AXIS OfficeBasic
Print Server

User's Manual

Safety Notices

Please take some time to read through the safety notices before installing the AXIS OfficeBasic.

Caution! - must be observed to avoid loss of data or damage to your equipment.

Important: - must be observed to avoid operational impairment.

Do not proceed beyond any of the above notices unless you have taken appropriate measures!

Electromagnetic Compatibility (EMC) notices - USA

This equipment generates and radiates radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference. Shielded cables should be used with this unit to ensure compliance with the Class A limits.

Electromagnetic Compatibility (EMC) notices - Europe

This digital equipment fulfils the requirements for radiated emission according to limit B of EN55022/1994, and the requirements for immunity according to EN50082-1/1992 residential, commercial, and light industry (Compliance is not valid for unshielded network and printer cables).

Liability

Every care has been taken in the preparation of this manual; if you detect any inaccuracies or omissions, please inform us by contacting your local Axis office. AXIS Communications AB cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Axis Communications AB makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Axis Communications AB shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material.

Year 2000 compliance

Axis Communications warrants that the AXIS OfficeBasic, with software versions 6.00 or later, is Year 2000 compliant.

Axis' Trademarks

ThinServer.

Other Trademark Acknowledgments

DOS, Ethernet, Internet Explorer, LAN Manager, LAN Server, Microsoft, Netscape and Windows, are registered trademarks of the respective holders.

Preface

Thank you for purchasing the AXIS OfficeBasic Print Server. This product has been developed to connect your printers anywhere in your network, allowing all network users access to the shared printer resources.

About this manual

This manual provides introductory information as well as detailed instructions on how to set up and manage the AXIS OfficeBasic in various network environments. It is intended for everyone involved in installing and managing the AXIS OfficeBasic. To fully benefit from the manual, you should be familiar with basic networking principles.

This manual is applicable for the AXIS OfficeBasic, with software release 6.00 or later.

About Axis

Axis Communications is dedicated to providing innovative solutions for network-connected computer peripherals. Since the start in 1984, it has been one of the fastest growing companies in the market and is now a leader in its field.

ThinServer™ Technology - enables Axis' products to act as intelligent file server independent ThinServer devices. A ThinServer device is a network server which includes "thin" embedded server software capable of simultaneous multiprotocol communication, scalable RISC hardware and a built-in Web server which allows easy access and management via any standard Web browser. The ThinServer technology makes it possible to connect any electronic device to the network, thus providing "Access to everything".

Today, Axis Communications is offering six major ThinServer product lines consisting of:

Network Print Servers - offer a powerful and cost-efficient method for sharing printer resources in your network. They connect to any standard printer, featuring high performance, simple management and easy upgrading across the network. The print servers are available in Ethernet, Fast Ethernet and Token Ring versions.

IBM Mainframe and S/3x - AS/400 Print Servers and Protocol Converters - include a wide range of LAN, coax and twinax attached print servers for the IBM host environment. By emulating IBM devices, these servers provide conversion of the IPDS, SCS and 3270DS data streams to the major ASCII printer languages.

Network Attached Optical Media Servers - provide a flexible and cost-efficient solution for sharing CD-ROMs, DVD-ROMs and other optical media across the network. They are available in Ethernet, Fast Ethernet and Token Ring versions.

Network Camera Servers - provide live images using standard Internet technology, thus enabling access to live cameras via any standard Web browser. They offer a perfect solution for remote surveillance over the Internet; their sharp images can bring life into any web site. These servers support Ethernet as well as PSTN and GSM phone lines.

Network Scan Servers - enable easy distribution of paper-based information across workgroups and the enterprise. By sending scanned documents to your destination via the Internet/intranet, you will reduce your faxing/mailing costs, as well as save time, thus improving your organization's efficiency.

Support services

Should you require any technical assistance, please contact your Axis dealer. If your questions cannot be answered immediately, your Axis dealer will forward your queries through the appropriate channels to ensure you a rapid response.

If you are connected to Internet, you can find on-line manuals, technical support, firmware updates, application software and company information on the addresses listed below.

WWW:	*http://www.axis.com*
FTP server:	*ftp://ftp.axis.com/pub/axis*

Table of Contents

Section 1   Product Overview

Based on the ThinServer technology, the AXIS OfficeBasic allows you to share your available printer resources on your network. You can connect your AXIS OfficeBasic directly to any standard printer without the need of additional cabling.

The AXIS OfficeBasic supports printing using the TCP/IP and NetBIOS/NetBEUI protocols from the following clients:

- Windows XP (requires firmware version 6.15 and up in your print server)

- Windows 2000

- Windows NT 3.5x and up

- Windows 95

- Windows 98

Package Contents

Verify that nothing is missing from the print server package by using the check list below. Please contact your dealer if anything should be missing or damaged. All packing materials are recyclable.

Hardware	Model	Part Numbers
Print Server	*AXIS OfficeBasic*	*0107-001-01*
Power Supply (PS-B)	*Europe*	*13267*
	UK	*13268*
	Australia	*13269*
	USA	*13270*
	Japan	*13936*

Media	Title	Part Numbers
CD	*AXIS OfficeBasic CD*	*revision 1.0*
Printed Materials	*AXIS OfficeBasic User's Guide*	*16853*

From your local dealer you can order optional accessories. The following items are available for the AXIS OfficeBasic:

Optional Accessories	Title	Part Numbers
Cables	*Printer Cable extensions*	*13522*
	Centronics to mini-Centronics cable	*16453*
Ribbons	*Self-adhesive velcro ribbons*	*13282 & 13283*

AXIS OfficeBasic Physical Description

LPT1 Printer
Connector

Ethernet
Connector
(10baseT & 100baseTX)

Test Button

AXIS
OfficeBasic
Print Server

External Power
Supply Connector

Power Indicator

Network Indicator
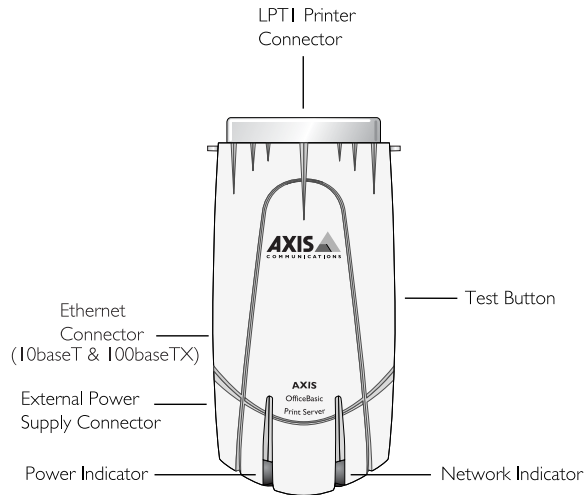
Plan view of the AXIS OfficeBasic

Network Connectors | The AXIS OfficeBasic is designed for 10 Mbps Ethernet and 100 Mbps Fast Ethernet networks and connects to the network via a twisted pair category 5 cable (10baseT and 100baseTX) or better. The AXIS OfficeBasic is equipped with an autosensing function that detects the speed of the local network segment and varies the speed of its data communication accordingly, between 10 Mbps and 100 Mbps.

Printer Port | The AXIS OfficeBasic print server is provided with a single high-speed IEEE 1284 compatible parallel port, that connects directly to any standard printer.

Centronics-to-Centronics and Centronics-to-mini Centronics extension cables may be obtained from your local distributor for use with printers physically unable to accommodate the AXIS OfficeBasic.

Test Button   The test button is used for:

- Printing a test page to check the connection to the printer.
- Printing the parameter list showing all the AXIS OfficeBasic settings.
- Resetting the AXIS OfficeBasic parameters to the factory default settings.

Refer to *Using the Test Button*, on page 46, for more information about the test button.

Network Indicator   The network indicator flashes to indicate network activity.

Power Indicator   The power indicator is lit while power is applied. If it is not lit, or it flashes, there is a problem with the AXIS OfficeBasic or its power supply.

The AXIS OfficeBasic CD

The AXIS OfficeBasic CD comprises all necessary AXIS OfficeBasic documentation and software. It is compatible for use within all of the supported Windows environments.

The CD interface is available in HTML format, but the documentation is in pdf format.

Start-up procedures   The AXIS OfficeBasic CD starts automatically from a local CD drive on **Windows 95/98, NT** and **2000** platforms.

You can also navigate to the CD root directory and click on the *index.html* file from within the Windows file manager.

Note: ❑ If the Adobe Acrobat Reader 3.0 is not installed on to your system, you can download it from the AXIS OfficeBasic CD.

Section 2   Hardware Installation and IP address assignment

In order to set up you print server and make it available for use on user's workstations, follow the instructions described here:

Connect the Hardware, on page 12

Assign an IP Address to the Print Server, on page 13

Adding a Network Printer to your workstation, on page 19

Connect the Hardware

1. Make sure that your printer is switched <u>off</u> and that the print server's Power Adapter is <u>disconnected</u>.

2. Locate the **serial number**, found on the underside label of the print server, and write it down. You will need this number to configure the print server. **Example**: S/N: 00408c181cf0

3. Connect the printer directly to the LPT port or using the printer cable .

4. Connect the print server to the network using a twisted pair category 5 cable, 10baseT or 100baseTX.

5. Switch on the printer and make sure it is ready for use.

6. Connect the Power Adapter to the print server. The power indicator will light up. When the network indicator starts to flash, the print server is correctly connected to the network.

7. Wait 1 minute. Press the test button on the print server once to print a test page. The test page includes a list of the most important parameters.

Assign an IP Address
to the Print Server

- **If you have a DHCP server on your network**, your print server will receive an IP address **automatically.** The IP address will then appear on the test page you printed above.

- **If you are not working in a DHCP network**, you need to set the IP address of the print server **manually**. Choose from the methods listed in the table below:

Notes

> **Ethernet Address:**
> You need to know the Ethernet address of your print server in order to assign an IP address to it.
> The Ethernet address is based upon the serial number of your print server.
> This means, for example, that a print server with the serial number of 00408C100086, will have the corresponding Ethernet address of 00 40 8C 10 00 86.
> The serial number is located on the backside label of the print server.
>
> **IP Address:**
> Unless you are assigning an IP address using DHCP, you must obtain an unused IP address from your network administrator.

Important:

> DO NOT use the IP addresses used in the following examples when installing your print server. Consult your network administrator before assigning an IP address to your print server.

If you need more specifications for DHCP networks, see *WINS, DDNS, DHCP information for System Administrators*, on page 49

Methods for Setting the IP Address

The IP address of your print server can be set using one of the following methods, depending on your network operating environment:

Automatic IP Address assignment

Method	Requiredserver/environment	Comment
DHCP	DHCP server	Dynamic assignment of IP addresses. See *Assign an IP Address to the Print Server*, on page 13

Manual IP Address assignment

Method	Platform	Comment
arp/ping	Windows	Requires the IP address for each device to be downloaded individually. Cannot be used over routers. See *Set the IP Address using ARP/Ping in Windows 95/98/NT/2000/XP*, on page 15
AXIS IP JumpStarter*	Windows 95, 98, NT, 2000	Axis software that allows you to find print servers in your network and assign an IP address to them. See *Set the IP Address using AXIS IP JumpStarter*, on page 17 * Can only be used with AXIS OfficeBasic print servers containg firmware version 6.15 and above!
AXIS IP Installer	Windows 95, 98, NT	Axis software that allows you to find print servers in your network and assign an IP address to them. See *Set the ip address using IPInstaller*, on page 18 Should only be used with AXIS OfficeBasic containing firmware prior to 6.15! DHCP must be enabled in the print server.

Important:

> • The ability to set the IP address with ARP/PING will only be enabled the first **4 minutes** after restarting the print server.
> • The ARP method operates on single network segments only, i.e. **they cannot be used over routers**.

Set the IP Address using ARP/Ping in Windows 95/98/NT/ 2000/XP

Start out with making sure that the IP address is available for use. The IP address **192.168.3.191** is used here as an example:

• Ping the IP address by opening a Command Prompt and writing:

```
ping 192.168.3.191
```

If the host returns `Reply from 192.168.3.191 ...` or a similar message, the IP address is already taken. You can obtain a new and unused IP address from your system administrator.

• Check that the IP address you want to use is not already taken and stored in the host's cache memory. Open a Command Prompt and write:

```
arp -a
```

If the host lists the IP Address followed by the Physical Address, then the IP address is in use.

You can remove the entry from the cache memory with the command:

```
arp -d 192.168.3.191
```

Follow the instructions below to set the IP address using arp/ping in Windows

1. Open a Command Prompt and write:

```
arp -s <IP address> <Ethernet address>
ping -t<IP address>
```

```
arp -s 192.168.3.191 00-40-8c-10-00-86
ping -t 192.168.3.191
```

2. Without interrupting the "ping -t" loop, restart the print server by disconnecting and then re-connecting the power supply.

3. If the host returns `Reply from 192.168.3.191 ...` or a similar message, the IP address has been set successfully. Interrupt the "ping -t" loop by pressing CTRL+C on your keyboard.

    If the host returns `Request time out…` you need to perform a factory default on the print server and perform steps 1-3 above again. See *Factory Default*, on page 52.

4. Log in to the print server's Web pages (see), select **Admin** | **Network Settings** | **Detailed View** | **TCP/IP** and define the **Default Router** and **Subnet Mask**.

You have now set the IP address of the print server. Continue to *Adding a Network Printer to your workstation*, on page 19.

Set the IP Address
using AXIS IP
JumpStarter

AXIS IP JumpStarter is Windows 95/98/NT/2000 software that allows you to assign IP addresses to your Axis servers and find Axis servers on your network.
Print server firmware **6.15** and above is required.

1. Download and install AXIS IP JumpStarter. AXIS IP JumpStarter is available on www.axis.com.

2. Select a print server from the serial number list:
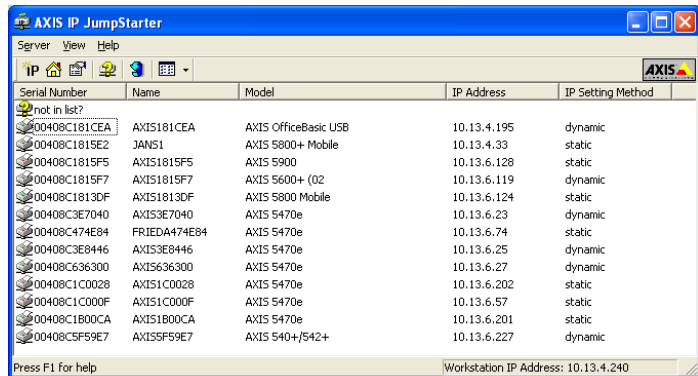
3. From the **Server** menu, select **Set IP Address**. The **Set IP Address** dialog appears.

4. Click the radio button that corresponds to your choice of IP setting method (static or dynamic using DHCP).
    When assigning a static IP address you also have to define **Subnet Mask** and **Default Gateway**.

5. Click **OK** to save your settings.

6. Enter the server root password (by default set to **pass**), click **OK** and the print server will appear in the list with the assigned IP address.

7. To verify that you have access to the print server's Web pages, highlight the print server in the list and select **Server Home Page** from the **Server** menu.

8. You have now finished the procedure of setting the IP address. Continue to *Adding a Network Printer to your workstation*, on page 19.

Note: If your print server does not appear in the serial number list, refer to the AXIS IP JumpStarter online help files.

Set the ip address using IPInstaller

1. Download AXIS IPInstaller. It is available for free on www.axis.com

2. Start the program.

3. Restart your print server and then select it's serial number in the list on the screen.
   If you don't know the serial number of your print server, you can find it on the bottom label of your print server (it is the same number as the server's MAC/Ethernet-address.)

   If no serial numbers are displayed, try restarting your printserver by turning the power off and then on again.

4. Fill in the print server's desired IP address. You can get the IP address from your network administrator.
   The IP address first three fields usually already have values. (These two first fields should normally not be changed, else you are setting an IP address outside your own network range.)

5. Click the "Set IP address" button to set the IP address. You will see dialogs that inform you of what is happening. Within one minute (normally 20 seconds) the IP setting will be finished, otherwise a timeout will occur. Upon success AXIS IPInstaller will display a success statement.
   When a failure occurs a dialog will let you know what went wrong.

6. Click the "Close" button when you have finished setting IP addresses.

Adding a Network Printer to your workstation

Configuration Methods

Once you have set the IP address of your print server, your network printer can be added to any computer on your network. The method that you choose should be dictated by your printing requirements and your supported network environments.

Select the appropriate method from the table below:

Windows Platform	Printing Protocol	Method	See...
Windows 2000, XP*	TCP/IP	Standard Windows Add Printer Wizard	*Adding Printers in Windows 2000 and XP over TCP/IP, on page 21*
Windows 2000	NetBIOS/NetBEUI	AXIS Print Monitor	*Adding NetBIOS/NetBEUI Printers in Windows 2000 using AXIS Print Monitor, on page 22*
Windows NT 4	TCP/IP	Microsoft LPR Monitor	*Adding Printers in Windows NT 4 Using the Microsoft LPR Monitor, on page 24*
	NetBIOS/NetBEUI	AXIS Print Monitor	*Adding NetBIOS/NetBEUI Printers in Windows NT 4 using AXIS Print Monitor, on page 25*
Windows 95/98	Raw TCP	AXIS Print Monitor	*Adding Printers in Windows 95/98 over TCP/IP using AXIS Print Monitor, on page 27*
	NetBIOS/NetBEUI		*Adding Printers in Windows 95/98 over NetBIOS/NetBEUI using AXIS Print Monitor, on page 30*

*Windows XP support for the AXIS OfficeBasic requires firmware version **6.15** and above. You can upgrade your firmware for free on www.axis.com.

Section 3   Printing from Windows 95/98/NT4/2000/XP

Overview of Installation Methods

Once you have connected the print server to your Ethernet network, you can proceed with making networked printers available from user workstations.

This section describes how to add network printers to a computer in Windows. Refer to the table below to determine the most appropriate installation method according to your computer environment:

Windows Platform	Printing Protocol	Method	See...
Windows 2000, XP	TCP/IP	Standard Windows Add Printer Wizard	*Adding Printers in Windows 2000 and XP over TCP/IP*, on page 21
Windows 2000	NetBIOS/NetBEUI	AXIS Print Monitor	*Adding NetBIOS/NetBEUI Printers in Windows 2000 using AXIS Print Monitor*, on page 22
Windows NT 4	TCP/IP	Microsoft LPR Monitor	*Adding Printers in Windows NT 4 Using the Microsoft LPR Monitor*, on page 24
	NetBIOS/NetBEUI	AXIS Print Monitor	*Adding NetBIOS/NetBEUI Printers in Windows NT 4 using AXIS Print Monitor*, on page 25
Windows 95/98	Raw TCP	AXIS Print Monitor	*Adding Printers in Windows 95/98 over TCP/IP using AXIS Print Monitor*, on page 27
	NetBIOS/NetBEUI		*Adding Printers in Windows 95/98 over NetBIOS/NetBEUI using AXIS Print Monitor*, on page 30

Adding Printers in Windows 2000 and XP over TCP/IP

Follow the instructions below to use the standard Windows method for adding a network printer in Windows 2000 and XP:

Windows XP:
1. Go to **Start** | **Printers and Faxes** and click the **Add a Printer** icon to start the **Add Printer Wizard**. Click **Next**.

Windows 2000:
1. Go to **Start** | **Settings** | **Printers** and click the **Add Printer** icon to start the **Add Printer Wizard**. Click **Next**.

2. Select the radio button **Local Printer** and click **Next.**

Important!

> Make sure that the **Automatically detect and install my Plug and Play printer** checkbox is <u>not</u> checked.

3. Click the **Create a new port** radio button and select **Standard TCP/IP Port** from the list. Click **Next** and the Add Standard TCP/IP Printer Port Wizard starts. Click **Next**.

4. Enter the name of the print server (Example: AXIS100086 or the IP address) and click **Next**. Enter the **Device Port** you want to use: LPT1. Click **Next** and **Finish**.

5. Select **Manufacturer** and **Printer** from the lists. Click **Next**. Choose whether you want to keep the existing driver or to replace it. If you already have the printer's driver installed, you will be asked whether to keep it or to replace it. Click **Next**.
   Supply a name for the printer and choose whether you want to make it your default printer. Click **Next**.

6. Choose whether you want to share the printer with other network users. Do you want to print a test page? Select the appropriate radio button and click **Next** and **Finish**.

Adding NetBIOS/NetBEUI Printers in Windows 2000 using AXIS Print Monitor

See to it that the NetBEUI protocol is installed on your client. Follow the procedure below to install Axis Printer Ports from a Windows 2000 workstation:

1. To start the Add Printer Wizard, select **Settings** | **Printers** from the **Start** menu and double-click the **Add Printer** icon. Start the installation by clicking **Next**.

2. The Wizard asks you to select **Local printer** or **Network printer**. Select **Local printer** and click **Next**.

3. Click **Create a new port.** In the Available Ports dialog, select **AXIS Port** and click **Next**.

4. Select **NetBIOS/NetBEUI** as your choice of network protocol and click **OK**.

5. Select the AXIS Port you want to add from the list of available ports. The port appears as <name>.<port> AXIS100086.LP1
The port is LP1.

6. Choose the appropriate printer driver for your printer. Click **Next** and proceed directly to step 9. It is only necessary to perform steps 7 - 8 if your printer does not appear in the list.

Note:

> Even if the desired printer is available in the **Manufacturers** and **Printers** lists, you are advised to use the printer driver provided with the printer. This assures you of the latest driver software.

7. Click the **Have Disk...** button. Insert the printer driver diskette/CD that was provided with your printer, select the appropriate diskette/CD drive and click **OK**.

8. Select the printer driver you want to install and click **Next**.

9. Enter an appropriate name for your printer and click **Next**.

10. Choose whether you want to share the printer with other network users and click **Next**.

11. Choose whether you want to print a test page, click **Next** and then **Finish**.

Adding Printers in Windows NT 4 Using the Microsoft LPR Monitor

If you have not already done so, you should perform the TCP/IP basic setup procedures prior to installing a printer for LPR printing.

Preparing for LPR Printing

In the **Control Panel**, double-click the **Network** icon. Select the **Services** tab. If the TCP/IP Printing entry appears, then TCP/IP is already installed. Close the **Network** folder and go on to *Installing an LPR printer*, below.

First, prepare for LPR printing:

1. Open the **Control Panel** and double-click the **Network** icon.

2. Select **Protocols**.

3. Add **TCP\IP Protocol**.

4. Select **Services**.

5. Add **Microsoft TCP\IP Printing**.

Installing an LPR Printer

1. Go to **Start** | **Settings** | **Printers** | **Add Printer**. Select **My Computer** (for peer-to-peer printing) and click **Next**.

2. From the **Available Ports** list, choose the appropriate printer port, which will appear as the host name or IP address of the print server.

3. If the host name or IP address of the print server you wish to use does <u>not</u> appear in the list, click **Add Port**.

4. Choose **LPR Port** from **Available Printer Ports** and click **New Port**.

5. Type the print server's name or IP address in the field **Name or address of server providing lpr** (Example: 10.13.6.198).

   Then enter which port to use in the field **Name of printer or print queue on that server**: **LPT1**

   Click **OK** and then **Close**.

6. The added print server will now appear in the **Available Ports** list.

7. Click **Next**, choose an appropriate driver and finish the installation in the normal manner.

Adding NetBIOS/NetBEUI Printers in Windows NT 4 using AXIS Print Monitor

See to it that the NetBEUI protocol is installed on your client. Follow the procedure below to install Axis Printer Ports from a Windows NT 4.0 workstation:

1. To start the Add Printer Wizard, select **Settings** | **Printers** from the **Start** menu and double-click the **Add Printer** icon.

2. The Wizard asks you to select **My Computer** or **Network printer server**. Select **My Computer**, click **Next**.

3. Click **Add Port...** In the Available Ports dialog, select **AXIS Port** and click **New Port...**

4. Select **NetBIOS/NetBEUI** as your choice of network protocol and click **OK**.

5. Select the AXIS Port you want to add from the list of available ports. The port appears as <name>.<port>: LP1
   (Example: AX100086.LP1)

   Click **OK**.

6. Close the Printer Ports window.

7. Click the **Configure Port...** button. Choose whether error condition pop-up messages are to be displayed by checking the box in the Configure Axis Ports dialog. Define the frequency at which the error messages should be displayed after retry. Click **OK**. Continue the installation by clicking **Next**.

8. Choose the appropriate printer driver for your printer. Click **Next** and proceed directly to step 11. It is only necessary to perform steps 9 – 10 if your printer does not appear in the list.

Note:

> Even if the desired printer is available in the **Manufacturers** and **Printers** lists, you are advised to use the printer driver provided with the printer. This assures you of the latest driver software.

9. Click the **Have Disk...** button. Insert the printer driver diskette/CD that was provided with your printer, select the appropriate diskette/CD drive and click **OK**.

10. Select the printer driver you want to install and click **Next**.

11. Enter an appropriate name for your printer and click **Next**.

12. Choose whether you want to share the printer with other network users and click **Next**.

13. Choose whether you want to print a test page and then click **Finish**.

Adding Printers in Windows 95/98 over TCP/IP using AXIS Print Monitor

AXIS Print Monitor AXIS Print Monitor is the recommended tool to use for network printing in Windows 95/98 environments.
AXIS Print Monitor is available free of charge on www.axis.com.

AXIS Print Monitor Overview AXIS Print Monitor allows a print server to be connected in the same simple fashion as connecting a local printer. Once installed, it is automatically initialized upon system startup. AXIS Print Monitor has been developed for peer-to-peer printing, allowing your print jobs to be sent directly to the print server.

Printing Environments AXIS Print Monitor supports printing over NetBIOS/NetBEUI and TCP/IP (LPR and Raw TCP). To enable printing in these environments, please ensure that the desired printing protocols are running on your client.

Peer-to-Peer Printing The AXIS Print Monitor needs to be installed on each workstation to perform peer-to-peer printing. Once installed, the AXIS Print Monitor allows you to access all network printers, just as if they were connected directly to your workstation.

Client/Server Printing AXIS Print Monitor needs only to be installed on one server to perform client/server printing. The installed printers must be configured to be shared to allow clients to use them. Pop-up messages should not be enabled on the server as they will not be displayed on the client platforms.

Note:

> AXIS Print Monitor can also be used for DOS printing. Please refer to the AXIS Print Monitor's Readme file for instructions. The Readme file is located in the same folder where AXIS Print Monitor is installed on your PC.

Adding TCP/IP Printers in Windows 95/98 using AXIS Print Monitor

1. To start the Add Printer Wizard, select **Settings** | **Printers** from the **Start** menu and double-click the **Add Printer** icon.

2. After clicking **Next** in the first dialog, the Wizard asks you to select between **Local Printer** and **Network Printer.** You must select **Local Printer** and click **Next**.

3. Choose the appropriate print driver for your printer. If the desired print driver already appears within the displayed **Manufacturers and printers** lists, highlight your selection, click **Next** and proceed directly to step 6. It is only necessary to perform steps 4 – 5 if your printer does not feature in the model list.

4. Click the **Have Disk...** button. Insert the printer driver diskette/CD into the appropriate disk drive of your computer. If the floppy disk drive is A:, then click OK, otherwise type the letter of your disk drive and then click **OK**.

5. Select the type of printer you want to install from the diskette/CD and click **Next**.

6. Select the **Printers@TCP/IP** Port and click **Next**.

7. Enter an appropriate name for your printer and choose whether you want it to be the default printer. Click **Next**.

8. In the next window, do <u>not</u> order a Test Page to be written, just click **Finish**.

9. AXIS Print Monitor now informs you that the printer has to be connected to another port. Click **OK**.

10. The printer you have defined will now be displayed in the Printers Folder. Right-click the printer object and select **Properties** from the **Context** menu.

11. Click the **Details** tab within the **Properties** page and then click **Add Port** to display the available monitors.

12. Click the radio button "**other**". Select **AXIS Port** and then click **OK**.

13. Select **RAW (TCP/IP)** as your choice of protocol and click **OK**.

14. Enter the IP address or the host name of your print server (Example: AXIS100086) and assign a port number: 9902
    Click **OK**.

15. The TCP/IP port will then be added automatically to the list of available ports. Click **OK** and **Apply**.

16. You may now configure the port, as described below.

The Axis Printer Port is now installed.

Configure the Port

1. Select **Settings** | **Printers** from the **Start** menu and highlight the printer you wish to configure. Select **File** | **Properties** | **Details** and click **Port Settings**. Click the **Configure Port** button.

2. Choose whether error condition pop-up messages are to be displayed by checking the box in the **Configure AXIS Ports** dialog. Define the frequency at which the error messages should be displayed after retry. Click **OK** and **OK**.

Note:

> Even if the desired printer is available in the Manufacturers and Printers lists, you are advised to use the print driver provided with the printer. This assures you of the latest driver software.

Adding Printers in Windows 95/98 over NetBIOS/NetBEUI using AXIS Print Monitor

Follow the procedures below to install Axis NetBIOS/NetBEUI printer ports on a Windows 95/98 workstation, using AXIS Print Monitor:

1. To start the Add Printer Wizard, select **Settings** | **Printers** from the **Start** menu and double-click the **Add Printer** icon.

2. After clicking **Next** in the first dialog, the Wizard asks you to select Local printer or Network printer. Select **Local printer** and click **Next**.

3. Choose the appropriate printer driver for your printer. If the desired printer driver appears in the displayed **Manufacturers** and **Printers** lists, highlight your selection, click **Next** and proceed directly to step 6. It is only necessary to perform steps 4 – 5 if your printer does not appear in the model list.

Note:

> Even if the desired printer is available in the **Manufacturers and Printers** lists, you are advised to use the printer driver provided with the printer. This assures you of the latest driver software.

4. Click the **Have Disk...** button. Insert the printer driver diskette/CD that was provided with your printer, select the appropriate diskette/CD drive and click **OK**.

5. Select the printer driver you want to install and click **Next**.

6. Select the AXIS Printer Port from the Available Ports list. The port names appears as <name>.<port>. Here, <name> is AX followed by the last six digits of the print server's serial number (e.g. AX100086) and <port> is: LP1

   Click the **Configure Port** button.

7. Choose whether error condition pop-up messages are to be displayed by checking the box in the **Configure AXIS Ports** dialog. Define the frequency at which the error messages should be displayed after retry. Click **OK** and **Next**.

8. Enter an appropriate name for your printer and click **Next**.

Choose whether you wish to print a test page and click **Finish**.

Section 4   Printing from Windows NT 3.5 (TCP/IP)

This section describes how to install the AXIS OfficeBasic for TCP/IP printing on Windows NT3.5x clients.

Before you begin   ❏   Make sure that the TCP/IP protocol is enabled on your Windows client.

Installation Steps   To complete the installation you need to perform the following steps:

- Physically connect the AXIS OfficeBasic to your network and assign an ip address to the print server. See *Hardware Installation and IP address assignment*, on page 12.

- Install the AXIS Print Monitor software on your client. Please refer to page 33.

- Integrating the AXIS OfficeBasic in your network and installing the TCP/IP printer ports on your client. Please refer to page 35.

Installing AXIS Print Monitor

AXIS Print Monitor is a software utility tool that has been developed for TCP/IP printing in Windows NT 3.5x environments and for NetBIOS/NetBEUI printing in Windows 95/98, Windows NT and Windows 2000 environments. It allows you to connect you AXIS Network Print Servers in the same simple fashion as a local printer port. Once installed it is automatically initialized upon system startup. AXIS Print Monitor supports peer-to-peer printing, which means that your print jobs are sent directly to the AXIS OfficeBasic.

Peer-to-Peer Printing

The AXIS Print Monitor needs to be installed on each workstation to perform peer-to-peer printing. Once installed, the AXIS Print Monitor allows you to access all network printers, just as if they were connected directly to your workstation. Peer-to-peer printing offers the following benefits:

- You can easily monitor the status of your printers, by enabling error condition pop-up messages.

- You do not have to rely on a server.

Client-Server Printing

AXIS Print Monitor needs only to be installed on one server to perform client-server printing. The installed printers must be configured to be shared to allow clients to use them. Pop-up messages should not be enabled on the server as they will not be displayed on the client platforms.

Installing
AXIS Print Monitor
on your client

Follow the instructions below to install AXIS Print Monitor on your Windows client:

1. Insert the AXIS OfficeBasic CD in your CD-drive. When the AXIS OfficeBasic CD user interface has started, click the **Install Software** button.

2. Click the **TCP/IP printing** link that is located under the Windows NT 3.5x header.

3. Select *AXIS Print Monitor* and click the **Install** link. Save the *Setup.exe* file and double-click it to start the AXIS Print Monitor Installation Wizard. Click **Next>** when the installation starts.

4. Select the destination directory where AXIS Print Monitor will be installed. If you want to change the recommended default directory, you should use the **Browse...** button to navigate to the desired directory. Click **Next>**.

5. Select the Start menu group. If you want to change the default value, you can select a group from the list or type a new group name in the appropriate field. Click **Next>**.

6. The last page of the installation lists all your selections. If you want to change any of your selections, just click the the **<Back** button until you reach the desired page. Click **Install>** to finish the installation.

Installing TCP/IP Printer Ports

Follow the instructions below to integrate the AXIS OfficeBasic in your network and to install TCP/IP printer ports on your Windows NT 3.5x clients:

Important! ❑ If you have already assigned an IP address to your AXIS OfficeBasic, proceed with step 6 in the instructions below.

1. Start AXIS IP Installer.

2. Click the serial number of your AXIS OfficeBasic when it appears in the server list. Restart the AXIS OfficeBasic, if it does not show up in the server list.

3. Enter an unused IP address in the designated IP address field and click the **Set IP address** button.

4. The IP setting process will take approximately 10 to 40 seconds. Click **OK** in the confirmation box that appears when the IP address has been set.

5. Close the AXIS IP Installer.

6. Open the Windows NT 3.5x Print Manager and select **Create Printer** from the **Printer** menu.

7. Enter an appropriate name in the Printer Name field.

8. Select **Other...** in the driver list. Insert the printer driver diskette/CD that was provided with your printer, select the diskette/CD drive and click **OK**.

9. Select the printer driver you want to install.

10. Select **Other...** from the "Print to" drop-down list.

11. Select **AXIS Port** from the list of available Print Monitors in the Print Destination dialog. Click **OK**.

12. Select **LPR (TCP/IP)** as your choice of network protocol and click **OK**.

13. From the Add LPR port dialog, enter the IP address or host name of your print server and define a printer name. Click **OK** to return to the Create Printer dialog.

14. Select the AXIS LPR port you wish to use from the "Print to" drop-down list. The port appears as <port name>@<IP address> or <port name>@<host name>, e.g. LPT1@192.36.254.101.

15. Click the **Settings** button. Choose whether error condition pop-up messages are to be displayed by checking the box in the Configure AXIS LPR Ports dialog. Define the frequency at which the error messages should be displayed after retry. Click **OK** to return to the Create Printer dialog.

16. Having selected and configured the chosen port, click **Next>**.

17. Select whether you want to share the printer with other network users. Click **OK**.

The printer properties are displayed in an appropriate dialog that allows you to refine your printer setup.

The Axis printer is now installed and will appear as an icon in the Print Manager.

Section 5   Printing from Windows NT 3.5 (NetBIOS/NetBEUI)

This section describes how to install the AXIS OfficeBasic for NetBIOS/NetBEUI printing on Windows NT 3.5x clients.

Before you begin

❑ Make sure that the NetBIOS/NetBEUI protocol is enabled on your Windows client.

• Physically connect the AXIS OfficeBasic to your network and assign an ip address to the print server. See *Hardware Installation and IP address assignment*, on page 12.

• Installing the AXIS Print Monitor software on your client. Please refer to page 38.

• Installing the NetBIOS/NetBEUI printer ports on your client. Please refer to page 40.

Installing AXIS Print Monitor

AXIS Print Monitor is a software utility tool that has been developed for NetBIOS/NetBEUI printing in Windows 95/98, Windows NT and Windows 2000 environments and for TCP/IP printing in Windows NT 3.5x environments. It allows you to connect you AXIS Network Print Servers in the same simple fashion as a local printer port. Once installed it is automatically initialized upon system startup. AXIS Print Monitor supports peer-to-peer printing, which means that your print jobs are sent directly to the AXIS OfficeBasic.

Peer-to-Peer Printing   The AXIS Print Monitor needs to be installed on each workstation to perform peer-to-peer printing. Once installed, the AXIS Print Monitor allows you to access all network printers, just as if they were connected directly to your workstation. Peer-to-peer printing offers the following benefits:

- You can easily monitor the status of your printers, by enabling error condition pop-up messages.

- You do not have to rely on a server.

Client-Server Printing   AXIS Print Monitor needs only to be installed on one server to perform client-server printing. The installed printers must be configured to be shared to allow clients to use them. Pop-up messages should not be enabled on the server as they will not be displayed on the client platforms.

Installing
AXIS Print Monitor
on your client

Follow the instructions below to install AXIS Print Monitor on your Windows client:

1. Insert the AXIS OfficeBasic CD in your CD-drive. When the AXIS OfficeBasic CD user interface has started, click the **Install Software** button.

2. Click the **NetBIOS/NetBEUI printing** link that is located under the Windows NT 3.5x header.

3. Select *AXIS Print Monitor* and click the **Install** link. Save the *Setup.exe* file and double-click it to start the AXIS Print Monitor Installation Wizard. Click **Next>** when the installation starts.

4. Select the destination directory where AXIS Print Monitor will be installed. If you want to change the recommended default directory, you should use the **Browse...** button to navigate to the desired directory. Click **Next>**.

5. Select the Start menu group. If you want to change the default value, you can select a group from the list or type a new group name in the appropriate field. Click **Next>**.

6. The last page of the installation lists all your selections. If you want to change any of your selections, just click the the **<Back** button until you reach the desired page. Click **Install>** to finish the installation.

Installing NetBIOS/NetBEUI Printer Ports

Follow the procedure below to install Axis printer ports from a Windows NT 3.5x workstation:

1. Open the Print Manager and select **Create Printer** from the **Printer** menu.

2. Enter an appropriate name in the Printer Name field.

3. Select **Other...** in the driver list. Insert the printer driver diskette/CD that was provided with your printer, select the appropriate diskette/CD drive and click **OK**.

4. Select the printer driver you want to install.

5. Select **Other...** in the "Print to" list box.

6. Select **Axis Port** from the list of available Print Monitors and click **OK**.

7. Select the AXIS Port you wish to add and then click **OK**. The port appears as <name>.LP1, where <name> is AX followed by the last six digits of the AXIS OfficeBasic serial number, e.g. AX100086.

8. Click on **Settings**. Choose whether error condition pop-up messages are to be displayed by checking the box in the Configure Axis Ports dialog. Click **OK**.

9. Click **OK**.

Section 6   Management & Configuration

The following section describes how you can manage and configure the AXIS OfficeBasic. The available management and configurations operations can be performed by:

• using a standard Java compatible Web browser

• using the Test Button

Using a Web browser

Once you have established the AXIS OfficeBasic in the TCP/IP environment, you are free to access the AXIS OfficeBasic Web pages from any Java enabled Web browser.

The Web interface of the AXIS OfficeBasic is divided into two modes of operation, User mode and Admin mode.

User In User mode, you have no rights to change any parameter settings. However, if you have access rights to the Admin mode, you can change some of the basic parameters from User mode via the Configuration Wizard. This mode is intended for regular users who are only interested in using the print server's interface for checking print jobs or viewing printer properties. If you want to change any other of the print server's settings, you must enter the Admin mode.

Admin When in Admin mode, you have access to all the print server's parameters and you can change them to your liking. This mode is intended for network administrators and is password protected to prevent unauthorized changing of the print server parameters.

Note: ❏ If the ROOT_PWD parameter is set to *pass*, which is the default value, all users have access to the User mode as well as the Admin mode.

Accessing the
Web Pages

Follow the steps below to access the internal home page of the
AXIS OfficeBasic. The browser used in the following example is
Netscape Navigator 4.3.

1. Start your Web browser.

2. From the **File** menu, select **Open Page...**

3. Type the host name or the IP address of your AXIS OfficeBasic
   in the Open Page dialog, as detailed below:
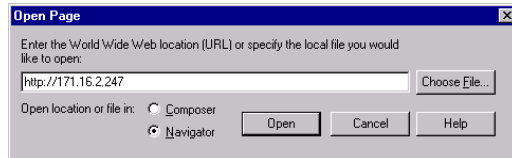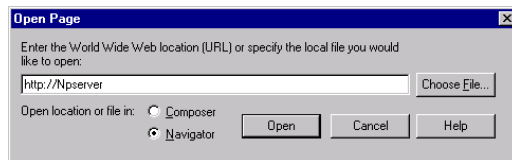
You can alternatively type the host name or the IP address
directly into the Web browser's Location text field.

The User Mode home page of your AXIS OfficeBasic appears in the browser window.
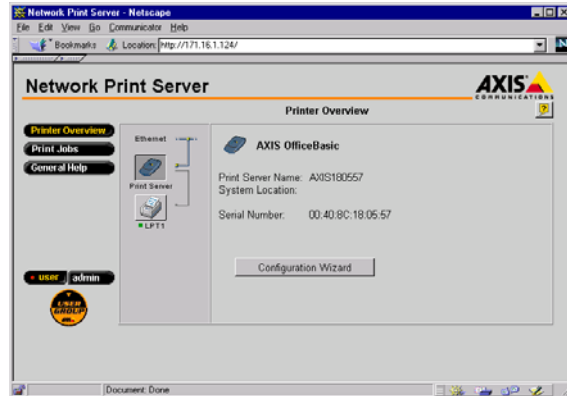
The AXIS OfficeBasic web Page - *User* view

4. Click the **admin** button to enter the Admin mode:
    The default user login is **root**
    The default password is **pass**
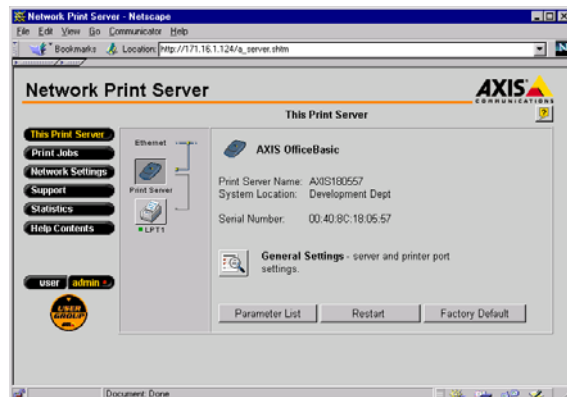
The AXIS OfficeBasic web Page *Admin* view

Available Services from the User Mode

The following services are available from the User mode. An additional link to the Axis home page is available from this mode.

Printer Overview

The **Printer Overview** page contains a section that allows you to view the general parameter setting of the AXIS OfficeBasic, including the print server name and the location of the print server in your organization, if defined.

If you have admin access rights you can use the Configuration Wizard to perform basic configuration of the AXIS OfficeBasic.

By clicking the printer icon, a printer page opens, allowing you to view the status and the supported capabilities of the connected printer. The extent of this information is depending on the printer model. From the printer page, you can also print a test page to the printer.

Print Jobs

From the **Print Jobs** page you can view the status of the current print job, including the number of printed bytes and the origin of the print job. You can also view a log of the 20 latest print jobs that includes the user, the printing protocol and the file size. A log that displays the accumulated usage of the connected printer allows you to control the usage of the connected printers.

General Help

The **General Help** page presents you with basic information about the AXIS OfficeBasic and the Web user interface. A short description of the Axis installation tools you should use when installing a printer on your PC, is also included.

Available Services
from the Admin Mode

The following services are available from the Admin mode. An additional link to the Axis home page is available from this mode.

This Print Server

The **This Print Server** page contains a section that allows you to view and modify the general parameter settings of the AXIS OfficeBasic, including the print server name, the node address, the password and the base URL. Management operations, like restarting the AXIS OfficeBasic and resetting its parameters to the factory default settings, are also available.

By clicking the printer icon, a printer page opens, allowing you to view the status and the supported capabilities of the connected printer. The extent of this information is depending on the printer model. From the printer page, you can also print a test page to the printer.

Print Jobs

From the **Print Jobs** page you can view the status of the current print job, including the number of printed bytes and the origin of the print job. You can also view a log of the 20 latest print jobs that includes the user, the printing protocol and the file size. A log that displays the accumulated usage of the connected printer allows you to control the usage of the connected printers. If you want to delete an ongoing print job, a delete button is available on this page.

Network Settings

From the **Network Settings** page you can set the parameters that control the network traffic to and from the AXIS OfficeBasic. You can enable or disable any of the supported network protocols and fine-tune the parameter settings.

Caution! ❏ Any network configuration should involve the Network Administrator.

Support

From the **Support** page you can receive help to resolve any installation or print problems that might occur. If your problems persist, the Support page allows you to produce a Server Report. The Server Report includes the settings of the AXIS OfficeBasic, information about your connected printers as well as the current network settings. The Server Report is of great value for support assistance, so please mail, email or fax it to your support channel together with a detailed problem description.

Statistics

The **Statistics** page displays information about the network traffic to and from the AXIS OfficeBasic as well as information about servers and services that are connected or associated with the AXIS OfficeBasic.

Help Contents

The **Help Contents** displays a comprehensive description of the configuration and management activities that can be performed from the internal Web pages of the AXIS OfficeBasic. Theses activities include instructions on how to install the AXIS OfficeBasic in various environments and how to upgrade it with new firmware. A detailed index is also available.

Using the Test Button

The test button is located on the front right hand side of the AXIS OfficeBasic and is used for:

- Printing a test page, checking the connection to the printer.

- Printing a parameter list, showing the AXIS OfficeBasic current settings.

- Resetting the AXIS OfficeBasic parameters to the factory default
  settings.

The Test Page

Press the test button once to print a test page. If the test page prints, the parallel interface is functioning correctly. The printed test page contains basic information about the AXIS OfficeBasic. It is recommended that you print a test page every time you have connected the AXIS OfficeBasic to a printer.

The Parameter List

Press the test button twice to print a parameter list showing the current AXIS OfficeBasic settings. This list provides comprehensive details of all the parameters and their current status. Refer to
Appendix Appendix B - The Parameter List, on page 1.

If you want to change any of the parameters, use one of the methods that are described in*Using a Web browser*, on page 41.

Factory Default
Settings

Follow the instructions below to reset the AXIS OfficeBasic to the factory default settings:

1. Remove the Power Adapter to switch off the AXIS OfficeBasic

2. Remove the network cable.

3. Press and hold down the test button while you plug the Power Adapter back in. Continue to hold down the test button until the network indicator begins to flash at one-second intervals. This should take about 5 seconds.

4. Release the test button and wait until the network indicator flashes at least five times.

5. Press and hold down the test button again until the network indicator remains constantly lit.

6. Disconnect the Power Adapter.

7. Insert the network cable.

8. Restart the AXIS OfficeBasic by reconnecting the Power Adapter.

Note: All parameters except Node Address (NODE_ADDR), Internet Address (IP_ADDR) and DHCP enabled or disabled (DHCP_ENABLE.) are reset. If you want to change the these parameters, use any standard Web browser.

WINS, DDNS, DHCP information for System Administrators

Registering and Resolving Host Names

In order to register the host name of the print server in networks with dynamic IP address settings, WINS (Windows Internet Name Service) and DDNS (Dynamic Domain Name System) are supported. It is recommended that at least one of these methods should be used if you are setting the IP address of the print server using DHCP.

The host name of the print server is specified by the PS_NAME. parameter. Refer to the *The Parameter List*, on page 55.

WINS Host Name Rules

WINS only supports 15 character long host names. If your host name is longer than 15 characters, the print server truncates the host name to 15 characters when registering with a WINS server. You can view the print server host name that is registered at a WINS server in the print server's Web interface. Refer to *Print Server Management Methods*, on page 36.

DDNS Host Name Rules

DDNS supports 47 character long host names and can only consist of the characters 'A-Z', 'a-z', '0-9' and '-'. If your host name consists of any other characters, they are converted to '-' when registering with a DDNS server. You can view which host name that is registered at a DDNS server in the print server's Web interface. Refer to *Print Server Management Methods*, on page 36.

If the host name matches another entry in the DDNS data base, the print server deletes that entry before registering.

System Privileges

You need root privileges a Windows NT server to:

- set the IP address using RARP, DHCP
- add an entry to the ARP table with the command 'arp –s'

Notes:

- The default host name of the print server is 'AXIS' followed by the last 6 digits in the serial number. e.g. AXIS181636. The host name (Print server name) can be changed in the PS_NAME. field on the **Admin** | **General Settings** page.

- The host name limitations conclude that if you want to register the same host name at a WINS server and a DDNS server, the host name should be no longer than 15 characters and it should only contain the characters 'A-Z', 'a-z', '0-9' and '-'.

- Refer to your system manuals or to your network administrator for instructions on how host name resolutions are performed on your system.

Creating a DHCP network environment

Follow the instructions below to download the IP address using DHCP:

1. Edit or create a scope in the DHCP manager of the DHCP daemon. The entries included in this scope should contain the following parameters:

   - range of IP addresses
   - subnet mask
   - default router IP address
   - WINS server IP address(es) or DDNS server IP address(es)
   - lease duration

2. Activate the scope. The print server automatically downloads the DHCP parameters. If you are using WINS or DDNS, you should include at least one WINS or DNS server IP address in the DHCP scope. Immediately after the IP address has been received, the print server registers its host name and IP address on the WINS alternatively DNS server. Refer to *Registering and Resolving Host Names*, on page 49 for more information. The print server can automatically download a customized *config* file from a TFTP server. Just add the name of the config file and the TFTP server's IP address to your DHCP scope. The *config* file is downloaded immediately after the print server receives its IP address.

Note:

You have to restart the print server to download the IP address.

Section 7   Upgrading the Software

When new firmware becomes available, you can upgrade the AXIS OfficeBasic Flash memory using the File Transfer Protocol (FTP) via TCP/IP.

To upgrade over the network using FTP you will need the file with the new print server software. The name of this file is in the form `product_version.bin`, e.g. `office_6xx.bin` for software release 6.xx.

Note: ❏   As the upgrading process is performed via TCP/IP, a valid IP address must be asssigned to the AXIS OfficeBasic.

Obtaining the
Updated firmware

You can obtain the updated firmware as well as updated versions of the client utility software from the following locations:

- AXIS OfficeBasic CD

- Over the Internet, by accessing **www.axis.com**

- Anonymous ftp, by logging in to ftp.axis.com and accessing the folder */pub/axis/*

- your local dealer

Upgrading the
AXIS OfficeBasic

Follow the instructions below to upgrade the AXIS OfficeBasic flash memory with an updated firmware version:

1. Log in to the AXIS OfficeBasic with the command:
   `ftp <host name>`, or `ftp <IP address>`

2. You will be prompted for user id and password. Use the user id `root`, which has the default password `pass`.

3. Type the command `binary` to change to binary transfer mode.

4. Type the command `put <software name> flash`, where `<software name>` is the name of the new print server software, e.g. `office_6xx.bin`

5. Wait for the Flash loading operation to finish. This normally takes 1 to 4 minutes. The unit automatically restarts with the new print server software.

6. Log out using the command `quit`, `bye` or `exit` depending on your FTP version.

Notes:
- ❏ If the upgrading process fails, just repeat the instructions presented above.

- ❏ If you lose contact with the AXIS OfficeBasic after an upgrade failure, just restart the AXIS OfficeBasic to restore contact.

- ❏ Should the network diode flash at half a second intervals, the AXIS OfficeBasic cannot process any print jobs. In order to leave this state, you must repeat the instructions presented above.

Appendix A   Technical Specifications

Supported Systems

Microsoft Windows:	Windows 2000, Windows XP (requires firmware version 6.15 and up), Windows NT ver. 3.5 and above, Windows 95, Windows 98.
Print Methods:	Raw TCP/IP, LPD, NetBIOS/NetBEUI.
WWW:	Netscape Navigator 4.0 and higher and MS Internet Explorer 4.0 and higher.

Hardware	32 bit 100 MHz RISC Controller, 1 Mbyte Flash memory. 512 kbytes RAM.
Logical Connection	NWay support to provide auto-detection of the network speed. Running simultaneously any combination of the supported protocols. Use of IEEE802.2, IEEE802.3, SNAP and Ethernet II frame types simultaneously.
Attachments	RJ-45 connector (Category 5 Unshielded Twisted Pair) for 10baseT Ethernet and 100baseTX Fast Ethernet.
Parallel Printer	One IEEE 1284 compliant high-speed parallel port, 36-pin Centronics connector. Sustained throughput over 1 Mbyte/s using NetWare. Bi-directional support for Reverse Telnet. ECP support.
Front Panel	2 LED indicators: Power and Network. Test button for information printouts.
Power Consumption	Power provided by external supply: Maximum 200 mA at 12 VDC. (Type PS-B, 12V, 500 mA).
Dimensions	Height x Width x Depth 0.9 x 2.4 x 4.8 inches (2.4 x 6.1 x 12.1 cm)
Weight	0.22 lb. (0.1 kg)

Environmental   Temperature: 40 - 105° F (5 - 40° C).
                 Humidity: 10 - 95% non-condensing.

Approvals
    EMC: EN 55022/1994, EN50082-1/1992. FCC Class A. $C \epsilon$
    Safety: EN 60950.

Appendix B   The Parameter List

This appendix provides an overview of the AXIS OfficeBasic parameters. Please refer to **www.axis.com** for the latest technical information.

The *Config* File

The left-hand column shows the parameters and their default values as they appear in the *config* file and the right-hand column shows the name of the parameters as they appear in the internal Web pages.

After you have changed them, most parameters take effect for the next print job. If *Requires Restart* appears in a parameter description, you must restart the AXIS OfficeBasic, before the new setting for that parameter takes effect.

Please refer to *Using a Web browser*, on page 41, for more information about how to change the parameters.

Note: ❏ The password parameter, ROOT_PWD, only appears when you are logged in to the AXIS OfficeBasic using *root.* The password parameters will not be printed when you are printing the parameter list using the test button.

```
--- GENERAL MENU
```

NODE_ADDR. : 00 40 8C 10 00 86	Node Address
PS_NAME. : AXIS100086	Print Server Name *(100086 are the last six digits of the serial number)*
ROOT_PWD. : pass	Root Password
BASE_URL. : www.axis.com	Base URL
AXIS_PRINT_SYSTEM.: YES (YES, NO)	Enable compatibility with AXIS Print System
SYS_LOC. :	System Location
SYS_CONT. :	System Contact

```
---  TCP/IP MENU
```

TCP_ENB. : YES	TCP/IP Enabled	
INT_ADDR. : 0 0 0 0	Internet Address	
DEF_ROUT. : 0 0 0 0	Default Router Address	
	(0.0.0.0 for no router)	
NET_MASK. : 0 0 0 0	Net Mask	
	(e.g. 255.255.255.0 for class C, 0.0.0.0 for auto-sense)	
LPD_BANN. : OFF (OFF, AUTO, LAST)	LPD Banner Page Mode	
DHCP_ENB. : YES	DHCP Enabled	
BOOTP_ENB. : YES	BOOTP Enabled	
RARP_ENB. : YES	RARP Enabled	
DNS_ENB. : YES	DNS Enabled	
DNS_ADDR1. : 0 0 0 0	Primary DNS Server Address	
DNS_ADDR2. : 0 0 0 0	Secondary DNS Server Address	
DOMAIN_NAME. :	Domain Name (Defines the domain to which the AXIS OfficeBasic belongs)	
SLP_SCOPE_LIST.: DEFAULT	Defines the SLP scope to which the AXIS OfficeBasic belongs.	
RTN_OPT. : NO	Reverse Telnet Options Enabled	
RTEL_PR1. : 0	PR1 Reverse Telnet Port Number	

```
---   SNMP MENU
```

READ_COM. : public	Read Community
WRT_COM. : pass	Read/Write Community
TRAPADDR. : 0 0 0 0	Trap Address
TRAP_COM. : public	Trap Community
SYS_NAME. :	System Name
SNMP_AUT. : DISABLE (DISABLE, ENABLE)	Authentication Failure Trap
TRAP_PRT. : DISABLE (DISABLE, ENABLE)	Printer Failure Trap

```
---   IPX MENU
```

FR_802_3. : YES	IEEE 802.3 Frame Type Enabled
FR_ETH_2. : YES	Ethernet II Frame Type Enabled
FR_802_2. : YES	IEEE 802.2 Frame Type Enabled
FR_SNAP. : YES	SNAP Frame Type Enabled

```
---   NetBIOS/NetBEUI MENU
```

LSLM_ENB. : YES	NetBIOS/NetBEUI Enabled
NB_FR_TYPE. : FR_AUTO (FR_AUTO, FR_802_2, FR_DIX)	NetBIOS Frame Type *(Requires Restart)*
LPRINT_1. : AX100086.LP1	Name Printer 1 *(100086 are the last six characters of the serial number)*

```
---   LPT1 Menu
```

L1_CENTR. : HISPEED (IBM_PC, STNDRD, FAST, HISPEED)	Centronics Interface Timing LPT1
L1_BSYTM. : 60	Busy Status Time-Out LPT1
	(All status reporting disabled if set to 0)
L1_COMMENT. :	Optional user comment describing the printer at LPT1

Appendix C   Glossary

config **file**
This is a file that resides in the print server's memory and contains all the parameters that determine the AXIS OfficeBasic functionality. By editing the *config* file (changing the parameter settings), you can configure the AXIS OfficeBasic to meet the printing needs of your network.

DNS
Domain Name Service. Reflects the server names and addresses within a network.

Flash Memory
The print server software is stored in Flash Memory. This memory is provided by a silicon chip that like any other ROM device, retains data content even after power is removed. However, Flash Memory is unique because it allows its data to be erased and re-written. This means that you can install software updates for your server as soon as they become available, without having to replace any parts. The new software is simply loaded into the server over the network.

FTP
File Transfer Protocol. A TCP/IP protocol used for logging in to network servers and for transferring files.

HTML
Hypertext Markup Language. A standard hypertext language used for creating World Wide Web pages and other hypertext documents.

HTTP
Hypertext Transfer Protocol. The TCP/IP protocol for Web based communication.

IP
Internet Protocol. The TCP/IP session-layer protocol that regulates packet forwarding by tracking IP addresses, routing outgoing messages and recognizing incoming messages.

LED
Light Emitting Diode.

RISC
Reduced Instruction Set Computing. A processor that recognizes only a limited number of assembly-language instructions.

TCP   Transmission Control Protocol. The connection-oriented, transport-level protocol used in the TCP/IP suite of protocols.

URL   Uniform Resource Locator. A way of specifying the location of publicly available information on the Internet.

Wizard   A special form of user assistance that automates a task through a dialog with the user. Wizards help the user to accomplish tasks that are complex and require experience, and even for the experienced user can help to speed up an operation.

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