TELES ISDN Adapter

+

TELES.RVS-PowerPack

Installation Manual

Contents

1 Introducing TELES.RVS-PowerPack

Congratulations on your purchase of a TELES ISDN Adapter and the TELES.RVS-PowerPack applications package.

Your **TELES ISDN adapter** connects your PC to the ISDN Basic Rate Interface (BRI) and easily offers access to the Internet. The **TELES.RVS-PowerPack** software contains a suite of applications providing you with the advantages of basic ISDN services. In addition, it features the most common interfaces and protocols for accessing online services and providing network connectivity over ISDN.

This manual gives an overview of all components included in the package and describes how to install the required hardware and software. For detailed information on all applications and procedures, you can take advantage of the online help.

RVS CommCenter

- As the name implies, RVS CommCenter is the central control for all services.
- RVS CommCenter provides autoanswer capability for all types of calls: fax, voice, answerphone mail and file transfer. Autoanswer can run constantly in the background.
- RVS CommCenter makes ISDN channels available as COM ports to the operating system.
- An at-a-glance display shows the currently enabled services and lists calls from the past few days.
- The RVS CommCenter icon will be displayed in the Windows taskbar after being started from the TELES.RVS-PowerPack item in the Program menu. You can also set up RVS CommCenter to be launched upon Windows startup.

RVS Fax

- With RVS Fax you can send faxes from any Windows application: To do so, simply use the print function of your application, and the RVS printer driver will ensure that your document is sent as a fax.
- RVS Fax communicates with any fax device. It is one of the few programs that allows you send faxs digitally, i.e. it uses Fax Group 4 standard. The advantage of this obvious: Your fax will be sent more than four times faster than with conventional analog Fax Group 3. If the recipient's fax device or application is also G4 compliant, RVS Fax will automatically send your fax at a rate of 64.000 bps. If you contact G3 devices transmission rate will reach 14.400 bps.
- You can choose to operate RVS Fax as a service in your Windows e-mail system (e.g. Microsoft Exchange, Outlook or Windows Messaging) or independently of these, using the RVS Inbox. You can receive faxes independently of

your Windows e-mail system by using the autoanswer in the RVS Comm-Center. Faxes received are stored until you start your e-mail program, and this program then takes them over.
- RVS Fax also includes mail merge functions, a scheduler, a fax viewer, a send wizard and a powerful cover page editor.

RVS Phone
- RVS Phone turns your PC into an ISDN multi-function ISDN telephone. To do this, you only need a full-duplex sound card, microphone and headphones, or speakers.
- RVS Phone lets you dial from your PC, displays phone numbers of incoming calls (when these are delivered by the network), offers a programmable answerphone, and informs you of your call charges (if charges metering is active on your line). All data is recorded in a call log for you to check.
- From the RVS Phone user interface, you can access fax retrieval systems (Fax-on-Demand, Fax Polling) and automatic information systems. Use the telephone keypad to produce the dial tones required.

RVS VideoPhone
- Now you can not only phone someone - you can also see your counterpart live, and in full colour!
- RVS VideoPhone is compatible with the internationally accepted **H.320** standard. This means you can connect with any H.320-compliant videophone or videoconferencing terminal - even without your own video equipment, simply using any TELES ISDN board or box installed in Windows 95 or 98.
- However, to take full advantage of "face-to-face" communications you will need a **TELES.VISION-B5 Board.** Designed for full-featured videoconferencing, it integrates all components needed, such as a framegrabber and a soundcard module. The board uses software for **H.261/H.263 encoding and decoding** of video data. Audio compression and decompression are based on **G.711 codecs**. You can attach your own existing equipment, e.g. analog PAL or NTSC cameras or any common S-VHS videorecorder, microphone or headset etc. For details see Chapter 5.4, page 30.
- The easy-to-use VideoPhone graphic interface lets you easily adjust frame rate, video resolution, brightness and contrast. The video window alternatively shows your own **local** or your **partner's image**. This allows you to see your partner on your screen, and then control your own local image to see how you come across.
- The integrated **Recorder** allows you to record audio or video sequences, both locally or to and from a remote terminal.
- VideoPhone works over one B channel to save costs, or two B channels to get better video quality.

RVS TransferMaster

- You can easily transfer files between computers using the RVS TransferMaster with its Explorer-like user interface.
- In this application, you will see the files of the remote computer in a window. Using drag-and-drop, you can then transfer files between the two computers. This is as easy to do as copying files within Windows itself. The only prerequisite for this is that the remote computer must be running in the RVS-COM autoanswer mode or have an ISDN Eurofile transfer program running, e.g. the widely used TELES.OnlinePowerPack.
- You can configure TransferMaster to use both B channels for maximum data throughput.

RVS Terminal

- With the powerful RVS Terminal program and CEPT Videotex decoder from RVS-COM, you can go online to bulletin board systems, Videotex systems, and other online service providers.
- RVS Softmodem will also allow you to access systems which are only accessible via modem. This allows you to search for information, download software and much more. By using the session recorder, you can also record and replay your online sessions.
- RVS Terminal supports all common file transfer protocols. Refer to the online help for a complete list.

Using Your ISDN Adapter with other Programs

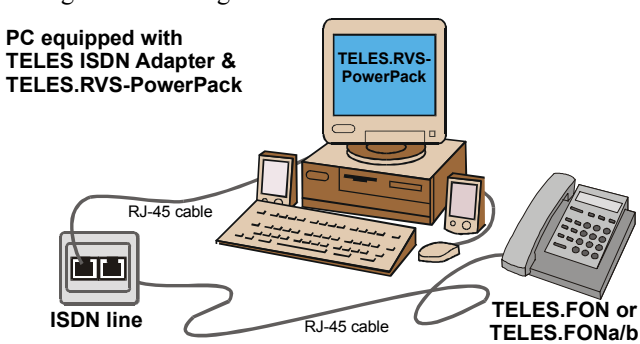
TELES.RVS-PowerPack supports ISDN and can communicate directly via ISDN using the ISDN CAPI. Many other communications programs or tools only operate with a modem over a serial interface. With TELES.RVS-PowerPack you can "upgrade" such modem programs to communicate via ISDN:

- The package comes with various preconfigured RVS ISDN modems installed along with the TELES.RVS-PowerPack software. Ready for use, they feature all common protocols. You will find all RVS modems when you point to Start | Setting | Control Panel and double-click Modems.
- The RVS CommCenter adds additional interfaces (RVS COM-ports) to Windows. This is useful to simulate a serial interface with an attached modem, and be able to use the normal modem software to communicate via ISDN. COM2 is preconfigured, and you can easily add further COM ports. Windows programs that communicate via the Windows modem drivers can use the RVS ISDN Modems. These are then "installed" to the RVS COM-ports via the Control Panel in Windows. The fax Class 1 modem emulation of the RVS ISDN Modems allows third-party fax programs to use RVS SoftwareFax.

TELES Device Manager

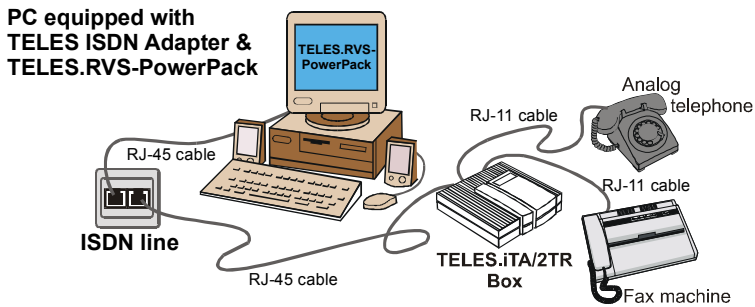
- Beyond your TELES ISDN adapter, you can attach other TELES ISDN devices to your ISDN line. All TELES BRI products exploit a patented technology that lets you profit from unique services: Though you need no additional wiring or extra charges, all TELES ISDN devices connected to the same BRI can communicate with one another. In contrast to other manufacturers' ISDN products, this technology allows you to forward calls between all connnected telephones without paying charges. Plus, you can view call charges for each phone number or sum up all charges on your ISDN line, no matter which device or application caused them.
- Exclusively offered by TELES, this technology has become popular as the TELES ISDN Family concept. Within the TELES ISDN Family, you may choose from a range of ISDN telephones, ISDN terminal adapters or PBXes available as boxes.
- The link between all TELES ISDN products is the TELES Device Manager, which seamlessly integrates with TELES.RVS-PowerPack. With this, you can easily control and configure all connected TELES ISDN devices from your desktop - instead of using a telephone's keypad.

  Sample configuration: TELES ISDN adapter + TELES ISDN telephone
  - TELES.FON is a full-featured ISDN telephone. TELES.FONa/b includes all features of the TELES.FON basic model plus an extra analog port that connects to a non-ISDN device.
  - You can set all functions using the telephone keypad, but more conveniently while sitting back and simply clicking your TELES Device Manager interface: you can assign three different Multiple Subscriber Numbers (MSN) to your telephone, adjust individual ring pitch and volume for each MSN, set call forwarding, enter speed dial keys, or set various types of call blocking.
  - A detailed statistics overview lists the number of incoming and outgoing calls along with the charges accumulated on each MSN.



Sample configuration: TELES ISDN adapter + TELES.iTA/2TR Box

- The TELES.iTA/2TR Box is an ISDN terminal adapter. Connecting to analog devices it gives you the flexibility to take advantage of ISDN while keeping your familiar analog telephones or fax machine.
- You can set all functions by using the keypad of the connected telephones or your TELES Device Manager, which is the easier option: you can assign Multiple Subscriber Numbers (MSN) to each port, adjust ring volume for each MSN, set call forwarding, etc.
- A detailed statistics overview lists the number of incoming and outgoing calls along with the charges accumulated on each MSN.



NOTE:

- TELES ISDN telephones, terminal adapters and PBX boxes are not included in the TELES.RVS-PowerPack package. To purchase TELES ISDN equipment, contact your local dealer or call the TELES phone numbers listed in Chapter 9, page 46. For more information on the TELES products range: **http://www.teles.de**
- The TELES Device Manager is of no use if you have only your TELES ISDN adapter installed.

TELES ISDN Driver

Your ISDN adapter's driver software provides the following interfaces and features:

- **CAPI 2.0** - 16 and 32 bit, DOS, kernel mode device driver, device control interface for Windows 95, Windows 98, Windows NT.
  CAPI 1.1 (16 bit only) is also included.
- **WAN-NDIS Miniport Driver -** Enables Dial-Up Networking connectivity in Windows 95/98 or RAS connections in Windows NT. Supports **PPP**. Allows you to quickly get up for accessing the Internet, remote computers or remote LANs. Offers Multilink for 128 kbps PPP connections.
- Transmission rates of **64 kbps or 56 kbps** on each B channel
- All commonly used B channel protocols - IS0 8208, T 70NL, T.90 App.II, T.30, Bit rate adaptation according to V.110, V.120, V.34, X.75, SDLC, HDLC-transparent (HDLC-Framing)
- **TELES ISDN Monitor** - Icon in Windows taskbar that lets you easily monitor the status of your ISDN adapter and your Basic Rate Interface
- **ISDN Line Test** - Utility for performing loopback tests between the B channels
- **Trace** - Comprehensive protocol decoding utility
- **Statistics** - Displays data activity on the BRI
- **Hardware Test** - Tests the functionality of your ISDN adapter

1.1 Configuring Your ISDN Line

Currently, ISDN services offered by telephone companies in various countries can be quite different in protocols and procedures. However, TELES ISDN adapters are designed to support a great variety of ISDN switches and D channel protocols. Contact your local telephone company to obtain the basic rate interface configuration best suited to meet your individual needs.

ISDN line type

- TELES ISDN adapters are well suited for Point-to-multipoint lines or internal BRIs provided by a PBX.

D channel protocol

- The D channel protocol for your basic rate interface is determined by your local telephone company. When installing your software, you will be asked to enter the D channel protocol for which your ISDN line is configured.

- TELES ISDN drivers support the most common D channel protocols such as ETSI (DSS1 or Euro-ISDN), VN-3 (France) and CT-1 (Belgium).

MSN (Multiple Subscriber Numbers)

- The DSS1 protocol identifies terminal equipment by MSN. MSNs provide a set of several telephone numbers that can be assigned to different ISDN services. This allows you to use several ISDN applications or devices on a single ISDN line.

ISDN Services

- Depending on the applications you want to use with your ISDN adapter, subscribe for telephony, data service, fax G3, etc. (if not included in the standard package offered by your telephone company).
- If available from your local telephone company, subscribe for advice of charges (aoc). This is useful, as many ISDN applications are capable of indicating charges.

2 Installing under Windows 95 and Windows 98

2.1 System Requirements

Before installing your TELES ISDN adapter and TELES.RVS-PowerPack, check that your computer meets the following requirements which will enable the programs to perform correctly:

- PC equipped with at least a 90 MHz Pentium and 16 MB of RAM
- Windows 95, Windows 95b or Windows 98
- An empty ISA, PCMCIA or PCI slot, depending on your specific adapter. Not required for boxes, which simply connect to the appropriate external port (parallel or USB)
- Free interrupt and I/O address or memory address depending on adapter type - not required for boxes)
- Graphics card with at least VGA resolution (640 x 480 pixels, 16 colors/grays; VideoPhone requires a minimum of 800 x 600 and 256 colors)
- Hard disk space: 5 MB for driver software, 25 MB for TELES.RVS-PowerPack product installation, 16 MB for virtual memory
- ISDN line: Point-to-multipoint access or internal BRI provided by a PBX
- To display charges, the ISDN line must support advice of charges (see Chapter Chapter 1.1, page 7).

2.1.1 Additional Requirements for USB Boxes

- Be sure you run either Windows 98 or Windows 95b (OSR2), as earlier Windows versions such as Windows 95a are not capable of USB support.
- Your PC must be equipped for USB support:
  1. The motherboard must provide a USB interface
  2. Windows support for USB devices must be active.
- Check for the Universal serial bus controller category in the Windows Device Manager. You should see the USB Host Controller and USB Root Hub entries when you click the plus sign ("+") for this category.
- Windows 98 is fully USB-ready. Under Windows 95b, you may need to install the Microsoft USB Supplement (`usbsupp.exe`). This supplement is currently included on Windows CDs marked "USB-support". The installation of this supplement requires you to restart your computer. After restarting, proceed with the USB Box installation.

2.1.2 Before You Start...

What you need to install the software:

- TELES.RVS-PowerPack CD with ISDN driver software. Applications will be installed in an extra step after you have completed the driver setup. Carefully retain the CD cover with your **license number**. You will need it when installing the applications software.
- Your Windows 95/98 CD (required for driver setup).
- **ISDN line information** from your telephone company (telephone numbers, D channel protocol).

Installation directories:

- Driver and application software will be located to different folders. Note that the default location of the driver software is `C:\Program Files\TELES\ISDN drivers` which cannot be changed.

Which Windows - Windows 95, Windows 95b or Windows 98?

- The only significant difference between these various versions becomes visible upon detection of newly installed Plug&Play components. To make sure which operating system you are running, open the Windows Device Manager from the System control panel and check the General tab.

2.2 Installing Adapter and Connecting to ISDN Line

This section quickly guides you through the process of installing your adapter and getting connected to the ISDN line. If required, check your computer for free interrupts and addresses. For more detailed information, see Chapter 5, page 27ff and inside cover with the "TELES.ISDN Adapters Overview".

1. Depending on your type of adapter:
   - Internal adapters (boards): Turn off your PC, unplug the power cable and open the PC housing. Insert your board into an empty slot.
   - TELES.S0/USB Box, TELES.S0/2TR USB Box: Plug your box to the USB port while Windows is already running.
   - TELES.S0/PCMCIA Card: Insert your card while Windows is running.
   - TELES.S0/2TR Box: Plug the box to your PC‘s parallel port while your PC is switched off.
2. Connect one end of the RJ-45 cable to the RJ-45 jack on your board or box while plugging the other end into the ISDN wall outlet.
3. Refasten housing, reconnect power plug and turn on PC.

2.3 ISDN Driver Installation

1. Once your board is installed and connected to the ISDN line, start up Windows 95/98. Insert the TELES.RVS-PowerPack CD into the drive and have your Windows CD ready. Depending on your type of adapter, either follow Step 1.1 or 1.2:

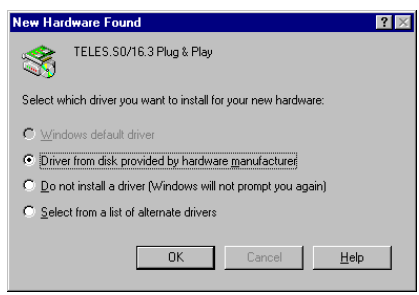
1.1 TELES.S0/PnP, TELES.S0/PCI, TELES.VISION-B5, TELES.S0/PCMCIA Boards, TELES.S0/USB, TELES.S0/2TR USB Boxes

These adapters will automatically be identified and configured upon Windows start-up. Note that each Windows version displays different screen messages:

Windows 95

Windows recognizes the new hardware and displays the **New Hardware Found** dialog box. Retain the default setting **Driver from disk provided by hardware manufacturer** and click **OK**.

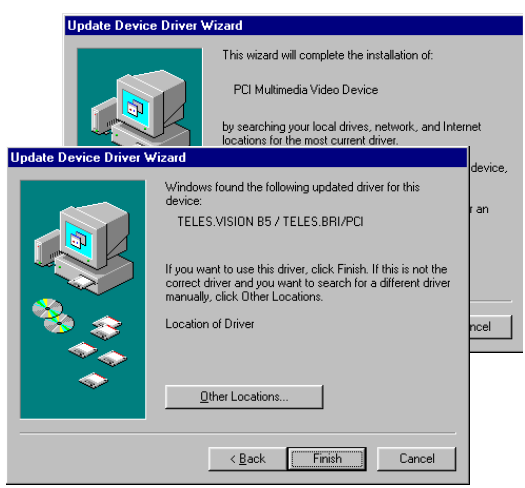
The following screens will display the `teles.inf` file and your own adapter. Press **OK**. You will be led to *Step 2*.



Windows 95B

After the New Hardware Found message is displayed, the **Update Device Driver Wizard** appears, listing the component found. Click **Next** to let Windows search for the driver.

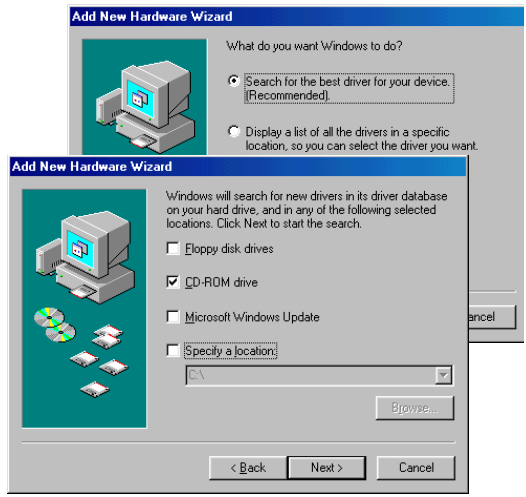
After a few seconds, a dialog shows the driver. Click **Finish** to proceed to *Step 2*.



Windows 98

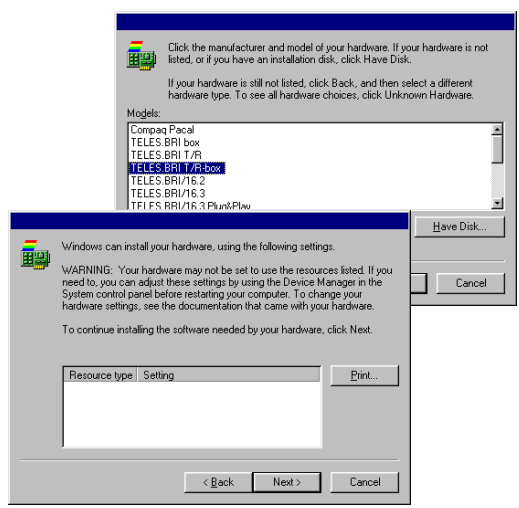
After the **New Hardware Found** message is displayed, the **Add New Hardware Wizard** searches for the driver. Confirm all prompts with Next.

Mark the CD-ROM drive option to search for the `teles.inf` file on your CD. Click **Next** to proceed to *Step 2*.



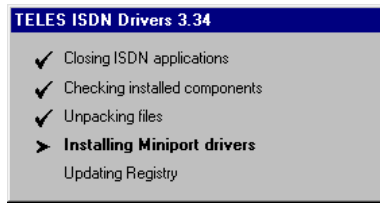
1.2 TELES.S0/2TR Box:

Begin driver installation by double-clicking the `SetupS0.exe` icon found on the root level of the TELES ISDN CD. This shortcut leads you directly to the `install.exe` driver installation program found in the `\Driver\Win9x` directory. The installation begins with an **Add New Hardware Wizard** window displaying a list of ISDN adapters. Select your model and click **Next**.



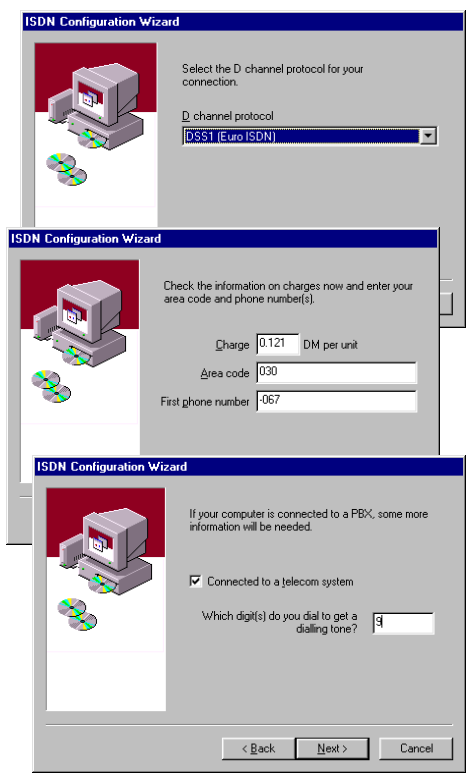
Since the box uses the parallel port's interrupt and I/O address, no resources will be displayed here. Simply click **Next** to proceed to *Step 2*.

2. The following steps are the same for **all adapters** as well as **Windows 95** and **Windows 98**. First, the TELES ISDN Driver welcome panel appears. Next, please read the **License Agreement** carefully and confirm by clicking **Yes**.
3. Follow the instructions on your screen. A status window will reflect the progress of the installation.



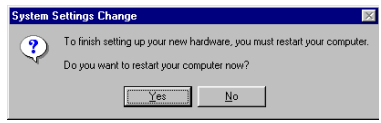
4. To properly set up **Miniport**, you may be asked to insert your Windows CD. Miniport is the driver you will need if you want to use your ISDN adapter for accessing the Internet or remote networks or computers. **Windows 95 only:** If you have no ISDN Accelerator Pack installed yet, simply acknowledge the next 3 dialogs before you can proceed with step 5. For more information on the ISDN Accelerator Pack please refer to Chapter 7, page 39.
5. The **ISDN Configuration Wizard** will prompt you to specify these settings for your TELES ISDN adapter:
   - **D channel protocol:** From the listbox, select the protocol for which your ISDN line is configured. For Euro-ISDN, choose ETSI (Europe).
   - **Charge:** Unit for advice of charges.
   - **Area code:** Type your area code here.
   - **1st phone number:** Number used for the ISDN Line Test. If connected to a PBX, only type your extension, preceded by a hyphen ("-"). This way, the test will run internally (within the PBX), avoiding charges.
   - **Connected to telecom system:** If your adapter is connected to a company switchboard, mark this option and enter the number needed to dial an outside line.

   Click **Next**.

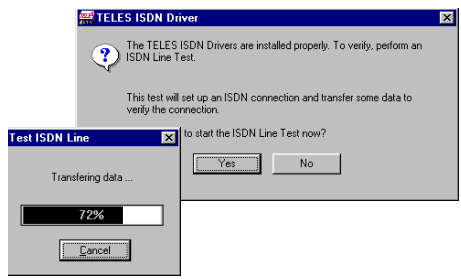


6. Quit the ISDN Configuration Wizard by clicking **Finish**. In Windows 98 the Hardware Wizard prompts you to confirm the setup by clicking **Yes** once again.

7. To allow the changes to take effect, click **Yes** in the following dialog to restart your computer.



8. When your computer restarts, a message appears, asking if you would like to perform an **ISDN Line Test**. Press **Yes** to begin the test. A connection is established to the number entered during installation to verify that your drivers and ISDN hardware are working together properly.



After successful completion of the line test, a message appears confirming the proper installation of the driver software. Note that you can run the ISDN line test any time. To do so, simply right-click the TELES.ISDN Monitor icon placed in the Windows taskbar and select **ISDN Settings**.

In the event that the test is not successful, check to be certain that your adapter is properly connected to your PC and the ISDN line, and make sure you have entered the proper D channel protocol and telephone number for your line. If you need to make corrections, open the TELES.ISDN Adapter Properties sheet.

You can now proceed with the application software installation as described in Chapter 4, page 26.

2.4 Changing Your ISDN Adapter's Settings

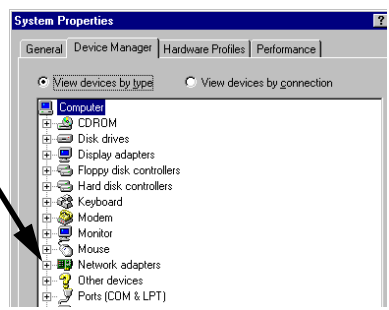
2.4.1 Uninstalling ISDN Driver

To remove your TELES ISDN adapter along with the CAPI and the TELES.WAN-NDIS Miniport from your system configuration:

1. Click the **Start** button, point to **Settings**, select **Control Panel**, double-click **System**.
2. Click the **Device Manager** tab.
3. From the list of devices, choose **TELES ISDN adapter** and select your own model.
4. Click **Remove** and confirm the resulting message by pressing **OK**.
5. Shut down Windows and restart your computer.

An incomplete or faulty installation may leave a device entry with a question mark in the **Other Devices** category of the Device Manager. If so, you can either

- reconfigure the board using the Properties dialog,
- or remove the driver and then reinstall it.



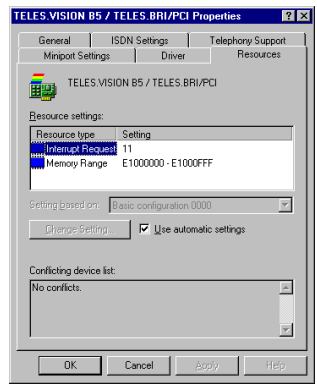
The `CLEANREG.EXE` program is a helpful tool which removes all TELES ISDN driver software entries from the Registry. The program can be found on the TELES CD in the `\Driver\Win9x` subdirectory. Start the program by double-clicking the file in the Explorer. `CLEANREG.EXE` can be used on older CAPI drivers version 3.20 or later.

NOTE: Before removing the software, make a note of your **current** ISDN board settings.

2.4.2 ISDN Adapter Property Sheet

Using the Windows Device Manager, you can alter the settings for your ISDN adapter at any time.

1. Click the **Start** button, point to **Settings**, select **Control Panel**, double-click **System** (or simply right-click the **My Computer** icon on the Desktop and select **Properties** from the resulting popup).
2. Click the **Device Manager** tab.
3. From the list of devices, choose **TELES ISDN** adapter, select your model and press Properties.
4. Click the tab corresponding to the device settings you would like to alter. For details see the online help. The following sections only refer to the **Resources** sheet.



2.4.3 Reconfiguring TELES.BRI/PnP and PCI Boards

Select the **Resources** tab to see which interrupt and I/O or memory address have been assigned to your adapter. The settings are based on so-called basic configurations with fixed values. Windows will detect any conflicting settings and alert you by automatically displaying a message.

Automatic Setting

1. Check the **Use automatic settings** option.
2. Click **OK**.

Manual Setting

Changing settings manually should be the exception, not the rule. Only if conflicts remain after repeated attempts to use the automatic settings, take the following steps:

1. Uncheck the **Use automatic settings** option.
2. Select one of the basic configurations and click **OK**. In most cases this will suffice.
   - If the basic configurations are still clashing with other boards, mark the resource type (I/O or Interrupt). Click **Change Setting...** Select the new value in the dialog box. Do not write the value by hand. Select it using the arrow keys. In this way only permitted values are entered.

2.4.4 Conflicting Settings of PnP or PCI Adapters

Should you encounter persisting problems with your board, check that your computer meets the following requirements:

- Make sure resources can be configured by the operating system, i.e. Windows 95 or 98:

  Example: Phoenix BIOS Setup

  Advanced: Plug&Play O/S Yes

- Check that your PC's BIOS is capable of Plug&Play.

- Should the settings automatically assigned to your PnP or PCI board lead to conflicts with other hardware, it is advisable to exclude certain values from automatic configuration. To do so, select the appropriate option in your PC's BIOS.

Example 1:	**Example 2:**
CMOS SETUP UTILITY |	Advanced CMOS SETUP UTILITY |
PNP AND PCI SETUP |	PNP/ PCI / CONFIGURATION |
IRQ 11 Used by ISA Card: YES	IRQ 11 assigned to: ISA

2.4.5 Reconfiguring TELES.S0/PCMCIA Card

Settings should be altered using the Card Service. The Windows Device Manager displays the resources assigned to your board but does not adopt any changes. See Chapter 5.4.

2.4.6 Reconfiguring TELES.S0/2TR Box

As the TELES.S0/2TR Box uses your parallel port's interrupt and I/O address you cannot use the Device Manager to view or change resources. Modifications can only be made from your PC's BIOS. For details, see Chapter 5.7, page 35.

3 Installing under Windows NT 4.0

3.1 System Requirements

Before installing your TELES ISDN adapter and TELES.RVS-PowerPack, check that your computer meets the following requirements which will enable the programs to perform correctly:

- PC equipped with at least a 90 MHz Pentium and 32 MB of RAM
- Windows NT 4.0 (single processor systems only)
- To make use of the Remote Access Service (RAS), you must have a network. Without any network components installed, you cannot use RAS. For further details on RAS refer to your Windows NT manual.
- An empty ISA, PCMCIA or PCI slot, depending on adapter type
- Free interrupt and I/O or memory address, depending on adapter type
- Graphics card with at least VGA resolution (640 x 480 pixels, 16 colors/grays)
- Hard disk space: 5 MB for driver software, 25 MB for TELES.RVS-PowerPack product installation
- ISDN line: Point-to-multipoint access or internal BRI provided by a PBX
- To display charges, the ISDN line must support advice of charges (see Chapter 1.1, page 7)

3.1.1 Before You Start ...

What you need to install the software:

- TELES.RVS-PowerPack CD with ISDN driver software. Applications will be installed in an extra step after you have completed the driver setup. Carefully retain the CD cover with your license number. You will need it when installing the applications software.

Your Windows NT CD

- If you have installed a **Windows NT Service Pack**, you will need its source path.
- Information about your ISDN line (phone numbers, D channel protocol type).

Installation Directories

- Driver and application software will be located to different folders. Note that the default location of the driver software is `C:\Program Files\TELES\ISDN drivers`, which cannot be changed.

3.1.2 Plug & Play Support under Windows NT

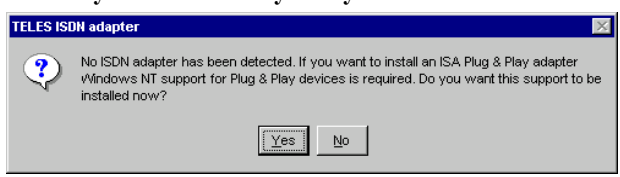
Microsoft provides the so-called **PnP ISA Enabler Driver** to support automatic configuration of Plug&Play boards. This is also used by the TELES installation program. Depending on whether it is already installed or not, you have two options to launch the installation:

PnP ISA Enabler Driver already available on your system:

- If this driver has already been installed, it will detect the board immediately as a new hardware component. In that case, continue driver installation, restart the computer and install the application software.

PnP ISA Enabler Driver not yet available on your system:

- If you are installing for the first time and this driver is not available, the card will not be recognized. Begin driver installation by running the `SetupS0.exe` file from the `Driver\WinNT` directory on the TELES.RVS-PowerPack CD. The **Add New Hardware Wizard** will appear, as it would with hardware that is not Plug&Play-capable. Click **Next**. The TELES installation program will suggest installing Plug & Play support. Follow the directions on your screen. You may be asked for the Windows NT CD-ROM. Finally, reboot your computer. The TELES.S0/PnP Board will be automatically detected and configured (see Chapter 3.3, page 20, Step 1.2).



NOTES:

- To check that the PnP ISA Enabler driver is installed, click the **Start** button, point to **Settings** and select **Control Panel**. The Enabler is listed in the **Devices** dialog box.
- The enabler works for all of your system's Plug&Play components. Any PnP cards installed without the aid of the enabler will be considered new after the enabler has been installed. Therefore, when setting up the ISDN driver, be sure that your TELES.ISDN board is announced. You can setup the other boards later, if you choose.

3.2 Installing Adapter and Connecting to ISDN Line

This section quickly guides you through the process of installing your adapter and getting connected to the ISDN line. For more detailed information, see Chapter 5, page 27ff and inside cover with the "TELES.ISDN Adapters Overview".

1. If installing a TELES.S0/PnP or TELES.S0/PCI Board, turn off your PC, unplug the power cable and open the PC housing.
2. If you are installing a TELES.S0/PCMCIA Card turn off your laptop. This is necessary since Windows NT has no hotplug support for PCMCIA cards.
3. Insert your board into an empty slot.
4. Connect one end of the RJ-45 cable to the RJ-45 jack on your board or box while plugging the other end into the ISDN wall outlet.
5. When installing a TELES.S0/PnP or TELES.S0/PCI Board, refasten housing, reconnect power plug and turn on PC.

After you have installed your ISDN adapter and connected it to the ISDN line, start Windows NT. You should have the TELES.RVS-PowerPack CD in the drive and your Windows NT CD at hand.

3.3 ISDN Driver Installation

1. Once your board is installed and connected to the ISDN line, start up Windows NT. Insert the TELES.RVS-PowerPack CD into the drive and have your Windows CD ready. Depending on your type of adapter and your system setup, either follow Step 1.1, 1.2 or 1.3:

1.1 TELES.S0/PnP Board with PnP ISA Enabler not yet available

If the PnP ISA Enabler Driver is not available on your computer when you begin the installation process, run the install.exe file from the `Driver\WinNT` directory on the TELES.RVS-PowerPack CD. The installation program prompts you to install this driver as detailed in Chapter 3.1.1. After your computer is restarted, the board is detected and you see the **New Hardware Found** message. This message will be followed by Step 2.

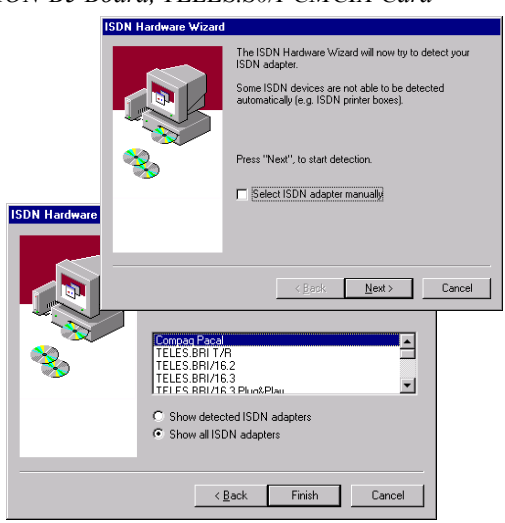
1.2 TELES.S0/PnP Board with PnP ISA Enabler Driver already installed

Upon Windows start-up, your board will automatically be recognized and indicated by the **New Hardware Found** message. This message will be followed by *Step 2*.

1.3 TELES.S0/PCI, TELES.VISION-B5 Board, TELES.S0/PCMCIA Card

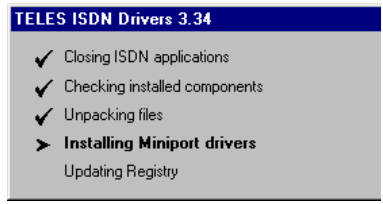
Navigate to your CD drive, open the `Driver\WinNT` directory and run the `SetupS0.exe` file. The **ISDN Hardware Wizard** appears. Click **Next** to start detection of your TELES ISDN adapter.

If your adapter is detected, it will be displayed. If not, you can manually select an adapter from the list. Click **Finish**. Proceed with *Step 2*.



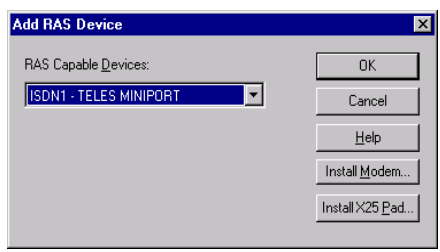
2. The following steps are the same for all adapters. First, the **TELES ISDN Driver** welcome panel appears. Next, please read the **License Agreement** carefully and confirm by clicking **Yes**.

3. Follow the instructions on your screen. A status window will reflect the progress of the installation.



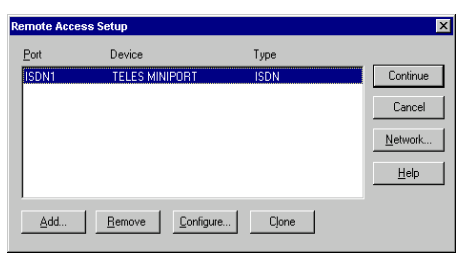
   To properly set up the **TELES.NDIS WAN Miniport** driver, you may be asked to insert your Windows CD. You will need this driver if you want to use your ISDN adapter for accessing the Internet or remote networks or computers. Depending on your system setup, you may be prompted for your Windows NT CD. Click **OK**.

4. You will now be prompted to configure the **Remote Access Services**. These steps depend on which network components are already installed on your computer:

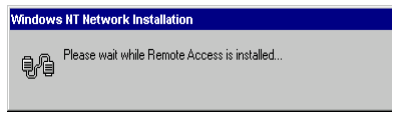


   - If no Remote Access Services are currently installed on your system, these services are installed from your Windows NT CD and the Add RAS Device dialog appears. TELES.Miniport is suggested as a RAS-capable device. Confirm with **OK**.
   - If the RAS facility is already installed (e.g. if you have a modem), the Add RAS Device dialog will be skipped and you will be led directly to *Step 5*.

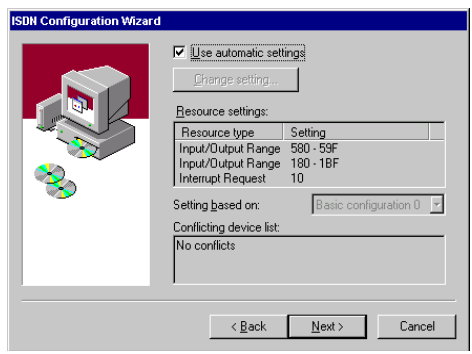
5. You are now in the **RAS Setup**, where you will have to determine the ports for the RAS facilities - one for each B channel of your ISDN line. Click **Add** if you want to set up a second port - however, one port will do to surf the Internet. Click the **Configure** button to open the **Configure Port Usage** dialog. You can set up the ports to meet your needs: Dial out only, Receive calls only or both. Click **OK** to confirm and exit RAS Setup by clicking **Continue**.



6. If RAS was already present on your computer, a series of progress dialogs appear as various protocol bindings are reviewed. If you are installing these services for the first time, a number of dialogs will follow, asking for general network settings, for example protocols and access authorization information. These settings will depend on the connections you choose. You will need TCP/IP for Internet access. As you can alter these settings at any time, simply click **OK** in all dialog boxes. For details refer to Chapter 8.1, page 44.



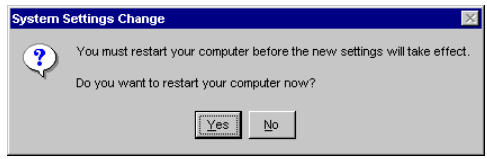
7. The **ISDN Configuration Wizard** will accompany you through all further installation steps. First, it shows your board settings. The interrupt and address will be assigned automatically.
   For a **PnP or PCMCIA** Board, check the **Use Automatic Settings** box.
   For a **PCI** board, this option is unnecessary and therefore dimmed. In any case, click **Next**.
   NOTE: Should your computer report a conflict with other adapters, deactivate the automatic setting and set other values manually by clicking **Change Settings**. You can also adjust the settings after rebooting the computer.



8. In the following 3 dialogs, enter the information requested:
   - **D channel protocol:** From the listbox, select the protocol for which your ISDN line is configured. For Euro-ISDN, choose ETSI (Europe).**Charge:** Unit for advice of charges.
   - **Area code:** Type your area code here.
   - **1st phone number:** Number used for the ISDN Line Test. If connected to a PBX, only type your extension, preceded by a hyphen ("-"). This way, the test will run internally (within the PBX), avoiding charges.
   - **Connected to telecom system:** If your adapter is connected to a company switchboard, mark this option and enter the number required to dial an outside line.

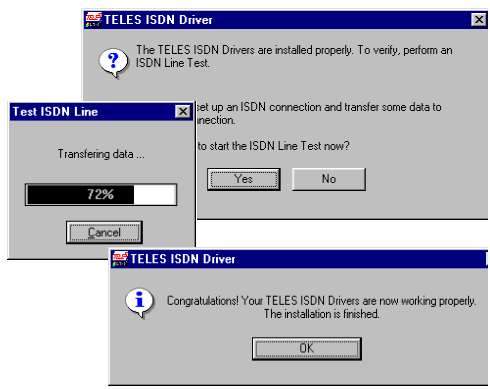
   Click **Next**.
9. Quit the ISDN Configuration Wizard by clicking **Finish**.

10. The next dialog announces the end of the driver setup. Click **Finish**. The **System Settings Change** dialog appears, prompting you to reboot your computer. If you have **Windows NT Service Pack** installed on your computer, you will be prompted to manually reinstall it. You can choose to do so before or after rebooting your computer.



    - To update Service Pack: Browse for its source directory and run the `Update.exe` file. Press **Next** in the **Welcome** dialog, confirm the License Agreeement by clicking Yes, click **Next** in the Setup dialog, choose an uninstall option and click **Next** again. Quit with **Finish** and reboot your computer.

11. When your computer restarts, a screen message will suggest to perform an ISDN Line Test. This is recommended to verify that your drivers and ISDN hardware are working together properly. Press **Yes** to begin the test. A connection is established to the number entered during installation. After successful completion of the line test, a message appears confirming the proper installation of the driver software.



Note that you can run the ISDN line test any time. To do so, simply right-click the **TELES.ISDN Monitor icon** placed in the Windows task bar and select **ISDN Settings**.

In the event that the test is not successful, check to be certain that your adapter is properly connected to your PC and the ISDN line, and make sure you have entered the proper D channel protocol and telephone number for your line. If you need to make corrections open the TELES.ISDN Adapter Properties sheet.

You can now proceed with the application software installation as described in Chapter 4, page 26.

3.4 Changing Your ISDN Adapter's Settings

3.4.1 Reconfiguring TELES.S0/PnP Board

Double-click the **TELES.ISDN** or **Network** icons (accessible from Settings | Control Panel) or right-click the **TELES.ISDN Monitor** to access the ISDN adapter's properties dialog. Select **Resources** to see which interrupt and I/O address have been assigned to your adapter by the PnP ISA Enabler. The settings are based on so-called basic configurations with fixed values.

Automatic Setting

1. Check the **Use automatic settings** option.
2. Click **OK**.

Manual Setting

Changing settings manually should be the exception, not the rule. Only if conflicts remain after repeated attempts to use the automatic settings, should the following steps be taken:

1. Uncheck the **Use automatic settings** option.
2. Select one of the basic configurations and click **OK**. In most cases this will suffice.
   - If the basic configurations are still clashing with other boards, mark the resource type (I/O or Interrupt). Click **Change Setting....** Select the new value in the dialog box. Do not write the value by hand. Select it using the arrow keys. This way only permitted values are entered.

3.4.2 Reconfiguring TELES.S0/PCI Board

Interrupt and address are automatically assigned by the PCI BIOS. Windows NT does not permit manual changes. Therefore, no resources are visible in the ISDN adapter's properties dialog and the **Use automatic settings** option is dimmed.

Should the settings automatically assigned to your PCI board lead to conflicts with other hardware, it is advisable to exclude certain values from automatic configuration. To do so, select the appropriate option in your PC's BIOS.

Example 1:	**Example 2:**
CMOS SETUP UTILITY |	Advanced CMOS SETUP UTILITY |
PNP AND PCI SETUP |	PNP / PCI / CONFIGURATION |
IRQ 11 Used by ISA Card: YES	IRQ 11 assigned to : ISA

3.4.3 Reconfiguring TELES.BRI/PCMCIA Card

Double-click the **TELES.ISDN** or **Network** icons or right-click the TELES ISDN Monitor to access the ISDN adapter's properties dialog. Point to the **Resources** tab.

Only the basic configuration **0** is available. If the preset values do not apply, mark the **Resource** type (Interrupt or I/O range). Double-click on this, or click the **Change setting...** button, to access the dialog box where you can select the new values. Do not enter these by hand. Select them by using the arrow keys. In this way, only permitted values are entered.

3.4.4 Uninstalling ISDN Driver

NOTE: Before removing the software, make a note of your current ISDN board settings.

Uninstalling the NT-CAPI (Version 3.28 or later):

- Click the **Start** button, point to **Settings** | **Control Panel**, double-click **Add/ Remove Software**: Select **TELES.ISDN Driver xxx** and click **Remove**.

Uninstalling earlier versions of TELES.NT-RAS drivers (up to Version 2.5)

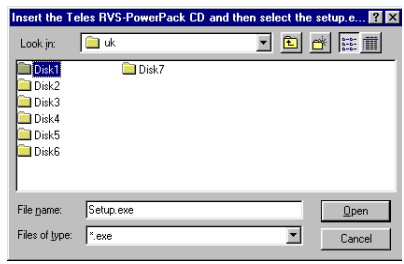
- Click **Network | Network card**: Remove TELES.ISDN Driver

Confirm deletion of the selected files with **Yes**. All TELES.NDIS WAN Miniport driver and TELES ISDN board entries, virtual modems and affiliated protocol connections are removed. Restart the computer.

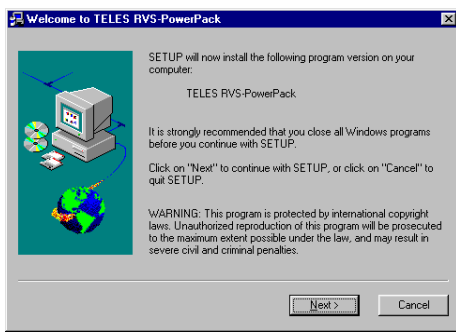
4 Installing TELES.RVS-PowerPack Applications

Once the ISDN driver software is installed, an RVS-COM Setup dialog appears prompting you to enter your license number in the **KEY** field. This number is printed on the cover of your TELES.RVS-PowerPack CD. If the automatically selected language is not appropriate, you can choose another one from the listbox.

You may want to manually launch the installation program (e.g. to install an update version later on). In this case, locate the `setup.exe` file on the root level of your CD and click **Open**.

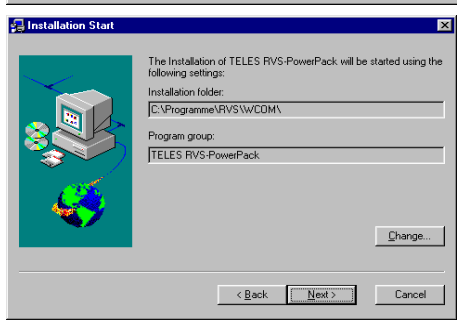


Setup proceeds with a welcome panel. Click **Next**. Read the License Agreement carefully and confirm with **Yes**. A dialog appears showing the default installation directory.



To select a new installation folder or program group, press the **Change** button and enter the desired information. To begin installation using the displayed settings, press **Next**.

The **Finish Setup** dialog appears announcing completion of the installation process. Press **Finish** and **reboot** your computer.



Upon Windows start-up, the **Configuration Wizard** will ask you for information about your ISDN line and allow you to adjust the TELES.RVS-PowerPack software according to your preferences. Follow the instructions shown on your screen. When configuration is complete, click **Finish** in the Configuration Wizard dialog to begin using your software.

5 Hardware Installation

This chapter guides you through the process of
- configuring and installing your ISDN adapter,
- connecting the adapter to the ISDN line.

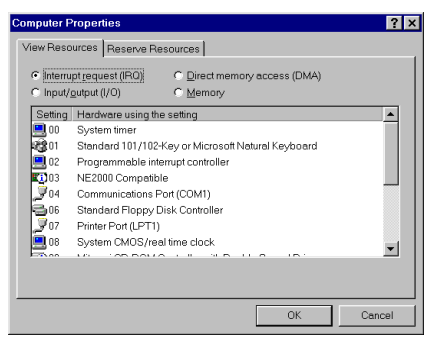
As an extra chapter is allocated to each adapter, you may skip the pages that do not apply to your own model.

The table on the inside cover lists all interrupts and addresses which can be used for each adapter.

5.1 Interrupt and Address Settings

Depending on your adapter, it may be advisable to check your computer for free **interrupts** and **addresses** before getting started. Make sure that the selected interrupts and address ranges do not conflict with those assigned to other components installed in your PC. Otherwise, your BRI adapter may not function properly. The conflicting card(s) may also not operate correctly.

To avoid conflicts verify free interrupts and addresses using the following:
- Refer to the **manuals** of your motherboard and all existing adapters.
- Use the **Windows 95/98 Device Manager** to view your computer‘s resource settings.
  - To get an overview of your computer’s current resources, right-click the My Computer icon on the desktop and select Properties from the resulting context menu, or choose **Start | Settings | Control Panel | System from the Start** menu. Then highlight **Computer** in the Device Manager list, and select **Properties**.

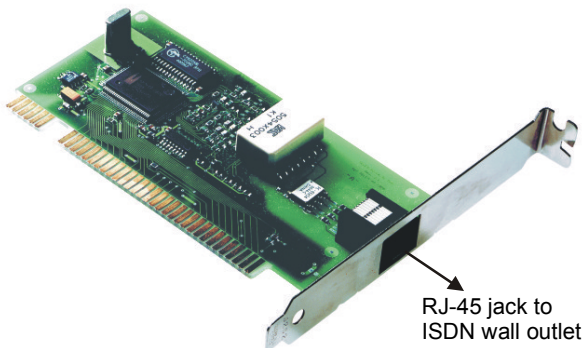


- Under **Windows NT**, use the **Windows NT Diagnostics** accessible from Start | Programs | Administrative Tools (Common).

This is not necessary for the USB boxes which need no resources. The TELES.S0/2TR Box uses the standard resources of your PC’s printer port.

5.2 TELES.S0/PnP Board

1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert the board into an **ISA** slot.
3. Use the RJ-45 cable to plug the board into an ISDN wall outlet.
4. Replace the cover of your PC and reconnect the power plug.
5. Boot up your computer.



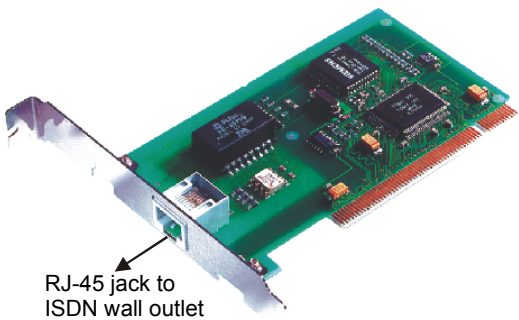
Windows 95 and Windows 98
When you boot up your computer, Windows automatically detects your board and launches the installation program to set up the drivers. For details see Chapter 2.3, page 10.

Windows NT
In Windows NT, your board can be automatically configured as well. To do so, be sure you have **Microsoft's PnP ISA Enabler** installed. For details see Chapter 3.3, page 20.

5.3 TELES.S0/PCI Board

All necessary resources will be **assigned by the PC BIOS** avoiding the need to manually configure the board. However, note that under **Windows NT** it is necessary to **manually start up** the driver setup.

1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert the board into a **PCI** expansion slot.
3. Use the RJ-45 cable to connect the board to an ISDN wall outlet.
4. Replace the cover of your PC and reconnect the power plug.
5. Boot up your computer.



Windows 95 and Windows 98
When you boot up your computer, Windows automatically detects your board and launches the installation program to set up the drivers. For details see Chapter 2.3, page 10.

Windows NT
In Windows NT, **manually** start up the installation program. Then, follow the screen messages to have your board automatically set up. For details see Chapter 3.3, page 20.

5.4 TELES.VISION-B5 Board

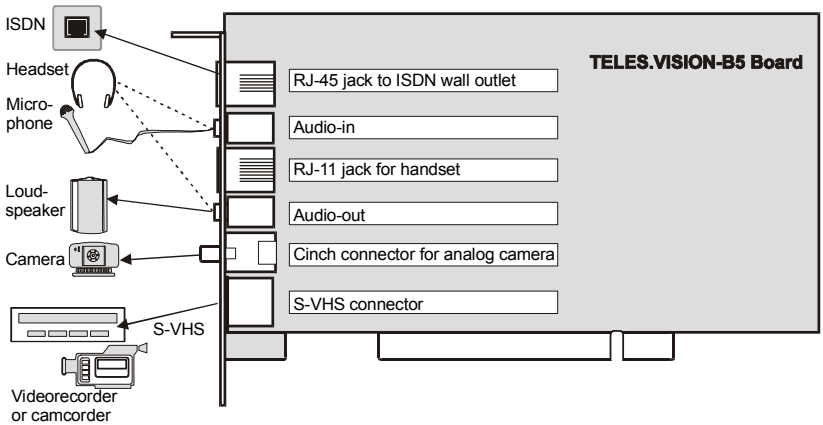
Designed as a combination of **ISDN adapter, framegrabber** and **soundcard** TELES.VISION-B5 integrates everything you'll need for multimedia communications and videoconferencing. The board allows you to take full advantage of the **VideoPhone** software included in your TELES.RVS-PowerPack. Plus, you can use **all three functions independently**.

Features in Windows 95, Windows 98, Windows NT

- TELES.VISION-B5 plugs your computer to the ISDN Basic Rate Interface providing the same features as all types of TELES BRI boards and boxes.

Features specific to TELES.VISION-B5 if installed in Windows 95 / 98

- TELES.VISION-B5 connects to various types of video sources, such as cameras, videorecorders or camcorders. You can easily attach your own existing equipment, e.g. PAL or NTSC cameras or any common S-VHS videorecorder.
- TELES.VISION-B5 conforms to the H.320 standard known as the worldwide dominant standard for videoconferencing over ISDN.
- The integrated framegrabber supports the widely used Microsoft Video-for-Windows interface and is capable of a maximum frame rate of 25 frames per second (PAL) or 30 fps (NTSC). This is an exciting extra feature which allows you to run not only TELES programs, but also any video software using this interface, such as video mixers or video editors.
  Picture quality varies with several major factors, such as resolution, frame rate, bandwidth, degree of motion. A high resolution may slow down the frame rate. Vice versa, you can speed up the frame rate by selecting a smaller resolution. But frame rate comes at the expense of bandwith. This means displaying a high resolution image at maximum frame rate requires a maximum amount of bandwidth. Typical frame rates:
  4-12 fps at CIF, 8-16 fps at QCIF, 10-25 fps at QCIF (see online help for more details.
- Audio-in and out connectors allow you to attach a handsfree device, or microphone and loudspeaker. This is useful to sit back in a videoconference, talking hands free to your conference partner instead of juggling with your telephone. An RJ-11 jack connects to headsets or handsets with 4-wire interfaces.
- You can benefit from the board's audio features for playing back `*.WAV` files via Microsoft's MediaPlayer, or recording them with your audio recorder.



Simply insert the board, then plug the ISDN cable and attach the accessories you want to use with the board.

1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert the board into an empty **PCI** slot and secure it to the chassis.
3. Plug the RJ-45 cable into the RJ-45 jack on the board and into an ISDN wall outlet.
4. The RJ-11 jack is intended for connecting 4-wire devices. It is not suited for analog telephones, but connects to handsets equipped with electret or electroynamic microphones. If you want to connect a 4-wire handsfree telephone you will need an adapter.
5. Use the audio-in and out connectors to attach either a microphone and a loudspeaker, or the headset delivered with the board, or a handsfree device.
6. Use the cinch connector to connect one of the following devices: an analog PAL or NTSC camera or an FBAS capable video recorder or camcorder.
7. Use the S-VHS connector if you want to connect an appropriate videorecorder or camcorder.

Windows 95 and Windows 98

When you boot up your computer, Windows automatically detects your board and launches the installation program to set up the drivers. For details see Chapter 2.3, page 10.

Windows NT

In Windows NT, manually start up the installation program. Then, follow the screen messages to have your board automatically set up. For details see Chapter 3.3, page 20. **IMPORTANT:** Please note that the audio and video features are only available when used in Windows 95 or 98. If installed under Windows NT the board only works as an ISDN adapter.

5.4.1 Using the TELES.VISION-B5 Board as a Soundcard

If you have the TELES.VISION-B5 installed in Windows 95 or 98 you may use it as a soundcard. The soundcard features can be activated as follows:

1. Select **Settings | Control Panel | Multimedia** from the **Start** menu.
2. Press the **Audio** tab and select the **TELES S0AB WaveOut Driver** from the Preferred Device list in the Playback box, and the WavIn Driver from the list in the Recording box.
3. Press the **Advanced** tab and select **Audio for TELES AG TLSWAVE** from the list of Audio Devices.

Note: The stand-alone soundcard features of the TELES.VISION-B5 Board are not supported under Windows NT.

5.5 TELES.S0/PCMCIA Card

The TELES.S0/PCMCIA Card is a Type II card (0.2 inches or 5 mm thick).

Installing the card in Windows 95 / 98 Computers

- **Start up your laptop** and insert your card into the PCMCIA slot. Plug the RJ-45 end of the ISDN cable into an ISDN wall outlet, and attach the flat connector to the card. The card service will recognize the card and automatically assign necessary resources.
- **To set up the drivers** use the **card service** provided by your laptop manufacturer or a **Windows Card Service**. When using older models, be certain that the card service drivers are Windows 95/98 compatible (if so, the PCMCIA socket entry will be displayed in the Device Manager).
  When you insert the card, the card service detects the device and automatically sets up all resources. The values assigned are available under TELES ISDN adapter in the Device Manager, but cannot be changed there. If necessary, manual changes can be made using the Card Service.
- The **PC Card (PCMCIA)** | **Socket Status** sheet shows which sockets are occupied.

Freeing up slot for other cards (Windows 95 / 98 only)

- A major advantage that is you can easily activate or deactivate your TELES.S0/PCMCIA Card under Windows 95 or Windows 98. This is useful if you want to free the slot to insert another card. As a rule, you can simply pull out the card during operation. Some card service types, however, might prompt you to deactivate the slot beforehand.

Installing the card in Windows NT Computers

In contrast to other Windows versions, Windows NT does not allow hot-plugging. The card must be within the slot when you start up Windows.

- Insert your card into the PCMCIA slot. Plug the RJ-45 end of the ISDN cable into an ISDN wall outlet, and attach the flat connector to the card. Start up your laptop.
- Begin driver installation by running the `SetupS0.exe` file from the `\Driver\WinNT` directory on your TELES.RVS-PowerPack CD.

5.6 TELES.S0/USB Box and TELES.S0/2TR USB Box

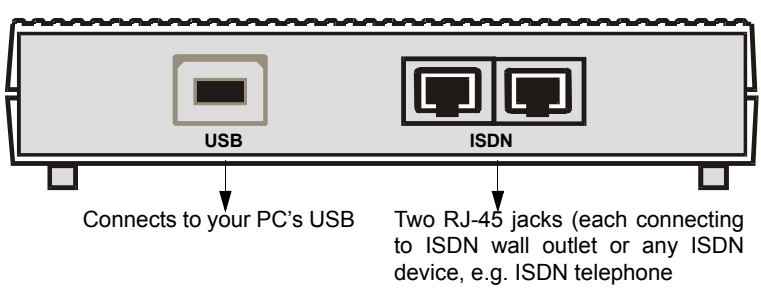
Both boxes can only be installed under **Windows 98** or **Windows 95b capable of USB support**. Be sure your computer meets the requirements detailed in Chapter 2.1.1. Installing the box is very easy since USB offers Hot-plug and Plug&Play support.

Connect your USB box while the PC is running with Windows:

1. On the back of your box you will see two jacks labeled **ISDN**. Both are identical. Simply plug the one end of the ISDN cable (RJ-45) to one of the two jacks. Plug the other end to the ISDN wall outlet.
   - The TELES.S0/2TR USB Box additionally needs a **power supply** to feed the connected analog devices: Plug the power supply to a 220/230V wall outlet and connect the other end of the power supply cable to the socket marked 12 V. Once the ISDN cable and the power supply are properly plugged the box runs a **self test** that causes each LED to light up briefly. For further details see your TELES.S0/2TR USB Box User's Manual.
2. Plug the **USB cable** to the USB jack on the back of the box. The other end with the flat connector connects to the USB port provided by your PC or a USB hub.
3. The remaining ISDN jack can be used for attaching any ISDN device, e.g. an ISDN telephone.
4. Once connected, the box will automatically be displayed as a new hardware component. Follow the screen messages to set up the drivers as described in Chapter 2.3, page 10)

Hot-plug allows you to easily disconnect or attach your USB box any time while Windows is running. While the box is disconnected, the TELES.ISDN Monitor will show an exclamation mark. As soon as you attach the box, ISDN drivers will be loaded and you are ready to go.

Back of TELES.S0/USB Box

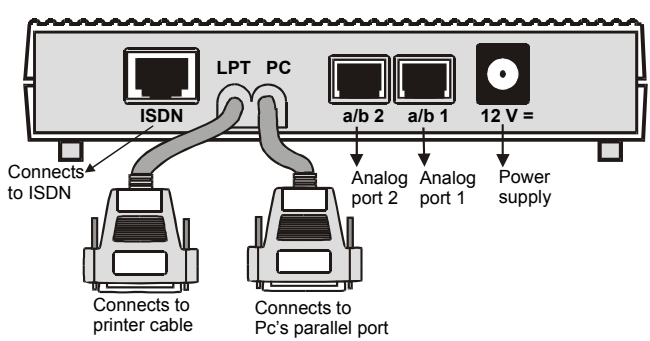


5.7 TELES.S0/2TR Box

The TELES.S0/2TR Box is intended for use under Windows 95 or 98 only. It is an external unit that connects your PC to the ISDN line. It is ideally suited for laptops, notebooks and PCs without any free slots. Furthermore, it gives you all the advantages of a small PBX (hold and transfer, call forwarding, conference call, call blocking, remote administration, etc.). Simply connect the box to your parallel port, attach your analog devices and it is ready to go.
You install the TELES.BRI/2TR Box in a few easy steps:

1. Connect the cable of the external **power supply** to the power jack labeled 12V on the back of your box. Then plug the external power supply into an electrical outlet.
2. Connect the one end of the **ISDN** cable (RJ-45) to the RJ-45 jack on the back of the TELES.S0/2TR Box. Plug the other end into an ISDN wall outlet.
3. Plug the parallel cable labeled **PC** on the back of the box to your PC‘s LPT1 or LPT2 printer port.
4. The box will now perfom a self test that causes each LED to light up briefly.
5. If you would like to operate another parallel device (such as a printer) on the same PC, connect the parallel cable labeled **LPT** on the back of the box to your printer cable.
6. Use the **RJ-11 cables** to connect your analog terminal devices (phone, fax machine) to the analog ports (labeled a/b 2 and a/b 1) at the back of the box. For more details please refer to your TELES.S0/2TR Box User’s Manual.
7. Finally, start up your computer and run the TELES.S0/2TR Box installation program from the CD (Chapter 2.3, page 10).

The Box uses the standard parallel port I/O address and interrupt, typically preconfigured in your PC’s BIOS as follows:
LPT 1: I/O address = 378 (in some computers 3BC); IRQ = 7
LPT 2: I/O address = 278; IRQ = 5



5.7.1 Other Devices on the Parallel Port

The TELES.S0/2TR Box is intended for unidirectional printer ports. For printers attached to the parallel port beyond the box, this may present problems in the transfer of commands, control signals, etc.

In most cases, it is sufficient to switch the parallel port or the printer driver from bidirectional communication to unidirectional operation. Settings can be made in the BIOS or - in some cases - in the printer driver itself.

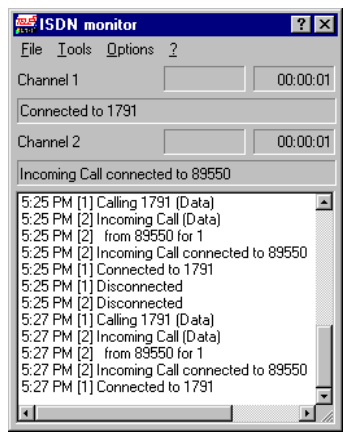
Sample BIOS Settings
The settings vary according to the type of BIOS. For bidirectional operation, you frequently find the "ECP", "EPP" or "Bidirectional communication - compatible" options. Simply deactivate the appropriate option. For unidirectional operation, the "Normal" option is frequently used.

6 TELES.ISDN Monitor and Testing Utilities

All utilities for monitoring and testing are accessible via the TELES.ISDN Monitor icon placed in the Windows taskbar. For detailed information, please refer to the online help.

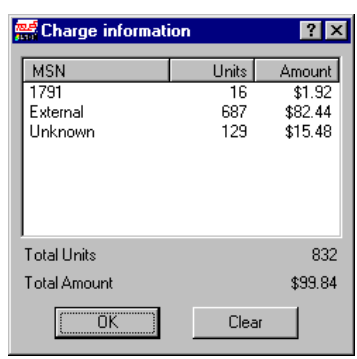
Double-click the TELES.ISDN Monitor to view ISDN line activity, such as

- B channel usage
- Connection status
- Error messages



Right-click the TELES.ISDN Monitor to open the following dialogs:

- **Charges:**
  - Provides an overview of the costs incurred on your ISDN line for each MSN. Lists the number of units and costs accumulated by the device or application assigned to this MSN.
  - If you have assigned MSNs to other devices connected to the BRI bus, these will be listed as External. All applications which incur costs, but do not provide an MSN will be listed as Unknown.



- **Trace and Statistics**
  - Recommended for fixing problems. Used to keep track of all communications over your basic rate interface by recording ISDN driver status information and listing errors on data activity.

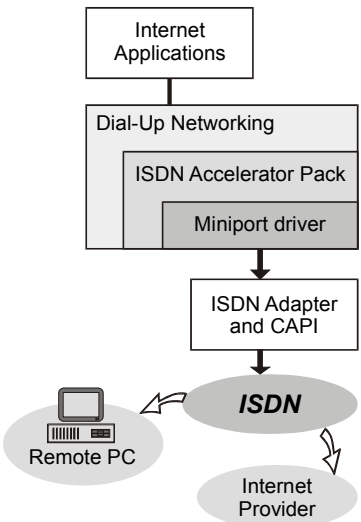
- **Properties** (lets you access the following sheets):
  - **TELES ISDN Settings**
    Intendend for configuring *general settings of your ISDN line* as well as for running tests.
    The *ISDN Line test* perfoms a short loopback test between the two B channels. To do so, enter one of the phone numbers of your ISDN line. If your adapter is connected to a PBX use the extension to avoid charges. The extension must be preceded by a hyphen which eliminates the outside line number.
    The *Hardware test* checks that your board‘s hardware components are operational.

  - **Miniport** - refers to the Miniport driver required to set up PPP connections with your ISDN adapter (e.g. to access the Internet). See Chapter 7.4, page 41 and online help.

  In Windows 95 and 98, you can also use the **Windows Device Manager** to open the Properties dialog.
  In Windows NT, this dialog is also accessible from the **TELES.ISDN** or **Network** icons located on the **Windows Control Panel**.

7 Dial-up Network & Internet Access in Windows 95/98

In order to use your ISDN adapter to connect to the Internet, several software components included with the Windows operating system are necessary, along with additional software drivers included with TELES.RVS-PowerPack.



The Windows **Dial-Up Networking** system serves as a link to remote computers. With the appropriate protocols, this software enables you to establish a connection to a router at your Internet Service Provider (ISP), which in turn connects you with the Internet.

The **TCP/IP protocol** is the common "language" of all computers connected to the Internet. With this protocol installed, your PC can communicate with any computer - or "host" - on the Internet as if it were connected directly.

As the Dial-Up Networking software was originally conceived to communicate using modems and standard analog telephone lines, **Microsoft's ISDN Accelerator Pack** is required to use this component with ISDN. In Windows 95 it is automatically installed along with your ISDN adapter's driver software unless already present. In **Windows 98**, it is fully integrated and **must not be installed separately!** The TELES.WAN-NDIS Miniport driver allows these components to communicate with your TELES ISDN adapter.

If you have not used your computer for remote connectivity or Internet connections before, you may need to install one or both of these components:

Installing Dial-Up Networking

- Click the **Start** button, select **Settings**, click **Control Panel**, double-click **Add/Remove Programs**, and click the Windows **Setup** tab.
- Highlight **Communications** in the list box, and click the **Details** button. Check the box marked **Dial-Up Networking** and click **OK**.

Setting up TCP/IP

- Click the **Start** button, select **Settings**, click **Control Panel**, double-click **Network**, and click the **Add...** button.
- Double-click **Protocol**, click Microsoft (under Manufacturers), **TCP/IP** (under Network Protocols).

7.1 Creating a New Dial-Up Networking Connection

Once you have installed your ISDN adapter and driver software along with Dial-Up Networking and TCP/IP, you are ready to create a new connection setup, e.g. for exploring the Internet via your ISP, contacting a remote computer or accessing a remote network.

1. Double-click **My Computer**, double-click the **Dial-Up Networking** folder and double-click **Make New Connection**.
2. Type a name for the connection, select **TELES MINIPORT - 1st B channel** as the modem, and click **Next**.
3. Enter the **phone number** of the remote computer in the **Area code** and **Telephone number** fields, select the appropriate **Country code** from the list. To access the Internet enter or your service provider‘s access number. Click **Next** and finally press Finish.

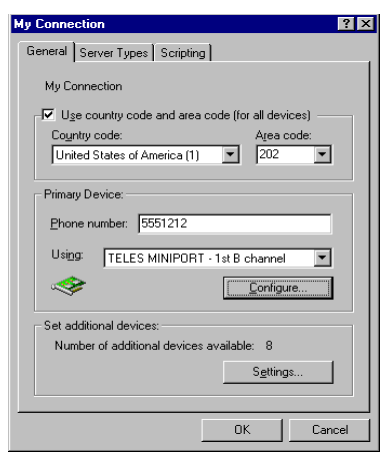
The new connection should appear in the Dial-Up Networking folder. Before you can use it you need to modify the connection settings. See Chapter 7.2, page 40.

7.2 Adjusting a Dial-Up Networking Connection

To set or modify preferences for your Dial-Up Networking Connection, right-click the connection icon and select Properties from the resulting popup.

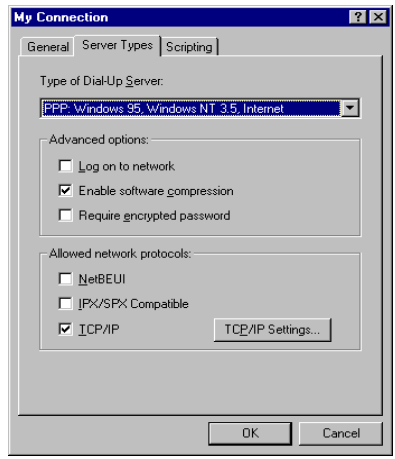
General property sheet

- Press the **Settings...** button if you would like to add a second device, which uses your second B channel to take advantage of **Multilink PPP**, increasing the connection speed to **128 kbps**. In the resulting dialog, select Use additional devices and click the **Add...** button. Select **TELES MINIPORT - 2nd B channel** from the list of devices and click **OK** to return to the **Set Additional Devices** dialog. Click **OK** again.



Server Types property sheet
These following settings are supported by most ISPs:

1. Under **Type of Dial-Up Server**, select **PPP, Windows 95, Windows NT, Internet**.
2. Under **Advanced** options, check only the **Enable software compression** option. Leave the other boxes unchekked.
3. Under **Allowed network protocols**, select **TCP/IP**. For Internet access leave the other boxes unchecked.
4. Click **TCP/IP Settings...** to select the options and enter the values provided by your ISP.



If you are unable to establish a connection using this configuration, contact your ISP for appropriate settings.

7.3 Connecting via Dial-Up Networking

You are now in a position to set up a connection to your Internet Service Provider or to a remote computer. Simply click **Dial** from the Dial-Up Networking connection window configured before.

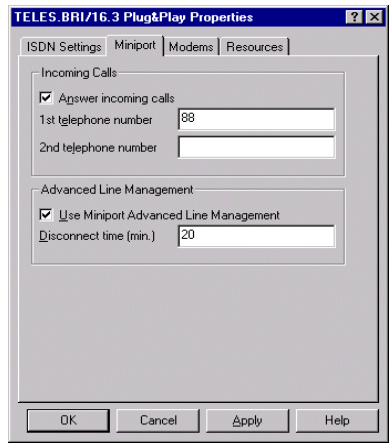
To connect a remote computer you will be prompted to enter your user name and a password.

7.4 Miniport Settings

Miniport comes with its own property sheet accessible from the TELES ISDN Adapter Properties dialog. You have several options to open this dialog:

- Point to the **TELES ISDN Monitor** icon in the Windows taskbar, click **Properties**, select the **Miniport** tab.
- From the **Windows Device Manager**, select your TELES ISDN Adapter, point to **Properties**, select the **Miniport** tab.
- In Windows 98, you can also use the **TELES ISDN icon** placed in the **Control Panel**.

Miniport allows your ISDN adapter to set up PPP connections, e.g. for accessing the Internet.



The Miniport sheet is essential if you want to configure your computer as a server to **answer incoming calls** from remote computers using **PPP** (see Chapter 7.5, page 42). If so, enter one or two phone numbers. Note that these phone numbers will also be **transmitted when you dial out**. The default setting is ***** (= wildcard). This allows your computer to *a)* answer all incoming PPP calls and *b)* use specific phone numbers for setting up PPP calls.

The **Use Miniport Advanced Line Management** option configures your system to disconnect idle connections, thus avoiding telephone charges.

When using **Multilink**, you can take advantage of the **Voice on Demand** feature: Mark this option if you want one B channel to be disconnected if both are used by Miniport and a phone or fax call is waiting.

7.5 Setting up Your Computer as a Dial-Up Server

With Windows Dial-Up Networking and the TELES.WAN-NDIS Miniport driver, you can configure your own computer to operate as a Dial-Up Server. In this manner, others can access the resources you have shared, or copy files to your computer via ISDN.

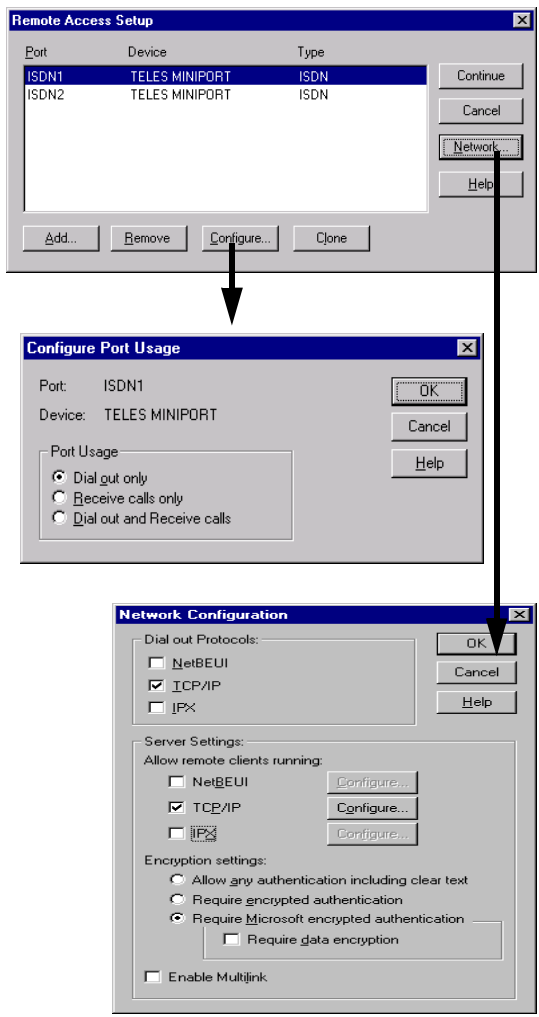
1. Double-click **My Computer**, and double-click the **Dial-Up Networking** folder.
2. From the **Connections** menu, choose **Dial-Up Server...**
3. Select **Allow caller access**.
4. Set the **Password** and **Server Type** as desired, and click **OK**.

The **Dial-Up Server** icon appears in the Windows taskbar. This displays the fact that your PC is now ready to accept incoming calls at the number specified on the Miniport Settings sheet (see Chapter 7.4, page 41).

8 Dial-Up Network & Internet Access in Windows NT

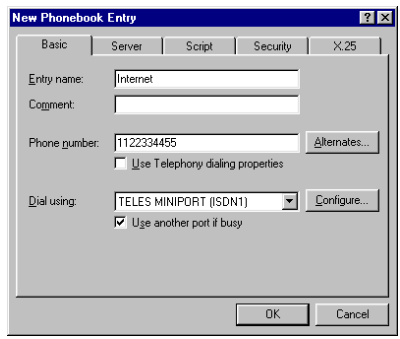
In order to connect to the Internet, to remote computers or remote networks the **Remote Access Services (RAS) and Dial-Up Networking** must be properly set up on your computer. If you have been using a modem before, you may already be familiar with both.

As in Windows 95 and 98, **TELES.NDIS WAN Miniport** is the driver that enables Dial-Up Networking and RAS to use an ISDN adapter instead of a modem. Installed along with the ISDN driver software it should be available now (see Chapter 3.3, page 20ff). You simply need to configure the following RAS settings, depending on the type of remote destination you want to connect to. For Internet access, make sure the **TCP/IP** protocol set up. To communicate with remote computers TCP/IP is also commonly used.



Navigate to **Control Panel | Network | Services | Remote Access Services | Properties**.
The Miniport driver will be displayed as the device used for RAS connections. Click **Configure** and **Network** to make all settings needed.

8.1 Creating New Dial-Up Network Connection



With your ISDN adapter, RAS, Dial-Up Networking and protocols (mostly TCP/IP) installed, you are in the position to set up a Dial-Up Network connection to your Internet Service Provider or to a remote computer. The steps are similar to those in Windows 95 and Windows 98 (see Chapter 7.1, page 40). Be sure to choose **TELES Miniport - (ISDN1)** or **TELES Miniport - (ISDN2)** as the adapter you want to use for dialing out. Then enter the phone number and if requested IP address, DNS and WINS Server address.

The new connection should appear in the Dial-Up networking folder. Before you can use it you need to modify the connection settings.

8.2 Adjusting a Dial-Up Network Connection

To set or modify preferences for your new connection, double-click the **Dial-Up Networking** icon. If you have configured more than one connection, select each from the **listbox**. Press the **More** button and select **Edit entry and modem properties** to access various settings dialogs. Although the dialogs are different from Windows 95 / 98 you may enter the same parameters as detailed in Chapter 7.2, page 40.

8.3 Conneting via Dial-Up Networking

You are now ready to set up a connection to your Internet Service Provider or to a remote computer. Simply click **Dial** from the Dial-Up Networking connection window configured before.

To connect a remote computer you will be prompted to enter your user name and a password.

If you want to connect to another remote Windows NT computer you must be granted access rights. See Chapter 8.4, page 45 for instructions.

8.4 Setting up RAS Access for a Remote Client

You can configure your computer to operate as a Dial-Up Networking server. In order to dial into your computer, the remote client must have a user account on your computer and be granted access rights.

- To do so, first add the client's user name along with a password to the **User Manager for Domains**, accessible under **Programs | Administrative Tools (Common) | User | New User**.

- Next, navigate to the **Remote Access Admin**, accessible under **Start | Programs | Administrative Tools**. Select **Permissions** from the **Users** menu. The **Remote Access Permission** dialog appears. Mark the user and check the box labeled **Grant dialin permission to user**. Make sure **RAS has been started** beforehand.

- To accept incoming calls from remote clients use the **Miniport settings** dialog. The settings are same as under Windows 95 / 98. Please see Chapter 7.4, page 41. Simply enable the **Answer incoming calls** box and enter one or two phone numbers to be dialed by remote clients.

You can view the current RAS connections in the **Remote Access Admin** on the server. To see them click **Users | Active Users**.

9 Customer Service

International Help Desk		
TELES Ireland Ltd. Unit 3, Distribution Centre, Shannon Airport Free Zone, Co. Clare IRELAND	Phone*) as of June 18, 1999 until July 1, 1999 only E-Mail Support: E-Mail Sales: World Wide Web:	+353 (61) 716 716 +31 (71) 332 0919 support@teles.ie sales@teles.ie http://www.teles.ie

Local Help Desks		
TELES AG Dovestrasse 2–4 10587 Berlin GERMANY	Phone*) Fax: World Wide Web:	0190/871101 (3.63 DM/min Germany only) +49 (30) 399 28 01 http://www.teles.de
TELES Benelux BV De Lasso 70 NL-2371 GZ Roelofarendsveen THE NETHERLANDS	Phone*) Fax: World Wide Web:	0900 2027777 (105 cpm) +31 (71) 331 7174 http://www.teles.nl
TELES Italia SRL Via die Platani 6 I-20020 Arese (MI) ITALY	Phone*) Fax: World Wide Web:	+39 (02) 93777 100 +39 (02) 93777 101 http://www.telesitalia.it
BCS Oslo NORWAY	Phone*)	820 70 240 (12 nok/min)

*) Available Monday through Friday from 8.30 a.m. to 6 p.m.

Return Material Authorization (RMA)
Returned goods are accepted only if an RMA number is attached. TELES assigns these numbers on (written) request after evaluation of the validity of the return. Goods must be packed appropriately.

Cost compensation option for hardware checking
TELES may ask for compensation of hardware checks, if for example a hardware check has been ordered but no error could be found. In this case, TELES may bill for the costs (labor etc.) that occur while checking the hardware.

9.1 Checklist for Hotline Contacts

If problems occur during operation, have the following information at hand when you contact the TELES Hotline for assistance.

Operating system:	❑ Win 98	❑ Win 95	❑ Win NT	
Bus:	❑ ISA	❑ PCI	❑ PCIMCIA	❑ USB
Processor type:	❑ Pentium	❑ Pentium 2	❑ MMX	❑ Pentium 3
Laptop:	Card Service type _____			
TELES.RVS-PowerPack:	Version _____			
CAPI:	Version _____			

Type of ISDN adapter:

❑ TELES.S0/PnP Board	❑ TELES.S0/PCMCIA	❑ TELES.S0/2TR USB
❑ TELES.S0/PCI Board	❑ TELES.S0/2TR	❑ TELES.S0/USB
❑ TELES.VISION-B5		

ISDN Line Configuration:

❑ Euro-ISDN (DSS1)	❑ VN-3 (France)	❑ CT-1 (Belgium)
❑ Other D channel protocol	❑ Point-to-multipoint line	❑ Point-to-point line

Only if your TELES ISDN adapter is connected to a PBX:

❑ Outside line:

Further devices attached to the same ISDN access

❑ TELES.iTA/2TR	Device ID:	Phone number:
❑ TELES.iPBX/4TR Box	Device ID:	Phone number:
❑ TELES.FON	Device ID:	Phone number:
❑ TELES.FON a/b	Device ID:	Phone number:

10 Index