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Nokia 7110

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Quick Guide to Using the Nokia 7110 with an Infrared Data Connection

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1. INTRODUCTION

The scope of this document is to provide guidelines on how to configure the Windows 95 or Windows 98 environment with the Nokia 7110 so that internal data and fax features can be used.

2. WINDOWS 95 CONFIGURATION

In order to use Nokia 7110 data and fax capabilities with Windows 95 IrDA must be installed on the PC. To check if your PC has Microsoft IrDA software installed follow the steps described below.

2.1 Checking IrDA Support in Windows 95

1. Open *Control Panel* (*Start* | *Settings* | *Control Panel*)
2. Check if the *Infrared* icon is there

If you find the icon double-click it and move ahead to the "IrDA settings" section; otherwise, follow the instructions in the "Installation of MS IrDA support for Windows 95" section.

2.2 Installation of MS IrDA Support for Windows 95

1. Before installation check that your computer has the IR-port activated from the BIOS setup and/or from proprietary control panels like IBM's *ThinkPad Center*. If you are not sure how to do this, please ask for help from your local IT-support or consult your PC manuals.

Please note: New Toshiba models (PCI-infrared port) require an infrared driver for Windows 95 from Toshiba's support page. Please try to locate drivers for your Toshiba laptop from for example http://www.toshiba-tro.de. Install this driver before installing the Microsoft IrDA driver.

2. Microsoft provides their IrDA support in a self-extracting file "W95IR.exe" which can be found in the Download section on the Microsoft Windows 95 web pages http://www.microsoft.com/windows95 if you don't have it already.
3. Run the self-extracting file in some directory on your local disk (e.g. in C:\temp). The file creates a new directory MSIR20 into the root of your local disk (e.g. C:\MSIR20).
4. Run setup.exe from the MSIR20 directory.
5. Configure the ports according to your hardware. Usually the physical IR-port is COM2.
6. Application support is usually provided to port COM4. If COM4 is already occupied in your PC by another application support is provided to the next free COM port available.

TIP: If you don't have many free COM ports and you want to use an infrared device in a 16-bit application (application support provided must be COM1 – COM4) install the physical infrared port to COM5 – COM9 and application support to COM4.

7. Start the MS IrDA stack by double-clicking the *Infrared* icon in the *Control Panel*.
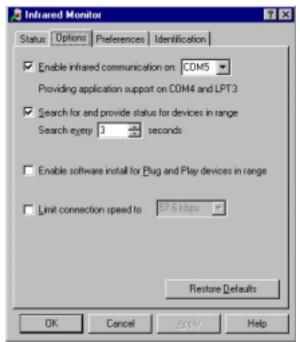
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Figure 1. Windows 95 Infrared Monitor (Ms IrDA 2.0)

8. Now you should have a working IrDA connection. You can create a short cut from Irmon.exe to your desktop or put it in your startup directory.

Only for a Nokia 6100 series phone and Nokia Data Suite users:

Please note*: If you are using the IR connection, the IrDA and Nokia Data Suite cannot be run at the same time! So, if you are using a Nokia 6100 series phone for infrared transmission and running Nokia Data Suite under Windows 95 , and you install MS IrDA 2.0, then you will have to disable the infrared communication in the Infrared Monitor every time you wish to use the Nokia Data Suite. NOTE! This also applies if you are using: 1. Nokia Data Suite simultaneously with any version of I e Nokia PC Suite or any other application that requires the MS IrDA 2.0 update, or 2. a Nokia 6100 series phone for infrared transmission.*

2.3 IrDA Settings

From the *Options* tab of the MS IrDA application disable Plug and Play (see Figure 1).

NOTE I: The IrDA stack provides a *Virtual Infrared Port* for your applications. If your application wants to directly connect to the port use the port where application support is provided (COM4 in Figure 1). You will also see this information in the *Options* tab of the MS IrDA application.
NOTE II: Some applications (like Windows 95 HyperTerminal) have some unsuitable connection parameters as a default when connecting directly to the COM port with application support. Therefore, always using a Windows 95 modem (TAPI) is recommended.

2.4 Windows 95 Modem Configuration

After proper IrDA support installation and configuration the next step is to configure a new modem for Windows 95. If you have already installed PC Suite for the Nokia 7110 then there is no need to add a new modem, so you can skip this part. This procedure requires a so-called .INF file, which contains information about the modem used. You can find that .INF file on the CD-ROM or from http://www.forum.nokia.com/.
Setting up a modem in Windows 95 is a straightforward process.

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1. Open *Control Panel* (*Start | Settings | Control Panel*)
2. Select *Modems*
3. Select *Add*
4. Select *Other*   (and go further by selecting *Next* option…)
5. Select *Don't detect*   (and go further by selecting *Next* option…)
6. Select *"Have disk…"* and browse to locate the N7110.inf file.
7. Select *Nokia 7110 IrDa* from the list   (and go further by selecting *Next* option…)

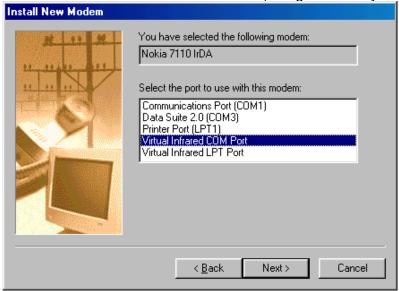8. Select *Virtual Infrared Port* (and go further by selecting *Next* option…)

Figure 2. Port selection

9. Finish
After the Windows 95 modem is properly installed you can start to use your data and fax applications in the Windows 95 environment by selecting the Nokia 7110 (or Nokia Data Card) as a modem.

2.5 Windows 95 Dial-up Connection Configuration

For remote networking a dial-up connection must also be configured properly.
1. Open *Dial-Up Networking* (*Start | Programs | Accessories | Dial-Up Networking*)
2. Select *Make New Connection*
3. Replace 'My Connection' with the appropriate name
4. Select Nokia 7110 (and go further by selecting the *Next* option…)
5. Type in the desired Dial-Up number
6. Skip the *Area Code* and *Country Code*
7. Finish
8. Click the newly configured Dial-Up Connection with the right mouse button
9. Select *Properties*
10. Empty the 'Use country code and area code' selection
11. Select Server Types
12. Usually you only need "Enable software compression" and "TCP/IP" protocol
13. Also check the TCP/IP settings from your internet service provider
14. Select OK

2.6 Using the Windows 95 Dial-up Connection

Now you can use the connection that you have just created.
1. Open the new connection by double-clicking it
2. Enter your Username and password
3. Press Connect
4. Activate the infrared reception in the Nokia 7110

Please note: if you activate the infrared before you start dialing, Windows may disconnect the infrared connection before you get a connection.

5. Now you should see an active infrared connection in the Taskbar and the phone starts dialing.
6. If you have the problem that the phone does not dial but gives an error 629 or 630 open HyperTerminal and give the AT&F command. Close HyperTerminal and try to make the connection with Dial-up networking, it should work now.

3. WINDOWS 98 CONFIGURATION

Windows 98 has the MS IrDA 3.0 stack included in the delivery packet. When updating Windows 95 with MS IrDA 2.0 support remember to first remove the old drivers by using the "Add/Remove Programs" utility from the Control Panel.
The Windows 98 installation/update software should automatically detect if IR hardware is present and activated in your computer and install the required files for IrDA support. When getting a new PC with pre-installed Windows 98 it should also have IrDA properly configured if IR hardware is present.
Once IrDA support is properly installed on your computer the modem and dial-up networking settings are similar to Windows 95.

Figure 3: Windows 98 Infrared Monitor (Ms IrDA 3.0)