

Kofax Communication Server

TC/LINK-SJ Technical Manual

Version: 10.2.0



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1. Overview

In today's office environment, there is a general move to multi-function peripherals (MFPs). MFPs combine some of the functionality of printers, scanners, copiers and fax machines. Most of these devices have direct network connectivity.

Many existing fax machines are gradually replaced by such devices providing network-scanning functionality. One of these new peripherals targeted for the workgroup is the Hewlett Packard Network ScanJet 5 scanner.

TC/LINK-SJ connects this scanner (HP Scanner) to the Kofax Communication Server (KCS).

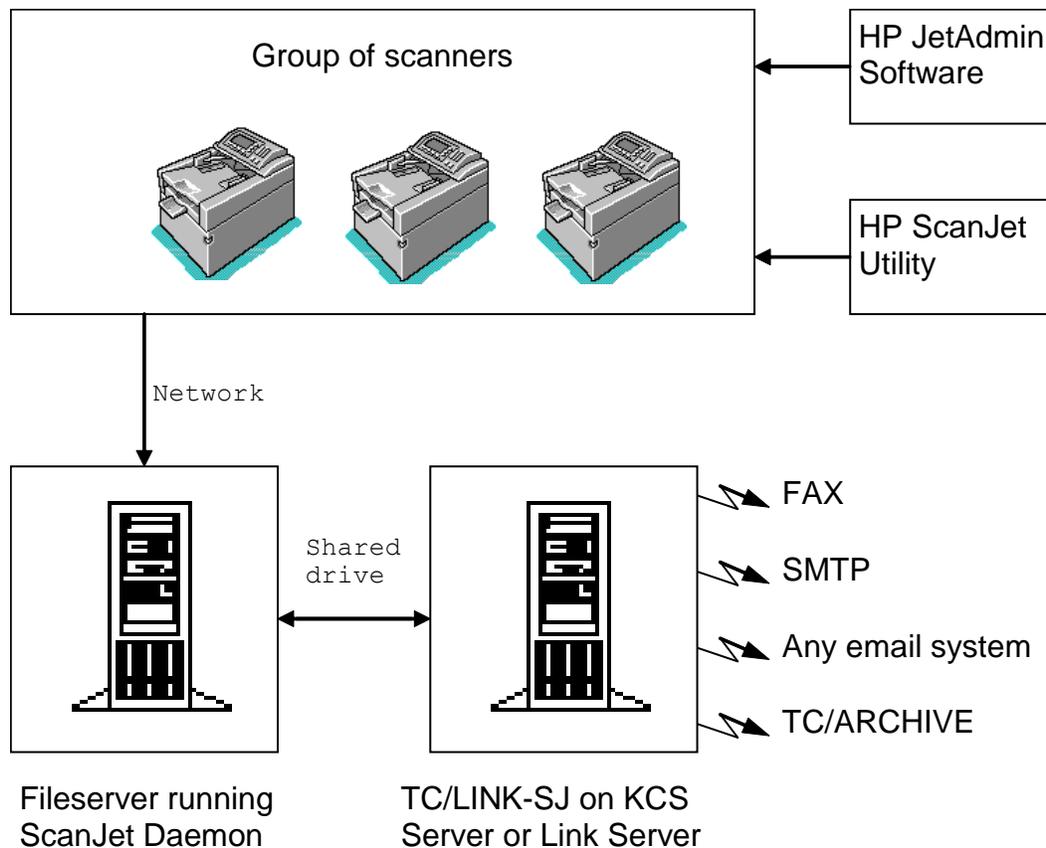
Important! The Kofax Communication Server (KCS) and its components formerly used the name TOPCALL. Some screen shots and texts in this manual may still use this former name. This former name appears even now in some registry setting and path names.

1.1 TC/LINK-SJ Features

- TC/LINK-SJ adds a departmental scanning solution to the KCS portfolio.
- TC/LINK-SJ opens a new use (direct paper archiving) for TC/ARCHIVE.
- This is the ideal solution for customers with a strong need to send paper documents. Speed of scanning and addressing possibilities are much improved over similar solutions that are built on fax machines.
- This is a solution primarily aimed at the departmental needs. The ScanJet 5 is not designed for the high-volume scanning needs of centralized mailrooms.

1.2 TC/LINK-SJ Basic Structure

TC/LINK-SJ connects one or more HP Network ScanJet 5 devices to the KCS system. The working environment looks like this:



- Customers usually have multiple ScanJet devices (e.g., one for each department or workgroup).
- These scanners are connected via network to an HP server process.
- TC/LINK-SJ connects between the HP server process (HP ScanJet daemon) and the KCS.
- All services installed on the KCS (e.g. fax, SMTP, Notes, Exchange) are available to ScanJet users (binary or image service capability required).
- For installations with many scanners, there are multiple HP server processes. In this case, for performance reasons, one instance of TC/LINK-SJ is required per HP server process. See pricing section for details of licensing.

1.3 Unicode Support

TC/LINK-SJ is compatible with a Unicode TCOSS, however, the link has not been fully updated.

- With a mixed mode Unicode TCOSS, all characters in the legacy TCOSS code page are supported.
- A pure Unicode TCOSS only supports ASCII characters with TC/LINK-SJ.

For more information about Unicode in KCS, see

- TC/LINK Technical Manual
- Unicode Installation Guide

2. Functionality

TC/LINK-SJ opens several possibilities to use the HP Network Scanner in an integrated messaging environment. All of them can co-exist on a single TC/LINK-SJ, and are mainly distinguished by the way of addressing.

2.1 One-Step Sending (Directly from Scanner to Any Recipient)

This is probably the most common scenario.

How it works:

- A user puts some documents to the scanner,
- User types in the destination fax number (directly via the ScanJet Control Panel; numeric only), or selects any of the pre-stored recipients or distribution lists (all services possible).
- Pushing the green button on the ScanJet Control Panel sends the message.

Major advantages:

- Much faster scanning than on a fax machine, less waiting time for user.
- Users may identify (log in) at the scanner. In this case messages can be tracked via the user's KCS out-box.
- Dynamic status tracking via TopDeskPro and TCfW Communication Server Client.
- All messages are automatically archived in TC/ARCHIVE (if installed).
- KCS automatically uses the default cover page for sending, standard cover text can be used, no need to edit the message
- Notifications can be sent to any service (via notification events in shadow user profiles)
- Users can administer their own addresses with HP's Network ScanJet Utility. In addition, HP's JetAdmin program allows to centrally administer addresses.

2.2 “Attach from Scanner” Functionality

This feature can be used for all applications supported by TCfW Communication Server Client and TopDeskPro.

How it works:

- The user logs in at the scanner (selects his name out of a list). This login is required for that functionality!
- If configured, a password must be entered.
- User enters the fax number “*” (or a pre-stored 'ATTACH via TOPCALL' recipient) and scans the document.

- In TCfW Communication Server Client or TopDeskPro, the user selects 'Scan with Fax' option – the scanned document is then attached to the message.

Major advantages:

- Much faster scanning than on a fax machine, less waiting time for user
- Using the same device for scanning and for sending faxes is possible.

2.3 Sending Via Distributor Queue

In larger installations, it may be difficult to maintain a departmental fax address book via the ScanJet. With large number of recipients, it is also not very comfortable to select the right one via the five-line LCD display on the scanner.

How it works:

- The user sends to a special predefined address (e.g. named "Distributor")
- The message is then sent to the KCS distributor queue. The distributor can then address the message using the KCS address book and KCS distribution lists.

Major advantages:

- A single distributor queue can be used for any messages (e.g. inbound faxes, sending from ScanJet, ...)
- By using simple coversheets, the distributor can address the scanned message to the desired destination.

Note:

This feature requires either disabled "Alternative Content" on TC/LINK-SJ (see 4.4.5 "Additional Hints"), or the new TCfW "Alternative Content View" feature!

2.4 Addressing via KCS Address Book

Addresses created with the JetAdmin software or the ScanJet utility can also point to KCS recipient book entries.

How it works:

- The HP ScanJet address is created with service "TOPCALL", and the recipient id (shortname) of the KCS address book entry (e.g. "TOPCALL,testfax")
- If this is addressed at the scanner, the KCS recipient is taken for addressing.

Major Advantages:

- Full KCS recipient is entered, with all additional parameters like fullname, company etc.
- These parameters can also be used on the configured KCS coversheet.
- All alternative numbers are taken.

2.5 Paper Archiving

The TC/LINK-SJ can also be used for archiving purposes. Note that all messages sent via TC/LINK-SJ are put to the archive (configurable).

How it works:

- An HP ScanJet address is created, addressing a special KCS user e.g. named "ARCHIVE".
- This KCS user has a dummy event with auto-termination assigned.
- All messages addressed to this user (by selection from the HP ScanJet Control Panel) go to the archive, without being sent somewhere else.
- The document can be found by archiving user (the user identified at the ScanJet Control Panel), and date and time of archiving.

Major advantages:

- TC/ARCHIVE gets you single archiving solution for all your faxes, emails and paper documents.

- One-step indexing is possible by sending to a pre-stored archive recipient that contains the relevant key(s) (either in the Fullname field, or as the recipient itself)
- Two-step indexing is possible by sending to the operator queue. From there, indexing information can be added in the subject field.

3. Prerequisites

- You need an HP Network ScanJet 5 or HP9100c “Digital Sender” device with a network connection fitting to your network (e.g. Ethernet or Token Ring, 10Base-T or BNC connector)
- To run the ScanJet Daemon, you need a Fileserver (one of NetWare 3.x with IPX, and 4.x NDS with IPX, Windows NT 3.5x or higher, IBM LAN Server: 3.x, and 4.x with TCP-IP) and a user with “Local Admin” and “Domain Admin” rights.
- See the documentation shipped with your scanner for further scanner-specific prerequisites! The most important parts of the Readme file are also appended to this manual (see chapter The ScanJet Daemon Readme File (Excerpt)).
- See the TC/LINK Manual for all common TC/LINK requirements!
- TC/LINK-SJ requires full access rights (read, write, modify, delete) in the ScanJet Daemon output directory!
- TC/LINK-SJ requires KCS Server 7.08 (original name: TCOSS 7.08) or higher for license handling!
- TC/LINK-SJ is supported with Windows Server 2012 x64 and earlier operating systems.

4. Installation

4.1 HP Network ScanJet 5

The goal of this installation section is to get scanned messages written into the HPFSCAN directory.

Here we give just a short overview what needs to be done. For troubleshooting and further details, refer to HP documentation! For patches and FAQs, you can also refer to HP web site:

<http://www.hp.com/go/cposupport>

4.1.1 Connecting ScanJet Device(s) to the Network

- Provide physical connection (plug in power and network cable; turn on the device; check the network adapter LEDs on the ScanJet to make sure that the network connection is alive!)
- Get a fixed network address that the scanner should use.
- On the scanner Control Panel, provide all information needed (protocol stack, network address, subnet mask, default gateway, default paper format, and some more)
- Reboot the scanner (turn off and on again) to complete configuration.

Hint:

For resetting the scanner to factory defaults, do the following:

- Switch off the scanner
- Press the leftmost function key while turning power on again.
- As soon as you get the output “Self test error: 0D” in the scanner control panel, press the red key (“cancel”), and the number “3”.
- After booting, the scanner will offer a screen to “Reset the hardware configuration”. Choose “Reset” to clear all scanner configuration settings.
- After another reboot, you get the empty scanner configuration screen.

4.1.2 The ScanJet Daemon

For connecting one or more ScanJet devices to an output file system, the ScanJet Daemon must be installed on the domain server. This may be one of Windows Server, NetWare 3.x or higher, or IBM LAN Server 3.x or higher.

- Create a user for the HP ScanJet daemon. This needs to be in the “Administrators” and “Domain Administrators” group, and needs a password that “never expires”.
- Log on at the domain server with this user account.
- Close all programs running on the domain server (setup of the ScanJet daemon may fail if e.g. Lotus Notes Server is running during setup!)
- Run the appropriate HP ScanJet Daemon setup program for your operating system.
- Follow the instructions of the setup program.
- The “SMTP Gateway” setup shall be left empty to avoid interference with the TC/LINK-SJ operation (disables the HP ScanJet Daemon’s SMTP subsystem).

Note:

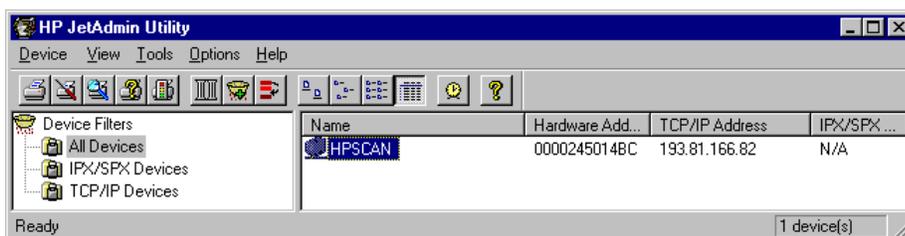
- The Windows username for the ScanJet Daemon must be 8 characters or less! Longer usernames cause the daemon to fail!
- For the Fax gateway functionality, you need to create an “hpfscan” subdirectory in the “hpsscan” directory manually (the daemon setup creates the “hpsscan”, but does NOT create the “hpfscan”!). Use Explorer to create it; do not forget to add a share so that TC/LINK-SJ and JetAdmin can access that directory!

4.1.3 The JetAdmin Software

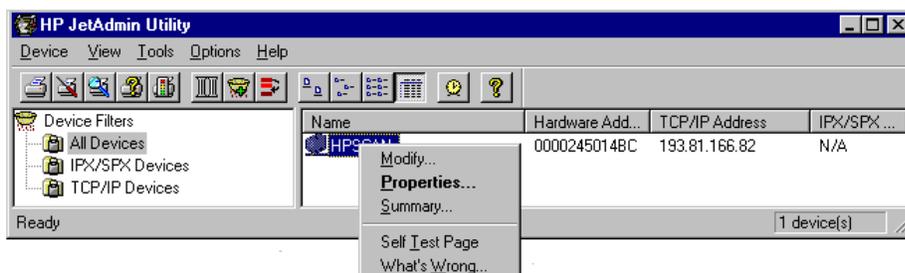
JetAdmin software is required for configuration of the HP Network ScanJet 5. It may run from any computer within the HP ScanJet Daemon’s domain.

- Run the JetAdmin setup program (subdirectory “Adminsw \<language>” on the CD)
- **Attention:** Do NOT run Setup from the “Adminsw\<language>WinNT\...” or “Adminsw\<language>\Win95\...” subdirectories! This will NOT work!
- Follow all instructions on the screen.
- Finally, you need to reboot the PC.
- **Attention:** Reboot your PC immediately after running setup! If you install some other things right now, the JetAdmin install may fail!

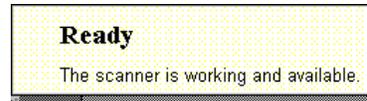
If you start JetAdmin, it automatically detects the presence of one or more ScanJet devices on your subnet. All devices are displayed; this will look like



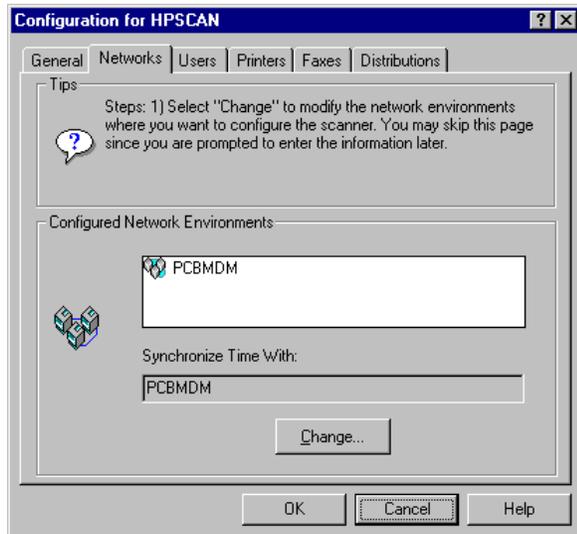
By right-clicking the scanner icon, you get the most important menu:



Pressing the “What’s wrong” provides a short diagnostic of the scanner. If you do not get that output, consult the HP documentation for troubleshooting hints!



Click Modify... to display a configuration panel needed for TC/LINK-SJ configuration.



“**General**”: You may enter a descriptive comment here (optional).

“**Networks**”: Select one network environment (mandatory). This is the environment that runs the HP ScanJet daemon.

“**Users**”: If you want to use authentication at the scanner, you must configure users here (optional).

“**Printers**”: allows configuration of connected network printers (optional).

“**Faxes**”: Here you can configure the TC/LINK-SJ environment (mandatory), and predefined recipients that will be displayed on the scanner’s Control Panel (optional).

“**Distributions**”: You can configure distribution lists here (optional). A distribution list assigns multiple recipients to a message from the scanner.

4.1.4 Configuring the Network Scanner for Use with TC/LINK-SJ

Back to the “**Faxes**” tab from the JetAdmin “Modify” menu above:

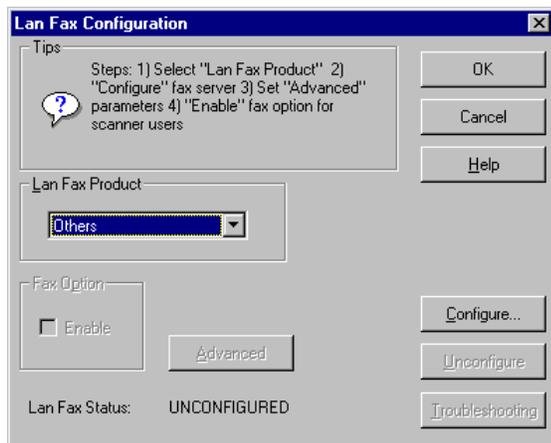


Here you can do two important things:

Configure the Fax Server: Click Configure... to get a detailed configuration property page; see below.

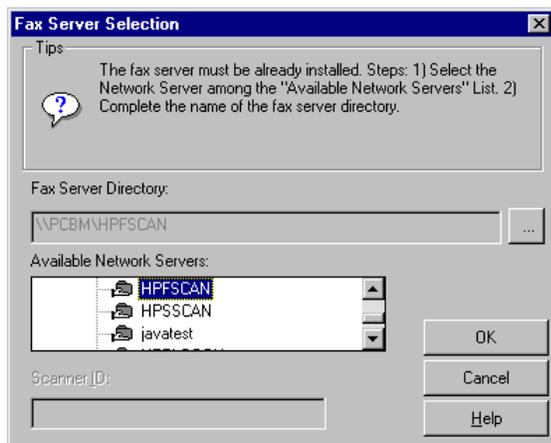
Configure Control Panel Faxes: Click Change... to add/modify/delete any predefined addresses. These addresses will be available for selection on the ScanJet Control Panel.

4.1.4.1 Lan Fax Configuration For TC/LINK-SJ



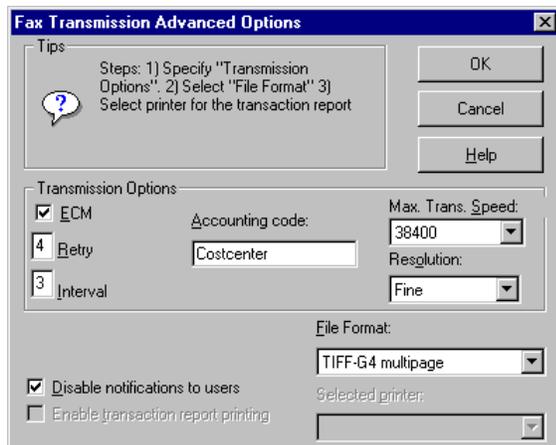
Select "Others" from the Lan Fax Product menu.

In later releases of the HP JetAdmin software, you will have an option "TOPCALL" (old name for KCS) to select. Then click Configure.



Select the "HPFSCAN" directory that you created during the Daemon installation (see "4.1.2 The ScanJet Daemon"). Click OK.

Now you can configure advanced options:



ECM, Retry, Interval: These settings are currently ignored; configuration is taken from KCS.

Accounting Code is also ignored as the cost center is taken from the originator.

Transmission Speed is ignored as all Kofax fax interfaces automatically select the highest transmission speed supported by the recipient.

Resolution should be set to "Fine" for best conversion to the fax image resolution.

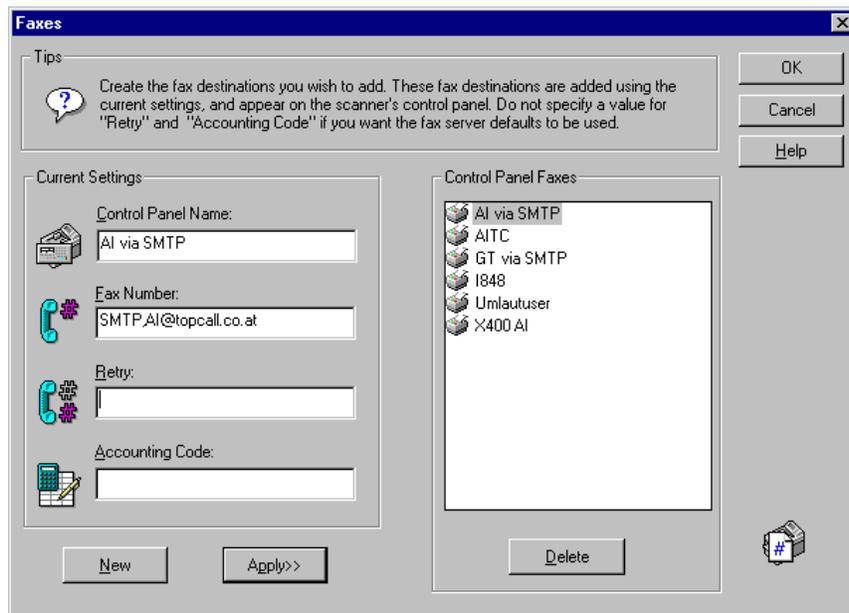
File Format should be set to "TIFF-G4" output (PCL requires installation of the PCL-5 converter, and results in lower performance!)

Disable notifications to users must be selected as this is not supported by TC/LINK-SJ. All status tracking is done with the various Kofax clients.

Click OK again. Do not forget to select the "**Fax Option Enable**" checkbox in the Lan Fax Configuration window!

4.1.4.2 Adding Control Panel Recipient Addresses

In the Faxes tab of the JetAdmin Modify menu, you can configure control panel addresses by clicking Change:



Control Panel Name: This name is displayed on the HP ScanJet Control Panel. It is not exported to TC/LINK-SJ.

Fax Number: This is the recipient address exported to TC/LINK-SJ. Although initially intended for fax numbers only, TC/LINK-SJ extends the address format to provide addressing to all KCS services available. Note that the address length is restricted to 60 characters in total by the HP ScanJet! This may cause problems e.g. with X.400 addressing.

Retry and **Accounting Code** are currently ignored as the retries behavior is configured on KCS, and the cost center is determined by the originator (as with all other KCS products).

Clicking **Apply** stores the new recipient address.

Hint:

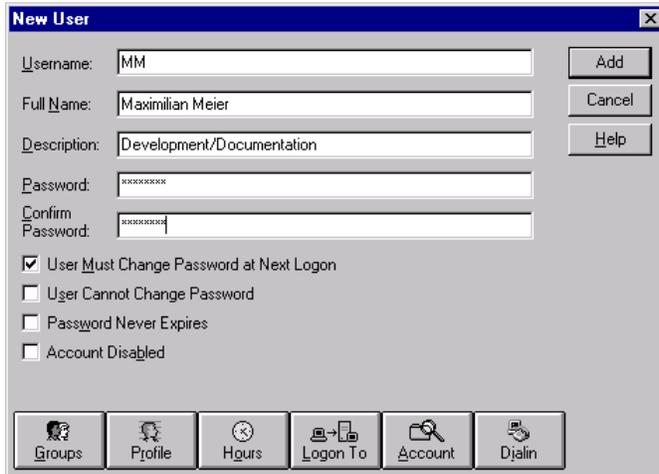
- All entries are displayed in alphabetic order at the scanner control panel. To get often-used numbers in the first positions, you may add a "@" sign in the "Control Panel Name" (e.g. "@AI via SMTP" in the screen above).

4.1.5 Creating ScanJet User Profiles

The Network ScanJet 5 user handling is built on top of the Windows / NetWare user managers. The following example shows how to create and import users from the Windows user manager.

4.1.5.1 Creating the NT User Profile

From the NT Start menu / Administrative tools / "User Manager for Domains" on the NT domain controller, select "User / New User". The following window is displayed:

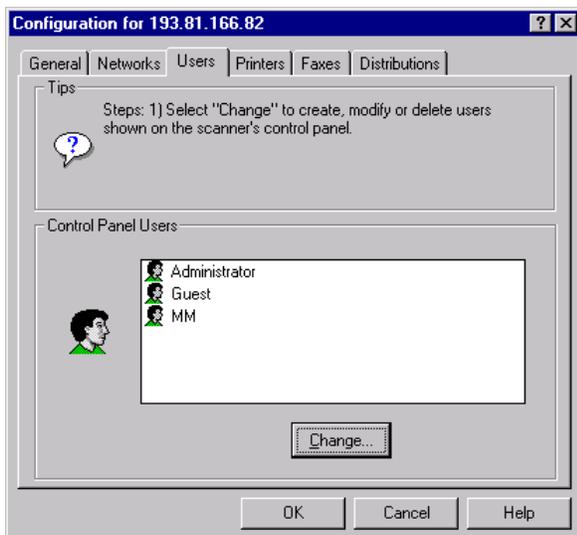


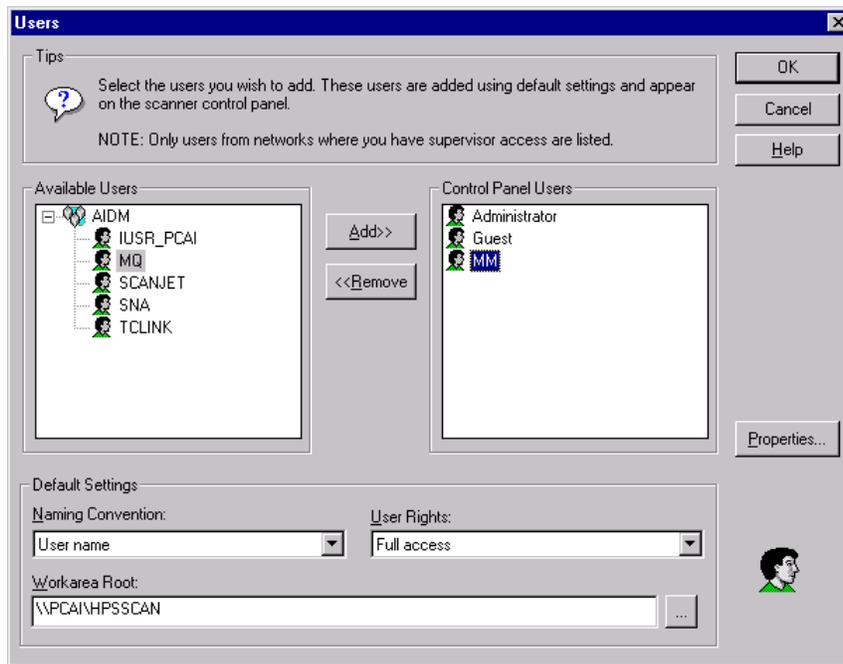
The "Username" is the identification that must be entered at the ScanJet. All the rest is not that important for the ScanJet (however, it is for Windows).

As soon as you click "Add", the user is available for import in the JetAdmin user configuration panel.

4.1.5.2 Importing the NT User Profile to the ScanJet Environment

As you have added the desired user to the Windows domain, you can now import it to the ScanJet system via JetAdmin: Go to the "Device / Modify" menu and click Change on the Users tab.





Select the user “MM” on the left panel, click Add and you will see the new user on the control panel of the ScanJet.

4.1.5.3 Possibilities for Automatic User Import to KCS (Creating Shadow Users)

There are some KCS features that are available only by use of so-called “shadow users”; e.g. per-user rights configuration, cost accounting or coversheets.

As it is not practicable to generate and maintain any single user profile in NT/NetWare and additionally on KCS, there is the possibility to set up DirSync via different TC/LINKs.

Examples

- You have a Windows environment and MS Exchange in place. You can now configure the TC/LINK-MX to create shadow users for all Exchange / Windows users automatically (see the TC/LINK-MX and TC/LINK manuals for any details).
- Similar applies to NetWare and TC/LINK-GW DirSync.

4.1.6 Additional HP Software (Optional)

The **ScanJet Utility** allows any user to define his/her private addresses, and a ScanJet Control Panel password for authorized access. Addressing syntax is the same as for the JetAdmin address book.

Note: To get a message sent via TC/LINK-SJ, you must define a “Fax address”! This may be confusing: if TC/LINK-SM is installed on your KCS system, and you want to send to an email address, you need to configure a “Fax address” like “SMTP,Al@kofax.com” – defining an email address will NOT send the message to KCS!

The **PaperPort** software is a kind of HP mail client, and has no direct influence on TC/LINK-SJ operation.

The **OmniPage OCR** is delivered with the Network ScanJet 5 for character recognition.

4.2 HP 9100C Digital Sender

The successor of the HP Network ScanJet 5 is called “Digital Sender” (available since Q3/1998).

Configuration and operation is very similar to the Network ScanJet 5; so, only the differences are mentioned in the following section.

4.2.1 Overview of Differences to HP Network ScanJet 5

- The Digital Sender has an own **Internet homepage** located at <http://www.digitalsender.hp.com> There you find FAQs, support documents, technical data and similar useful information.
- The **“Reset to factory defaults”** hidden key combination has been removed. Instead, you can now access all scanner configuration parameters by pressing <Alt>+<Shift>+<Duplex> when the scanner has booted.
- The **ScanJet Daemon** delivered with HP9100c is compatible with both ScanJet 5 and Digital Sender. You need to configure the output API directory with the ScanJet daemon configuration now. See below.
- The **JetAdmin** “Device / Modify” panel has some additional tabs for support of new features now – see below.
- Configuration panels of the **LAN Fax interface** have changed (however, the parameters are still the same)
- The HP9100c System does no longer rely on NT or NetWare directory, but ships with an own **address book manager** (ABM; see below).
- In addition, there are extended possibilities to enter recipient addresses directly at the HP9100c keyboard (alphanumeric now).

4.2.2 Installing the New Scanner Service (ScanJet Daemon)

The “HP Digital Sender Service” delivered with the HP9100c supports also Network ScanJet 5 devices. The most important configuration screen during the service setup is the following:

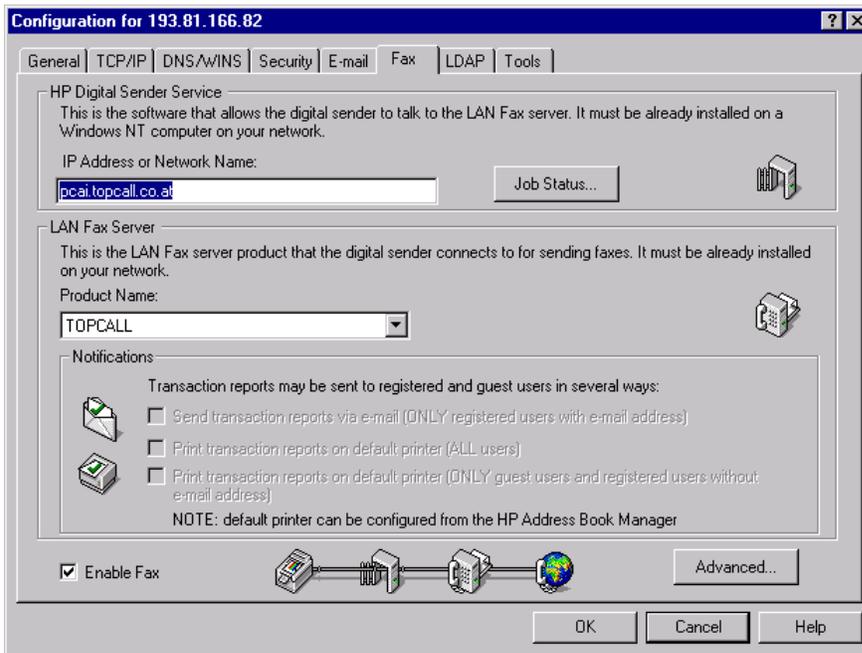


In difference to the old scanner service setup, you must select the API directory directly at installation of the service; there is no possibility to change it via JetAdmin.

The LAN Fax vendor can be changed later by use of JetAdmin; however, you should select ‘TOPCALL’ (this is the old name of KCS) here.

4.2.3 LAN Fax Interface Configuration for TC/LINK-SJ

Via the JetAdmin “Device / Modify / Fax” tab, you get the following configuration window:



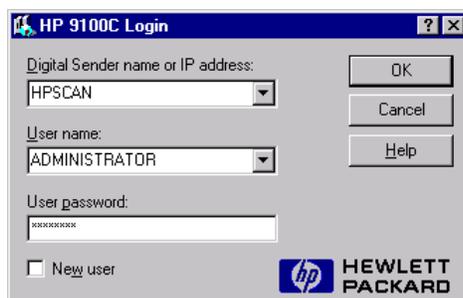
Good news: The KCS configuration is ready and available. All you need to do is therefore

- Enter the IP address of the Windows server running the ScanJet daemon.
- Select “TOPCALL” as the product name. (TOPCALL is the old name of KCS.)
- Check the “Enable Fax” to make settings active.

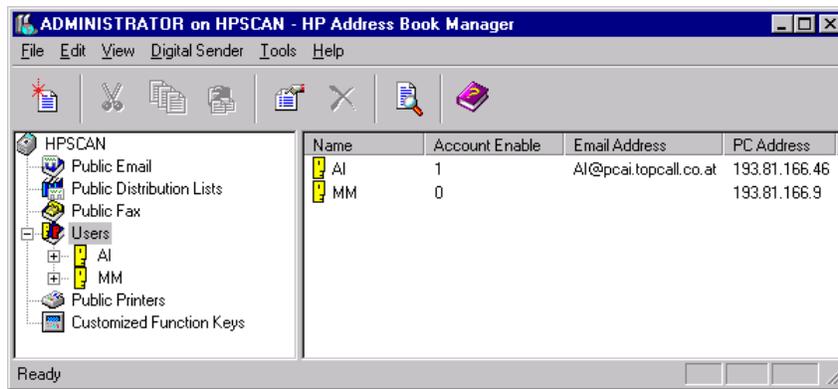
4.2.4 HP Address Book Manager (ABM)

As already mentioned, the HP9100c does no longer rely on the Windows or NetWare user management. Instead, you can start the “HP Address Book Manager” (ABM), log in as the configured scanner administrator, and do all user management via ABM.

ABM Login screen:



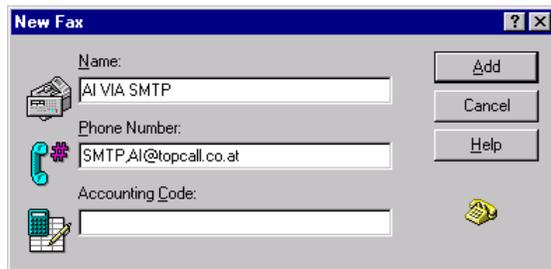
ABM Main Window:



If you have any problems, check the online help, or the “Administration Guide” delivered with the HP9100c scanner.

Example:

To create a destination addresses that is routed via TC/LINK-SJ, you need to select “Public FAX” (even if the message finally goes to an email service, just like with the Network ScanJet 5) from the main window, then click “New”. This screen pops up, waiting for to be filled:



Clicking “Add” will create an SMTP destination address (via TC/LINK-SM); just the same as described for the Network ScanJet 5 in 4.1.4.2 “Adding Control Panel Recipient Addresses”.

4.2.5 Fault Tolerant Installation

It is possible to install the HP 9100C scanners in a way that a “fault tolerant” way of working is provided. I.e., once the PC running the HP Digital Sender service is down, another PC can automatically take over this role. This possible configuration looks like this:

The Windows services (HP Digital Sender Service) for the HP 9100C scanners are installed on server-1. For fail-over reasons there is a second server, also with the HP Digital Sender Service installed and running on it. Each server acts as well as a WINS server. On both servers in the WINS table the name “DUMMY” is assigned to the own IP address. The scanners are configured to connect to the server “DUMMY” and to use WINS instead of DNS. (The two servers configured as primary and secondary WINS.)

Now, when server-1 is up, the local WINS on it resolves “DUMMY” to the IP address of server-1 and the scanners send to server-1. If server-1 is down, the secondary WINS on server-2 acts and gives back the IP address of server-2 so that scanners send to server-2. (This kind of failover solution is the so called “hostname-based fault tolerance”.)

4.3 HP 9200C Digital Sender

4.3.1 Differences to HP 9100C Digital Sender

- HP 9100C uses the Windows service “HP Digital Sender Service” while HP 9200C uses the windows service “HP MFP Digital Sending Software 4.0” (=DSS 4). DSS 4 is shipped on a separate CD and requires own licensing (but still a supplied accessory to HP 9200C). DSS 4 does not support the older model HP 9100C. (To

install DSS 4 is a prerequisite to configure the LAN fax service on HP 9200C. This in, in turn, a prerequisite to use TC/LINK-SJ.)

- HP 9200C uses the DSS 4 configuration tool called "HP MFP Digital Sending Software Configuration". The tool HP JetAdmin cannot be used with HP 9200C.

- The Address Book Manager used with HP 9100C can also be used with HP 9200C / DSS 4. (It is also delivered on the CD of DSS 4.) Difference is, however, that on login it should be used the IP address of the PC running DSS 4 und not the IP address of the scanner, as it was the case with HP 9100C.

- Concerning user authentication (=user must login before using fax): if the customer activates this setting and uses the settings Authentication Method="Microsoft Windows", LDAP Server Bind Method="Windows Negotiated (SPNEGO), than all user must have an e-mail address in the user account. Once a user does not have an e-mail address in his user account, the login will fail; even if the user entered correct his user-id and password.

4.3.2 Parallel Use of HP 9100C and HP 9200C

DSS 4 daemon for HP 9200C and "HP Digital Sender Service" daemon for HP 9100C can run on the same PC. The installation of HP 9100C (with "HP Digital Sender Service") and the installation of DSS 4 does not influence each other. It is also possible to use the same "common directory" (to which the faxes are directed, in TC/LINK-SJ terminology: "ScanJet API Directory") for the two different scanner types.

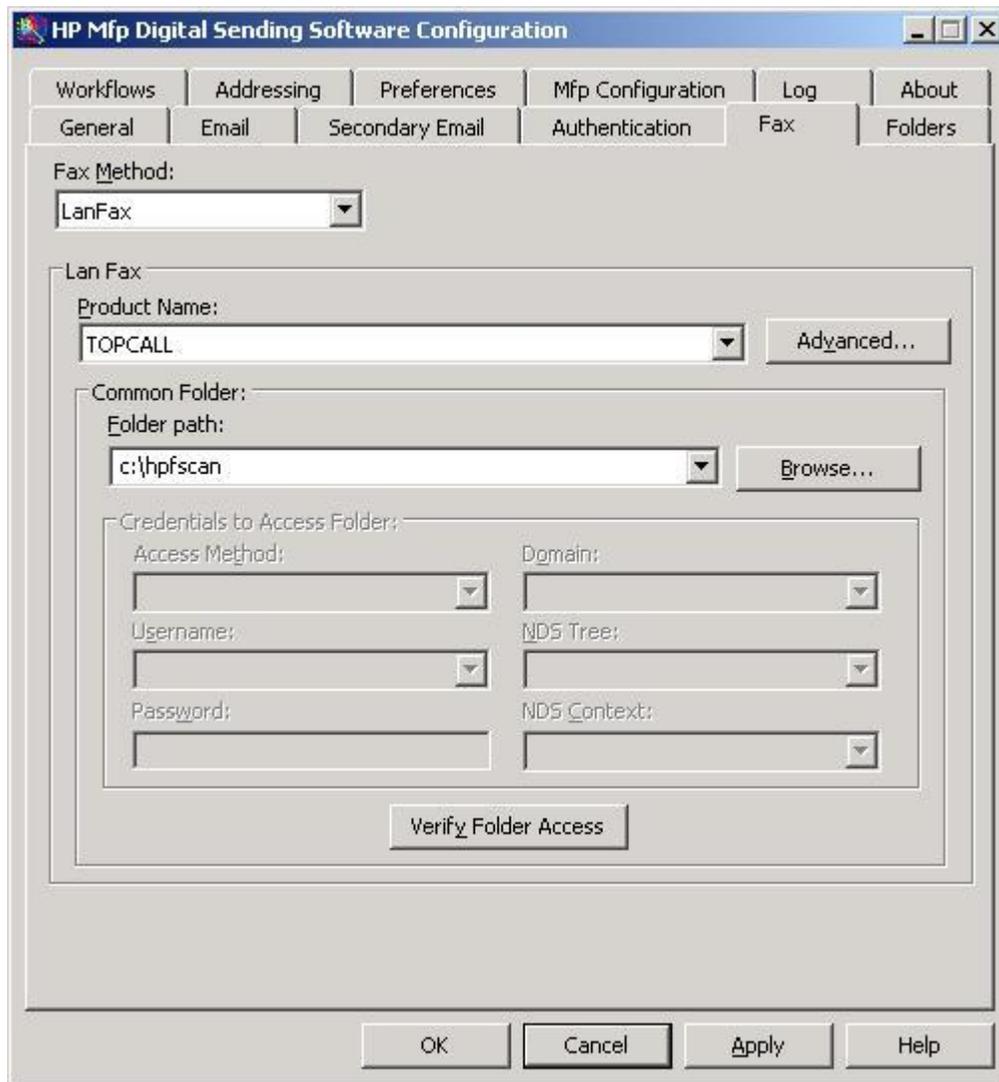
4.3.3 Using Address Book Manager

The Address Book Manager used with HP 9100C can also be used with HP 9200C / DSS 4. (It is also delivered on the CD of DSS 4.) Difference is, however, that on login it should be used the IP address of the PC running DSS 4 und not the IP address of the scanner, as it was the case with HP 9100C. Otherwise, the usage of Address Book Manager is the same as with HP 9100C.

4.3.4 Configuration of LAN Fax on HP 9200C

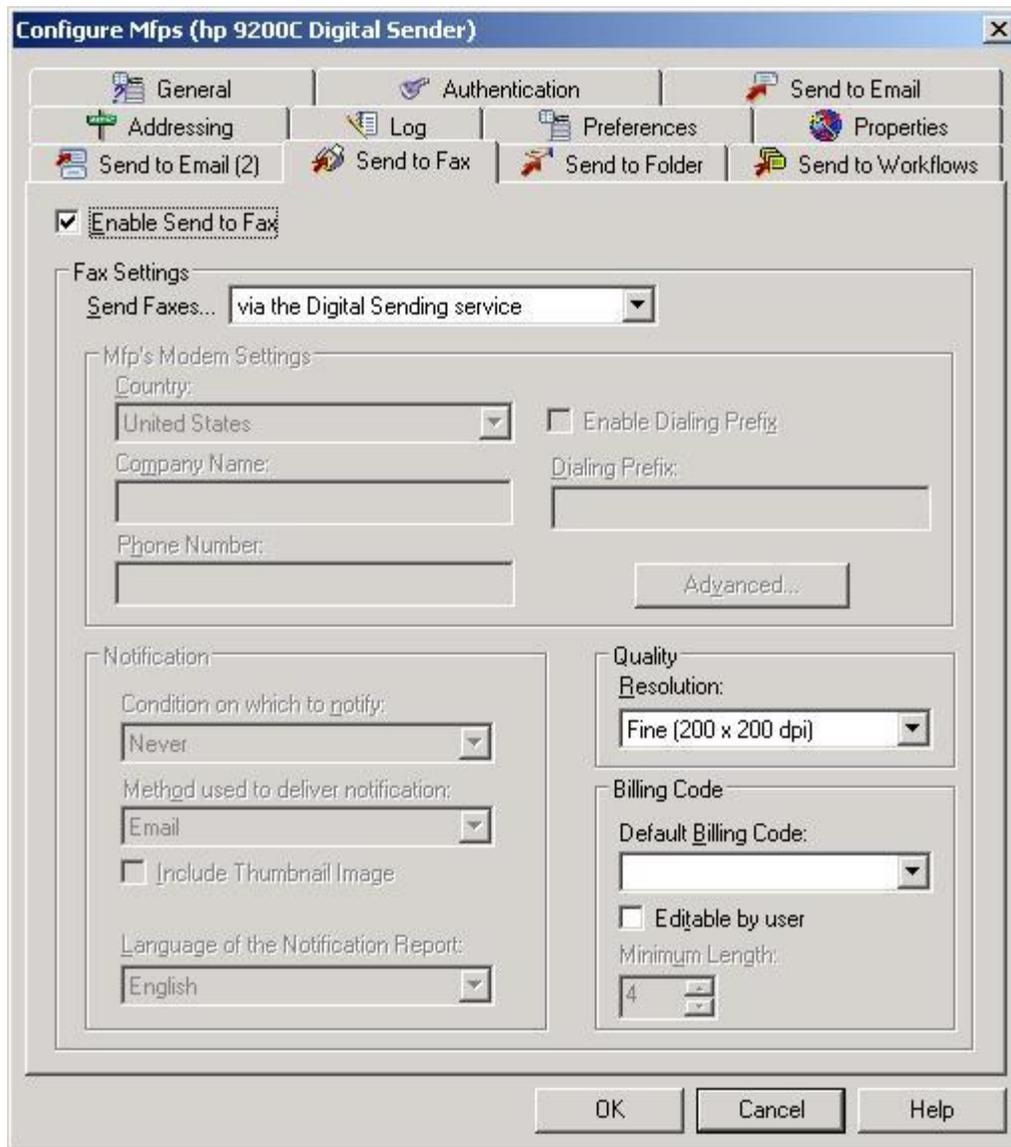
TC/LINK-SJ corresponds to the fax functionality of the HP 9200C. TC/LINK-SJ requires that the fax is configured to "LAN fax" method. Use the configuration software "HP MFP Digital Sending Software Configuration".

1. Run Start / Programs / Hewlett-Packard / HP MFP Digital Sending Software / Configuration Utility.
2. Select the Fax tab.
Set Fax Method to "LanFax".
Set Product Name to "TOPCALL". (TOPCALL is the old name of KCS.)
The Common Folder should be the same folder as "ScanJet API Directory" setting of TC/LINK-SJ.
This is the transfer folder, where the .HPF and .TIF files will be created when sending a fax.



3. Select the "Mfp Configuration" tab. Click below "Configure Mfp..." button.

4. Select the "Send to Fax" tab. Select "Enable Send to Fax".
In the "Send Faxes..." field, choose "via the Digital Sending service".
In the Resolution field, choose "Fine (200 x 200 dpi)".



After these settings HP 9200C has a fax selection on its display module and according .HPF and .TIF files will be created in the “common folder” when sending a fax.

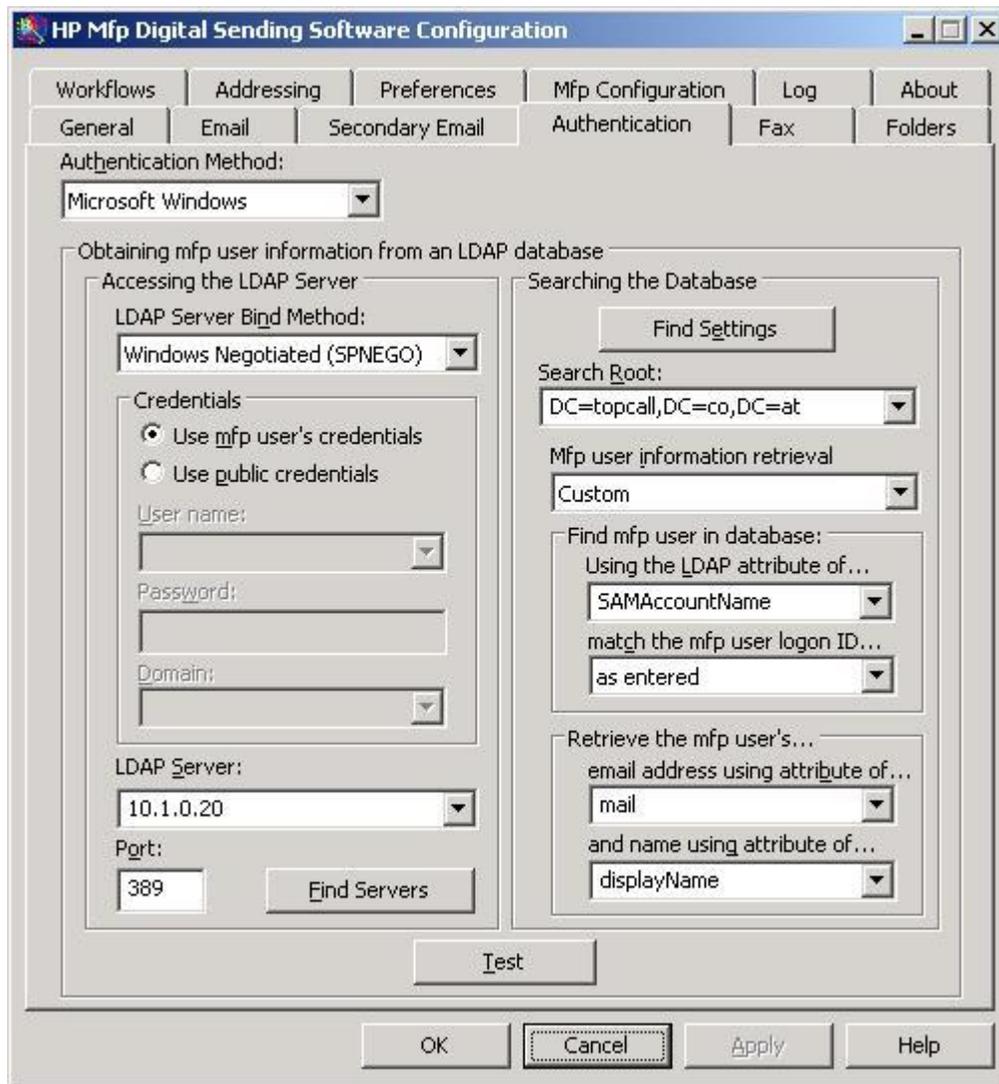
4.3.5 Authentication

If it is required that users must log in before sending faxes, this can be configured on the Authentication tab of “HP MFP Digital Sending Software Configuration”.

Set Authentication Method to “Microsoft Windows” and LDAP Server Bind Method to “Windows Negotiated (SPNEGO)”. In the LDAP Server field, type its IP address.

Click Find Settings to populate all fields in this window.

Important! There is one important thing to keep in mind: All users must have an email address entered in their user accounts. Once a user does not have an email address in his user account, the authentication fails, even if the user entered correct user name and password.



4.3.6 Remarks to Failover Solution with HP9200C

It is not solved yet!

Reason: It is not possible to explicitly give HP 9200C a host name as DSS4 server machine. The HP 9200C gets the fix IP address of the DSS4 server machine automatically in the background when installing or configuring the DSS4 service. Therefore, a "hostname-based fault tolerance", as in case of HP 9100C, is not possible.

Remarks concerning HP AutoStore:

HP suggested to use HP AutoStore instead of DSS4, at least for the LAN fax service. (DSS4 and HP AutoStore can be used in parallel, so the authentication system of DSS4 can be still used.) The advantage of using HP AutoStore is that it is possible to give HP 9200C explicitly a host name as HP AutoStore service machine and so a "hostname-based fault tolerance" solution could be achieved as in the case of HP 9100C. (See the chapter "Fault tolerant installation" / HP 9100C.)

However, it did not work in practice:

The suggested method to achieve fault tolerance with WINS servers did not work. The HP 9200C was not able to use the installed WINS server to resolve the given host name. Connection of HP 9200C to HP AutoStore service was only possible, when HP 9200C was given a fixed IP address of the machine running the HP AutoStore service.

But even if HP solves this problem and the usage of WINS (or maybe DNS) server running on the HP AutoStore machine would be possible, there are some other problems with the HP AutoStore solution:

Technical problems:

- 1) The user interface on the display of HP 9200C is quite restricted. It can be configured, but we cannot have e.g. a list box any more to fill it with "unlimited" recipients (as in the case when using the DSS4). You can have only one or more edit fields to enter the recipients. (Or some other parameters you like.)
- 2) Also, there is no possibility to use the address book. (E.g. to fill the recipient fields direct from the address book, as with DSS4).
- 3) The originator of the fax (##UserName) will not be filled automatically with the user logged in (as in the case when using the DSS4). It is either constant or the user can enter it on the HP 9200C user interface (if it is so configured).
- 4) HP AutoStore does not provide an authentication system, so only the authentication system DSS4 can be used, and so still remains the problem of the fault tolerant installation of HP 9200C with DSS4.
- 5) A further problem is that HP AutoStore cannot create more than one "##dial" line in the .HPF file (DSS4 does it), so when sending to more than one recipients, the fax numbers will be listed in one single "##dial" line separated with, e.g., commas. This is not so bad, but the TCLINKSJ does not support this convention presently. TCLINKSJ expects one separate "##dial" line for each recipient. This means, when using HP AutoStore, TCLINKSJ must be adapted accordingly.

Economical problems:

- 1) You have to maintain two separate HP AutoStore servers. Both servers require separate licenses.

4.4 Installing TC/LINK-SJ

After complete installation of the HP Network ScanJet environment, you should make a short check: Send any document from the scanner to any fax address; some seconds later, you must get an output in the ScanJet Daemon output directory.

If this does not work, check the HP documentation for troubleshooting hints!

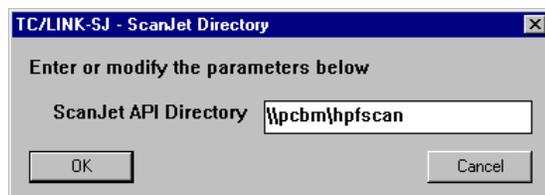
If this is working, you can now configure the TC/LINK-SJ.

4.4.1 Common Installation for All TC/LINKs

- For KCS Server releases lower than 7.22 (original name: TCOSS 7.22), you need to create a Link user for the TC/LINK-SJ on KCS (by TCfW). This is required for automatic installation of all requirements on KCS.
- Make sure that this user has a TOPCALL address (this address is used as originator for operator messages; missing Link user address will result in a KCS "617" error loop!)
- Run the Setup program; fill in all general TC/LINK configuration items. Refer to the TC/LINK manual for details!
- See the following screenshots for TC/LINK-SJ – specific configuration.

4.4.2 TC/LINK-SJ "Easy Installation"

In the "Easy Installation" setup mode, you only need to configure a single TC/LINK-SJ specific parameter:



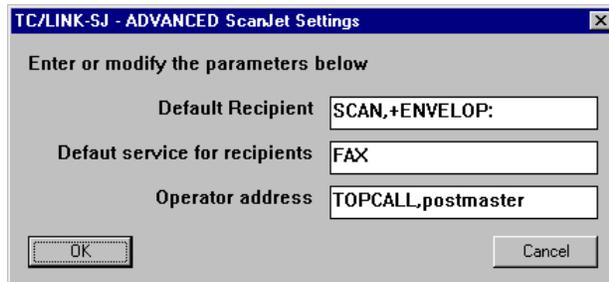
Please enter the path of the ScanJet Daemon output directory here (may either be UNC filename, or local drive).

Note:

- Mapped network drives are not accessible if TC/LINK-SJ runs as a service (under TCSRVS control). Therefore, the API directory must either be on the local hard disk, or defined with UNC name (as in the screenshot above).
- The TC/LINK-SJ Windows user account needs full access rights to this directory.

4.4.3 TC/LINK-SJ “Advanced Installation”

If you have selected the “Configure Advanced Features” option in the first Setup screen, an additional Screen pops up:



Default Recipient: This is the recipient address (in HP addressing syntax) that is inserted for any message sent to FAX, “*” (from the HP ScanJet Control panel). The default, “SCAN,+ENVELOP:” would allow for attaching scanned documents in TCfW/TopDeskPro.

Default service for recipients: This service is used for addresses without service given (for example, for numbers entered directly at the ScanJet panel).

Operator Address: This address is used to report any failures before posting the current message (e.g. when addressing to an invalid KCS channel) as no notifications can be sent back to the scanner. As soon as a message is posted correctly, all notifications (if configured) go to the shadow user!

Note:

The “SCAN” service is created automatically at the first startup of TC/LINK-SJ.

Make sure that the “+ENVELOP” user on KCS has an active “SCAN” address “+ENVELOP”! This was not necessary for the “attach from fax” functionality; so, you need to add it now! If this is missing, all “attach” documents will be sent to the operator.

4.4.4 Final Installation Steps

- By default, all scanned documents are sent with a leading page break. As TCfW “attach from fax” functionality adds an additional page break, this would result in an empty page before the attached document. You can disable the TC/LINK-SJ leading page break by setting the registry DWORD “...\\TCLINKSJ\\General\\SuppressLeadingPageBreak” to 1.
- With KCS Server 7.23 or higher (original name: TCROSS 7.23), all scanned documents are stored in alternative contents. Compared to the “attach from fax” functionality, this has a disadvantage: you cannot edit image blocks in the alternative content (for e.g. adding annotations). To have the image stored as separate item (no alternative content), set the registry “...\\TCLINKSJ\\General\\CompatibilityOldContent” to 1.
- Set TCSRVS to “startup automatic” (Control Panel / Services / TCSRVS).
- Reboot the TC/LINK PC.

4.4.5 Additional Hints

- If you want to use the “Attach from FAX” functionality for sending faxes from TCfW/TopDeskPro, make sure that conversion to TCI is done by TC/LINK-SJ (do not configure “binary” capability to the service used by the “Attach” address, default for “SCAN” service is no binary capability)!
- By default, TC/LINK-SJ does not request any notifications. If you want to receive notifications to the shadow users, turn on the “Force Notifications To Mail” checkbox in the advanced TC/LINK Setup!
- Disable the “Alternative Content” feature when working in Distributor mode with old 16-bit TCfW clients (versions prior to 2.14). Otherwise, scanned attachments may be lost! This is done by setting the registry value “HKEY_LOCAL_MACHINE\Software\Topcall\TCLINKSJ\General\CompatibilityOldContent” to 1.
- The same applies to attaching from HP ScanJet with old 16-bit TCfW clients.

4.5 Building Proper Addresses

With direct input of the fax number at the ScanJet Control Panel, everything is easy: The number you enter is the number the fax is sent to (of course, after passing the rr99, as for all other faxes sent via KCS).

With predefined addresses (either with JetAdmin software, or ScanJet Utility), you get extended capabilities. You are allowed to enter any string as a “fax number”, and therefore TC/LINK-SJ defines syntax for these numbers:

[Fullname,[Service,]]Number[,Answerback]

If you have worked with other TC/LINKs before, you may be familiar with that syntax. If not, some examples may help you:

Address	Your message will be delivered to ...
66133899	Fax number “66133899” (“FAX” must be the configured default service)
FAX, 66133899, 1234567	Fax number “66133899” with answerback ”123456”
MyFullname, FAX, 66133899, 1234567	Fax number “66133899” with answerback ”123456”, fullname “MyFullname”
SMTP, AI@kofax.at	The internet mail address “AI@kofax.com”
TOPCALL, AI	The KCS user AI (if “AI” is a valid user)
TOPCALL, testfax	The KCS recipient “testfax”
NOTES, KAichner@TOPCALL	Via TC/LINK-LN to address “KAichner@TOPCALL” on Lotus Notes

Note that “FAX”, “SMTP”, “TOPCALL” and “NOTES” are services that must be configured on KCS!

Note:

- Also non-US-ASCII characters are allowed (e.g. those “ÄÖÜäüöß” in German).
- Total address length is restricted to 60 characters. Create a KCS recipient, and address to that if your desired address is longer than 60 characters!
- If a matching KCS shadow user, or address book entry is found, it will replace all address parameters given here! Therefore, it is not necessary to specify a fullname or answerback if addressing to KCS address book entries.
- The address “*” is a special case: it is replaced by the default recipient configured in the TC/LINK-SJ setup! You can use this e.g. for fast addressing to the operator queue, directly from the ScanJet Control Panel. By default, it is used for the “Attach from Scanner” functionality.

5. Troubleshooting

5.1 Localizing the Problem

If you encounter any problems with TC/LINK-SJ, do the following:

- Stop TC/LINK-SJ
- Scan a piece of paper to a fax number directly entered at the scanner's Control Panel (no predefined recipient)
- Check the Scanner output directory (as configured in the TC/LINK-SJ setup, and the JetAdmin Fax configuration)
- There must be (at least) two files: one .TIF file containing the current scan, and a .HPF file containing user and address information.

If these files are NOT there, the HP environment is bad. Check the HP documentation for troubleshooting hints!
If these files are there, TC/LINK-SJ configuration may be wrong.

5.2 TC/LINK-SJ Problems

If there is a .HPF / .TIF file pair in the scanner output directory, set the trace level of TC/LINK-SJ to 255 and restart it. Then, check the Windows event log (application section) or the TC/LINK-SJ trace file to see what goes wrong.

- "Invalid rights" indicates that the Windows user for the TC/LINK-SJ process has improper rights setup. Log on as this user, and check if you have full access rights to the scanner output directory!
- "Path not existing" indicates that the configuration of the scanner output directory is possibly wrong. The same thing applies if TC/LINK-SJ does not find any files, although there are definitely some there!

6. Performance

TC/LINK-SJ has a throughput of min. 60 pages/minute (3600 pages per hour) on a Model 21x KCS server, Pentium 200, 64MB RAM, no other KCS load.

As the HP Network ScanJet 5 has a scanning speed of 15 pages/minute, a single TC/LINK-SJ can serve at least four scanners in parallel (parallel operation provided by HP ScanJet daemon).

Parallel operation of multiple TC/LINK-SJ on the same API directory is supported when the API directory is located on a Windows server; it was not tested on NetWare or different file servers.

7. Restrictions

- See the TC/LINK-Manual for all general TC/LINK-restrictions!
- The total address length is limited to 60 characters in total (by HP software)
- No directory synchronization is supported from/to the scanner address book (You may work around that restriction by use of TC/LINK-MX or TC/LINK-GW DirSync – see 4.1.5.3 “Possibilities for Automatic User Import to KCS (Creating Shadow Users)”)
- Addressing to KCS distribution lists is not possible from the ScanJet; it is possible only via the distributor queue (general TCLINK restriction).
- Sending to services without binary or image capabilities will result in empty or cover-only messages (the scanned content is lost!)
- Sending from other services to TC/LINK-SJ will never succeed (send order set to “inactive-problems” on KCS)
- Notifications to the ScanJet interface are not supported.
- TC/LINK-SJ always takes the cost center from the originator user profile (or guest, if originator not given), while the HP software only allows for per-recipient cost centers!

8. Appendix

8.1 Registry Values Used by TC/LINK-SJ

See the TC/LINK Manual for all general registry keys. TC/LINK-SJ uses the following special registry keys (location HKEY_LOCAL_MACHINE\Software\TOPCALL\TCLINKSJ\Options\...):

Registry Key	Type	Default	Possible Values / Meaning
APIDirectory	REG_SZ	C:\HPFSCAN	API Directory for ScanJet (directory will be created if not existing)
DefaultRecipient	REG_SZ	"SCAN, +ENVELOP:"	A "*" in the address is replaced by this address string. Syntax like any other recipient address.
Operator	REG_SZ	"TOPCALL, postmaster"	Address that is notified in case of any problems. Syntax like any other recipient address.
DefaultRecipientService	REG_SZ	"FAX"	Service to be used if only the number is specified
Comment	REG_SZ	"HP Scanned"	Comment for the attachments in the KCS messages.
MaxProblemsToTC	REG_DWORD	30	Defines the number of file-open-retries for the case an error occurs while opening .TIF or .HPF file in the Scanner output directory (e.g. for the real case, that the .TIF file was already created but the ScanJet daemon still writes /and so locks/ this .TIF file.)
RetryCntFileExtension	REG_SZ	"CNT"	File-extension of the file which stores the current file-open-retry-count. (See description of the registry setting "MaxProblemsToTC".)
Hpf2Tcsi	REG_MULTI_SZ	(empty)	Contains a mapping of HPF file fields (starting with "##") to TCSI fields. Optionally, an additional HPF → TCSI field transfer can be configured here which superposes the default filling. If this setting is not defined or empty, than the TCSI message structure will be filled in a standard, hard-coded way.

8.2 Configuring Additional HPF → TCSI Mapping

- 1) Create the registry setting Options\Hpf2Tcsi (REG_MULTI_SZ)
- 2) Define the mapping: 1 line is 1 mapping rule.
E.g.:
##somefield,E.int_file_id
Syntax:
[HPF field name (starting with "##"),[E|H|O|R].[TCSI field name]

That is, each line contains an HPF field name – TCSI field name pair, with comma (',') as a separator. The TCSI field name contains again two parts: the first part is only one character ("E" or "H" or "O" or "R") defining the containing TCSI object; the second part is the TCSI field name itself. These two parts are separated with a period ('.').

The containing TCSI object can be:

E → set_entry_ms_mail
 H → set_header
 O → set_entry_rs_originator (Originator)
 R → set_entry_rs (Recipient)

As a message can contain more than one recipient, in case of object type "R" there is a possibility to add an index (1 based!) to the TCSI field name to further specify which recipient must be taken.

Index value 0 or omitting the index part means that the mapping will be applied for all recipients.

The index value must be in parentheses "()" without whitespace.

Examples:

##somefield,R.ts_correl_4(3)

fills the ts_correl_4 TCSI-field only in the 3rd recipient.

However,

##somefield,R.ts_correl_4(0) or ##somefield,R.ts_correl_4

Fills the ts_correl_4 TCSI-field in all recipients.

3) Restart TC/LINK_SJ

Troubleshooting:

Set registry settings

General\Tracelevel > 0x80.

General\MailDebug = 1

General\TraceSmall = 1

Please, search for the 'Hpf2Tcsi' string in the trace file. The according trace lines will show which TCSI fields were filled with which HPF values according the Options\Hpf2Tcsi definition.

Also, if you have a trace from the TC/LINK-SJ start, then the content of the registry setting Options\Hpf2Tcsi will be displayed in the trace file.

8.3 The ScanJet Daemon Readme File (Excerpt)

Please refer to the documentation shipped with your scanner for the latest revision of this document! The following lists only the most important items.

2. Installation Instructions

2.1. Installation Requirements, Supported and Non-Supported Environments

2.1.1. Servers (Network Operating Systems)

The HP Network ScanJet 5 scanner works with the following Network Operating Systems (NOS).

- Novell Netware 3.1x
- Novell Netware 4.x (NDS or Bindary emulation mode)
- Microsoft Windows NT Server 3.51 and 4.0 (Domain configuration)
- IBM LAN Server 3.0 and 4.0

2.1.2. Network Transport Protocols

Depending on the Network Operating System, the HP Network ScanJet 5 scanner connects to the server using one of the network protocols listed in the table below (Note: the server has to provide support for those protocols).

```
Server.....Network Protocol
Novell Netware 3.1x.....IPX

Novell Netware 4.x .....IPX
(NDS or Bindary emulation mode)...

Microsoft Windows NT 3.51 and 4.0 .....TCP/IP
(Domain configuration)

IBM LAN Server 3.0 and 4.0.....TCP/IP
```

(Note: Client PCs do not communicate directly with the network scanner.)

2.1.3.1. Environments supported by HP JetAdmin software

The HP Network ScanJet 5 scanner is configured using HP JetAdmin software. The table below lists the environments supported by HP JetAdmin software:

```
...Client.....Windows.....Windows for ...Windows.....Windows NT
.....(3.1x).....Workgroup... (95).....(3.5x - 4.0)
.....(3.1x)
Server
Novell NetWare..... -.....-.....yes.....yes
(3.x)

Novell NetWare..... -.....-.....yes.....yes
(4.x - Green River)

Microsoft Windows NT... -.....-.....-.....yes
(3.5x - 4.0)

IBM LAN Server..... -.....-.....yes.....-
(3.x - 4.x)
```

While there are specific operating systems requirements for the PC running HP JetAdmin software, all the other client PCs in the workgroup can use any MS Windows operating system.

2.1.4. Network Scanner Cabling Systems

The HP Network ScanJet 5 scanner is available in the following options:

- C1307A...10Base-T (supports also 10Base-2)
- C1308A...Token Ring (4 and 16 Mbit)
- C1309A...100VG (supports also 10Base-T)
- C1310A...100Base-T (supports also 10Base-T)

2.2. Installation Sequence

Install the software in the following order:

- First, install the Daemon software (only for NT or LAN environments).
- Second, install the administrator software
- Third, install the client software

2.3. Install the Daemon Software

-For Windows NT 3.51 and 4.0

- 1) Log onto network server with administrator privileges.
- 2) Insert disk into CD-ROM drive.
- 3) Browse the CD.
 - ...-For Windows NT 3.51: from the File menu, choose Run, then Browse.
 - ...-For Windows NT 4.0: choose Start, Run, and Browse.
- 4) Select D:\DAEMONS\NT\your language\SETUP.EXE.
- 5) Click OK.
- 6) Follow instructions on the screen.

- For OS/2 WARP and OS/2 2.1

- 1) Double-click the OS/2 System icon.
- 2) Double-click the Drives icon.
- 3) Double-click the CD icon.
- 4) Use Tree View to find the \DAEMONS\OS2 directory.
- 5) Double-click HPSETUP.EXE.
- 6) Follow instructions on the screen.

2.4. Install the Administrator Software

- 1) Log onto a workstation in the domain with administrator privileges.
- 2) Insert disk into CD-ROM drive.
- 3) Browse the CD.
...-For Windows NT 3.51: from the File menu, choose Run, then Browse.
...-For Windows 95 and NT 4.0: choose Start, Run, and Browse.
- 4) Select D:\ADMINSW\your language\SETUP.EXE.
- 5) Click OK.
- 6) Follow instructions on the screen.

2.6. Setup Information

2.6.1 Daemon Setup

The NSJTP Service for Windows NT networks is a component required by the system to be actively running on a server for the NT domain where an HP Network ScanJet 5 scanner is configured.

REQUIREMENT NOTE: The HP Network ScanJet 5 scanner does NOT support Windows NT networks where the servers are configured as "Workgroup" servers.

Users who are running the install program for this service must be logged in to the NT domain with an account belonging to the "Administrators" group.

IMPORTANT NOTE: During the installation you will be asked to assign an account and a password to the service. The requirement is that the account belongs to the "Administrators" group, and the password for this account must be defined as "non-expiring" to avoid problems with future start-ups of the service. If you do not have such type of account information available now, please make sure you create them before proceeding. You will also be asked to specify the TCP/IP address (e.g. 15.157.78.23) or the fully qualified domain name (e.g. archimede.greece.com) of an SMTP gateway. This information is optional and is required only if you want to activate the Internet E-mail functionality.

A single "primary" instance of the NSJTP Service for Windows NT must be running at all times on the domain. A single primary service may support more than one scanner in the domain. Multiple "secondary" services may be installed on the same domain to increase performances. Only one service may be installed on any single Windows NT server machine of the domain. The Setup utility will help you determine which type of service (primary or secondary) you can install on the system.

IMPORTANT NOTE: The NSJTP Service installation is mandatory for Windows NT and IBM LAN Server networks. If this service is NOT running on the domain, then the HP Network ScanJet 5 scanner cannot be used to scan to Windows NT users. Additionally, the direct E-mail functionality from the control panel is available only on Windows NT networks and requires the service to be actively running.

2.6.2 Administrator Software Setup

The Administrator Software setup is composed of four separate setup programs executed in the following order:

- The Master Setup which allows selection of installable components.
- The HP JetAdmin Setup which will reboot PC after successful installation.
- The Scanner Applet Setup which will be launched from Startup program group upon reboot.
- The Adobe Acrobat Reader which will be launched if the Administrator's Guide was selected for installation.

3. Installation Issues

3.1. Hints for Running HP Network ScanJet 5 Administrative Software

3.1.1. Getting Your Network Scanner on the Main Screen

When you first install your network scanner, if you start the HP JetAdmin software and the scanner is not displayed in the main screen, try the following:

- A) Check that the network scanner is turned on, and that the network cable is properly connected.
- B) Check that the network scanner is properly configured from the control panel.

You can enter the network scanner configuration menu pressing the green button on the control panel when it is rebooting (just press it during the control panel Self Test activity). Then check that:

- the frame type used is correct for both IP and IPX protocols.
- the IP address, netmask and gateway are correct (for TCP/IP networks only).

- C) Refresh Administrative Software Main Screen's Contents.

The HP JetAdmin main screen is not automatically refreshed, in order to minimize the network bandwidth usage. Therefore, when you turn on or set up a network scanner after starting the HP JetAdmin software, just press the F5 key (or select Refresh from the View menu) and the related entry will appear.

All devices are listed in the HP JetAdmin main window under the following types:

- ...- IPX name
- ...- TCP\IP name

To select the preferred name, choose Preferences from the Options menu. On the default Protocol tab of the Preferences dialog box, select the desired name in the Default name box:

- If you select IPX, the scanner is named with the bindary name (which is the MAC/Address displayed at control panel in the configuration menu).
- ...
- If you select TCP/IP, the scanner is named with the network scanner name defined in the DNS server, or if this is not defined, with the scanner IP address.

Once your network scanner appears in the HP JetAdmin main screen you have just to select it, and choose Modify from the Device menu.

3.1.2. Running the HP Network ScanJet 5 Administrative Software on More Than One Computer at the Same Time

It is not recommended to run the HP Network ScanJet 5 Administrative Software from more than one computer at the same time. In fact, since on the network scanner does not check for file collisions, it could be possible to introduce inconsistencies in the network scanner configuration files.

The HP Network ScanJet 5 Administrative software is not an automatically updated program. When you open up any window throughout the program, including the main screen, displayed information is not updated until you close the window and open it a second time. As a consequence, if you are running the program from more than one PC at a time, you can come across errors since displayed information could be wrong. To avoid error messages, either run the program from one PC only, or, before performing any operation, refresh the main screen and open a window only when you need it.

3.2. Software Requirements for Running HP Network ScanJet 5 Administrative Software

This section focuses on what you have to install on your PC (Microsoft Windows95 or Microsoft WindowsNT) in order to have the HP Network ScanJet 5 Administrative software work properly.

3.2.1. Working with IBM LAN Server 3.x and 4.x Domains

- 1) The sharing of dirs and printers service has to be installed.
- 2) The configured protocols are both TCP/IP and NETBEUI (even if NETBEUI is never used)
- 3) The Netware compatible stack has to be uninstalled.
- 4) The predefined protocol is TCP/IP (not NETBEUI)
- 5) The win95 computer is configured in a workgroup (not a domain) with the same name as the OS2 domain.
- 6) Log on the win95 computer as OS2 domain administrator with the same password of the OS2 domain administrator.
- 7) Map as administrator one drive for every domain OS2 server.
- 8) Wait until all OS2 servers are available in the network neighborhood of the 95 machine

JetAdmin cannot correctly configure a scanner if you are running it from a Windows 95 client without DNS configured and running NETBEUI to talk with the OS2 server. The workaround in this case is to rename the file \windows\hosts.sam to \windows\hosts and to add the name of the OS2 server in the host list.

3.2.2. Working with Novell NW4.x NDS Domains

To access NW4.x NDS network resources the PC running the HP Network ScanJet 5 Administrative software should have installed the Novell NetWare 32-bit client (for Windows95 or for WindowsNT), because the Microsoft client is only for 16-bit applications.

3.3. Daemon Known Problems

The daemon cannot be started if the "Novell Clients for Windows NT" is installed on the same server. This is a problem common to all services that run using an account other than the System Account (for example, Microsoft Directory Replicator Service).

On Windows NT 3.51 the daemon cannot print to network printers. Microsoft has confirmed this to be a problem in Windows NT version 3.51 (see MSDN KB:Windows NT KBBase Id Number: Q139619). The US Service Pack 4 fixes this problem.

3.4. Administrator Software Known Problems

This section shows a list of known bugs; when possible a workaround will be proposed.

3.4.1. Installation of the HP JetAdmin Software

When performing the uninstall of the HP JetAdmin software ALWAYS reboot the computer to complete the uninstall process. The following files will not be removed until the computer is rebooted.

- HPLOCMON.DLL
- HPCOLA.DLL
- HPNWSHIM.DLL
- HPNWPSRV.DLL

Attempting to re-install the HP JetAdmin software without performing this reboot results in error.

3.4.2. Older versions of HP JetAdmin Software

On Windows95 you could have an old version of the HP Jetadmin software that is installed on your system as a network component under Control Panel. It is mandatory to remove this old version before installing the new version. To do so, go to Control Panel and select Network; HP Jetadmin software should appear as an installed

service. Remove the service and reboot the machine. After rebooting you can install the newer version of HP JetAdmin software.

3.4.3. WindowsNT Trusted Domains

The machine account, daemon and workarea must all be/run in the same domain; however the user account can be in the same domain or in a trusted domain.

3.4.4. Browsing of Network Environments

HP JetAdmin software might not list some network environments as available even if it has administrator rights for

those environments. This happens for one of the following reasons:

- The network environment was not enumerated due to network traffic problems. Try to unload and reload the network scanner configuration pages.
- The network environment is an NT domain different to the logon domain. Re-configure the NT client changing the referred logon domain.

During the browsing for the available network environments on a Microsoft Windows95 client, HP JetAdmin software might not be able to correctly distinguish from IBM LAN Server servers and WindowsNT servers. The result is a confusing situation in which some WindowsNT servers are grouped together with IBM LAN Server servers, and vice versa. You can bypass the problem (also improve speed or if you experience problems getting your domain servers listed) by searching the registry for the key "HKEY_LOCAL_MACHINE\SOFTWARE\Hewlett-Packard\HP JetAdmin\Applet Manager\Applets\HP Network ScanJet 5 ", and check the following:

- a) string value "DomainName" with the right name of your domain
- b) string value "DomainController" with the name of your domain controller as value
- c) dword "DomainServersNum" with the number of servers belonging to your domain (max 64) as value
- d) subkey "DomainServers" under which you should set the string values (no names) containing your servers' names (add the controller too)

During the browsing of an Novell NW4.x NDS tree, HP JetAdmin software lists only the users for which it has administrator rights. If the HP JetAdmin software is logged into the NDS tree using a login name that has administrator rights for a particular context in the tree, only the users under that context will be enumerated.

Even more, to see other NW4 servers than the primary one, you must have an explicit attachment to it (for example, through a map drive). As soon as you are attached as supervisor to any other NDS server, the HP JetAdmin software will enumerate it, but you need to open the network scanner configuration pages again.

3.4.7. JA 95: TCP/IP and NetBEUI

When trying to enumerate scanners that have TCP/IP stack only, please check that you are also using NetBEUI, and that NetBEUI is not the default protocol. If NetBEUI is the default protocol, HP JetAdmin software may be unable to communicate with the devices, a timeout occurs, and the device is not displayed on the main window. You should go to Control Panel/Network, and configure the TCP/IP protocol to be the default protocol.

3.4.8. JA 95: WorkAreas on OS/2

When selecting a sharepoint under which you want to place a user's WorkArea keep in mind that no permissions are added by the HP JetAdmin software. It is up to you to provide the necessary security rights so that the user has sufficient rights to create and delete files from the WorkArea. The sharepoint under which you place the WorkAreas should be readable by everyone.

3.4.9. Bad IP Addresses

If you experience problems in associating the right IP addresses to the server:

- a) verify you have properly enabled the DNS or the WINS mechanisms on your machine.
- b) if the trouble continues, try to add to the "hosts" file into your WINDOWS system dir (for example, c:\windows\hosts, or for Windows95, c:\winnt35\system32\drivers\etc\hosts) the right address for your server(s).

3.4.10 Unconfiguring a Network Environment

When unconfiguring a Network Environment associated to a valid faxing workarea, JetAdmin prompts a WARNING message but it doesn't avoid the operation. Proceeding in the operation can result in having the NWBox in a bad state in which:

- a) pending notifications (if any) are deleted and lost.
- b) the fax destination is still shown at the control panel but it's not reachable; any attempt to send a document to it will result in a Control Panel message.

The only way to achieve a consistent state is to configure again the FAX Server.

3.4.11 Restore and replicate operation

To ensure that after a replicate operation the scanner configuration will be consistent you have to be administrator on each network environment configured on the source scanner. Sometimes this is not possible as just only one NT network environment can be administrated at time or because the scanner has not loaded the right protocol stack. So it's necessary to configure those networks environments on destination scanner before starting "Replicate" or "Restore" operation.

The replicate operation doesn't complete successfully on NDS network environment.

3.5. Network BOX Known Problems

This section shows a list of known bugs or limitations for the NWBOX.

3.5.1 Private destinations

The path specified in the WorkAreaPath field for any Autoflow in the aflsdb.dat of a private user defines the UNC path of the WorkArea for the specified Autoflow. This path MUST reside on the same network environment as the private user.

A user is allowed to log into the NWBOX even if a document of another private user is being sent to a distribution list at the same time. This feature is known as multi-private scenario. The multi-private feature doesn't work if the private users belong to different NDS trees.

3.5.2 Upgrading the Network Box firmware

During a firmware upgrade, if a syntax error is found in the .ver file, the NWBOX will only be partially upgraded, it will not be automatically rebooted, and the error will be logged in the event.log file.

3.5.3 Server file system full

If during a document transfer to a distribution list a file system full error takes place on the first destination, the entire transfer will be aborted and none of the destinations will receive the document. This occurs even if the WorkAreas are physically on different file systems.

5. Technical Assistance

Refer to the "Hewlett-Packard Service Worldwide" section within the "Warranty and Support Information" Appendix in the User's or Administrator's Guides for a list of Hewlett-Packard support locations and phone numbers. The online support telephones are listed under Customer Support Assistance. The number for North America is (208)-323-2551. Any future software and firmware upgrade and patches will be posted on the HP WEB site under:

<http://www.hp.com/go/cposupport>

8.4 TC/LINK-SJ Setup Checklist

KCS Server CPU number ¹⁾	
Link Server CPU number	
KCS version	
TC/LINK-SJ license (if not running on a Link Server)	Key: Expire Date: Registrations:
PCL5 license key (optional)	Key: Expire Date: Registrations:
KCS Server Name	
Link Type to KCS Server, transport type RPC or Native	
Secondary KCS Server Name (for tandem servers only)	
Link Type to secondary KCS Server (for tandem servers only)	
KCS Link User Name	
KCS Link User Password	
NT Link User Name	
NT Link User Domain	
NT Link User Password	
Path to the ScanJet "HPFSCAN" directory	

¹⁾ For KCS Server < 7.08 (original name: TCOSS 7.08) in combination with KCS tandem servers these licenses have to be entered for both CPU numbers of the primary and the secondary KCS server.