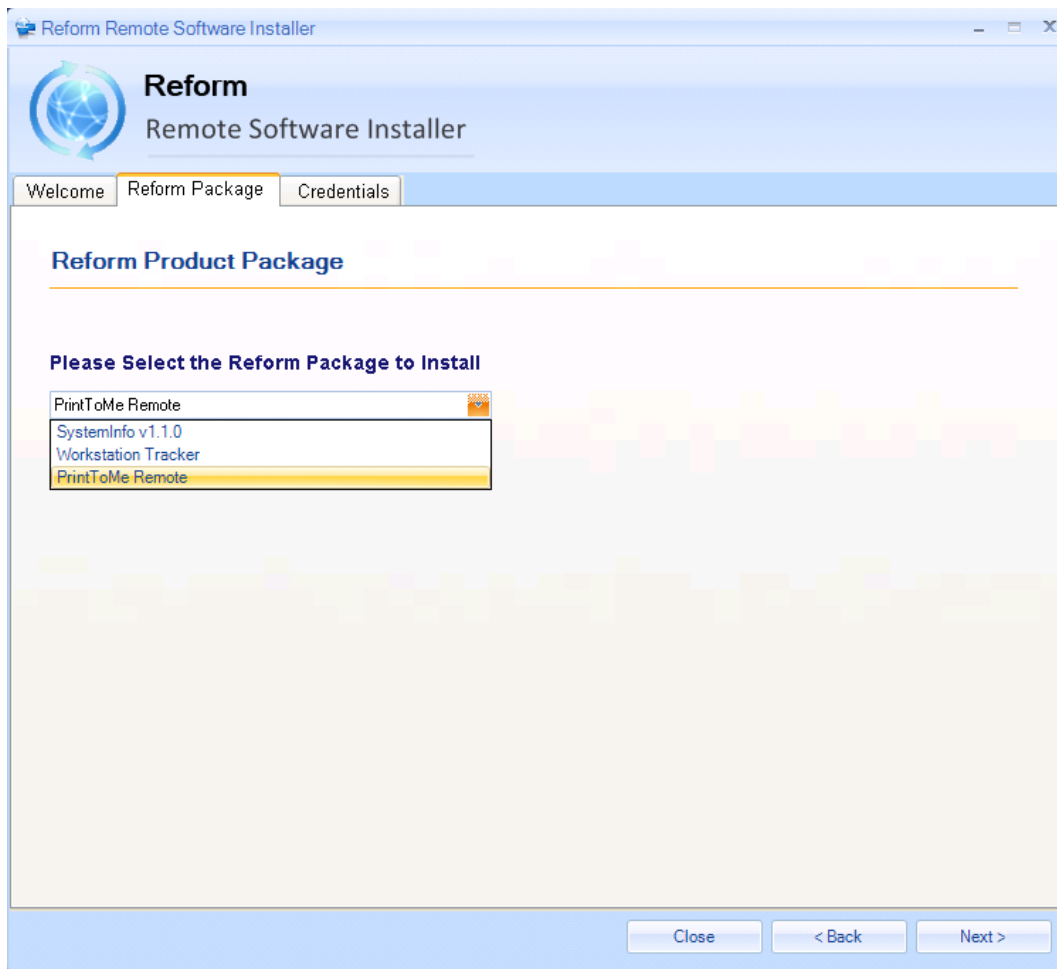
When evaluating Reform 12, the plugins will also be in an evaluation mode for that period of time. Once Reform has been purchased and licensed, the required plugins must also be licensed in order to continue functioning correctly.

Please see the “Reform 12 Licensing and Registration” section of the Reform 12 User Manual for more information on how to license Reform 12 Plug-ins. After the license is entered, the Reform Spooler will need to be restarted to refresh the licenses. More information regarding the Reform Spooler Service can be found in the Reform 12 User Manual.

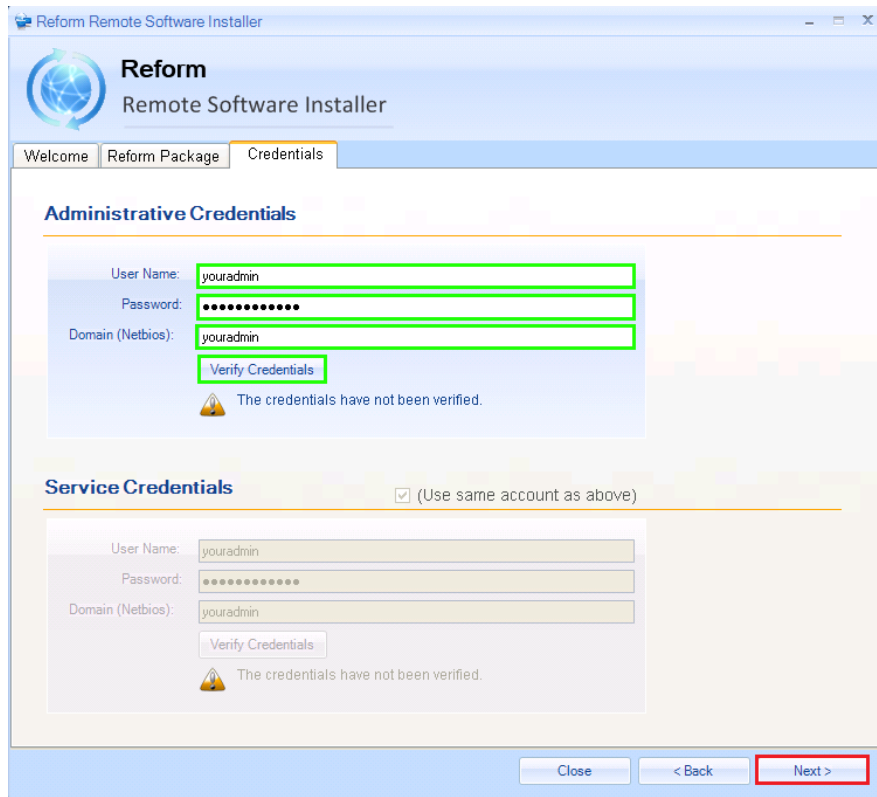
### Install PrintToMe Remote Software:

Select Start\Reform\Print\_To\_Me\PrintToMe Remote Deployment Tool to install PrintToMe Remote..

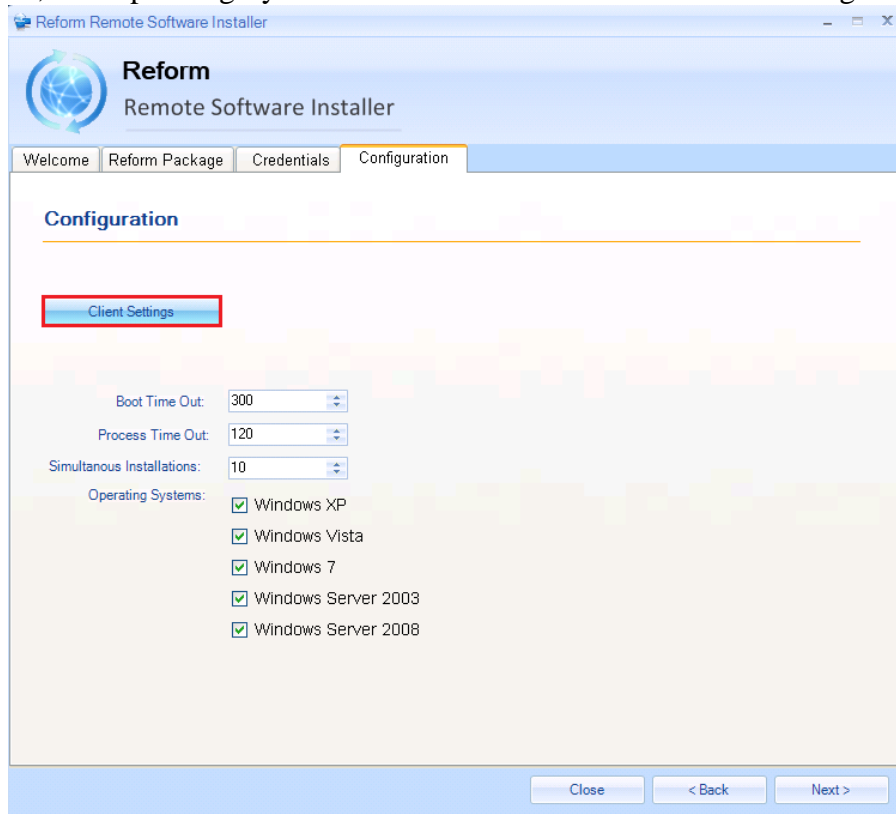
Select PrintToMe Remote from the drop down and click **Next**.



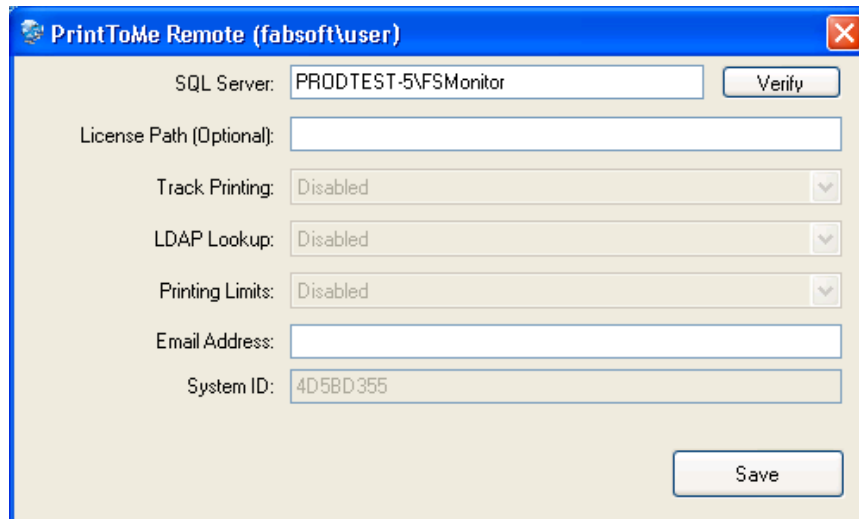
On the Credentials tab populate the Username, Password, and the Domain. NOTE: You must you an administrative account preferably the same account you use to run your services. Click on the **Verify Credentials** button and after verifying your credentials click **Next** to be taken to the Configuration tab.



On the Configuration tab specify the Boot Time Out, Process Time Out, Simultaneous Installations, and Operating Systems. You can leave these as default settings.



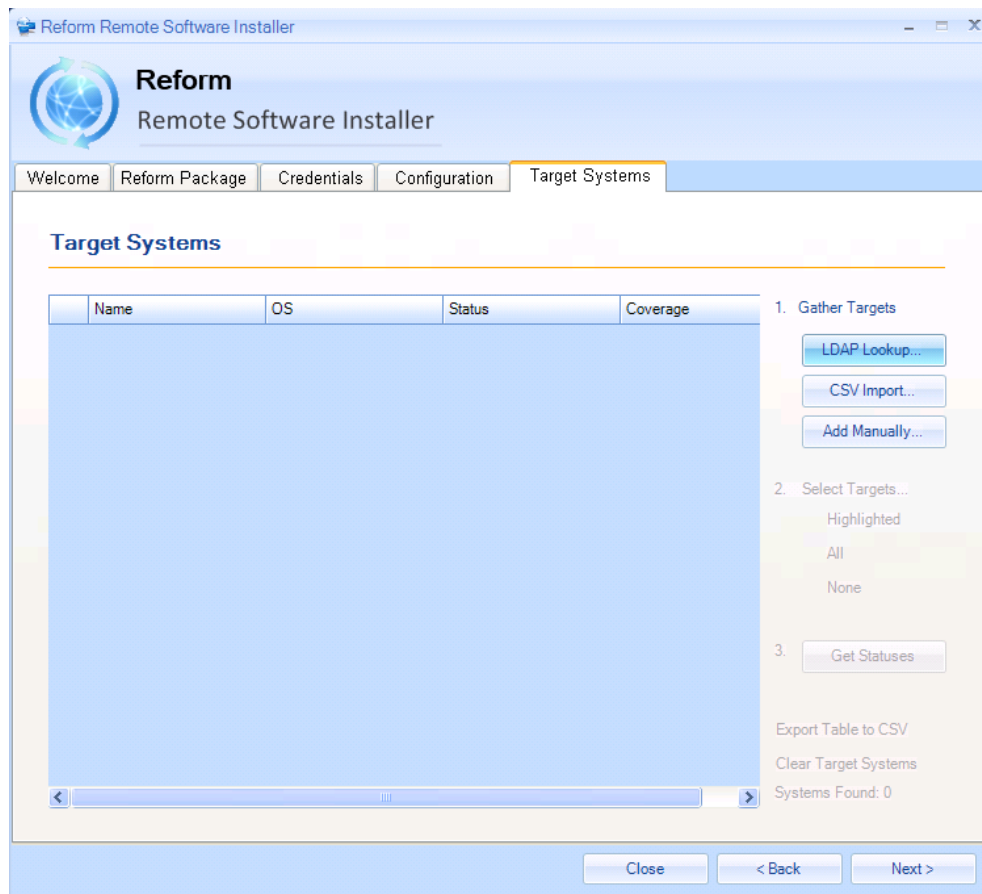
Click on the **Client Settings** button to view your PrintToMe Remote settings. These are the settings that will be pushed to individual workstation.



The image shows a dialog box titled "PrintToMe Remote (fabsoft\user)". It contains several fields and buttons:

- SQL Server: PRODTEST-5\FSMonitor (with a Verify button)
- License Path (Optional): (empty text box)
- Track Printing: Disabled (dropdown menu)
- LDAP Lookup: Disabled (dropdown menu)
- Printing Limits: Disabled (dropdown menu)
- Email Address: (empty text box)
- System ID: 4D5BD355 (text box)
- Save (button)

On the Target Systems tab you can specify your workstations via LDAP query, CSV, or manually entering the Computer's Name. Click on the **LDAP Lookup** button to display your LDAP Structure. You can select the group or sub group to display the list of the computers within the group.

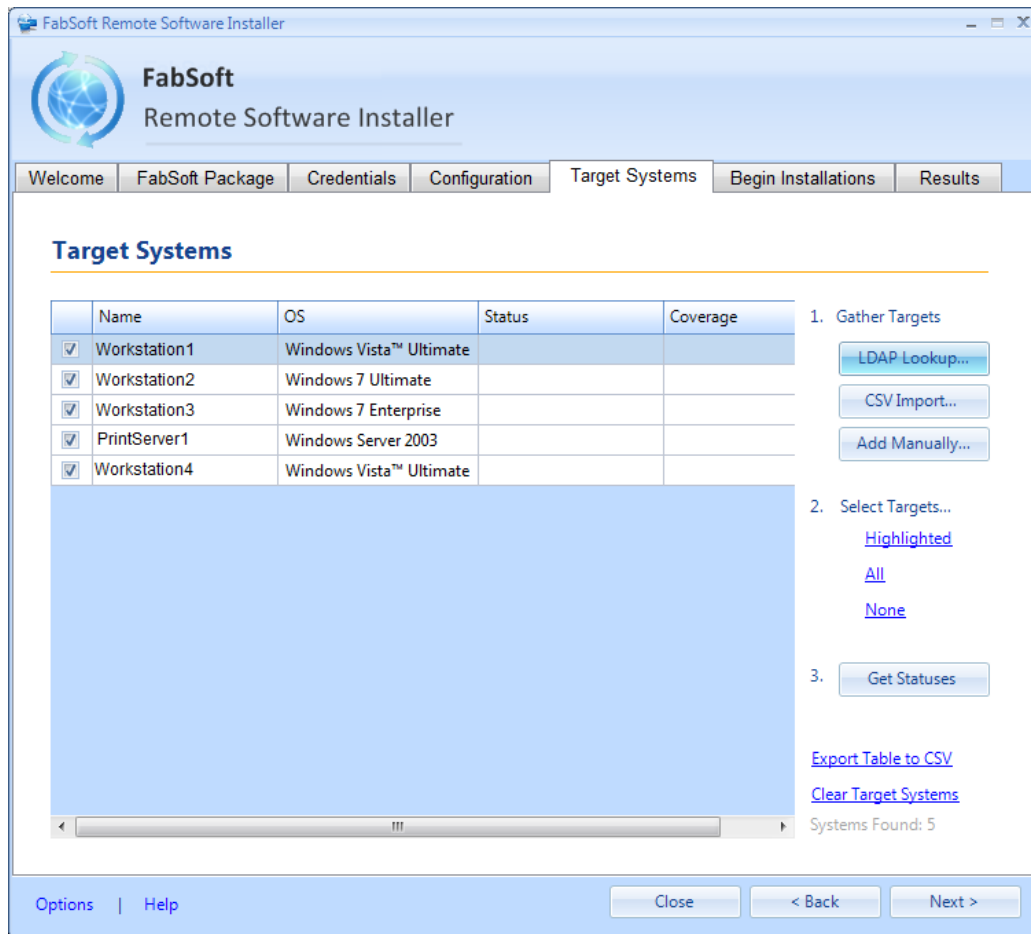


The image shows the "Reform Remote Software Installer" application window, specifically the "Target Systems" tab. The window has a navigation bar with tabs: Welcome, Reform Package, Credentials, Configuration, and Target Systems. The main area is titled "Target Systems" and contains a table with columns: Name, OS, Status, and Coverage. The table is currently empty. To the right of the table, there are three steps:

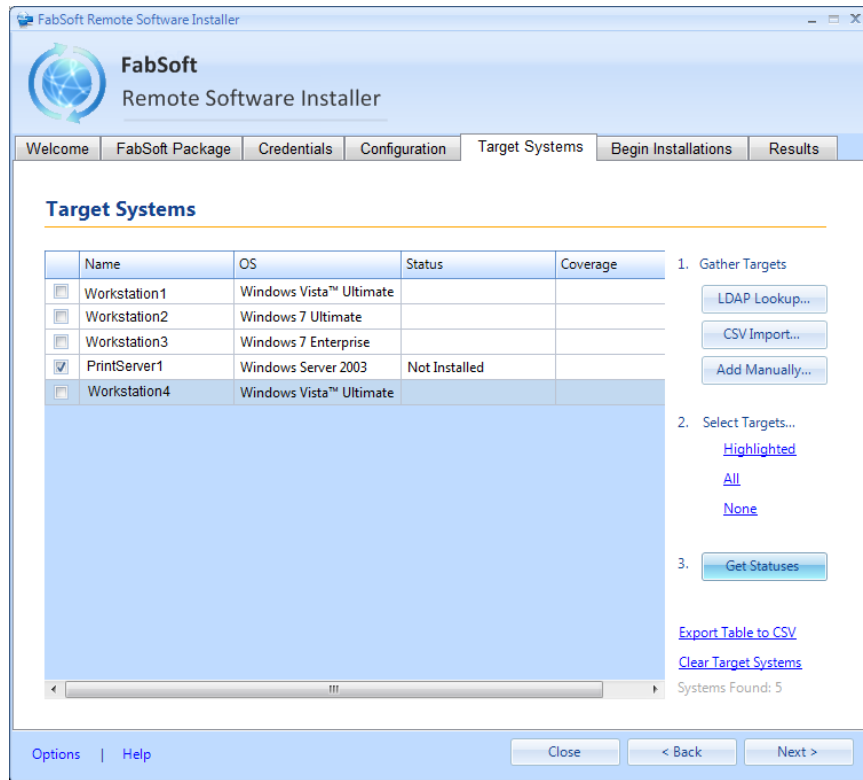
1. Gather Targets
  - LDAP Lookup...
  - CSV Import...
  - Add Manually...
2. Select Targets...
  - Highlighted
  - All
  - None
3. Get Statuses

Below the steps, there are buttons for "Export Table to CSV", "Clear Target Systems", and "Systems Found: 0". At the bottom of the window, there are buttons for "Close", "< Back", and "Next >".

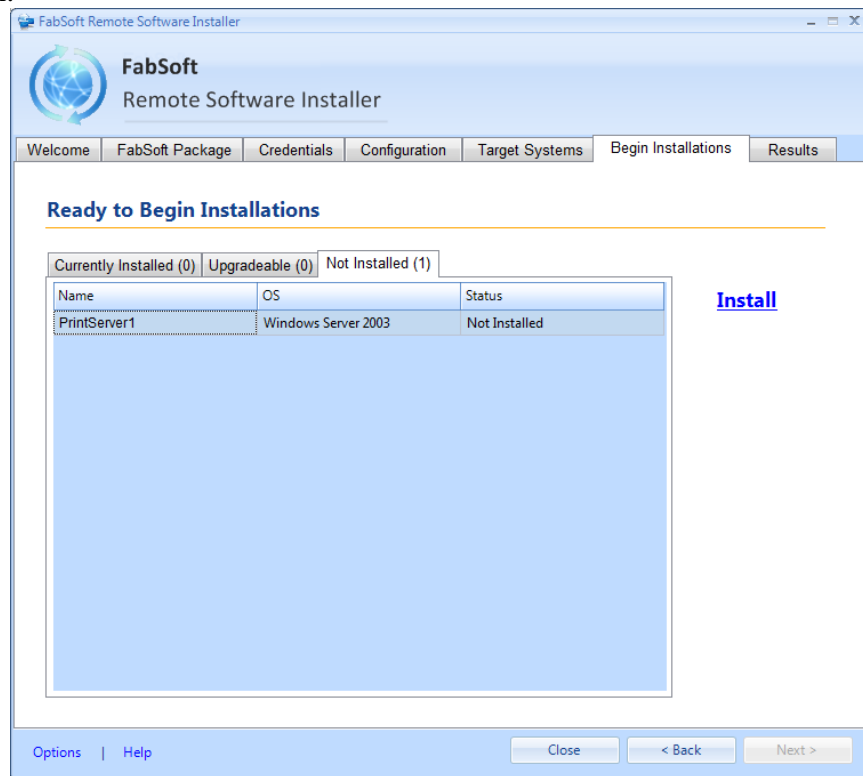
All the computers will be selected on default, you can deselect by clicking on the checkbox. For demo purposes only one of the workstations will be selected which is PrintServer1.



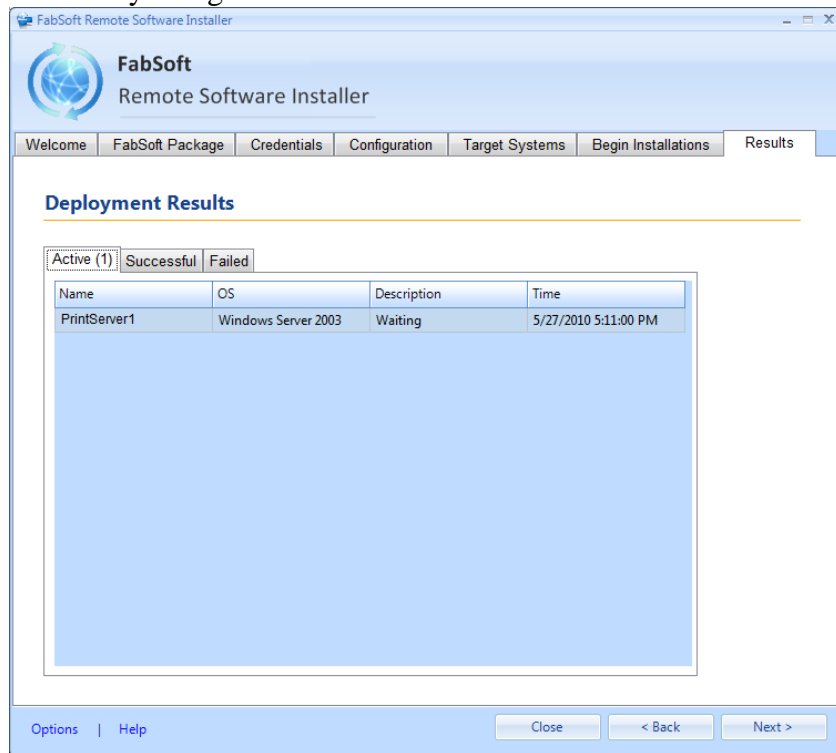
Click on the **Get Status** button to check the status of the package you're trying to install in this case we're checking for PrintToMe. You'll see in the Status column that PrintToMe is not installed on PrintServer1.



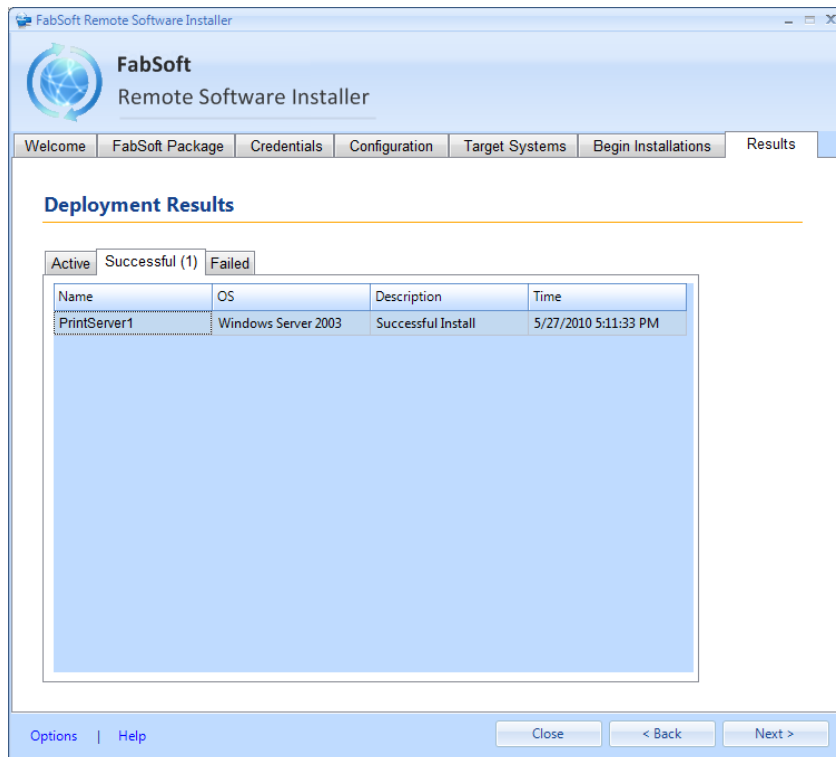
Click on **Next** to be taken to the Begin Installations tab. Go to the Not Installed Tab to view the system that we want to install PrintToMe on. Click on **Install** to begin the installation.



PrintToMe is currently being installed.



You will be taken to the Results tab. Within this tab you will see the following status tabs: Active, Successful, and Failed. In the Successful tab you can see here we successfully deployed PrintToMe on PrintServer1.

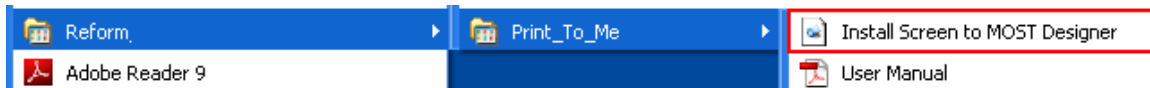


## Importing MOST Screen

Please refer to the MOST manual for more information regarding MOST terminology, MOST Setup and Connection Test.

[http://fabsoft.com/Downloads/ReformEnt12/MOST/Reform12\\_MOST.pdf](http://fabsoft.com/Downloads/ReformEnt12/MOST/Reform12_MOST.pdf).

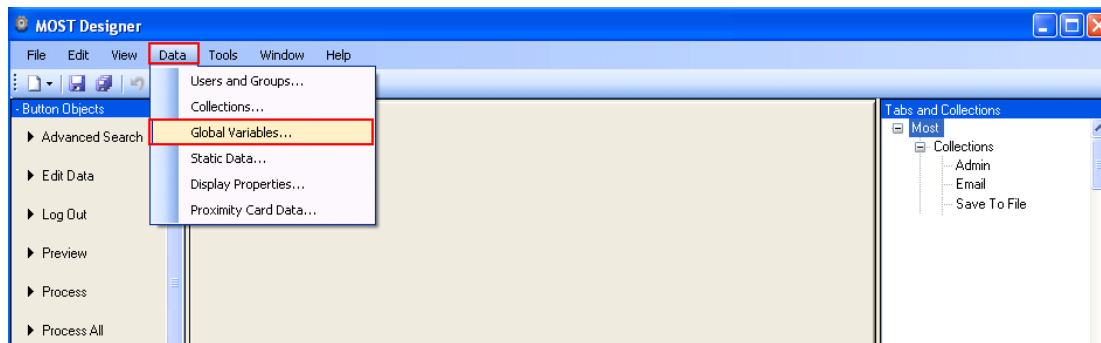
To import MOST screens go to **Start> Programs> Reform...> Print\_To\_Me> Install Screen to MOST Designer**.



## Setting Global Variables

We need to setup the communication between MOST and PrintToMe. To do so, we have to configure certain parameters in MOST's Global variables screen. If the MOST Designer is not already open, go to **Start>Programs> Reform... >MOST>Designer**.

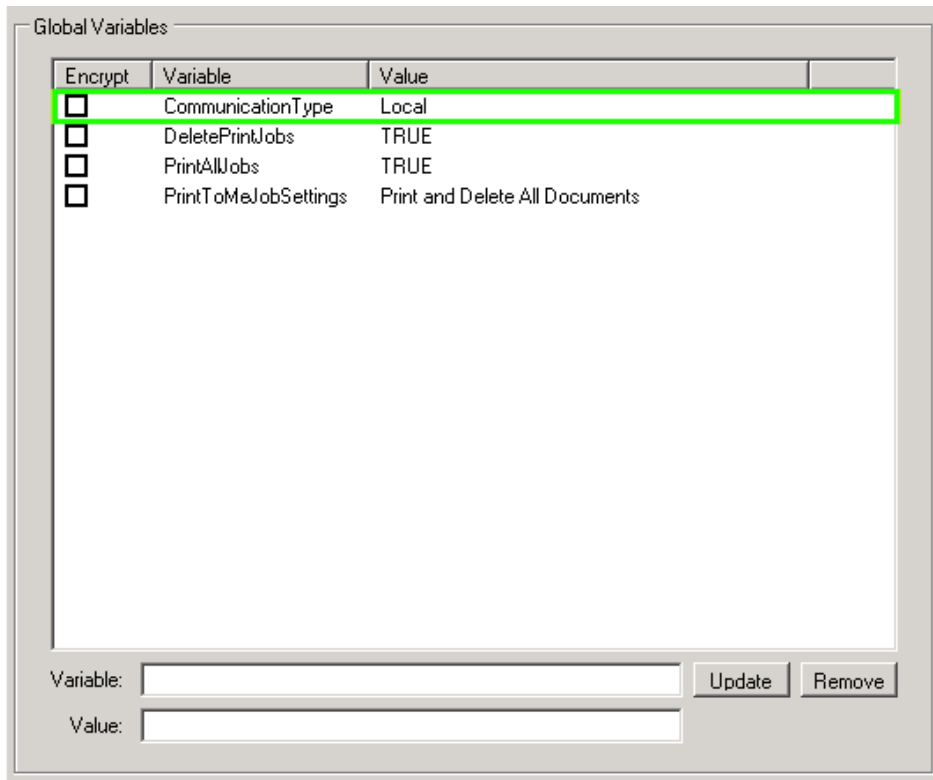
Go to **Data>Global Variables**




There is a single PrintToMe global variable that is able to be configured. PrintAllJobs and DeletePrintJobs are also associated with Print To Me but they should always be True. Please see note below for more information. Select the variable, choose one of the available options from the drop down list and then click the update button.

1. Variable Name =**CommunicationType** Value= **Local**

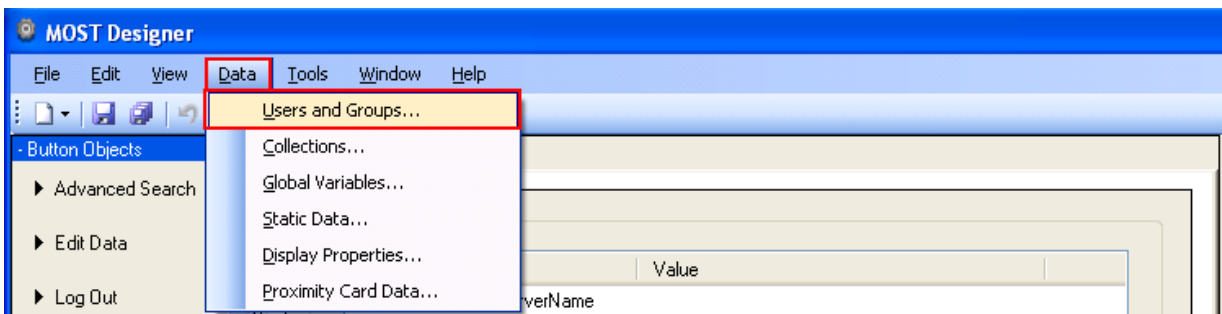
**\*CommunicationType specifies whether or not the MFP is reachable by IP from the MOST server. If the MFP is reachable by IP from the MOST server, the CommunicationType should be set to "Local". If the MFP is on a remote (wide area) network, the CommunicationType should be set to "Remote".**



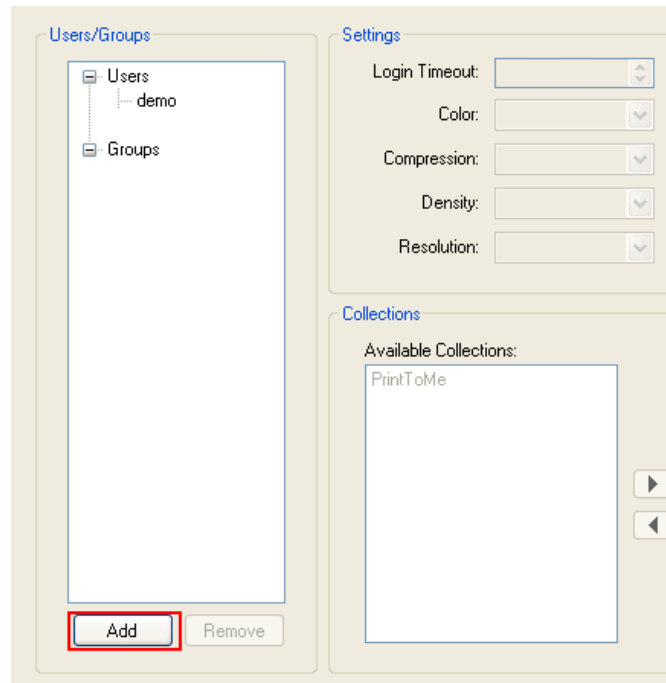
Click **File>Save** or use the small save icon  to save all the global variables.

### Assigning Collection to Users

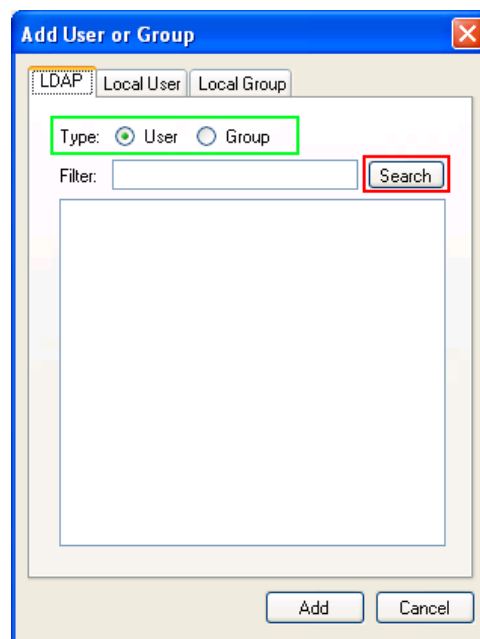
1. Go to **Start>Programs>Reform...>MOST>Designer**
2. On the MOST Designer toolbar click on **Data>Users and Groups**



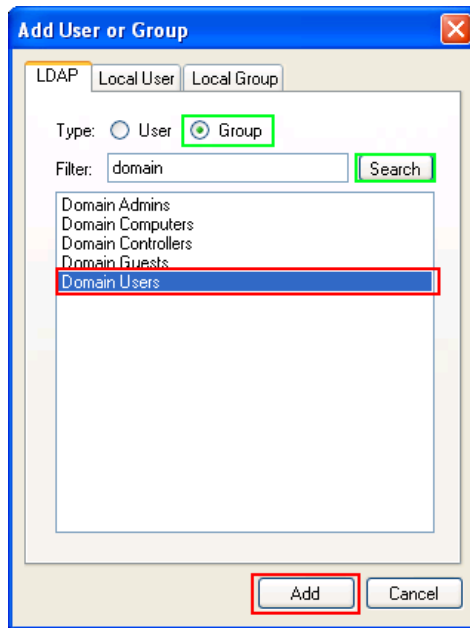
3. Click on **Add**.




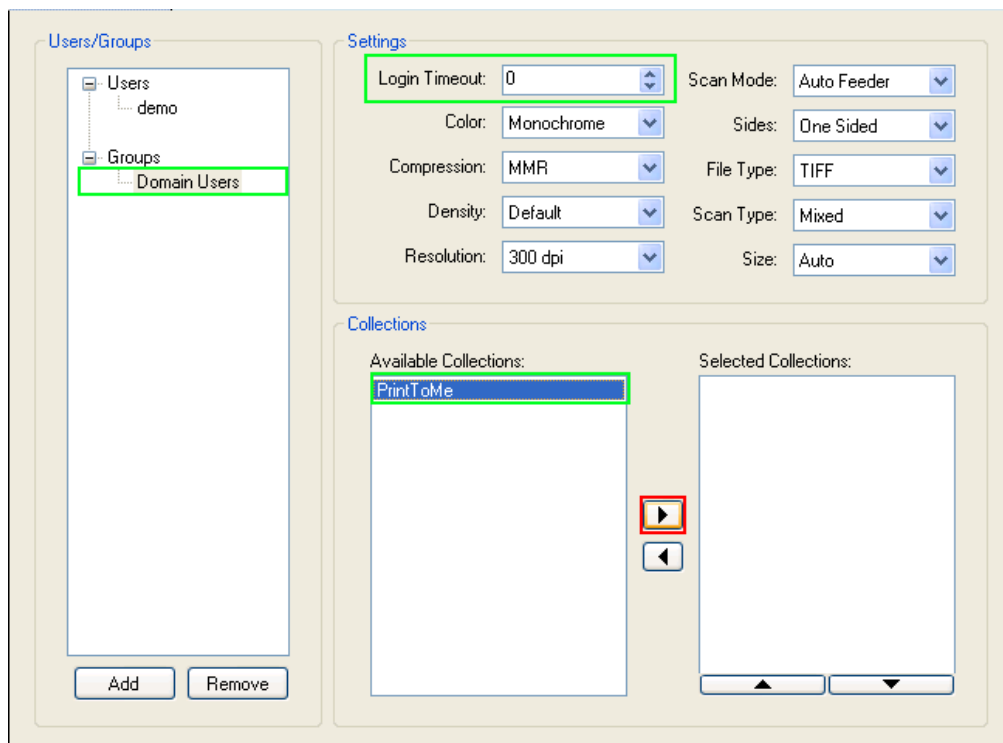
4. You will need to add an Active Directory username or group you are planning to log in as.




5. For the demonstration, we will be using the LDAP Group **Domain Users**



- 6. Highlight your username or group and select Print To Me from Available Collections box and click the  to add PrintToMe. **Tip: Set Login Timeout to 0 to disable the automatic timeout.**




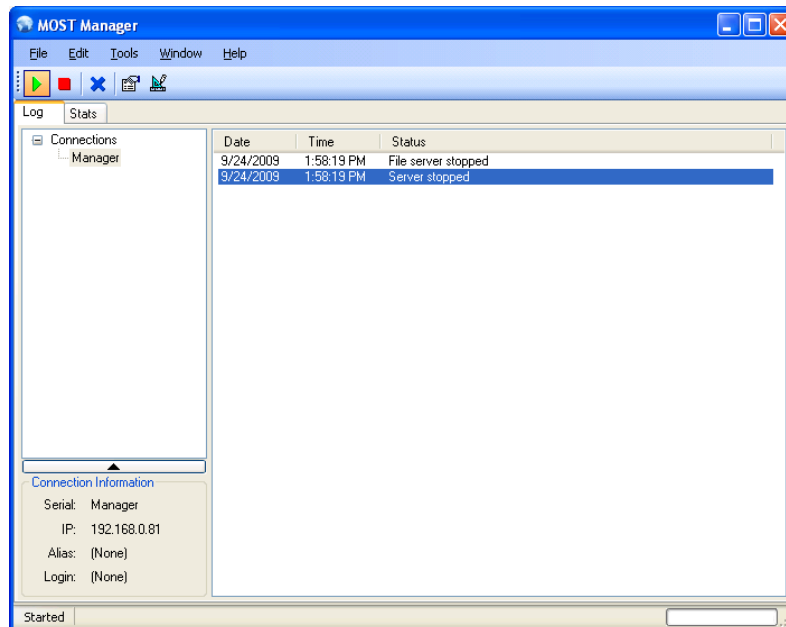
- 7. Go to **File>Save** or use the small save icon  to save your changes.

## MOST Configuration to Enable Remote Printing of Documents at the MFP

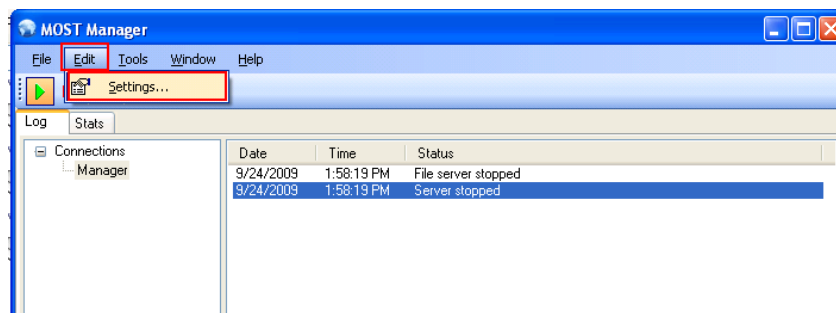
\*If **CommunicationType** global variable is set to **Local** (MFP can be reached by IP on a local network), this step can be skipped. In order to print documents remotely (when a MFP is not reachable by IP), the **CommunicationType** should be set to **Remote** and the following steps should be taken.

**Remote Printing** must be enabled in the MOST Manager if the **CommunicationType** is set to **Remote** in the Global Variables configuration.


1. To do so, first make sure MOST Manager is open by going to **Start>Programs>Reform...>MOST>Manager**. It may be running in your task bar, so check for the small  icon and double click on it to bring up MOST Manager.



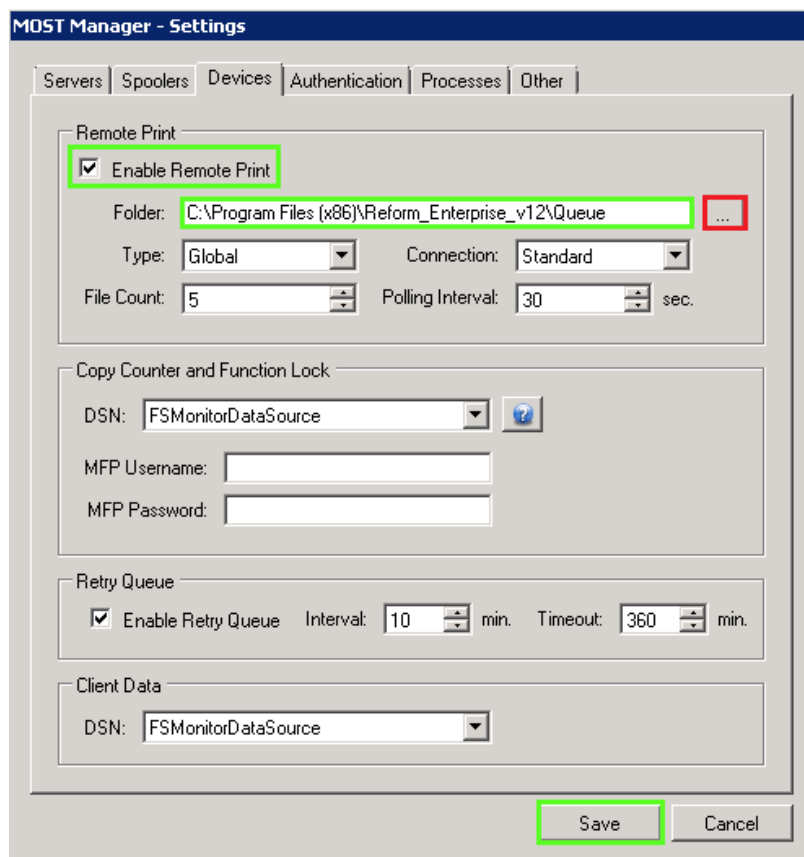
2. Go to **Edit > Settings**



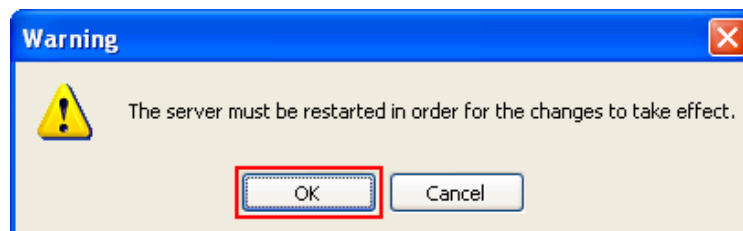
3. Go to the **Devices** tab. Here we need to check the **Enable Remote Print** checkbox if it is not already checked. You must also specify your Reform installation's

Queue directory which is usually **C:\Program Files\Reform...\Queue**. Use the browse button  to select this directory. The polling interval is how often the MFP will check this directory for print jobs. If 30 seconds is not optimal for your environment, please change it the desired value.

Note: The lower the interval, the more network traffic/communications will occur.



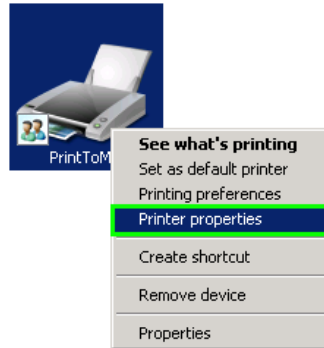
4. After you have finished configuring Remote Printing, please click the **Save** button. You will be prompted that the server must be restarted, click **OK**.



You have successfully configured MOST to enable the remote printing of documents at your MFP.

## How To Setup PrintToMe Driver

Go to **Start > Control Panel > Hardware > Devices and Printers**. Right click in the PrintToMe driver. Select **Printer properties**.

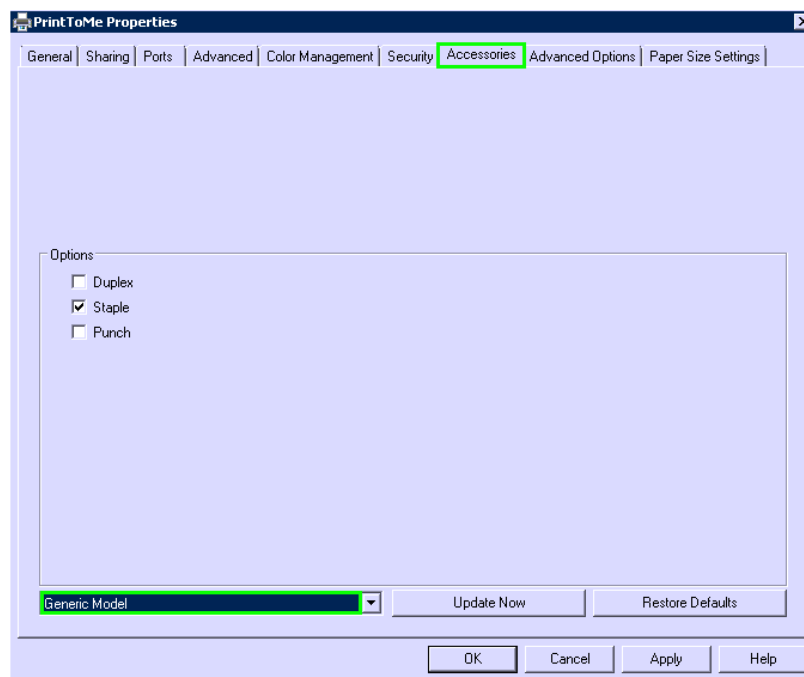


The PrintToMe driver will start updating.



In the Properties window.

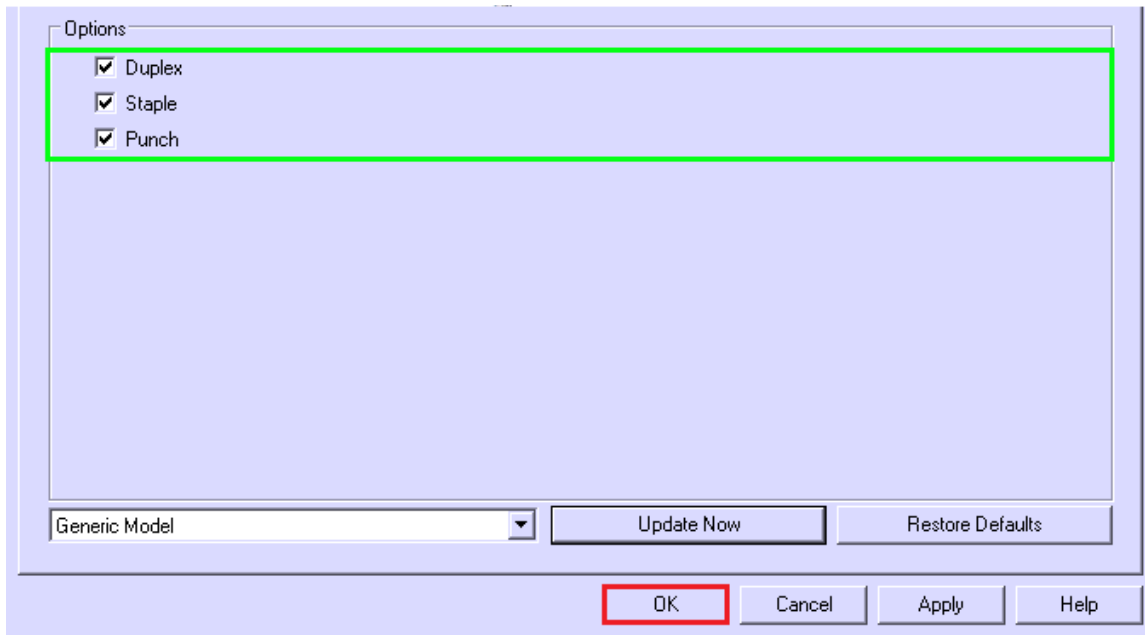
1. Click the Accessories tab. In the scrollbar choose Generic Model.



2. Click Update Now.



3. After it is done updating, check the three options listed above. Click **OK**.



### PrintToMe Tutorial

In this tutorial, we will demonstrate how to use the Print To Me print driver to send jobs to an MFP. All the documents that the user prints will be stored on the MOST Server and listed on the two Print To Me tabs. At that point, the desired document or documents can be printed directory to the MFP. In order to see the printed documents, these steps must be carried out on an actual MFP and not the MFP Emulator (MOST Desktop).

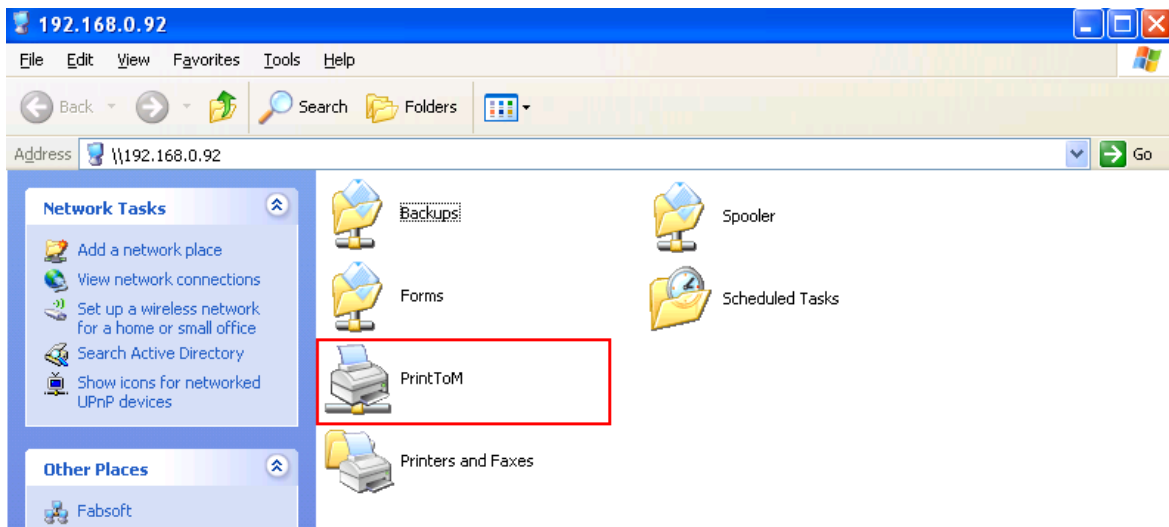
1. The installation routine automatically added a printer called Print To Me and shared it so that computers (workstations) can connect to it. In order to send a print job to the MOST server and have access to it on the MFP, users print as they normally would but instead of selecting a specific printer, they will need to select the PrintToMe printer.



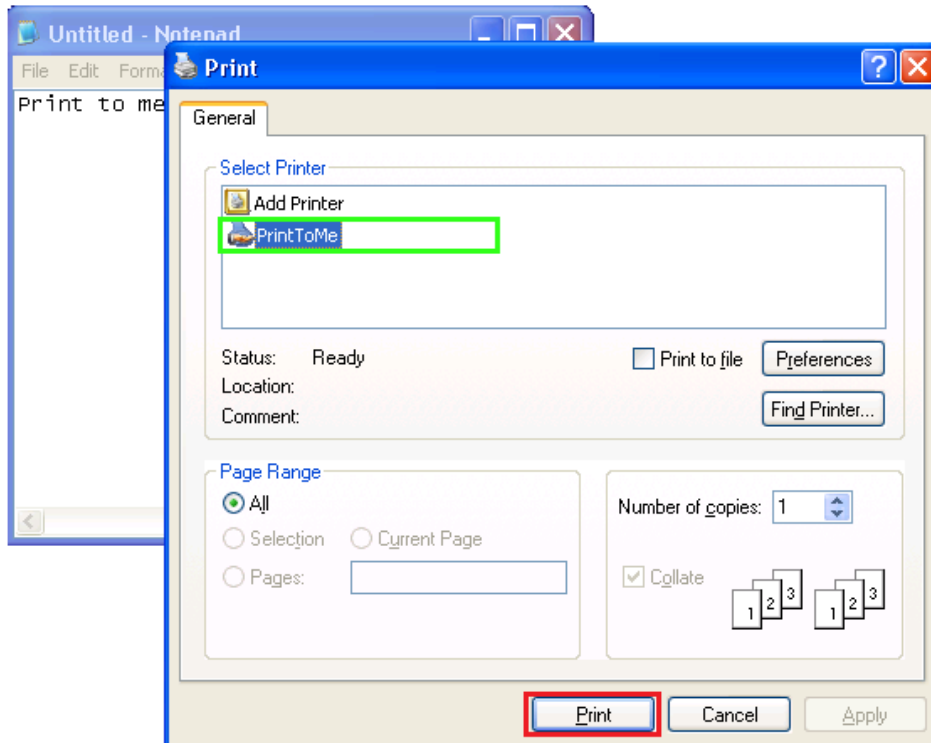
2. In order to use Print to Me, the printer first must be installed on a PC that is on the same Domain as the MOST server and Active Directory server. Log onto a PC

with the same user name that you will use to log into MOST with at the MFP. These two users names must match as only the documents printed by the user will be available when that user logs into the MFP.

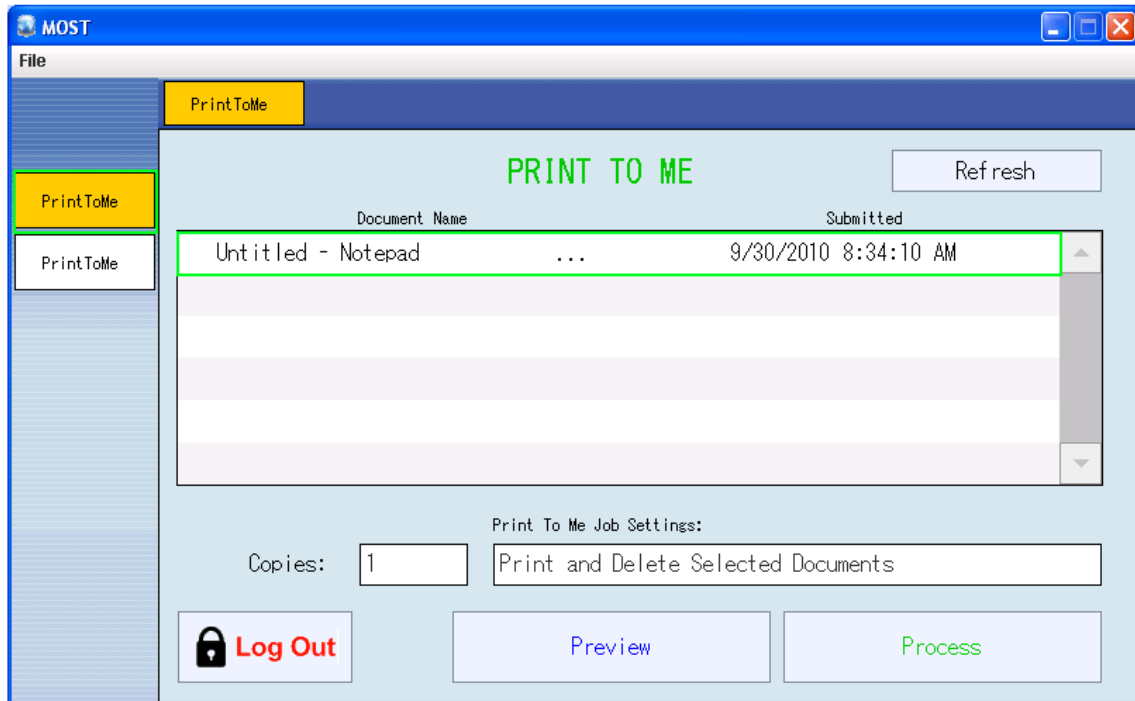
3. To install the printer on the PC, Go to **Start > Run** type in the **\\<MOST Server Name or IP>** and press **OK**. Replace the <MOST Server Name> with the name of your server example [\\mymostserver](#). This will open up the default shares for that server. The PrintToMe driver is listed as **PrintToM** in order to adhere to Windows 3.x/DOS limitations.



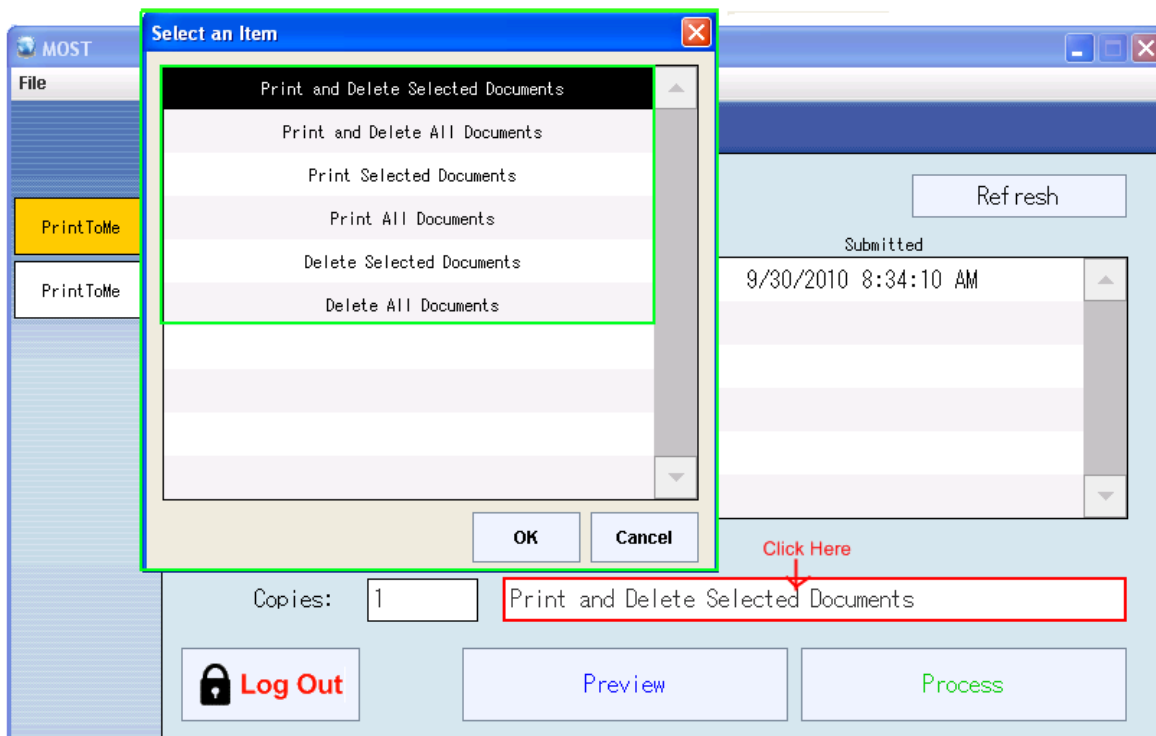
4. Double click on the “**PrintToMe**” printer and it will install automatically on your PC. To confirm the installation, navigate to **Printers and Faxes** in the Control Panel to see the newly installed printer.
5. Print a document to this PrintToMe printer from any application. For the demonstration, we will be using the “Notepad” windows application with some sample text.



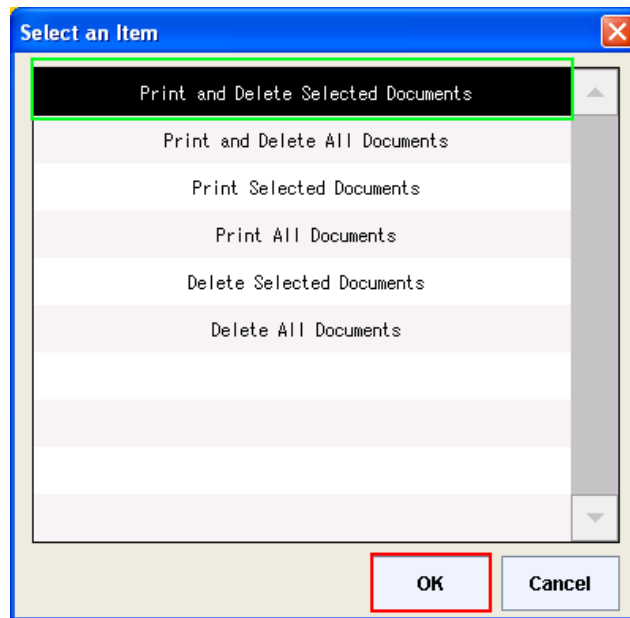
6. Log into the MFP and your document will be displayed on the Print To Me screen. There are two **PrintToMe** tabs in your PrintToMe collection. This is to offer a variety of options while printing. Either tab can be used. We will proceed with the first tab. Here you can see your document in the “Document Name” column and the date that it was submitted to PrintToMe in the “Submitted” column. The **Preview** button can be used to preview your printed documents (you must select the document before clicking **Preview**).



- 7. Click the field under **“Print To Me Job Settings:”** which current reads **Print and Delete Selected Documents**. This will prompt you with all the available printing and or deleting options.



- The default setting is to “Print and Delete Selected Documents”. Choose either this setting or any of the other printing related settings. Click **OK**.



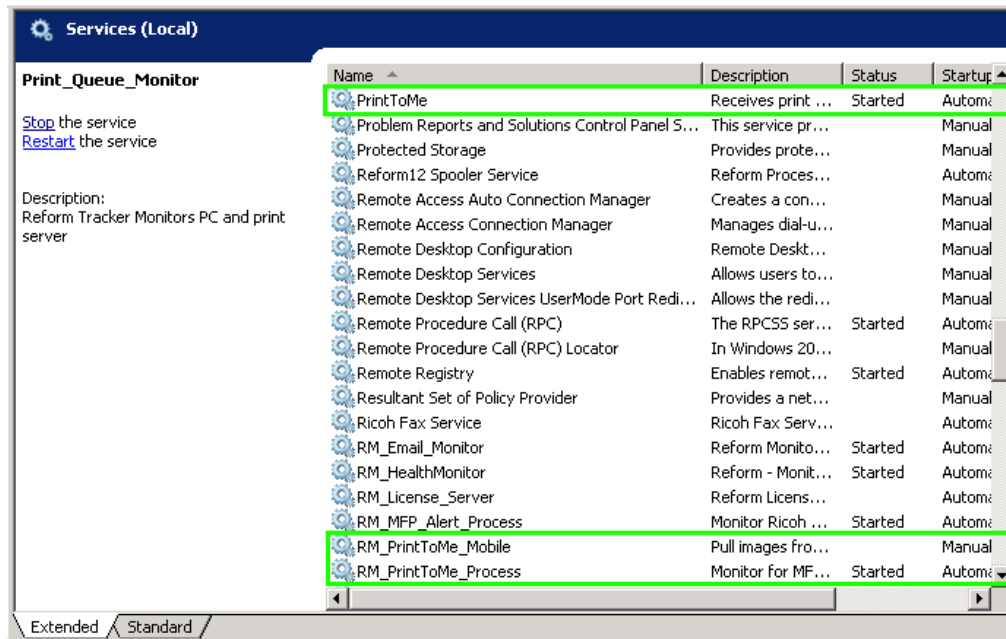
- Now select your document from the list so that it appears with a black background. If you had multiple documents, you could have selected those as well. Once selected, click the **Process** button. This will perform whatever is selected in the Print To Me Job Settings.
- After clicking the **Process** button and if a printing operation was selected, your documents should have printed to the MFP.

#### Troubleshooting:

- Make sure the users have rights to the PrintToMe printer driver, right click over the printer driver select properties and make sure the users have enough security rights.
- Make sure the **Print To Me Process** service is running (See section about services) and that it has the correct permissions.
- Make sure the **PrintToMe** service is running (See section about services) and that it has the correct permissions.
- Make sure the **Print To Me Mobile** service is running (See section about services) and that it has the correct permissions.

#### PrintToMe Services

There are three services associated with the Print To Me plugin. They are: **PrintToMe**, **RM\_PrintToMe\_Mobile** and **RM\_PrintToMe\_Process**. To view these services, go to **Start > Programs > Control Panel > Administrative Tools > Services** .



### PrintToMe Service

This service is responsible for the first stage of the PrintToMe process. It monitors jobs that are sent to the **PrintToMe** printer driver. Its first task is to capture the print job so that it can be later printed at an MFP. It also updates the database with information regarding the print job such as the user who printed it, when it was printed and the document title.

### PrintToMe Mobile Service

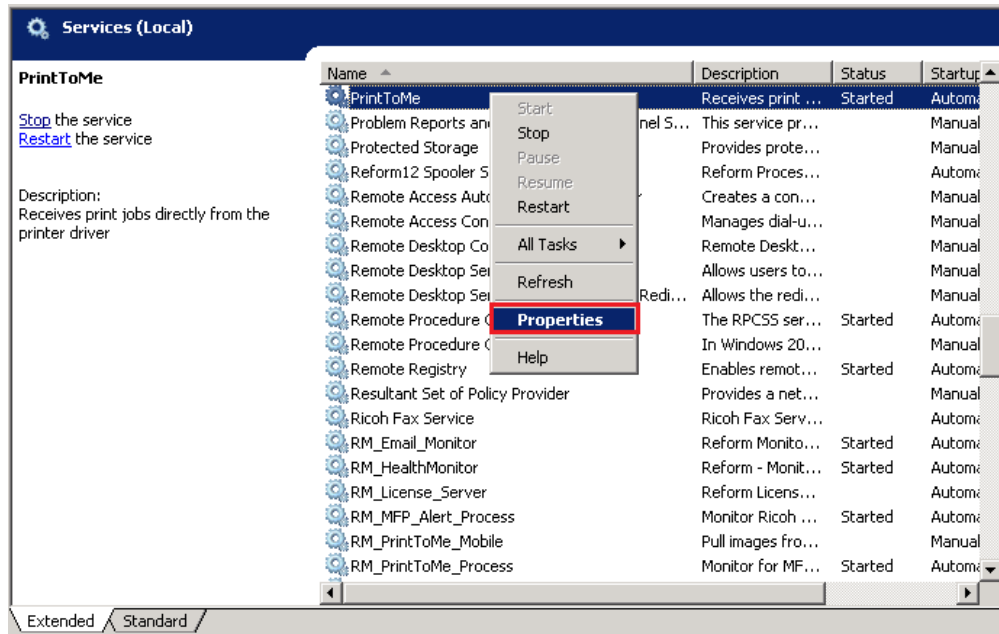
The PrintToMe mobile service is used to monitor an email address' inbox for incoming email using the IMAP protocol. When a new email is found, the application will download the attachments and retrieve the sender's information. If LDAP is enabled, the service will attempt to query for the user's information based on the sender's email address. It will then print any compatible attachments to the PrintToMe driver. The typical PrintToMe process will then store the print ready file to be released at an MFP from the sender's account. If LDAP is not enabled, PrintToMe can be configured to send an email response to the sender including a pin code that can be used to release the print job at the MFP.

### PrintToMe Process Service

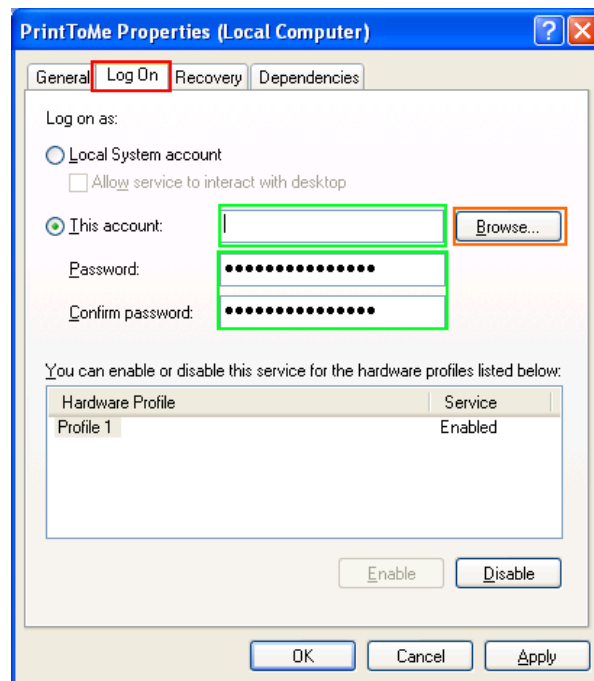
This service is responsible for the communication between the MOST server running the service and the MFP. When a user selects a document to be printed and or deleted at the MFP, the MFP notifies the PrintToMe Process that the selected task should be carried out. The PrintToMe Process does the actual printing and or deleting of the documents when requested by the MFP.

### Log On Accounts

Depending on your environment, these services may require a domain account with administrative privileges on the local computer, and also needs access to database. To set a Log On account for a service, right click on the desired service and go to **Properties**



Go to the **Log On** Tab.



Here you need to fill in the “This Account” fields that will give the service administrative access. You can use the **Browse** button to assist you in locating the desired account. After selected the account, fill in the **Password** associated with it. Click **OK** once complete. You will be asked to restart the service for the changes to take effect. To do so, right click on the service and select **Restart**, or simply stop and start the service.

## Print To Me Mobile

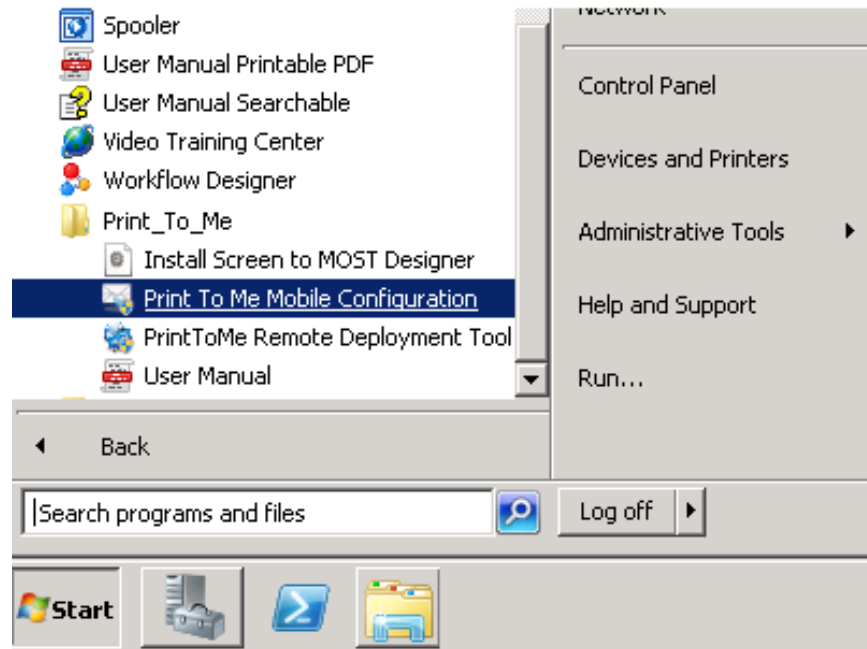
Print To Me Mobile allows users to print documents from a Mobile Device to any Ricoh MFP. Print To Me Mobile workflow:

- The user sends a PDF (or other supported file type) as an email attachment to a specified, dedicated email address. (Example: [PrintToMe@FabSoft.com](mailto:PrintToMe@FabSoft.com))
- The PrintToMe Mobile service monitors the email accounts inbox for incoming messages. When a new message is found, it will download the attachment and print it to the designated printer driver on the Reform Server. This is typically the PrintToMe printer driver.
- If LDAP is in use, the service will also query for the user’s information based on the sender’s email address.
  - If the user’s account is found, the document will automatically be available to the user when they log into MOST.
  - If the user’s account is not found, an email is sent back to their email address with a pin code that can be used to retrieve their document. To log into MOST, the user must enter the pin code as their username, and no password.
- The PrintToMe software then receives the information from the printer driver and processes it normally.
- The user can then log into MOST on the MFP and retrieve their print job.

## Configuring Print To Me Mobile

To use Print To Me Mobile, you must first successfully configure default PrintToMe. Then, continue with the steps below to configure the software to monitor the dedicated email address for incoming attachments.

To start the PrintToMe Mobile configuration go to **Start > Programs > Reform > Print\_To\_Me > Print To Me Mobile Configuration**.



The Settings dialog will open for configuration.

1. Enter the IMAP information for your email server and account in the utility.

**IMPORTANT: This must be a dedicated account. The email account specified here will be monitored by Print To Me Mobile. When Print To Me Mobile monitors the mailbox, it will process and DELETE all incoming emails. If this is accidentally pointed to a personal account, all emails will be lost.**

2. If a proxy is required to connect to the server, please include that information as well. Once you have configured your settings, click the "Test IMAP Settings" at the bottom of the screen to verify the connection is successful.

**PrintToMe Mobile - Settings**

Inbound Email (IMAP) | Outbound Email | LDAP | Other

These IMAP settings are used to configure the email connection for the incoming emails that will be monitored.

**Server**

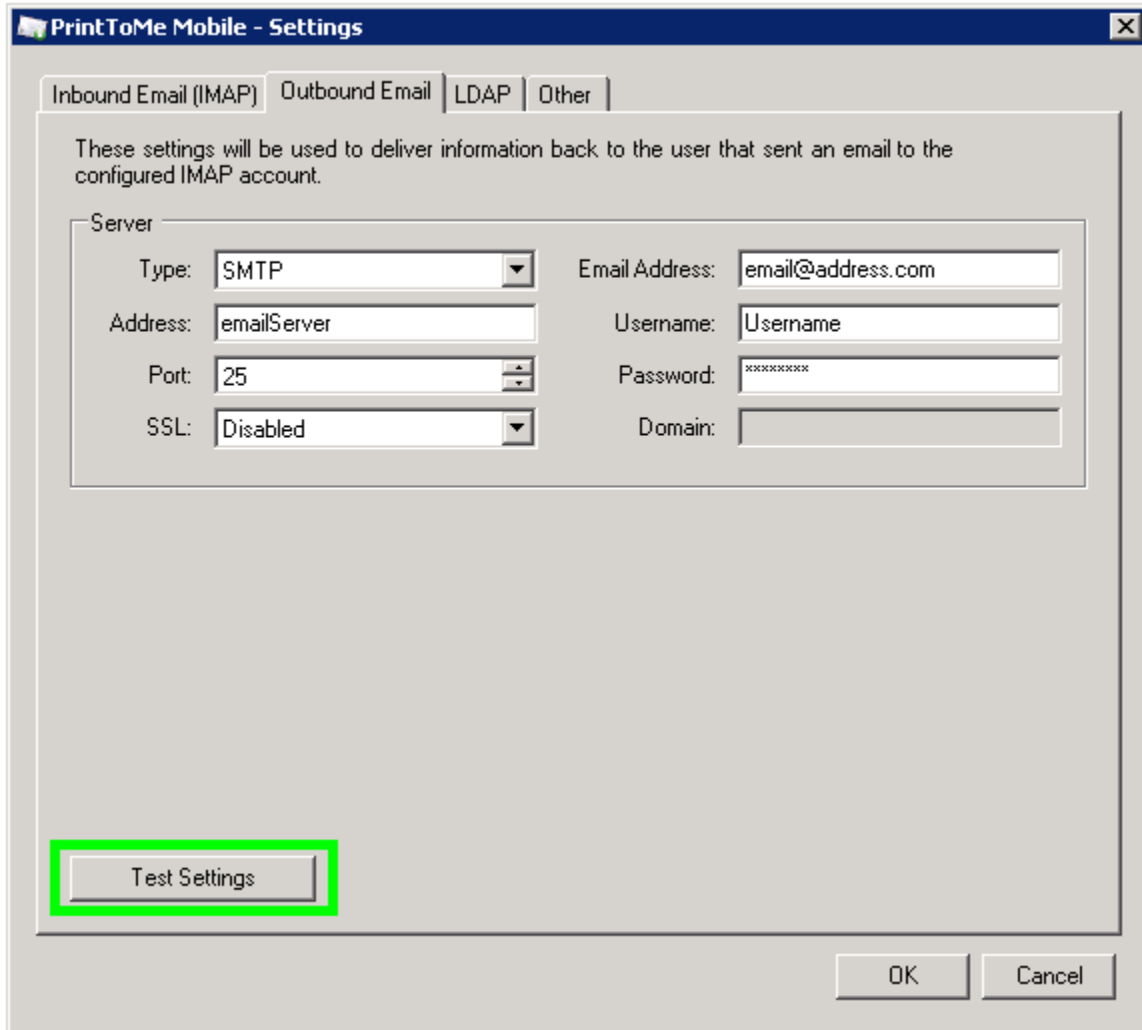
Address:  Username:   
Port:  Password:   
Connection:   
Folder Name:

**IMPORTANT:** This must be a dedicated account. The email account specified here will be monitored by Print To Me Mobile. When Print To Me Mobile monitors the mailbox, it will process and DELETE all incoming emails. If this is accidentally pointed to a personal account, all emails will be lost.

**Proxy**

Type:  Domain:   
Server:  Username:   
Port:  Password:   
Method:

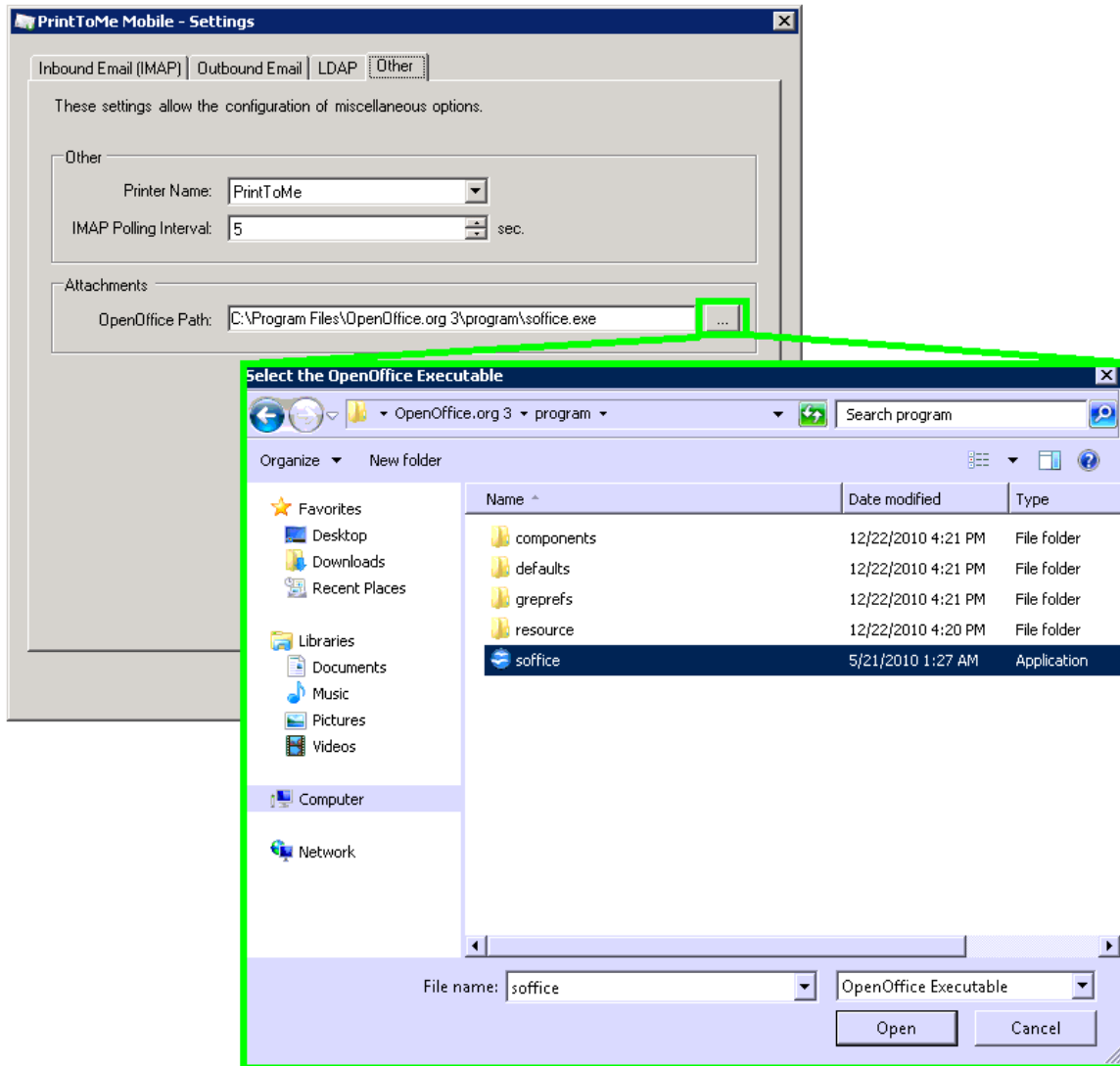
3. Next, the outbound email settings should be configured. These settings are used to send a pin code to the user if the user's email address cannot be found within LDAP. Click the "Test Settings" button to send a test email from the email address specified to itself to verify that it was successful.
  - a. Note: The Reform Email plug-in must be configured and running for notifications to be sent.



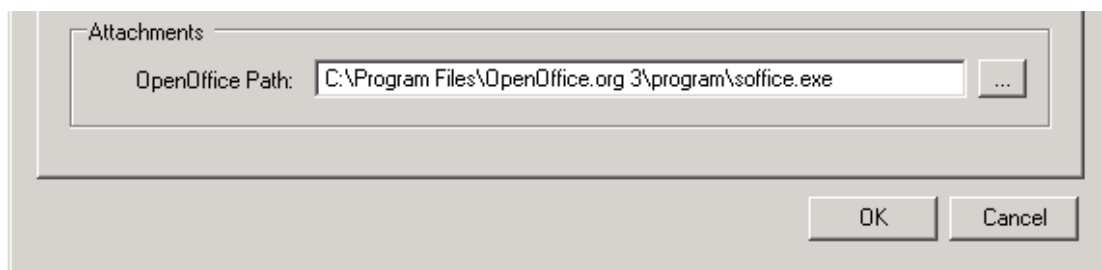
- 4. The LDAP settings can be configured to be identical to MOST, or can have customized settings. Typically, these should use the same settings as MOST. By default the Mail Object is "mail" and the User Object is "sAMAccountName".

The screenshot shows the 'PrintToMe Mobile - Settings' dialog box with the 'LDAP' tab selected. The dialog has three tabs: 'Inbound Email (IMAP)', 'Outbound Email', and 'LDAP'. Below the tabs, there is a text box explaining that these settings are used to configure the LDAP connection and that the LDAP server is queried to determine the user's account from their email address. The 'Connection' section contains a checkbox for 'Override MOST settings' (unchecked), a 'Server' text box with 'ActiveDirectory.fabsoft.net', a 'Global Catalog' checkbox (unchecked), a 'Domain' text box with 'fabsoft.net', a 'Username' text box, a 'Password' text box, a 'Security' dropdown menu set to 'Secure', and a 'Users DN' text box. The 'Query' section contains a 'Mail Object' text box with 'mail' and a 'User Object' text box with 'sAMAccountName'. At the bottom right, there are 'OK' and 'Cancel' buttons.

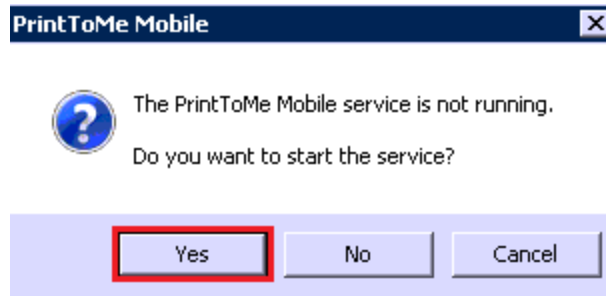
5. The Other settings allow you to configure the printer driver that the Print To Me mobile documents will be printed to. This should be set to the Print To Me driver. Here, you can also specify how often to check the IMAP server for new items in the inbox.
6. If you want to be able to send word documents from your mobile device to a MFP, download **OpenOffice** from <http://www.openoffice.org>. Then, click the "..." button to select the "soffice.exe" file from your Open Office installation. The default location on a 32 bit operating system is: "C:\Program Files\OpenOffice.org 3\program\soffice.exe".



Click **OK** to save your settings



If the **PrintToMe Mobile** Service has not been running, a message will appear asking if you want to start it. Click **Yes** to start the service automatically.



Print To Me Mobile is now configured and ready to be used.

In order for PrintToMe Mobile to operate correctly with Open Office ensure the Print To Me Mobile service account is set to a local administrator on the computer (Local System and Network Service accounts will not work properly). Then, login to the computer using the specified service account and start Open Office manually. You will need to go through the quick registration screen before the application can run. Once this is done, Word documents can be sent through Print To Me Mobile.

### Resolving PrintToMe Speed Issues

In some scenarios, the Ricoh Universal Printer Driver may respond slowly when viewing the properties, settings, or attempting to print from an application. As this is the typical driver used for Print To Me, it may affect the performance when selecting the Print To Me printer. According to the version notes available for the driver's download, Version 3.3.0.0 and above have had improvements that help resolve these speed issues.

*Universal Printer Driver - Version 3.3.0.0 – Release Notes:*

*- A new setting "Automatically Update Printer Information" has been added. This can be used to enable/disable bidirectional communication.*

*2) Fixed*

*- Switching to this driver from another driver in an application print dialogue, takes a long time.  
- Print performance is slow compared to other PCL drivers.*

*Excerpt From: <http://www.ricoh-usa.com>*

Once the printer driver has been updated to a version supporting these features, it is recommended to disable the "bidirectional communication" option.

#### **To disable "bidirectional communication":**

1. Go to Start > Control Panel > Printers.
2. Right Click on the printer utilizing the Ricoh Universal Driver.
3. Go to "Accessories" Tab.
4. Uncheck the checkbox named "Automatically Update Printer Information". (See screenshot below).
5. Click "Apply" to save the changes.

6. The speed issue should be resolved.

## **Maintenance**

There are certain directories and SQL tables that need to be monitored for growth along with the Print To Me plugin for MOST. As a system processes more and more jobs, the size of these directories and SQL tables can grow very quickly. Overall system performance can be affected by the large amounts of space that the files may take up. Also, there exists a 4GB database limit if using the Microsoft SQL Server Express 2005 supplied with this installation. Obsolete files/database entries should be deleted according to your needs and file retention specifications. It is recommended to monitor the following directories and SQL tables for growth:

### **Directories:**

C:\Program Files\Reform...\Queue\Print\_To\_Me

C:\Program Files\Reform...\Plugins\Print\_To\_Me\Mobile

### **SQL Tables:**

PrintToMe

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## Troubleshooting

### ***Selecting the Print To Me driver or viewing the properties of the driver is slow.***

In some scenarios, the Ricoh Universal Printer Driver may respond slowly when viewing the properties, settings, or attempting to print from an application. As this is the typical driver used for Print To Me, it may affect the performance when selecting the Print To Me printer. According to the version notes available for the printer driver's download, Version 3.3.0.0 and above have had improvements that help resolve these speed issues.

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*Universal Printer Driver - Version 3.3.0.0 – Release Notes:*

...  
*- A new setting "Automatically Update Printer Information" has been added. This can be used to enable/disable bidirectional communication.*

...  
*2) Fixed*

*- Switching to this driver from another driver in an application print dialogue, takes a long time.*  
*- Print performance is slow compared to other PCL drivers.*

...  
*Excerpt From: <http://www.ricoh-usa.com>*

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Once the printer driver has been updated to a version supporting these features, it is recommended to disable the “Automatically Update Printer Information” option.

#### **To disable “Automatically Update Printer Information”:**

1. Go to Start > Control Panel > Printers.
2. Right Click on the printer utilizing the Ricoh Universal Driver.
3. Go to “Accessories” Tab.
4. Uncheck the checkbox named “Automatically Update Printer Information”. (See screenshot below).
5. Click “Apply” to save the changes.
6. The speed issue should be resolved.

