

Wireless Manager 4.0

User Guide



Sony Ericsson

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About this guide

This guide describes how to use Wireless Manager to configure and operate a Sony Ericsson PC card.

Note:

Be sure to read all safety guidelines in your *PC Card User Guide* before using your PC card.

Wireless Manager includes the following tools to meet your needs:

- Wireless Manager is the application you use to configure and manage mobile network connections.
- Sony Ericsson Wireless Utility is the utility you use to configure and manage wireless LAN connections. Check the User Guide for your PC card to determine whether your PC card contains a wireless LAN adapter.
- Sony Ericsson PC card drivers, which are required to operate your PC card.

Note:

Some of the features that Wireless Manager and Wireless Utility support might not be available on your PC card. For detailed information about features that your PC card supports, refer to your PC card documentation.

How this guide is organized

Chapter 1: Getting started on page 1, contains an overview of Wireless Manager and the system requirements to run the software.

Chapter 2: Installing and uninstalling on page 3, contains instructions for installing your software and PC card. This chapter also provides information about where the drivers are located on the Wireless Manager CD.

Chapter 3: Using Wireless Manager on page 11, describes the Wireless Manager interface including how to navigate within the application. This chapter also provides instructions for starting and stopping Wireless Manager and making mobile network connections.

Chapter 4: Wireless Manager – Status view on page 29, describes how to check the status of the network connections that are established with your PC card.

Chapter 5: Wireless Manager – Telephony Settings view on page 33, describes how to configure the telephony settings for your PC card, such as phone lock, preferred mobile networks, and call diverting.

Chapter 6: Wireless Manager – Phone Book view on page 42, describes how to add, delete, and modify phonebook entries on your SIM card and your hard drive.

Chapter 7: Wireless Manager – SMS Messages view on page 47, describes how to create, send, and organize your SMS messages.

Chapter 8: Wireless Manager – Online Services view on page 51, describes how to use the services menu that your network operator may have placed on your SIM card.

Chapter 9: Using the Sony Ericsson Wireless Utility on page 52, describes the Sony Ericsson Wireless Utility interface. This chapter also provides instructions about how to use the Sony Ericsson Wireless Utility to set up and connect to Wireless LANs.

Chapter 10: Using the Windows XP wireless network connection utility on page 64, describes the Windows XP wireless network connection utility interface. This chapter also provides instructions about how to use the Windows XP wireless network utility to set up and connect to Wireless LANs.

Chapter 11: Advanced wireless LAN features on page 71, provides instructions for some of the advanced wireless LAN features including, setting up an ad hoc network using your PC card, sharing an Internet connection, and managing IP addresses.

Chapter 12: Troubleshooting on page 79, provides instruction for some of the most common issues that you might encounter when using your PC card.

Appendix A - Connection parameters on page 85, provides general connection information that you can use to optimize your PC card.

Appendix B - Changing the wireless LAN adapter properties on page 88, provides instructions for changing wireless LAN properties for your PC card.

Additional resources

Additional resources can be found on the CD that came with your Sony Ericsson PC card or on the Internet at the Sony Ericsson support Web site.

Publications

The following documents are provided with your Sony Ericsson PC card:

- A printed *Quick Start Guide* aimed at getting you operational as quickly as possible.
- An online *Wireless Manager User Guide* (this document) that provides a comprehensive description of how to use Wireless Manager to manage and operate the wireless connections for your Sony Ericsson PC card. The Wireless Manager User Guide is saved as an Adobe Acrobat PDF file on the CD-ROM that came with your PC card.
- An online *PC Card User Guide* containing a detailed description of your Sony Ericsson PC card, the features that it supports, and the guidelines for safe and efficient use. The PC Card User Guide is saved as an Adobe Acrobat PDF file on the CD-ROM that came with your PC card.

The CD-ROM also contains Adobe Acrobat Reader[®], which you can install if necessary.

Sony Ericsson support Web site

You can visit the Sony Ericsson Web site to find the most up-to-date product information and support wherever you are. It gives you access to online customer services, online user manuals, the latest software downloads, and other useful information. The address is:

<http://www.SonyEricsson.com>

General information about wireless LANs can be obtained from:

<http://www.wlana.org>

Conventions used in this guide

This document uses the following conventions:

Convention	Description
Bolded text	<p>When describing window elements that require you to click or type, such as a button, field, or icon, the name of the window is displayed as bolded text.</p> <p>For example, click OK.</p>
<i>Italicized text</i>	<p>Cross references and other publications: These items are displayed as <i>italicized</i> text within this document.</p> <p>For example, for more information about installing Wireless Manager, see <i>Installing and uninstalling</i> on page 3.</p>
<variables>	<p>Information that is specific to you, such as where your Windows[®] temp directory is located or the letter that is used to access your hard drive, is represented as a variable. Variables are displayed as italicized text between left and right angle brackets <>.</p> <p>For example, to install Wireless Manager on your hard drive, select <your_drive>, where <your_drive> is the letter of your hard drive.</p>
Notices	<p>Notes: These notices provide important tips, guidance, or advice.</p> <p>Caution: These notices help you avoid situations that might result in the loss of data, signal, or service.</p> <p>Important: These notices alert you to unsafe practices and situations that could potentially result in <i>minor</i> injury to your PC card or computer.</p>

Getting started

Congratulations and thank you for purchasing a Sony Ericsson PC card.

Your Sony Ericsson PC card comes with the Wireless Manager application. Wireless Manager provides a set of tools that you can use to configure and manage wireless connections on your laptop computer.

You can use Wireless Manager to:

- Connect to the Internet or a corporate wireless network
- Display GPRS/EDGE/UMTS and wireless LAN status information
- Create or modify connection settings
- Manage your Sony Ericsson PC card settings
- Manage phone books for your SIM card and laptop computer
- Send and receive SMS messages

System requirements

This section lists the network subscriptions and hardware and software requirements for using your Sony Ericsson PC card.

Network and subscription

The network subscription that you use depends on which services are available from your network operator. Contact your network operator or service provider to make sure the options that you require are available. Make sure that data options are included in your subscription, as these are usually optional services.

Note:

Network operators often provide multiple connection options via UMTS/EDGE/GPRS such as WAP, MMS, and Internet. Verify the services that you require, such as Internet, email or corporate VPN (Virtual Private Network) service is available through your network operator and enabled on your subscription.

This section describes the mobile network services supported by Sony Ericsson PC cards. Check your *PC Card User Guide* for information about supported services for your specific model.

Circuit Switched Data (CSD)

CSD is the original GSM network data transfer method, used in the past for WAP. Almost all GSM networks have this capability at 9.6 kbps. It is possible for the network to upgrade the speed to 14.4 kbps. Depending on the Sony Ericsson PC card that you have, your PC card may operate at this higher speed where available.

General Packet Radio Service (GPRS)

GPRS is a type of network connection which provides “always on” mobility. The connection setup is fast and, once connected, applications may send and receive data whenever required. In today’s GPRS networks, the Sony Ericsson PC card receives data at speeds up to 53.6 kbps and transmits at speeds up to 26.8 kbps.

Enhanced Data Rates for Global Evolution (EDGE)

EDGE enhances GPRS by increasing data throughput by a factor of 3. GPRS networks enhanced with EDGE are often referred to as Enhanced GPRS (E-GPRS) networks. EDGE provides the “always on” capability of GPRS but at faster speeds. EDGE technology is transparent, simply make a GPRS connection as usual and benefit from the increase in speed where EDGE is available in a network. When EDGE is available you can expect increased speeds of up to 200 kbps, dependent on network coverage.

Universal Mobile Telecommunications System (UMTS)

UMTS is a 3G technology standard for wide-area wireless data communication. The UMTS standard uses advanced network operator mobile Internet services to achieve data transfer rates up to 384 kbps, which are ideal for connecting your laptop to the Internet or a corporate network.

Short Message Service (SMS)

The PC can send and receive SMS text messages using the SMS Messages window in Wireless Manager, see *Wireless Manager – SMS Messages view* on page 47, for more details.

Wireless LAN connection

Your PC card may also contain wireless LAN functionality. For detailed information about features that your PC card supports, refer to your PC Card User Guide.

To use your Sony Ericsson PC card as a wireless LAN adapter for a corporate, small office, or home network, you must have the appropriate access and logon rights to that network. If necessary, contact your network administrator to arrange access.

Hardware

You will need the following hardware:

- PC that has the minimum specification recommended by Microsoft® to run the version of Windows installed on it
- PC card slot that is compatible with your PC card
- Sony Ericsson PC card
- SIM card

Software

You will need the following software:

- Windows 2000 with Service Pack 4 (SP4) or Windows XP with Service Pack 1 or 2 (SP1 or SP2)
- Sony Ericsson Wireless Manager CD-ROM

Note:

You can download Wireless Manager from the Sony Ericsson Web site. For more information about accessing support information, see *Additional resources* on page vi.

Installing and uninstalling

The Wireless Manager CD-ROM contains the software required to operate your Sony Ericsson PC card.

Make sure that the GSM/UMTS services that you require are included on your SIM card subscription. For an explanation of the services that are supported see *Network and subscription* on page 1. Contact the organization that supplied you with your SIM card and request that the specific services (UMTS, GSM GPRS/EDGE, CSD and SMS) you require are added to your subscription. If you want to use wireless LAN, you will need to have access rights to the corporate networks and hotspots that you intend to use.

The Wireless Manager CD-ROM contains the following:

- Wireless Manager software
- User documentation
- Online help
- Readme text file containing the latest information about your Sony Ericsson PC card
- Sony Ericsson PC card drivers

Installing your software

Before you insert your PC card into your computer, install the software.

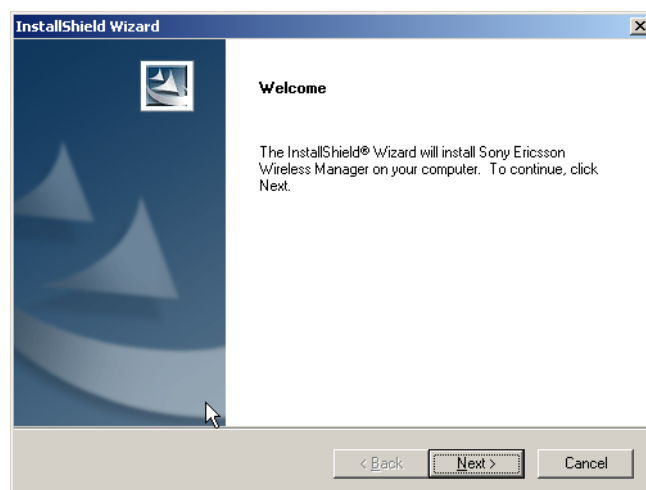
Important:

The installation process might pause for several minutes. During this time the drivers are installed. Do not cancel.

To install Sony Ericsson Wireless Manager on your computer

1. Insert the Sony Ericsson Wireless Manager CD-ROM in your CD drive.

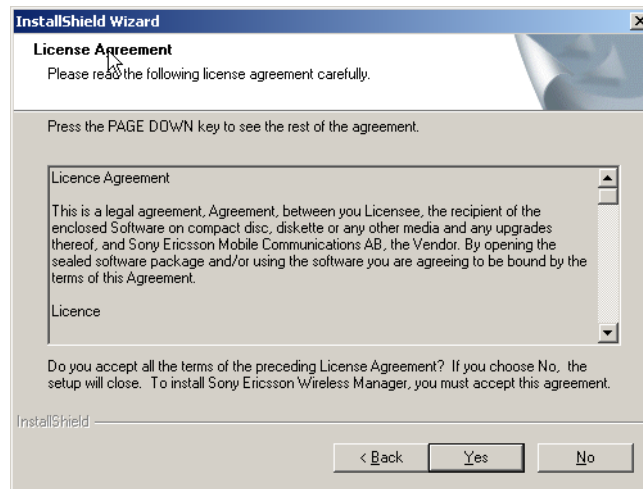
After a few seconds a Sony Ericsson Welcome window is displayed.



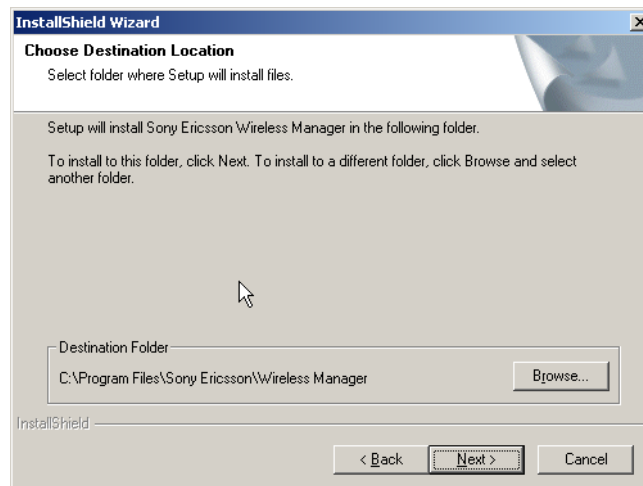
Note:

If the CD-ROM does not automatically start, select **Start** ➔ **Run**, and then type **<D>:\Setup.exe** in the **Open** field (where **<D>** is the letter of your CD drive).

2. Click **Next**. The License Agreement window is displayed.

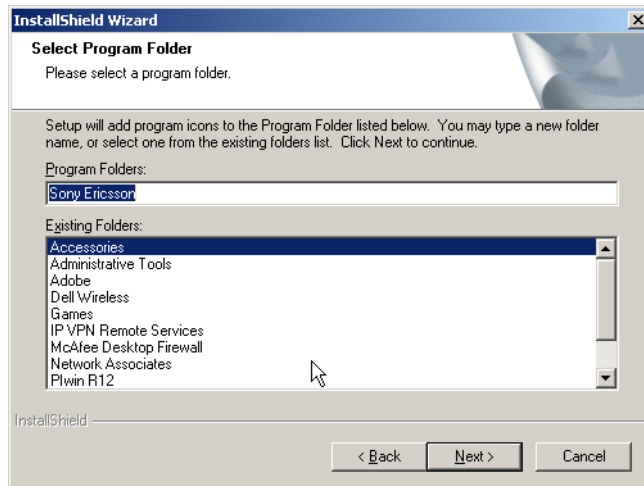


3. Read the agreement and click **Yes**. The Choose Destination Location window is displayed.

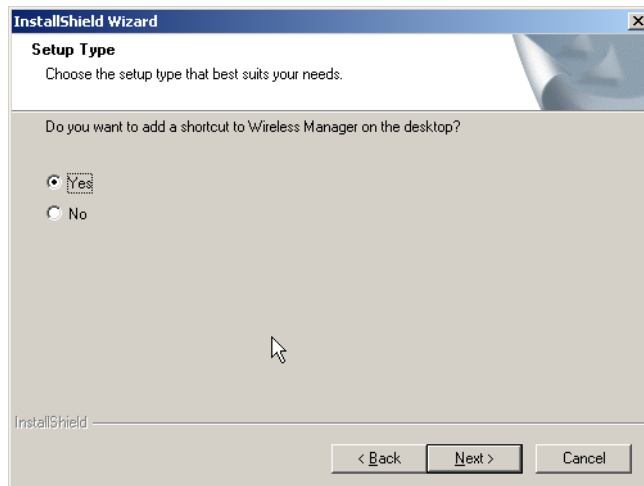



4. To change the default location where the Wireless Manager files are saved, click **Browse** and navigate to the directory that you want to use for the installation. After you select the directory, click **OK**.

5. Click **Next**. The Select Program Folder window is displayed.

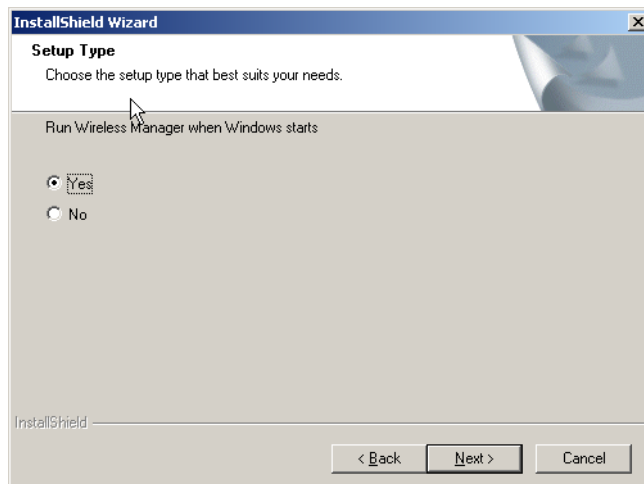


6. Click **Next**. The Setup Type window is displayed.

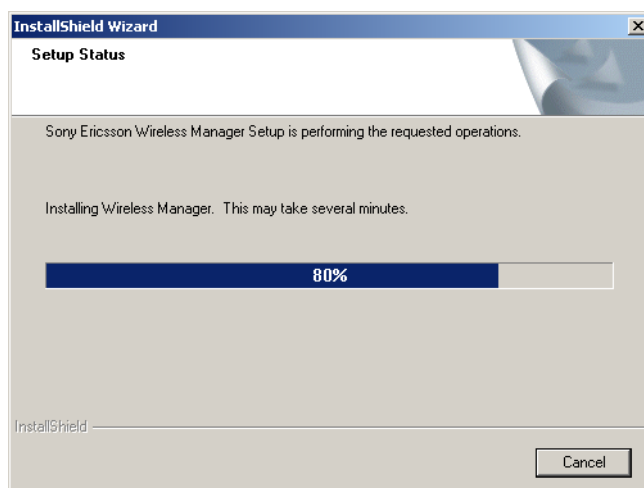


7. To display a Wireless Manager shortcut icon  on the Windows desktop, click **Yes**. Otherwise click **No**.

8. Click **Next**. The second Setup Type window is displayed.



9. To configure Wireless Manager to start each time that you start Windows, click **Yes**. To configure Wireless Manager to start only when you run it, click **No**. You can change this setting from the Preferences window after Wireless Manager is installed. For more information, see *Configuring Wireless Manager preferences* on page 23.
10. Click **Next**. The Setup Status window is displayed and a progress bar indicates the progress of the installation.



Important:

The installation process might pause for several minutes at one or more stages. During this time the drivers are installed. Do not cancel.

Wireless Manager is installed in the same language as your Windows installation, or English if your Windows language is not available.

11. When the installation process is complete click **Finish**.

Preparing your PC card

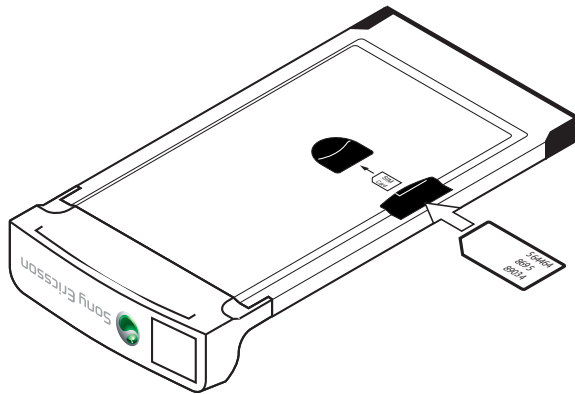
Before you can connect to a mobile network, your SIM card must be inserted into your Sony Ericsson PC card. Additionally, your SIM card must include a subscription that provides access to data services.

To install your SIM card into your Sony Ericsson PC card

1. Remove your Sony Ericsson PC card from its protective case.
2. Insert your SIM card into the slot on the back of the PC card, with the gold contacts facing downwards.

Note:

The angled corner of the SIM card must be placed into the PC card as demonstrated below. The gold contacts of the SIM card should face downwards.



To use the PCMCIA slot for another device, remove the Sony Ericsson PC card as instructed in *Removing your PC card* on page 9, then insert the other device.

When your Sony Ericsson PC card is not in use it is recommended that you store it in the protective carrier box provided.

Important:

Do not insert the card into the laptop until you have installed the software from the CD-ROM. If you accidentally insert the PC card before you install the software, simply cancel the **New Hardware** wizard.

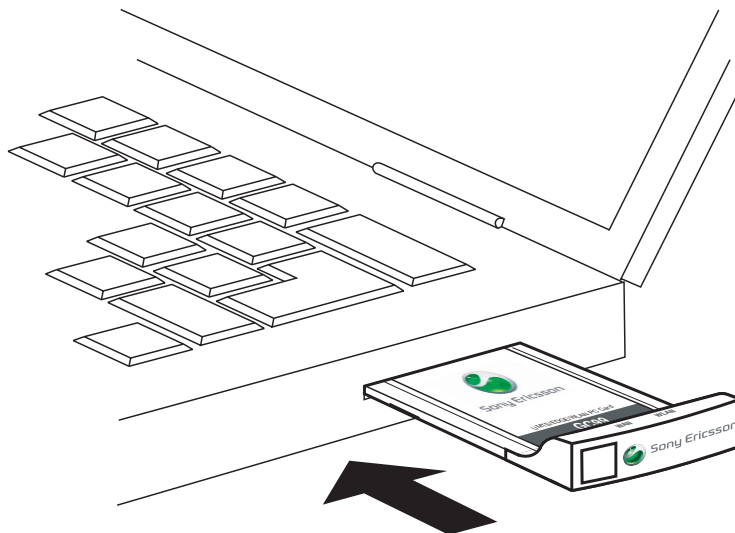
Inserting your PC card

Before you insert your PC card, install the Wireless Manager software.

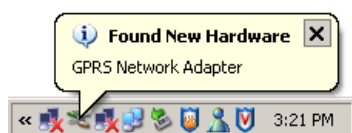
To insert your PC card for the first time

1. Turn on your PC and start Windows.

2. Insert your Sony Ericsson PC card. Make sure it is fully inserted.



3. After a few seconds, the New Hardware Wizard opens and installs the necessary drivers onto your PC from the CD. Several Found New Hardware pop-up messages are displayed indicating that new hardware is being installed.



The wizard may require you to locate a specific driver file. If this happens, a dialogue box opens; click **Browse** and select the applicable location for the component that is being installed:

Component	Location of files on the CD-ROM
Sony Ericsson GCxx UMTS Modem (where xx is the version number of your PC card)	D:\Driver\Driver2k
Sony Ericsson Wireless WAN Adapter	D:\Driver\Driver2k
Sony Ericsson SIM Card Reader	D:\Driver\Driver2k
Sony Ericsson 802.11g Wireless LAN Adapter	D:\WLAN

In the above table, *D* represents your CD drive. Select the driver file requested by the Hardware Wizard and click **Open**. The Hardware Wizard finishes the installation.


4. After Windows finishes installing the hardware, a final message displays in the system tray indicating that your new hardware is installed and ready to use.
Select **Programs** ➔ **Sony Ericsson** ➔ **Wireless Manager** to start using your Sony Ericsson PC card.

Or

From the Windows desktop, double-click the **Wireless Manager** shortcut .

Note:

If you are prompted to reboot the laptop during software installation, you may find that Wireless Manager may attempt to start before all of the drivers are installed. The reason this occurs is the New Hardware Wizard is still busy installing the device drivers. The Wireless Manager splash screen is displayed, followed by a warning dialogue box that indicates “You must have a Sony Ericsson Wireless Modem installed to run this application. Please install a Sony Ericsson Wireless Modem and try again”. If this occurs:

1. Click **Ok**.
2. Wait for the New Hardware Wizard to complete the driver installation.
3. Reboot the laptop.
4. To start Wireless Manager, from the Windows desktop, double-click on the **Wireless Manager** icon .

Or

Select **Programs** ➔ **Sony Ericsson** ➔ **Wireless Manager**.

Removing your PC card

As a best practice, stop your Sony Ericsson PC card from transmitting before you attempt to remove it. This ensures that your Sony Ericsson PC card is safely removed. Additionally, always remove your Sony Ericsson PC card antenna before you transport or store your laptop in a carrying case. Leaving your PC card antenna attached during transport could damage your PC card.

To remove your Sony Ericsson PC card

1. Disconnect any active Sony Ericsson PC card network connections.
2. Exit Wireless Manager.
3. From the Windows desktop, click on the **PC Card** icon in the system tray. All the currently connected devices are listed.
4. From the list of devices, select your Sony Ericsson modem. A message box is displayed indicating that it is safe to remove the card.

Important:

Incorrect removal of your Sony Ericsson PC card can damage the card.

Uninstalling your software

Before you uninstall the software, remove your PC card from your PC.

To remove Sony Ericsson Wireless Manager from your computer

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Add or Remove Programs**.
2. From the Currently installed programs list, select **Sony Ericsson Wireless Manager**, and click **Change/Remove**.
3. Follow the on-screen instructions.

4. Repeat steps 2 and 3 to remove each of the following programs:
 - **Sony Ericsson Wireless Modem**
 - **Sony Ericsson 802.11 Wireless LAN Adapter Driver**
 - **Sony Ericsson 802.11 Wireless LAN Adapter Control Panel**
5. (Optional) To remove the SMS messages and Phonebook entries that are saved on your hard drive, complete the following steps:
 - a. Navigate to the following directory:
c:\Documents and Settings*<username>*\Application Data
 \Sony Ericsson\GCXX Manager

where *<username>* is the user name of the Windows account that was used to install Wireless Manager.
 - b. Delete the files in this directory.

Using Wireless Manager

Use Wireless Manager to configure your Sony Ericsson PC card settings such as, network connections, telephony settings, phonebook, and SMS messaging.


Starting Wireless Manager

There are several methods that you can use to start Wireless Manager.

To start Wireless Manager

1. From the Windows desktop, select **Start** ➔ **Programs** ➔ **Sony Ericsson** ➔ **Wireless Manager**.

Or


From the Windows desktop, double-click the **Wireless Manager** shortcut .

Or

From the Windows system tray, double-click the **Wireless Manager status** icon .

The Wireless Manager status icon is displayed in the system tray only when Wireless Manager is active.

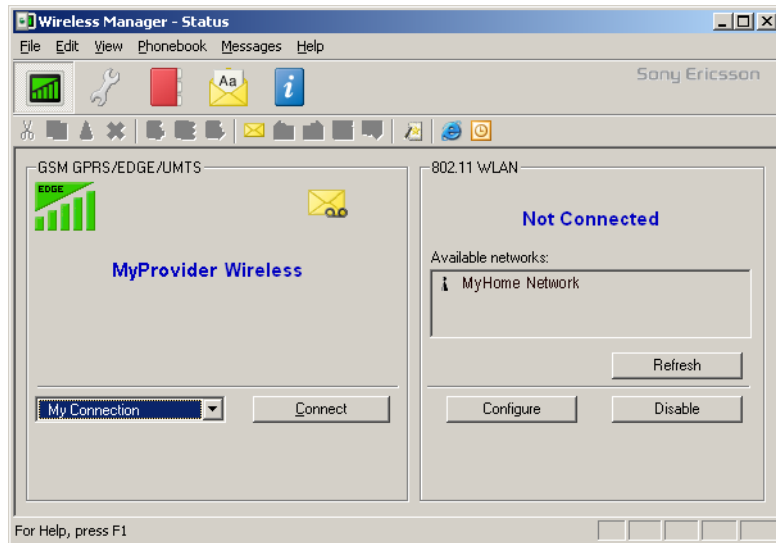
Note:

To successfully run the Wireless Manager application, a SIM card must be inserted in your Sony Ericsson PC card. If your PC card includes wireless LAN functionality, the wireless LAN features may be used without a SIM card inserted. To access the Sony Ericsson Wireless Utility that is used to manage wireless LAN functionality, right-click the Wireless Utility status icon  in the Windows system tray and select **Open Wireless Utility**.

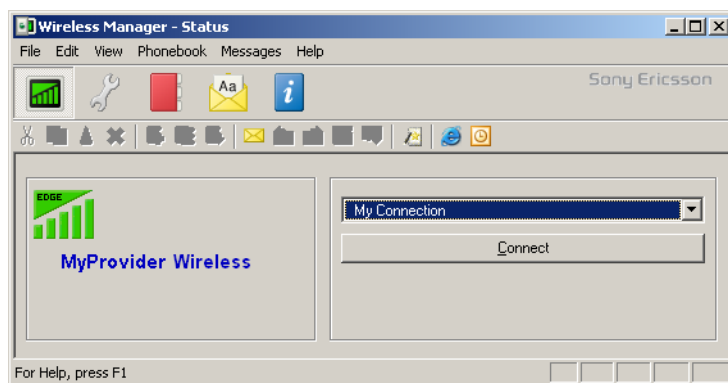
2. If requested, enter your SIM card PIN and Phone Lock code, and then click **OK**.
You are allowed three attempts to enter the correct PIN and lock code. If you fail to enter the SIM card PIN correctly, you are blocked from accessing the SIM card. If you fail to enter the Phone Lock code correctly, your Sony Ericsson PC card is locked. Contact your network operator for your personal unblocking key (PUK). Enter the unblock key into the Card Blocked dialogue box and enter a new PIN code and confirm it.

To set the SIM card PIN and Phone Lock code, see *Locks* on page 33.


The Wireless Manager window is displayed.



If your PC card supports wireless LAN, the Wireless Manager window displays information about your GSM GPRS/EDGE/UMTS and wireless LAN network connections. If your PC card does not support wireless LAN, the Wireless Manager window displays the GSM GPRS/EDGE/UMTS connection information only:

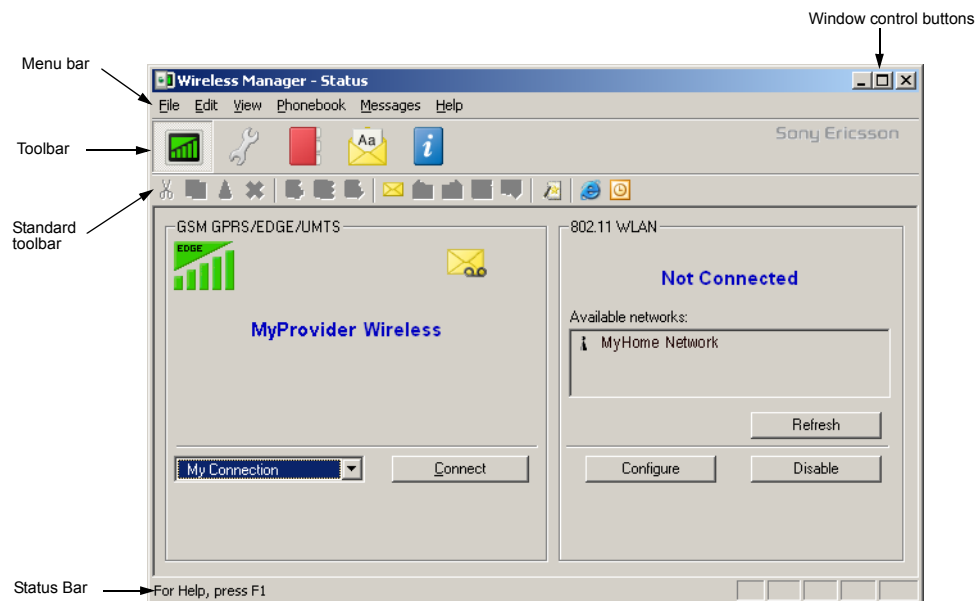


To close Wireless Manager

1. Click the **close** button  in the upper-right corner of the Wireless Manager window. A confirmation window is displayed.
2. Click **Yes**. When you close Wireless Manager any existing mobile network connections are terminated.

Navigating in Wireless Manager

This section provides information about the menus and toolbars that are displayed in Wireless Manager.








Menu bar

The Menu bar provides access to all the supported functions in Wireless Manager.

Toolbar

Use the buttons that are displayed on the toolbar to access the main views in Wireless Manager.

Button	Description
Status 	Displays the Status view. Use the Status view to display information about your wireless connections and to quickly connect and disconnect from existing network connection profiles. For more information about the Status view, see <i>Wireless Manager – Status view</i> on page 29.
Telephony Settings 	Displays the Telephony Settings view. Use the Telephony Settings view to display and configure settings such as, preferred networks, SIM lock code, network selection, and call diverting. For more information about the Telephony Settings view, see <i>Wireless Manager – Telephony Settings view</i> on page 33.
Phone Book 	Displays the Phone Book view. Use the Phone Book view to read and update phonebook entries that are saved to your SIM card and your hard drive. For more information about the Phone Book view, see <i>Wireless Manager – Phone Book view</i> on page 42.

<p>SMS Messages</p> 	<p>Displays the SMS Messages view.</p> <p>Use the SMS Messages window to view and manage your SMS messages. For more information about the SMS Messages window, see <i>Wireless Manager – SMS Messages view</i> on page 47.</p>
<p>Online Services</p> 	<p>Displays the Online Services view.</p> <p>Use the Online Services window to access the menu of online services that your mobile operator may have placed on your SIM card. For more information about the Online Services window, see <i>Wireless Manager – Online Services view</i> on page 51.</p>

Standard toolbar

The standard toolbar provides access to the edit, copy, and paste functions in addition to tools that are specific to the current view. The buttons on this toolbar become active when you select or navigate to a view or dialogue box that contains information that you can edit. For example, the **Add phone book entry** button is active only on the Phone Book view.

This toolbar also provides access to a group of quick launch buttons that you can configure to start other applications that you frequently use.

Wireless Manager status icon

The Wireless Manager status icon that is displayed in your desktop system tray allows you to view the current status of your Sony Ericsson PC card radio and connection.

Viewing the GSM/GPRS/EDGE/UMTS connection status




Move your mouse pointer over the Wireless Manager status icon in the Windows system tray. The status of your connection is displayed.





Some of the status icons that display in the system tray have menus associated with them. See *Accessing the Wireless Manager menu* on page 15 for details.

Viewing the GSM/GPRS/EDGE/UMTS radio status

The appearance of the Wireless Manager status icon indicates the status of the GSM GPRS/EDGE/UMTS radio. The following icons represent the different versions of the Wireless Manager status icon.

Icon	Description
	Wireless Manager is waiting for your Sony Ericsson PC card to be inserted.
	GSM GPRS/EDGE/UMTS radio is set to Off .
	The GSM GPRS/EDGE/UMTS radio is set to On , but there is no GSM or GPRS/EDGE/UMTS service available.

	The PC card has GSM and GPRS/EDGE/UMTS service. GPRS/EDGE/UMTS, CSD, and SMS may be used, provided these are supported by your subscription.
	Your PC card has GSM service and a signal strength of 3 out of 5 bars. CSD and SMS may be used, provided these are supported by the subscription. GPRS/EDGE/UMTS is not available.

Accessing the Wireless Manager menu

Right-click on the Wireless Manager status icon  in the Windows system tray to access the **GSM/GPRS/EDGE/UMTS** menu options.

The GSM/GPRS/EDGE/UMTS menu is displayed.



Some of these menu options are disabled depending on the current state of your Sony Ericsson PC card.

Open Wireless Manager

This menu option starts Wireless Manager. You also can double click the Wireless Manager status icon to start Wireless Manager.

Turn GSM GPRS/EDGE/UMTS Radio On/Off (Radio status)

This menu option is dynamic. It monitors the current state of the Sony Ericsson PC card radio transmitter and gives you the option to change it to the opposite state. For example, if your GSM GPRS/EDGE/UMTS radio transmitter is on, the menu option reads **Turn GSM GPRS/EDGE/UMTS Radio Off**.

You also can set the status of the GSM GPRS/EDGE/UMTS radio transmitter by selecting **Turn GSM GPRS/EDGE/UMTS Radio On/Off** from the **File** menu in Wireless Manager.

Connect/Disconnect

If you are currently disconnected, the menu gives you the option to connect to the most recently used GSM GPRS/EDGE/UMTS connection. If you are connected, the menu gives you the option to disconnect.

Help

Opens the Wireless Manager online help. You also can launch the online help from the **Help** menu in Wireless Manager. Press **F1** in any of the Wireless Manager dialogue boxes to open the relevant help window.

About

Displays a dialogue box that contains information about the version of Wireless Manager that is installed on your computer.

Hide to tray




When you select **Hide to tray**, the Wireless Manager application continues to run, however, the Wireless Manager window is not displayed. The Wireless Manager status icon remains in the system tray when the application is hidden. Use the **Open Wireless Manager** option from the menu, or double-click the **Wireless Manager status** icon to display the Wireless Manager window again.

Exit

Exits the Wireless Manager application completely. Use the stop/remove commands if you want the application to remain in the background. See *Removing your PC card* on page 9 for more details.


Windows status icons

In addition, the following standard Windows operating system icons also appear in the system tray when your Sony Ericsson PC card is inserted in your PC and in use.

Status icon	Description
	Active Windows network connection. Position your mouse pointer over the icon or double-click it to display information about the network connection. For example, you can position your mouse pointer over this icon to display the number of bytes sent or received. Several of these icons may be displayed, each representing a different connection: dial-up, CSD, GPRS/EDGE/UMTS, and wireless LAN connections.
	Disconnected Windows Local Area Connection. Several of these icons may be displayed, each representing a different connection: GPRS/EDGE/UMTS and wireless LAN connections.
	PC Card icon. This icon indicates that a PC card is present. It displays the properties associated with the PC card. You also can stop the PC card activity and remove it. See <i>Logging on to Windows using a GPRS/EDGE/UMTS dial-up connection</i> on page 22 for details.

The Windows network connection icons, displayed in the system tray, normally disappear after a connection is made. As a result, the network connection icon might not be displayed for your GPRS/EDGE/UMTS, CSD, and wireless LAN connections.

To display the Windows network connection icon in the system tray

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Network Connections**. The Network Connections window displays the network connections configurations that have been set up on your PC.
2. Right-click on the connection that you want to display in the system tray, and select **Properties**.
3. On the General tab, select the **Show icon in notification when connected** check box.
4. Click **OK** to close the dialogue. When the selected network connection is active, the Windows connection icon  is displayed in the system tray.

Creating a GPRS/EDGE/UMTS or CSD connection

Predefined customized connection settings may have already been entered by your network operator or administrator. Check the connection drop-down list in Wireless Manager Connection Wizard for any existing entries. If they are available, refer to *Using your connection* on page 19.

If no predefined customized connections exist, Network Connection Wizard automatically starts when Wireless Manager is started for the first time.

You also can create a GPRS connection by using Windows Dial-up Networking. For information about GPRS over DUN, see *Creating a GPRS/EDGE/UMTS connection by using Windows dial-up networking* on page 20.

To create a connection

1. From the Wireless Manager window, select **File** ➔ **Connection Wizard**. The Connection Wizard opens.

Or

Click the **Connection Wizard** button .

2. Select **Create a new connection**.
3. In the **Enter the connection name** field, type a descriptive name for the connection. For example 'My Connection'.
4. Click **Next**.

Note:

Your connection name should not exceed 16 characters in length for it to be fully visible in Wireless Manager.

5. The **Type of Connection** dialogue box is displayed. Select the type of connection that you require:
 - For GPRS/EDGE/UMTS see steps 1 to 8.
 - For CSD see steps 1 to 10.

Creating a GPRS/EDGE/UMTS connection

1. Select **GPRS/EDGE/UMTS**.
2. If your network operator is listed in the **Choose Network** drop-down list, complete the following steps:
 3. Select your network operator, and then click **Next**. The APN is displayed.
 4. Click **Next**. The user name and password are displayed.
5. If your network operator is NOT listed in the **Choose Network** drop-down list or you have a dedicated corporate APN, complete the following steps.
 - a. Obtain the APN, user name, and password from your network operator or network administrator.
 - a. Select **<Other>**, and then click **Next**.
 - a. In the **Primary APN** field, enter the APN, and then click **Next**.
 - a. On the User ID dialogue box, enter the user ID and password.
6. If you are required to enter a *one-time use* password each time you log on, clear the **Save Password** check box.

Notes:

- Many network operators leave user ID and password blank.
 - Windows deliberately changes the number of asterisks that represent a password and place asterisks in the Password field when the password is empty to make the display secure.
7. Click **Next**.
 8. Click **Finish** to create your connection or **Back** to review your settings.

Creating a CSD connection

1. Select **CSD**.
2. Select your network operator from the **Choose Network** drop-down list. If your network operator is not listed, select **<Other>**.
3. Click **Next**.
4. If you selected a network operator from the **Choose Network** drop-down list, the telephone number dialogue box is automatically filled in.
If you selected **<Other>** from the **Choose Network** drop-down list, type the phone number that you need to dial to connect to your network operator in the **Telephone number** field. Make sure to include your country and area code. Also, make sure that the **Use area code and country code** check box is cleared.

Note:

If necessary, contact your network operator, Internet service provider, or corporate network administrator for a telephone number.

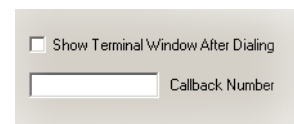
The screenshot shows a Windows-style dialog box titled "Connection Wizard". The main heading is "Telephone Number". Below the heading, there is instructional text: "Enter the telephone number to dial when making a connection. If appropriate, select the country code and enter the area code." There are two input fields: "Area Code:" and "Telephone number:". Below these is a "Country code:" dropdown menu. At the bottom left, there is a checkbox labeled "Use area code and country code". At the bottom right, there is an "Advanced..." button. At the very bottom, there are four buttons: "< Back", "Next >", "Cancel", and "Help".

5. Click **Advanced...**. If your PC card supports multiple connection speeds, you can specify your preferred CSD network connection speed from the drop-down list, and the method you want to use to connect to the network on the Speed tab of the Advanced dialogue box.
6. Click **Next**.

Note:

If you are unsure which speed to choose from the Speed tab, start with Analogue 9600, and check to see if it works. Once your connection works on analogue, you can try the V110/V120 settings. V110/V120 connects faster than analogue. When roaming you may need to repeat this procedure to adapt your settings to the capability of the network.

7. To specify a callback number, select the **Options** tab in the **Advanced** dialogue box. Callback is a service that allows the call direction to be reversed. If you want to watch the progress of a callback in a terminal window select the **Show Terminal Window After Dialing** check box.

The screenshot shows a section of a dialog box with a checkbox labeled "Show Terminal Window After Dialing". Below the checkbox is a text input field labeled "Callback Number".

See *Appendix A - Connection parameters* on page 85, for descriptions of the parameters that can be updated in the **Advanced** dialogue box. Click **Apply** to save any changes before closing the dialogue box.

8. If you need a user ID and password to log on to your service provider, enter them into the appropriate fields. If you do not need a user ID and password, leave the fields blank.
9. Click **Next**.

Note:

Windows changes the number of asterisks that represent a password and place asterisks in the Password field when the password is blank in order to make the display secure.

10. Click **Finish** to create your connection or **Back** to review your settings.

Modifying a connection

To modify a connection

1. From the Wireless Manager window, select **File ➔ Connection Wizard**. The Connection Wizard opens.
2. Select **Modify a Connection**. The **Select a Connection** drop-down list is activated.
3. From the **Select a Connection** drop-down list, click on the menu and select the connection you want to modify.
4. Click **Next**.
5. Change the connection settings as required.

Deleting a connection

To delete a connection

1. From the Wireless Manager window, select **File ➔ Connection Wizard**. The Connection Wizard opens.
2. Select **Delete a Connection**. The **Select the connection name** drop-down list is activated.
3. From the **Select the connection name** drop-down list, select the connection you want to delete.
4. Click **Next**. The Success dialogue box is displayed.
5. Click **Finish** to close the **Connection Wizard**.

Using your connection

To connect to a mobile network by using your GPRS/EDGE/UMTS or CSD connection

1. Open Wireless Manager.
2. If requested, enter your SIM card PIN and click **OK**. The Status view is displayed.
3. From the connection drop-down list, select the connection that you want to use and click **Connect**.
4. If requested, enter your user ID and password.

To disconnect from an active GPRS/EDGE/UMTS or CSD connection

1. From the Wireless Manager window, select View Status. The Status view is displayed.
2. In the GSM GPRS/EDGE/UMTS panel, click **Disconnect**.
Or
Right-click on the **Wireless Manager** icon in the system tray and select **Disconnect**.

Note:

You can also use the Preferences dialogue box to set up an auto connection when Wireless Manager is opened. See *Configuring Wireless Manager preferences* on page 23 for more details.

Browsing the Internet via a GSM GPRS/EDGE/UMTS connection

You can use your GPRS/EDGE/UMTS or CSD connection to connect to your mobile network and browse the Internet.

To browse the Internet via a GPRS/EDGE/UMTS or CSD connection

1. Open your preferred connection from the Status view. See *Using your connection* on page 19 for details on opening a connection.

Note:

Computers that are configured to connect to a corporate local area network typically connect to the Internet through a proxy server. Depending on your configuration, you might have to bypass the proxy server to browse the Internet via a GSM GPRS/EDGE/UMTS connection. To bypass your proxy server, from the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Internet Options**. From the Connections tab, click LAN settings. In the Proxy Server panel, clear the **Use a proxy server for your LAN** check box. Make sure to change change the proxy server settings back when want to reconnect to your corporate LAN.

2. Start your Internet browser. You are online and can browse the Internet.

Sending and receiving e-mail messages

You can use your Sony Ericsson PC card to send and receive e-mail messages.

To send and receive email messages using a GPRS/EDGE/UMTS or CSD connection

1. Open your preferred connection from the Wireless Manager – Status view. See *Using your connection* on page 19 for details on opening a connection.
2. Start your email program or navigate to the Web site that hosts your Web-mail. You are online and can send and receive email messages.

Note:

To access your email over a mobile network, might need to modify your email connection settings. If necessary, check with your email provider for instructions.

Creating a GPRS/EDGE/UMTS connection by using Windows dial-up networking

Wireless Manager normally makes GPRS connections via the Wireless WAN (NDIS) adapter. These connections are made by using the **Connect** button in the Wireless Manager or they are made automatically if Wireless Manager is configured to start when Windows starts and to make the nominated GPRS connection.

In some applications, it may be necessary to connect to GPRS by using Windows Dial-Up Networking (DUN) instead. The following examples typically require a GPRS over DUN connection:

- Where a LAN proxy is in use for a corporate network connection and a separate proxy is required for a GPRS connection. Windows can manage only one Web proxy across all LAN connections, however individual proxies can be set up for each DUN connection.
- Where it is useful to initiate the connection from a Windows application rather than in Wireless Manager.

Configuring a GPRS over DUN connection

Instead of dialling a conventional telephone number, GPRS connections are made by dialling the code *99***1# to *99***10# as the telephone number. When the PC card processes this number, it initiates a GPRS connection using the AT+CGDCONT command.

In Windows, each modem has an “extra initialization” string. This is typically used to store special AT commands that initialize the modem. The commands are sent to the modem before the DUN connection is established.

To configure a GPRS over DUN connection

1. From the Windows desktop, select **Start ➔ Settings ➔ Control Panel ➔ Phone and Modem Options**. The Phone and Modem Options dialogue box displays.
2. Click the **Modems** tab.
3. Select the Sony Ericsson GCxx modem and click **Properties**. The Modem Properties dialogue box displays.
4. Click the **Advanced** tab.
5. In the **Extra initialization commands** field, type the following command:

```
AT+CGDCONT=<connection_ID>,"IP", "<APN>"
```

where <connection_ID> is the connection ID for your connection, and <APN> is the access point for your service.

For example,

```
AT+CGDCONT=3, "IP", "MyCompanyAPN"
```

Note:

Using CID 3 prevents the CID from being overwritten by Wireless Manager.

6. Click **OK**. The Phone and Modem Options dialogue box displays.
7. Click **OK**.
8. From the Windows desktop, select **Start ➔ Settings ➔ Control Panel ➔ Network Connections**.

This example uses GPRS Context 3. There are 10 possible contexts supported by your Sony Ericsson PC card (1..10). Context ID 2 is reserved for use by connections created by the Wireless Manager.

Refer to the AT Command Manual or contact your service provider or network administrator for further assistance.

To define a Windows DUN Connection

1. From the Windows desktop, select **Start ➔ Settings ➔ Control Panel ➔ Network Connections**. The Phone and Modem Options dialogue box displays.
2. Select **File ➔ New Connection**. The New Connection Wizard starts.
3. Click **Next**.
4. Select **Connect to the Internet**, and then click **Next**.

5. Select **Set up my connection manually**, and then click **Next**.
6. Select **Connect using a dial-up modem**, and then click **Next**.
7. From the **Select a Device** list, select your Sony Ericsson modem, and then click **Next**.
8. In the **ISP Name** field, type a descriptive name to identify the connection.
9. In the **Phone number** field, type the following:
`*99***<connection_ID>#`
 where `<connection_ID>` is the connection ID of the DUN configuration that you created.
 For example, type the following to connect to connection ID 3:
`*99***3#`
10. In the Connection Availability dialogue box, select who can use the connection: **Anyone's use** or **My use only**, and then click **Next**.
11. In the Connection Availability dialogue box, enter your user name and password information. You can leave these fields empty to be prompted each time you use this connection.
12. Click **Next**.
13. Click **Finish**. A dial-up connection dialogue box displays for your new connection.

Note:

If a proxy is required for Web access, close the dial-up connection dialogue box. Open your Web browser and select **Tools** ➔ **Internet Options**. On the Connections tab, select your GPRS DUN connection and click **Settings**. Enter the proxy details in the Proxy Settings pane, and then click **OK**. Click **OK**.

To connect to a GPRS over DUN connection

1. From the Windows desktop, **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Network Connections**.
2. Double-click on the GPRS over DUN connection that you created. The receive and transmit byte counts are displayed.

Note:

You also can create a shortcut to the connection and place it on the Windows desktop. It is also possible to configure applications such as Internet Explorer and Outlook Express to use the DUN connection by default.

To disconnect from a GPRS over DUN connection

From the Windows system tray, right-click the DUN connection icon and select **Disconnect**.

Or

Click the **Disconnect** button in Wireless Manager.

Logging on to Windows using a GPRS/EDGE/UMTS dial-up connection

Your Sony Ericsson PC card supports the Windows **Log on using dial-up connection** feature.

To log on to Windows using a dial-up connection, your Sony Ericsson PC card must be inserted and the radio must be enabled before you log on. To enable the radio prior to logging on, select **Enable radio immediately when card inserted** check box in the **Radio Power** preferences tab. See *Radio Power tab for GSM GPRS/EDGE/UMTS* on page 24 for more details.

Caution:

Never start your PC in this mode if you are in a location where mobile devices should not be used (for example, on an airplane, in a hospital, or near a blast site).

Only check this option if you need to log on to a Windows domain via a wireless dial-up connection. This will permit you to register with the network and establish a connection when the Windows logon window is displayed.

Note:

It is not possible to display network status or signal strength during the Windows logon procedure. You should allow enough time for your Sony Ericsson PC card to find and register with the wireless network prior to attempting to log on.

The dial-up connections available to the Windows Logon must have been created by a user account with *administrator* privileges and designated *For all users*. This must be done using the **Windows Network Connection Wizard**, because the **Wireless Manager** can create connections only for the current user ID.

Normally, the **Windows Logon using dial-up connection** feature will use a CSD session to connect to a corporate network, so that the logon credentials can be validated by a Windows Domain Server.

There may be special circumstances where a GPRS/EDGE/UMTS dial-up connection is required for logon.

Configuring Wireless Manager preferences

You can configure the Preferences settings in Wireless Manager to change the general behaviour of the Wireless Manager application.

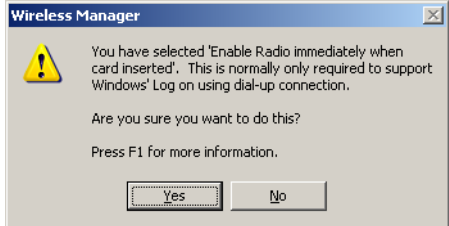
To configure your preferences for Wireless Manager

1. Start Wireless Manager.
2. Select **File** ➔ **Preferences**. The Preferences dialogue box displays the Radio Power tab.



Radio Power tab for GSM GPRS/EDGE/UMTS

Use this tab to manage the state of the GSM GPRS/EDGE/UMTS radio transmitter. The radio mode you specify at Wireless Manager start-up is selected by default on the Radio tab.

Option	Description
Enable radio immediately when card inserted	<p>You should normally leave this check box cleared. When enabled, the Windows driver turns the radio transmitter on when the card is inserted and leaves it enabled even when the card is not in use. You should check this option if your Windows logon requires you to log on using a dial-up connection; see <i>Logging on to Windows using a GPRS/EDGE/UMTS dial-up connection</i> on page 22 for more details. When you click OK to activate this option, Wireless Manager displays the following dialogue box.</p>  <p>When this option is selected, the Wireless Manager radio power start-up and shutdown options are disabled.</p>
On application start-up and stand-by-resume	<p>You can select one of the following options to configure the radio status when Wireless Manager is started or when it resumes from being in stand-by:</p> <ul style="list-style-type: none">• Turn Radio On Select this check box to automatically turn on the radio when Wireless Manager starts or resumes from stand-by. When Wireless Manager is running in radio-on mode, the connection is registered to the mobile network and will transmit signals to the network even if no wireless connection is in progress. This option is selected by default when you install Wireless Manager.• Turn Radio Off Select this option to automatically ensure that the radio is not turned on when Wireless Manager starts or resumes from stand-by. When Wireless Manager is running in radio-off mode no connection is made to the mobile network. You may perform non-communication related activities such as, phonebook maintenance. To send or receive SMS messages, however, you must turn on the radio to make a connection.• Ask Me Select this option to automatically be prompted with a dialogue box that allows you to set the radio status every time the Wireless Manager is started. This is a useful feature in areas where radio transmitters are not allowed such as, aircrafts, hospitals, or blasting areas. As a best practice, remove your PC card when on an aircraft.
On application shutdown	<p>You can select one of the following options to configure the radio status when Wireless Manager is closed:</p> <ul style="list-style-type: none">• Turn Radio Off Select this option to turn off the radio when Wireless Manager is closed.• Reset card Select this option to turn the radio off and reset the PC card to its default settings when Wireless Manager is closed.• Leave Radio As Is Select this option to leave the radio in its current state when Wireless Manager closes.

Text Messages tab

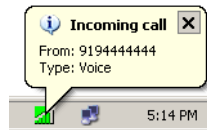
This tab also allows you to set a validity period for the SMS messages that you send. For example, if a message you send cannot be delivered because the recipient's phone is not turned on, the validity period sets a time limit on how long the service centre should keep attempting delivery.

Notifications tab

Use this tab to configure the following notifications that are displayed in Wireless Manager:

- Show splash screen at program start
- Confirm that the program should be ended
- Show splash screen during shut down
- Enable incoming call notification

When an incoming call is received, the following pop-up message is displayed:



Select a check box to activate an option.

Data Connection tab

Use this tab to specify whether to establish a GPRS/EDGE/UMTS connection when Wireless Manager is started.

Wireless Manager establishes the specified connection successfully registering to the mobile network.

To automatically connect to a GPRS/EDGE/UMTS connection when you start your computer

1. From Wireless Manager, select **File ➔ Preferences ➔ Miscellaneous**.
2. Select the **Run this program when Windows starts** check box.
3. Select the **Data Connections** tab.
4. Select the **Establish GPRS/EDGE/UMTS connection at start-up** check box.
5. From the **Select a connection** drop-down list, select the connection that you want to use.
6. Click **OK**.

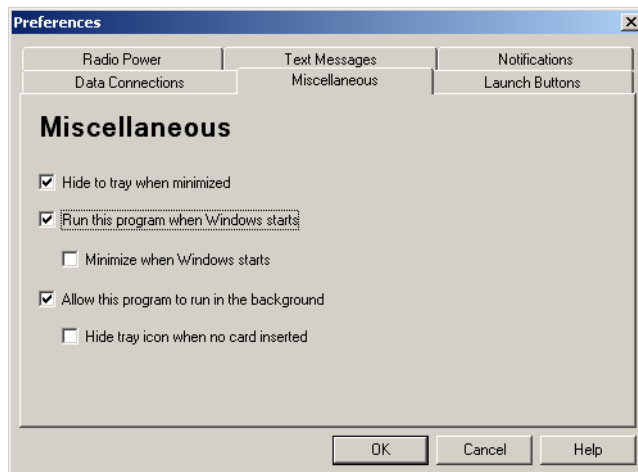
Notes:

- If you have **Establish GPRS/EDGE/UMTS connection at start-up** selected, the connection is automatically established when you insert the card.
- To start the laptop with your Sony Ericsson PC card removed and automatically start Wireless Manager when the PC card is later inserted:
 - Set **Preferences ➔ Miscellaneous ➔ Run this program when Windows starts**.
 - Set **Preferences ➔ Miscellaneous ➔ Allow this program to run in the background**.

If you want to connect when Windows starts, see *Logging on to Windows using a GPRS/EDGE/UMTS dial-up connection* on page 22.

Miscellaneous tab

Use this tab to configure additional settings for Wireless Manager.



- **Hide to tray when minimized**

Select this check box to remove the Wireless Manager application from the Windows Taskbar when Wireless Manager is minimized.

Note:

The Wireless Manager status icon remains displayed in the system tray whenever Wireless Manager is running, unless **Hide tray icon when no card inserted** is selected and no PC card is present.

To re-open the Wireless Manager application, double-click the Wireless Manager icon in the system tray or select **Open Wireless Manager** from the icon menu.

- **Run this program when Windows starts**

Select this check box to start Wireless Manager when Windows is started. If a Sony Ericsson PC card is detected, Wireless Manager starts automatically. If a Sony Ericsson PC card is not detected, Wireless Manager either runs in the background or closes depending on whether **Allow this program to run in the background** is selected.

When used with **Establish GPRS/EDGE/UMTS connection at start-up**, this option establishes the selected connection when Wireless Manager starts with Windows and the PC card successfully registers to the mobile network. If your laptop is configured to require a Windows log on, the connection is established before Wireless Manager is started. This option is best for automatically connecting, if you are not required to log on to Windows or you enter a username/password without needing to be on a network.

starts a GPRS/EDGE/UMTS connection automatically when the user logs on, see *Logging on to Windows using a GPRS/EDGE/UMTS dial-up connection* on page 22 for more details.

- **Minimize when Windows starts**

Select this check box to minimize the application when Windows starts. Clear this check box to display the Wireless Manager Status view when Windows is started.

- **Allow this program to run in the background**

Select this check box to run Wireless Manager in the background even when a PC card is not inserted. When the card is detected, Wireless Manager automatically opens and begins normal operations.

When the close box or **File ➔ Exit** is selected, Wireless Manager closes but does not exit. It releases control of the card so that it may be stopped and removed.

You can stop Wireless Manager from running in the background by right clicking on the Wireless Manager icon in the system tray and selecting **Exit**.

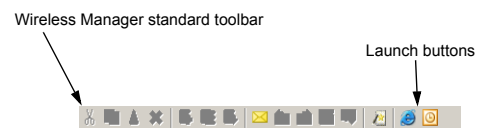
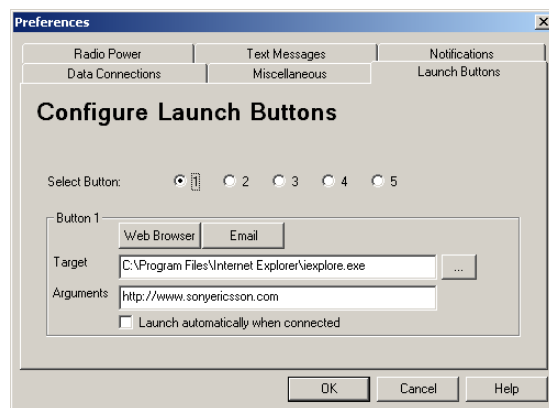
If you attempt to start Wireless Manager without a Sony Ericsson PC card inserted, a message box is displays a warning that the Sony Ericsson PC card is not present, and Wireless Manager switches back to background mode.

- **Hide tray icon when no card inserted**

Select this check box to run Wireless Manager in background mode and prevent the Wireless Manager icon from displaying in the system tray when your Sony Ericsson PC card is not inserted. If the card is inserted, the Wireless Manager icon is displayed in the Windows system tray and Wireless Manager is started.

Launch Buttons tab

Use this tab to specify which application shortcut icons are displayed on the standard toolbar in Wireless Manager. You can add up to five icons on the Wireless Manager that provide shortcuts to start other applications.



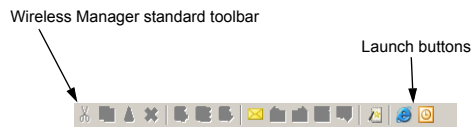
To add an application shortcut to the Wireless Manager standard toolbar

1. From the Wireless Manager window, select **File** ➔ **Preferences**.
2. Click the **Launch Buttons** tab.
3. Click to select the launch button (1-5) that you want to configure. The bottom panel displays the location of the target application and the command line arguments that are used when you run the application.
4. In the **Target** field, type the directory path to the application that you want to display on the toolbar. You also can click **Browse** to navigate to the application and select it.
Or
 To select default email application that is configured for Windows, click **Email**.
Or
 To select the default Web browsing application that is configured for Windows, click **Web Browser**. The fully qualified directory path to the application (Email or Web Browser) is automatically entered in the Target field.
5. If necessary, in the **Arguments** field, type the command line arguments that are used by the application when you run it. Email does not require any arguments. The argument for a Web browser application can be any valid URL. For example, <http://www.sonyericsson.com>.

Note:

Click the **Web Browser** or **Email** button to automatically enter the Target information for those applications.

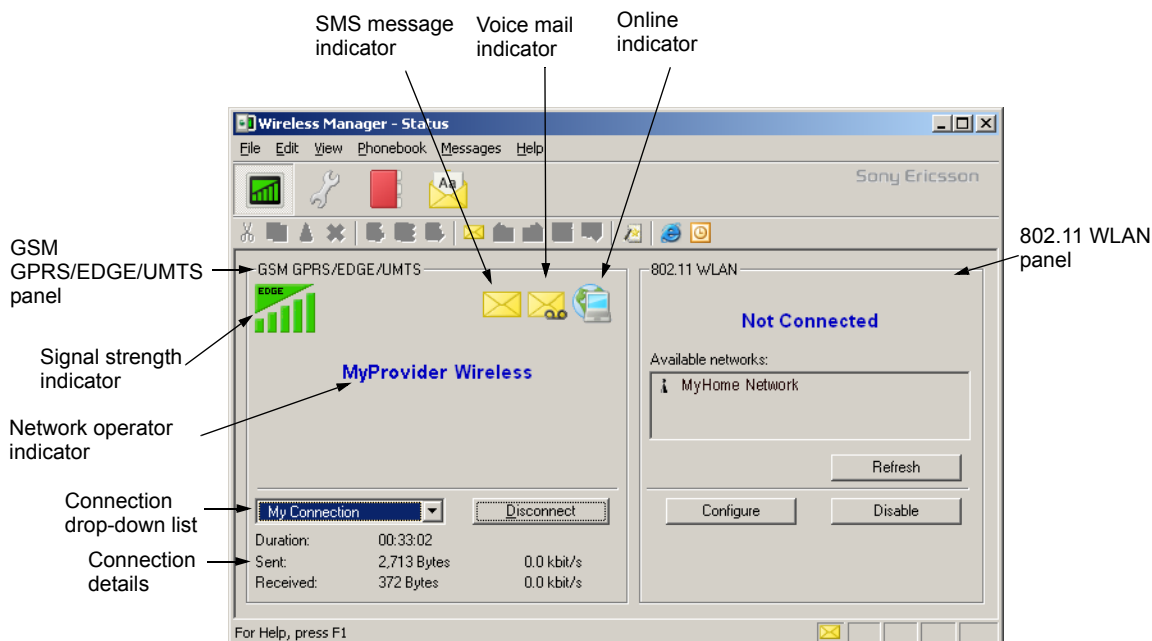
6. To automatically start the selected application when a connection is made, select the **Launch automatically when connected** check box.
7. When finished configuring the launch buttons, click **OK**. The shortcuts to the applications that you configured will display on the standard toolbar in Wireless Manager.



Wireless Manager – Status view

When you start Wireless Manager, the Status view is displayed by default. Use the Status view to view mobile network name and signal strength and to quickly disconnect from existing network connection profiles.

The following illustration identifies the features on the Status view:




The Status view displays information about your GSM GPRS/EDGE/UMTS and wireless LAN network connections. The window is divided into two panels.

If your PC card does not support wireless LAN, the Wireless Manager window displays the GSM GPRS/EDGE/UMTS connection information only:



Displaying the GSM GPRS/EDGE/UMTS panel



To display the Status view

1. From Wireless Manager, click the **Status** button .

Or

Select **View** ➔ **Status**. The GSM GPRS/EDGE/UMTS panel is displayed on the left side of the Status view.

The GSM GPRS/EDGE/UMTS panel displays information about your GPRS/EDGE/UMTS connection. It also displays various icons that represent the following information:







- Signal strength.
- Type of service available (GPRS, EDGE, UMTS)
- Unread SMS message indicator  (or SIM card full indication ). See *Wireless Manager – SMS Messages view* on page 47 for more details.
- Connection status

The left side of the window also displays:

- Current network status. For example, searching, radio off.
- Connection progress messages.

When a connection is established, the connection statistics (duration, bytes transmitted, bytes received) are displayed and updated at regular intervals.

The appearance of the **GSM GPRS/EDGE/UMTS signal strength indicator** icon that is displayed in the Status view indicates the status of the GSM GPRS/EDGE/UMTS radio. The following table lists the different versions of the **GSM GPRS/EDGE/UMTS signal strength indicator** icon and describes each one.

Icon	Description
	GSM/GPRS/EDGE/UMTS radio is disabled.
	The GSM/GPRS/EDGE radio transmitter is enabled, but there is no GSM or GPRS/EDGE/UMTS service available.
	Your Sony Ericsson PC card has service and indicates a signal strength of 3 out of 5 bars. CSD and SMS may be used, provided these are supported by your subscription. You cannot make a GPRS/EDGE/UMTS connection when your PC card is in this state. The connection button will be greyed out if you select a GPRS/EDGE/UMTS connection.
	Your Sony Ericsson PC card has GSM and GPRS service. GPRS, CSD, and SMS may be used, provided these are supported by the subscription.
	Your Sony Ericsson PC card has GPRS/EDGE service. EDGE, CSD, and SMS may be used, provided these are supported by the subscription. GPRS service is automatically used if EDGE is not available.
	Your Sony Ericsson PC card has UMTS service. UMTS, CSD, and SMS may be used, provided these are supported by the subscription. If UMTS coverage is lost, the connection automatically switches to EDGE or GPRS, depending on which service is available in the mobile network.

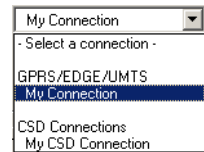
Establishing a connection

To connect, cancel, or disconnect from a GPRS/EDGE/UMTS or CSD data session use the connection drop-down list. The drop-down list displays all the defined connections.

The button located on the right of the drop-down list changes its appearance depending on the state of the Sony Ericsson PC card connection. The button allows you to:

- Initiate a connection (**Connect**)
- Cancel a connection attempt (**Cancel**)
- End an existing session (**Disconnect**)

To create a wireless LAN connection see *Creating a wireless LAN connection* on page 56.



Displaying the 802.11 WLAN panel

The 802.11 WLAN panel is displayed on the right side of the Status view. This panel provides information about your wireless LAN connection, including:

- Status
- Signal strength
- Network name (SSID)

The **Disable/Enable** button allows you to switch the wireless LAN radio on and off.

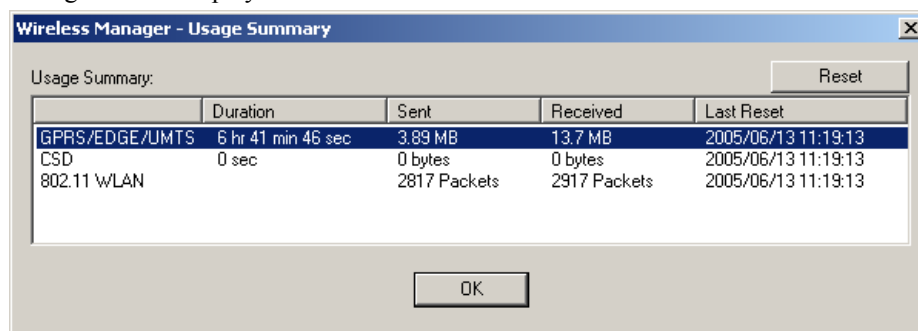
Displaying usage summary information

To display usage summary information

From the Wireless Manager menu bar, select **View** → **Usage Summary**. A dialogue box displays the total connection time, data received and data sent for GPRS/EDGE/UMTS, CSD, and WLAN connections.

To clear the usage summary information

1. From the Wireless Manager menu bar, select **View** → **Usage Summary**. The Usage Summary dialogue box is displayed.



2. Select the row that contains the information that you want to clear.
3. Click the **Reset** button to clear the counter. You may want to clear the counters to correspond with your billing intervals.

Note:

Information in this dialogue box is indicative and may not correspond to the accurate billing information maintained by your network operator.

Displaying incoming calls

To display the incoming calls list

From the Wireless Manager menu bar, select **View → Incoming Call List**. The Incoming Call List dialogue box is displayed.

To clear the incoming call information

1. From the Wireless Manager menu bar, select **View → Incoming Call List**. The Incoming Call List dialogue box is displayed.
2. Select one or more rows that contain the information that you want to clear.
3. Click the **Reset** button to clear the incoming call.

Wireless Manager – Telephony Settings view

The Telephony Settings view allows you to view and change the GSM, GPRS/EDGE/UMTS settings for your Sony Ericsson PC card.

The settings that are available on the Telephony Settings view are very similar to the basic forwarding (diversion), barring, and network settings you would use on a mobile handset. A **Wireless 802.11** option provides access to the **Sony Ericsson Wireless Configuration Utility**.

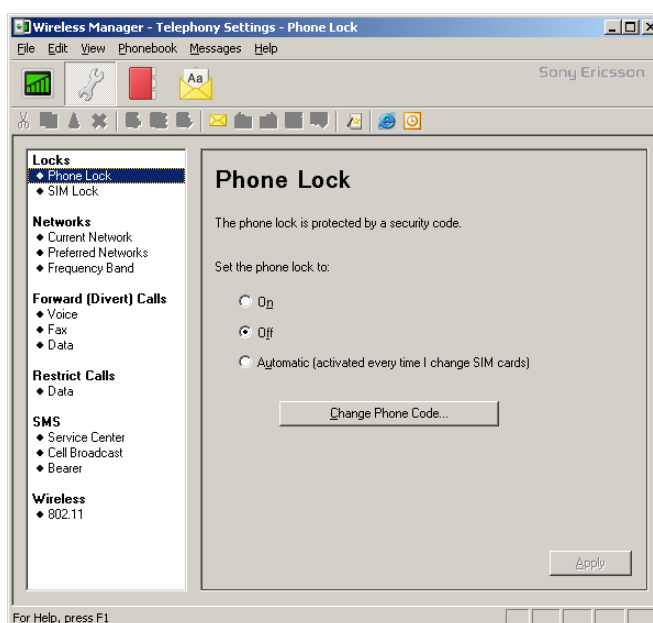
To configure the telephony settings for your Sony Ericsson PC card

1. Start Wireless Manager.

2. Click the **Telephony Settings** button .

Or

Select **View** ➔ **Telephony Settings**. The Telephony Settings view is displayed.



The Telephony Settings view is divided into two panels: the navigation panel on the left and the information panel on the right. When you select a setting in the navigation panel, the corresponding information is displayed in the right panel.

Locks

Phone Lock panel

The phone lock protects your Sony Ericsson PC card against unauthorized use if it is stolen or used with another SIM card. The Phone Lock feature is not activated when you purchase your Sony Ericsson PC card. From the Phone Lock panel, you can change the default phone lock security code (0000) to any four to eight digit personalized code.

You can configure the Phone Lock setting to one of the following states:

- **On**
Select this setting to be prompted to enter a phone lock code to access your Sony Ericsson PC card each time you start Wireless Manager. When you turn on your computer, the **Enter phone lock code** dialogue box opens. To access your phone you must enter your code into the dialogue box and click **OK**.
- **Off**
Select this setting to disable the Phone Lock feature. You will not be prompted to enter a phone lock code to use your Sony Ericsson PC card.
- **Automatic**
Select this setting to save automatically unlock your Sony Ericsson PC card by using the existing SIM card. If a different SIM card is inserted into the Sony Ericsson PC card, you will be prompted to enter the security code. After you correctly enter the security code you can use your Sony Ericsson PC card the new SIM card.

Caution:

Make sure to keep a secure copy of your PIN number.

To change the Phone Lock code for your Sony Ericsson PC card:

1. From the Telephony Settings view, select **Phone Lock**. The Phone Lock panel is displayed on the right.
2. Click **Change Phone Code**. The Change the Phone Lock code dialogue box is displayed.
3. In the **Old Code** field, type the existing Phone Lock code. If this is the first time you have configured the Phone Lock code, the old code is 0000.
4. In the **New Code** field, type a four to eight digits that you want to use for the new code.
5. In the **Confirm New Code** field, type the new code again.
6. Click **OK**.
7. When finished, click **Apply**. The Phone Lock settings are saved to your Sony Ericsson PC card.

SIM Lock panel

Some SIM cards are protected with a Personal Identity Number (PIN) at the time of purchase. If SIM Lock is activated for your SIM card, you have to enter the PIN each time you start Wireless Manager. If you enter your PIN incorrectly three times in succession, the SIM card is blocked and you need a PUK code, from your network operator, to unblock the SIM card.

You can configure the SIM Lock setting to one of the following states:

- **On**
Select this setting to activate SIM Lock for your SIM card.
- **Off**
Select this setting to disable SIM Lock for your SIM card.

Note:

You have to use your PIN code to turn SIM Lock off.

To change the PIN Code for your SIM card:

1. From the Telephony Settings view, select **SIM Lock**. The SIM Lock panel is displayed on the right.
2. In the SIM lock panel, select **On**.
3. Click **Change PIN Code**. The Change the PIN Code dialogue box is displayed.
4. In the **Old Code** field, type the existing SIM Lock code.

5. In the **New Code** field, type four to eight digits that you want to use for the new code.
6. In the **Confirm New Code** field, type the new code again.
7. Click **OK**.
8. When finished, click **Apply**. The SIM Lock settings are saved to your SIM card.

Note:

The SIM Lock protects only your subscription and not your Sony Ericsson PC card from unauthorised use. If you change your SIM card, the Sony Ericsson PC card will still work with a new SIM card.

Networks

Current Networks panel

From the Current Networks panel, you can retrieve the networks that are present in your location. You also can select which of those networks you want to use.

To search for available networks

1. From the Telephony Settings view, select **Current Network**. The Current Networks panel is displayed on the right.
2. Click **Retrieve**. The networks that are currently available are displayed in the Select a network list box.

The available networks will fall into one of the following three categories:

- The home network.
- Available networks. These are networks that your home network operator has a roaming agreement with.
- Forbidden networks. These are networks that you cannot use. Normally, you will not be able to access these networks. You may try a forbidden network. If your home network has come to an agreement that allows you to use the forbidden network, you will be able to access it.

To select another network

1. From the Telephony Settings view, select **Current Networks**. The Current Networks panel is displayed on the right.
2. Click **Retrieve**. The networks that are currently available are displayed in the Select a network list box.
3. Clear the **Automatically choose a network for me** check box.
4. In the **Select a network** list box, select the network that you want to use.
5. Click **Apply** to save the settings to your SIM card. The message *Updating SIM card. Please wait* appears briefly on the window. If you are not allowed to use the network that you have chosen, *Forbidden* is displayed.

Note:

GPRS, EDGE and UMTS roaming may be restricted, even on a network that is listed as "Available". Contact your network operator to determine which are the appropriate roaming networks to use.

Preferred Networks panel

A list of preferred networks are typically saved to your SIM card by your network operator. Preferred roaming partners are placed in the list so that you have the greatest range of available services when roaming. When the home network is not available, your Sony Ericsson PC card will check the available networks against the preferred network list and select the network that is placed highest in the list. Automatic network selection must be enabled.

Note:

You may not be able to view or edit the preferred network list.

To add a preferred network to your SIM card

1. From the Telephony Settings view, select **Preferred Networks**. The Preferred Networks panel is displayed on the right.
2. If the preferred networks list is empty, click **Retrieve**. The preferred networks that are saved to your SIM card are displayed.
3. Click **Add**. The Add Preferred Networks dialogue box lists all the networks that are saved to your Sony Ericsson PC card.
4. Select the network that you want to add and click **OK**.
5. Click **Apply** to save the settings to your SIM card.

To delete a preferred network from your SIM card

1. From the Telephony Settings view, select **Preferred Networks**. The Preferred Networks panel is displayed on the right.
2. If the preferred networks list is empty, click **Retrieve**. The preferred networks that are saved to your SIM card are displayed.
3. Select the network that you want to delete.
4. Click **Remove**.
5. Click **Apply** to save the settings to your SIM card.

To re-arrange the order of the preferred networks

1. From the Telephony Settings view, select **Preferred Networks**. The Preferred Networks panel is displayed on the right.
2. If the preferred networks list is empty, click **Retrieve**. The preferred networks that are saved to your SIM card are displayed.
3. Select the network that you want to move.
4. Click the **Move Up** or **Move Down** arrows to rearrange the order.
5. Click **Apply** to save the settings to your SIM card.

Note:

If the list of preferred networks is full, the **Add** button is disabled (grey).

Frequency Band panel

GSM GPRS/EDGE connections operate in a number of different frequency bands. 900 and 1800MHz are used in Europe, Asia, Australia, Asia and Africa, while 850 and 1900MHz are used in North and South America.

By default, your Sony Ericsson PC card automatically scans all available bands that are supported. As a best practice, you should not change your frequency band settings.

Note:

This feature may not be supported by your PC Card. Refer to your PC Card User Guide for information about supported features.

To change the frequency band setting

1. From the Telephony Settings view, select **Frequency Band**. The Frequency Band panel is displayed on the right.
2. In the drop-down list, select the frequency band that you want to use.

Note:

To use normal (automatic) mode, select **Auto-Select** from the drop-down list.

3. Click **Apply** to save the settings to your Sony Ericsson PC card.
4. Eject your PC card and reinsert it.

Forward (Divert) Calls

Your Sony Ericsson PC card does not support voice calls. You can use the Divert Calls feature to send a voice call that is received to an alternative number where it can be answered. For example, you can divert voice calls to a mobile network voice mail service. Your Sony Ericsson PC card supports incoming mobile terminated (MT) data calls, provided you have appropriate software on your PC to handle them.

Voice panel

From the Voice panel, you can configure your call diversion settings for voice calls that you receive.


Note:

The Call divert service may not be available on all networks.

To retrieve your current call diversion settings from the network

1. From the Telephony Settings view, select **Forward (Divert) Calls ➔ Voice**.
The Forward (divert) voice calls panel is displayed on the right.
2. Click **Retrieve**.

To configure your call diversion settings for voice calls

1. From the Telephony Settings view, select **Forward (Divert) Calls ➔ Voice**.
The Forward (divert) voice calls panel is displayed on the right.
2. Click **Retrieve**.
3. Select one of the following options to specify when to divert voice calls:
 - **Always**
Select this option to divert all incoming voice calls.
 - **When busy**
Select this option to divert voice calls when your line is in use.
 - **No reply**
Select this option to divert voice calls when there is no reply.
 - **Not reachable**
Select this option to divert voice calls when your phone is outside of the network or turned off.
4. In the field next to the divert option that you select, type the phone number to which you want to divert the calls.
Or
Click the ellipsis button  to choose a phone number from your phonebook.
5. Click **Apply** to save the settings.


Fax panel

Your Sony Ericsson PC card does not support fax calls. You can use the Divert Calls feature to divert fax calls that you receive to an alternative number that can receive faxes.

Note:

The Call divert service may not be available on all networks. Also, if you are using the Call restricting function, this may affect Call divert.

To configure your call diversion settings for fax calls

1. From the Telephony Settings view, select **Forward (Divert) Calls ➔ Fax**.
The Forward (divert) fax calls panel is displayed on the right.
2. Click **Retrieve**.
3. Select the **Always** check box to divert incoming fax calls:
4. In the field next to the Always option, type the phone number to which you want to divert the calls.
Or
Click the ellipsis button  to choose a phone number from your phonebook.
5. Click **Apply** to save the settings to your Sony Ericsson PC card.


Data panel

You can use the Divert Calls feature to divert incoming CSD calls to another number.

Note:

The Call divert service may not be available on all networks. Also, if you are using the Call restricting function, this may affect Call divert.

To configure your call diversion settings for data calls

1. From the Telephony Settings view, select **Forward (Divert) Calls ➔ Data**. The Forward (divert) data calls panel is displayed on the right.
2. Click **Retrieve**.
3. Select the **Always** check box to divert incoming data calls:
4. In the field next to the Always option, type the phone number to which you want to divert the calls.
Or
Click the ellipsis button  to choose a phone number from your phone book.
5. Click **Apply** to save the settings to your Sony Ericsson PC card.

Restrict Calls

Data panel

You can use the Restrict Call feature to prevent specific types of outgoing and incoming data calls to your Sony Ericsson PC card. The following restrictions can be set:

- All outgoing calls
- Outgoing international calls
- Outgoing international calls except to your own country
- All incoming calls
- Incoming calls when you are abroad (when roaming)

A password, issued with your subscription, is required to turn a call restriction on or off. Contact your network operator for further information.

To configure call restriction settings for your data calls

1. From the Telephony Settings view, select **Restrict Calls ➔ Data**. The Restrict data calls panel is displayed on the right.
2. Click **Retrieve**. The call restriction settings that are saved to your SIM card are displayed.
3. Select one of the following options for outgoing calls:
 - Outgoing calls
 - Outgoing international calls
 - Outgoing international calls except to my country
4. Select one of the following options for incoming calls:
 - Incoming calls
 - Incoming calls when I am abroad

5. Click **Apply** to save the settings to your Sony Ericsson PC card. The Enter the Restrict Calls password dialogue box is displayed.
6. In the **Enter Password** field, type your restriction password, and then click **OK**.

Note:

Data Call Restriction applies only to CSD Data calls. There is no equivalent function to restrict GPRS/EDGE/UMTS connections.

SMS

SMS Service Centre panel

When you send a text message, it is first sent to your network operator's service centre, which then diverts it to the correct recipient. The SMS Service Centre is identified by a telephone number. From the SMS Service Centre panel, you can configure the service centre number.

Note:

The SMS Service Centre number is normally read automatically from your SIM card. Do not change this number.

To set or change the SMS Service Centre number

1. From the Telephony Settings view, select **SMS Service Centre**.
2. In the **Set active service centre number to** field, type the phone number of your operator's service centre.
3. Click **Apply** to save the number to your Sony Ericsson PC card.

Cell Broadcast Message panel

From the Cell Broadcast Message panel, you can enter the Short Message Service Cell Broadcast (SMS CB) message classes that are available from your network operator. SMS CB is used by your mobile operator to broadcast information messages to users in a specific area. You must select the required information types.

Example of SMS Cell Broadcast message types:

Code	Cell Broadcast Message
000	Index
010	News Flashes
020	Hospitals
030	Long-distance road reports
040	Weather

To enter multiple SMS Cell Broadcast message types, separate each entry with a comma, for example: 000, 034, 076.

Note:

SMS Cell Broadcast message types are network operator specific. Contact your network operator for more details.

Bearer panel

From the SMS bearer panel, you can specify the connection method that is used to send SMS messages.

Caution:

As a best practice, you should not modify any settings on the Bearer panel unless directed to do so from your network operator.

Wireless

802.11 panel

From the Wireless 802.11 panel you can launch the wireless utility that is used to manage your wireless LAN connections.

Note:

This feature is supported only on Sony Ericsson PC cards that include a wireless LAN adapter.

To launch the Sony Ericsson Wireless Utility

Click on the **Launch Wireless Control Panel** button.

If you configured your PC to use the Windows XP user interface, the Windows Wireless Connection Properties dialogue box is displayed. If you configured your PC to use the Sony Ericsson Wireless Utility, the Sony Ericsson Wireless Utility dialogue box will open.

See *Creating a wireless LAN connection* on page 56 for details.

Wireless Manager – Phone Book view

The Phone Book view helps organize the contacts that are saved to the SIM card that is installed in your Sony Ericsson PC card.

Navigating the Phone Book view

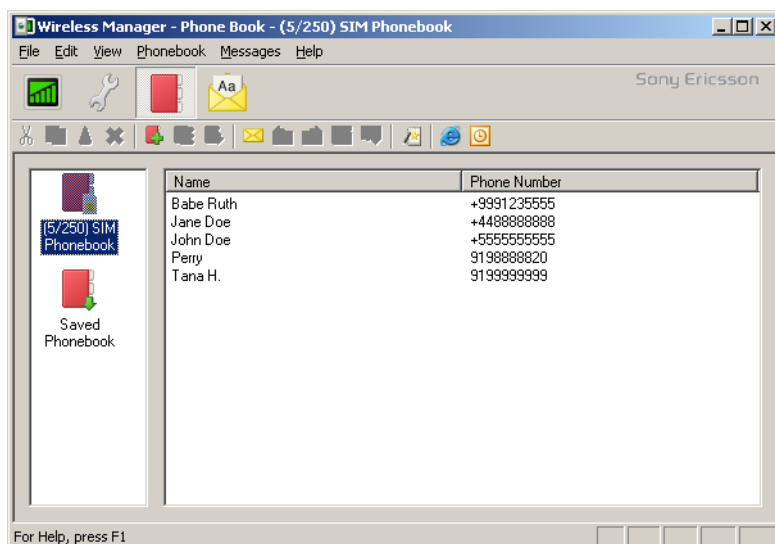
From this view you can manage the phone book entries that are saved to your SIM card and a Saved phonebook that is maintained on your hard drive. You can add new numbers, edit existing numbers, and export and import entries.

To navigate to the Phone Book view

1. Start Wireless Manager.
2. From the Toolbar, click the **Phone Book** button  to display the Phone Book view.

Or

Select **View** ➔ **Phone Book**. The Phone Book view is displayed.



The Phone Book view is divided into two panels: the navigation panel on the left and the information panel on the right. When you select an icon in the navigation panel, the corresponding information is displayed in the right panel.

Managing entries



The Phone Book view allows you to access the phonebook that is saved to your SIM card and the phonebook that is saved to your computer.

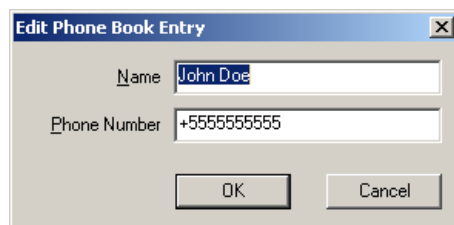
To select multiple entries

When you with phonebook entries, you might need to select more than one entry at a time.

- To select nonadjacent entries, press **Ctrl** and select each entry you want.
- To select a range of entries, select the first entry, press and hold the **Shift** key, and then select the last entry in the range.

To add a phone number to your phonebook

1. From the Phone Book view, select one of the following icons:
 - **SIM Phone Book** icon  to add the phone number to your SIM card
 - **Saved Phone Book** icon  to add the phone number to your Saved Phone book
2. Select **Phone Book** ➔ **Add New...** The **New Phone Book Entry** dialogue box is displayed.





3. In the **Name** field, type the name for the phonebook entry.
4. In the **Phone Number** field, type the phone number.
5. Click **OK** to save the entry or **Cancel** to close the dialogue box.

Notes:

- Typically, Phonebook numbers are limited to 20 digits (including the plus sign +) and names are limited to 18 alphanumeric characters.
- New entries are added to the next available SIM index position.



To edit a number in you phonebook

1. From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone Book** icon  to edit a phone number that is saved in the phonebook on your SIM card.
 - Select the **Saved Phone Book** icon  to edit a phone number that is saved in the phonebook on your computer.
2. In the right panel, select the number that you want to modify.
3. Select **Phone Book** ➔ **Modify**. The **Edit Phone Book Entry** dialogue box is displayed.
4. Edit the information as needed.
5. Click **OK** to save the entry or **Cancel** to close the dialogue
If the modified entry is in the SIM Phone Book, the changes are automatically sent to the SIM.



To find a phonebook entry

1. From Wireless Manager, select **Phone Book** ➔ **Find**. The **Phone Book - Find** dialogue box is displayed.
2. In the **Look for** field, type the text or number that you want to use to perform the search. You can type any portion of the phone number or name that you want to find.
3. Click **Find**. The Wireless Manager searches the both the phonebook on your SIM card and computer. The entries that match your search criteria are displayed in the right pane.
4. Click **Close** when you have finished searching.

To copy a phone book entry



1. From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone Book** icon  to copy a phone number from the phonebook on your SIM card.
 - Select the **Saved Phone Book** icon  to copy a phone number from the phonebook on your computer.
2. In the right panel, select the number that you want to copy.
3. Select one of the following options:
 - To copy a phone number to your computer, select **Phone Book** ➔ **Copy to Saved Phone Book**.
 - To copy a phone number to your SIM card, select **Phone Book** ➔ **Copy to SIM Phone Book**.
4. A duplicate entry is created in the specified phonebook. The new entry is assigned the next available position in the destination phonebook.

To move a phonebook entry

1. From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone book** icon  to move a phone number from the phonebook on your SIM card.
 - Select the **Saved Phone book** icon  to move a phone number from the phonebook on your computer.
2. In the right panel, select the number that you want to move.
3. Select one of the following options:
 - To move a phone number to your computer, select **Phone book** ➔ **Move to Saved Phone book**.
 - To move a phone number to your SIM card, select **Phone book** ➔ **Move to SIM Phone book**.

The selected entry is moved from its current phone book and placed in the selected one. The new entry is assigned the next available position in the destination phonebook.



To delete a phonebook entry

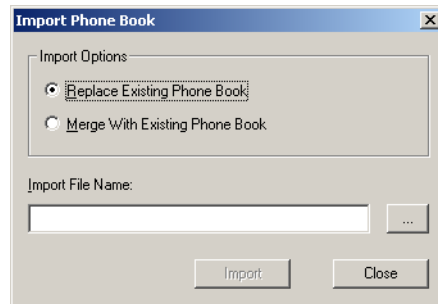
1. From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone book** icon  to delete a phone number from the phonebook on your SIM card.
 - Select the **Saved Phone book** icon  to delete a phone number from the phonebook on your computer.
2. In the right panel, right-click the phone number that you want to delete and select **Delete**.
3. A confirmation dialogue opens. Click **Yes** to delete the number.


Note:

If you want to delete all numbers, select **Edit** ➔ **Select All**, and then select **Edit** ➔ **Delete**.

To import a phonebook or a phonebook entry

- From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone book** icon  to import to your SIM card.
 - Select the **Saved Phone book** icon  to import to your computer.
- Select **Phone Book** ➔ **Import**. The **Import Phone Book** dialogue box is displayed.

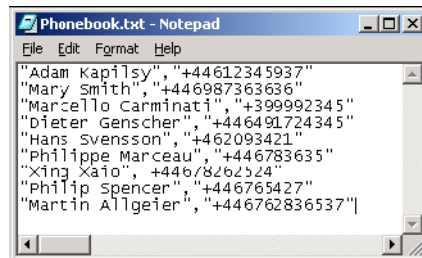


- Select one of the following options:
 - Replace Existing Phone Book**
Select this option to replace the entire phonebook with the contents of the file that you import.
 - Merge With Existing Phone Book**
Select this option to keep the existing phonebook entries and add to it the contents of the file that you import.
- Click the **ellipsis** button  and browse to find the file that you want to import.

Note:



The file must be a text file in comma separated value (CSV) format. Any invalid lines or files are ignored. Microsoft® Excel can be used to edit this file.

For example,

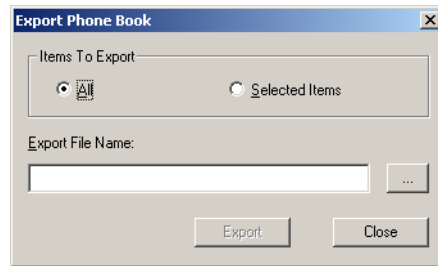



- Click **OK** in the browse dialogue box. The path and file name are displayed in the **Import File Name** field.
- Click **Import** to import the contents of the file.

To export an entry or phonebook

- From the Phone Book view, select one of the following icons:
 - Select the **SIM Phone Book** icon  to export from your SIM card.
 - Select the **Saved Phone Book** icon  to export from your computer.
- In the right panel, select the entries that you want to export.

3. Select **Phone Book** ➔ **Export**. The **Export Phone Book** dialogue box is displayed.



4. Select one of the following options:
 - **All**
Select this option to export the entire phonebook.
 - **Selected Items**
Select this option export only the selected phonebook entries.
5. Click the **ellipsis** button  and browse to the location to which you want to export the file.
6. In the **File name** field, type the name of the file to which you want to save the phonebook.
7. Click **OK** in the browse dialogue box. The path and file name are displayed in the **Export File Name** field.

Note:

The exported file will be saved as a text file in comma separated value (CSV) format. Microsoft® Excel can be used to edit this file.

8. Click **Export** to export the information to the file.

To send an SMS message by using a phonebook entry

1. From the Phone Book view, select the phonebook that contains the phone number entry to which you want to send an SMS message.

Note:

To send an SMS to multiple numbers, hold down **Ctrl** and select multiple numbers from the phonebook.

2. Select **Messages** ➔ **Create New Message...**

Or

From the standard toolbar, click . The **New Message** dialogue box is displayed.

3. The **To** field displays the phone numbers to which the message will be sent.
4. In the **Message** field, type your SMS message.
5. To display how many SMS message blocks your message will be divided into, click **Calculate SMS blocks**.
6. To get confirmation when your SMS message arrives at its destination (if this service is supported by your network), select the **Request Status Report** check box.
7. To send the SMS message, click **Send**. Or, you can close the dialogue without sending the SMS by clicking **Cancel**.

Wireless Manager – SMS Messages view


The SMS Messages view enables you to view, create, edit, save, copy, delete, reply or forward SMS messages from your Sony Ericsson PC card to other mobile devices.

Note:

To use the SMS messaging features, an SMS message service plan must be included in your service subscription (contact your network operator for more details).

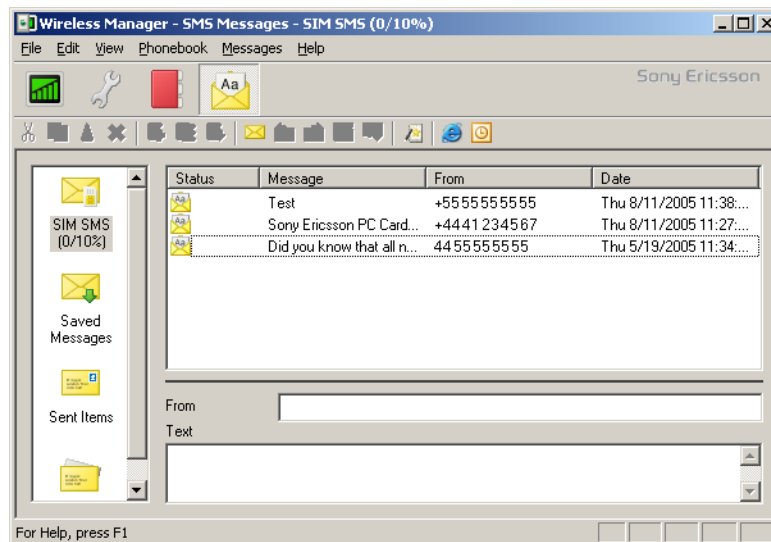
Displaying the SMS Messages view

To navigate to the SMS Messages view

From Wireless Manager, click the **SMS Messages** button .

Or








Select **View** ➔ **SMS Messages**. The SMS Messages view is displayed.



The SMS Messages view is divided into two panels: the folder panel on the left and the contents panel on the right. When you select a folder in the folder panel, the contents of the folder are displayed in the right panel.

The top half of the right pane displays a list of received messages (sorted by date), and the bottom half displays the content of a selected message. This is referred to as the *Information View*.

The names and locations of the folders that are displayed in the folder panel cannot be changed. The following table lists the folders that are displayed and describes their contents.


Folder	Description
 SIM SMS	<p>Select this folder to display the contents of the SIM Inbox. When Wireless Manager is running, any new SMS in the SIM Inbox are uploaded to your computer automatically.</p> <p>The status column displays one of the following icons for each message to indicate whether the message has been read:</p> <ul style="list-style-type: none"> • Read  • Unread  <p>If a new SMS arrives when the Wireless Manager is running, an SMS message icon  is displayed on the Status view and on the Wireless Manager status bar. Additionally, the SMS audio sound is played if it is enabled in the Settings dialogue box.</p> <p>Incoming messages are stored to your SIM Inbox, which typically holds 10 - 30 messages. When the SIM card inbox becomes full, you must move or delete some SMS messages to free storage space so that you can continue to receive new SMS messages from the network. To do this you can either:</p> <ul style="list-style-type: none"> • Move your SMS messages from your SIM card to your hard drive. • Right-click on an SMS message in the SIM SMS folder and select Delete.
 Saved Messages	<p>Select this folder to display the SMS messages that you have saved. If you want to keep an SMS, use the Copy or Move menu option to place it in the Saved folder. Move or copy SMS messages to this folder in order to maintain space in the SIM SMS folder. Click on the folder icon to display the contents of the Saved folder.</p>
 Sent Items	<p>A copy of each SMS message that you send is saved in this folder. Click on the folder icon to display your saved SMS messages.</p>
 Unsent Items	<p>Any messages that you have created but have not sent are displayed when you click on this icon.</p> <p>You can edit the SMS messages that are stored in this folder or you can send them when your Sony Ericsson PC card is inserted into the computer. Any SMS messages that fail during transmission are also stored here; you can resend them at any time.</p>

Note:

You must have a GPRS/EDGE/UMTS signal to send an SMS message. The **Send** button is disabled (grey) when there is not a GPRS/EDGE/UMTS signal from which to send your message.

Creating and sending SMS messages

To create and send an SMS message

1. From the SMS Messages view, select **Messages** ➔ **Create New Message...**
Or
From the standard toolbar, click . The **New Message** dialogue box is displayed.
2. In the **To** field, type the recipient's mobile phone number or select a number from a phonebook by clicking **Lookup...**

Note:

Separate multiple phone number by using a semicolon (;).




To send an SMS message to multiple numbers, hold down **Ctrl** and select multiple numbers from the phonebook.

3. In the **Message** field, type your SMS message.

4. To display how many SMS message blocks your message will be divided into, click **Calculate SMS blocks**.
5. To get confirmation when your SMS message arrives at its destination (if this service is supported by your network), select the **Request Status Report** check box.
6. To send the SMS message, click **Send**. Or, you can close the dialogue without sending the SMS by clicking **Cancel**. If you cancel, the message that you typed is deleted.

To edit an SMS message

When you are working with an SMS message, you can edit the text by cutting, copying, and pasting it using the keyboard shortcuts and the buttons on the toolbar. You also can cut and copy text from other applications. Use the following cut, copy, and paste directions to edit your messages:

- To cut text, select the text that you want to cut and click the **Cut** button , or press **Ctrl + x**, or select **Edit ➔ Cut**.
- To copy text, select the text that you want to copy and click the **Copy** button , or press **Ctrl + c**, or select **Edit ➔ Copy**.
- To paste text that has been cut or copied, select the location where you want to paste the text, and then click the **Paste** button , or press **Ctrl + v**, or select **Edit ➔ Paste**.

To reply to an SMS message

1. From the SMS Messages view, select the folder where the SMS message that you want to reply to is located.
2. From the list of messages, select the message to which you want to reply. The contents of the message are displayed in the Information view.
3. Select **Messages ➔ Reply**. The **New Message** dialogue box is displayed.
4. The **To** field is automatically filled in with the recipient's phone number.
5. In the **Message** field, type your reply.
6. To display how many SMS message blocks your message will be divided into, click **Calculate SMS blocks**.
7. To get confirmation when your SMS message arrives at its destination (if this service is supported by your network), select the **Request Status Report** check box.
8. To send the SMS message, click **Send**. Or, you can close the dialogue without sending the SMS by clicking **Cancel**.

To forward an SMS message

1. From the SMS Messages view, select the folder where the SMS message that you want to forward is located.
2. From the list of messages, select the message that you want to forward. The contents of the message are displayed in the information view.
3. Select **Forward** in the Messages menu, a dialogue box opens.
4. In the **To** field, type the recipient's mobile phone number or select a number from a phonebook by clicking **Lookup...**
To send an SMS to multiple numbers, hold down **Ctrl** and select multiple numbers from the phonebook.
5. To display how many SMS message blocks your message will be divided into, click **Calculate SMS blocks**.
6. To get confirmation when your SMS message arrives at its destination (if this service is supported by your network), select the **Request Status Report** check box.
7. To send the SMS message, click **Send**. Or, you can close the dialog without sending the SMS by clicking **Cancel**.

To delete an SMS message

1. From the SMS Messages view, select the folder where the message is located.
2. From the list of messages, select the message that you want to delete. The contents of the message are displayed in the information view.
3. Select **Edit ➔ Delete**. A confirmation message is displayed.
4. Click **OK**.

Note:

To delete all messages, select **Edit ➔ Select All**, and then select **Edit ➔ Delete**.

Managing SMS messages

To sort your SMS messages

1. From the SMS Messages view, select the folder where the messages that you want to sort are located. By default, the messages are sorted in order according to the date and time they were sent.
2. From the list of messages, click the column heading that you want to use to sort the messages. For example, to sort the messages by the phone number to which they were sent, click the **To** column heading. Click the column heading again to reverse the sort order of the messages.

To move an SMS message from your SIM card to your hard drive

1. From the SMS Messages view, select the **SIM SMS** folder.
2. From the list of messages, select the message that you want to move. The content of the message is displayed in the information view.

Note:

To select all the messages on your SIM card, select **Edit ➔ Select All**.

3. Select **Messages ➔ Move to Saved Messages**. A progress bar is displayed during the move process.
4. The selected message is saved to the Saved Messages folder.

To copy an SMS message from your SIM card to you computer

1. From the SMS Messages view, select the **SIM SMS** folder.
2. From the list of messages, select the message that you want to copy. The content of the message is displayed in the information view.

Note:

To select all the messages on your SIM card, select **Edit ➔ Select All**.

3. Select **Messages ➔ Copy to Saved Messages**. A progress bar is displayed during the move process.
4. The selected message is copied to the Saved Messages folder.


Broadcast messages

If you receive a broadcast message, it is displayed in a pop-up dialog box, which you can save or dismiss. If you save the message it is saved in your Saved Messages folder.


Wireless Manager – Online Services view

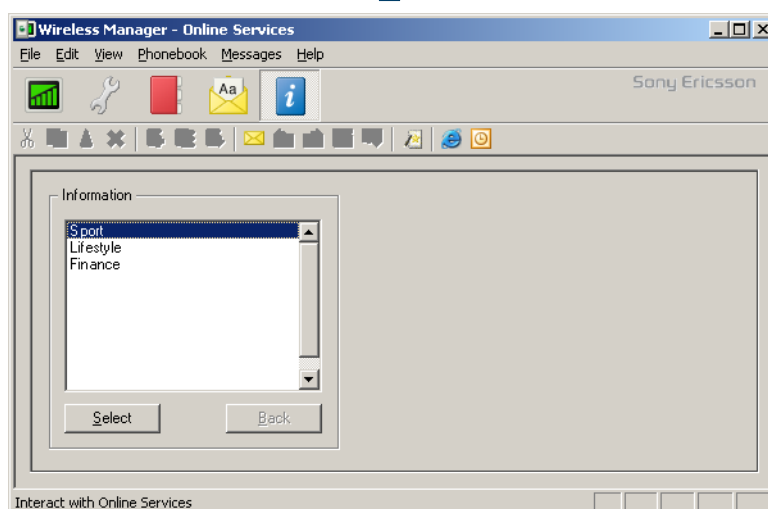
The Online Services view provides access to customized services that are offered by network operators. This service is network or subscription dependant. The Online Services view allows applications that exist on the SIM card to interact and operate with your PC card. Typical services offered by network operators include:

- Sports scores
- News
- Financial data
- Horoscopes
- Interactive text game messages

Online Services are placed on your SIM card by your network operator. If Wireless Manager detects these services on the SIM card the **Online Services** button  is displayed on the Wireless Manager toolbar.

To display the Online Service view

1. Click the **Online Services** button .



The Online Service view displays a menu of the online services offered by your network operator. Click on the category you require and click **Select**.

More detailed choices are sometimes displayed. If necessary select the required option and click **Select**.

The response may take various forms, depending on the network operator. For example, the news headlines might be sent as an SMS message, which will be delivered to the SMS inbox.

Online Services menus are sometimes used to provide a list of voice-based services such as directory inquiries. If one of these is selected, you will not be connected because your Sony Ericsson PC card does not support voice calls.

Note:

Contact your network operator to find out which services are available for your account.

Using the Sony Ericsson Wireless Utility


The Sony Ericsson Wireless Utility provides the tools to configure the wireless LAN adapter features of your Sony Ericsson PC card.

You can use the information in this section to:

- Discover available wireless networks
- Connect to open networks
- Configure security settings
- Connect to a secured network
- View statistics about network activity
- Perform diagnostic tests

The user interface that displays when Sony Ericsson Wireless Utility starts may look slightly different than the illustrations in this user guide, depending on the operating system that you are using.

Opening the Sony Ericsson Wireless Utility

The Sony Ericsson 802.11 Wireless LAN Adapter Utility starts automatically every time you start your computer. When the system start-up process is complete,  is displayed in the system tray at the lower right corner of your screen.


The Wireless Utility scans for Wireless LAN services within range of your PC card to locate wireless access points and other wireless clients. The appearance of the Wireless Utility status icon varies depending on the strength of the signal being received from the wireless access point or wireless client (if any) with which your computer has associated. If your PC card has not yet established a wireless network connection, the Wireless Utility icon displays without any shading.

There are several methods that you can use to open the Wireless Utility.

To open the Wireless Utility

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Sony Ericsson Wireless Utility**.

Or

From the Windows system tray, right-click the **Sony Ericsson Wireless Utility status** icon , and select **Open Utility**. If the Sony Ericsson Wireless Utility status icon is not in the system tray, you must open the Wireless Utility from the control panel by using the steps described above.

Enabling the Sony Ericsson Wireless Utility

If you are using Windows XP, you can use the Windows XP user interface or you can use the Sony Ericsson Wireless Utility to create and manage your wireless LAN connections. The Sony Ericsson Wireless Utility provides more information about the wireless network and supports CISCO security features.

Note:

If Windows XP is your operating system, the Windows XP user interface is enabled by default. To use the Sony Ericsson Wireless Utility, you must enable it.

If you are using Windows 2000, you must use the Sony Ericsson Wireless Utility.

To enable the Sony Ericsson Wireless Utility

1. Open the **Sony Ericsson Wireless Utility**.
2. On the Wireless Networks tab, select the **Let this tool manage your wireless settings** check box.
3. Click **OK**.

Navigating in the Wireless Utility

The following tabs are displayed in the Wireless Utility:

- **Wireless Networks**

Use this tab to view and manage your connections to the wireless LANs. For instructions on how to configure your wireless network connection using Sony Ericsson Wireless Utility, see *Creating a wireless LAN connection* on page 56.

- **Link Status**

Use this tab to view your wireless LAN connection information. The Signal panel on this tab provides advanced information (signal strength and noise level) about the access point signal that is detected by your Sony Ericsson 802.11 Wireless LAN Adapter.

The Connection panel provides information about your connection, including the location setting, which is represented by a two-character country code.

- **Statistics**

Use this tab to view current and accumulated wireless LAN transmission activity information.

- **Site Monitor**

Use this tab to view broadcasting wireless networks that are within range of the wireless LAN adapter on your PC card. Network properties such as the channel on which the network is operating, the strength of the received signal, and the type of security are displayed for each network.

Note:

Use of Site Monitor may degrade performance of the IEEE 802.11 network while Site Monitor is in use.

- **Diagnostics**

Use this tab to run a diagnostic tests against the wireless LAN adapter on your PC card to verify its operational and functional status.

- **Information**


Use this tab to view important information about your Sony Ericsson Wireless Utility and your wireless LAN adapter.

Wireless Utility status icon


The quality of your wireless network connection is affected by a number of factors including the following:


- The strength of your wireless networking signal.
- The level of noise created by other wireless signals in your home or office.

To view the status of your 802.11 wireless LAN connection





Move your mouse pointer over the Wireless Utility status icon  in the Windows system tray. The client IP address, and the name, speed, signal strength, and status of your wireless network connection is displayed.

Note:


On Windows XP you can also view the connection status and signal strength by moving your mouse pointer over the Windows Wireless Network Connection icon  in the system tray.

The signal strength of the 802.11 radio is graphically indicated by the Wireless Utility status icon  that is displayed in the Windows system tray. The appearance of the icon indicates the strength or weakness of the signal.

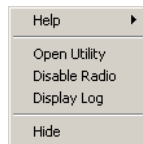
The following table describes how the different signal strengths are represented graphically:

Icon	Description
	A fully green icon indicates that your Sony Ericsson PC card has made a wireless LAN network connection and the signal strength is very good or excellent.
	A partially green icon indicates that your Sony Ericsson PC card has made a wireless LAN network connection and the signal is good or low. Suggested action: Move closer to the access point.
	An unshaded icon indicates that wireless LAN radio transmitter is enabled, but there is no signal being received. Probable causes: No connection has been configured. The computer is trying to establish an initial connection but has not yet succeeded. You may have moved out of range of the access point. Suggested actions: Wait. Move closer to the access point.
	An icon with a red "X" indicates that the radio is disabled. Suggested action: Enable the WLAN radio by right-clicking the icon and then selecting Enable Radio .

Accessing the Wireless Utility status icon menu

Right-click on the Wireless Utility status icon  in the Windows system tray to access the Sony Ericsson Wireless Utility menu options.

The Wireless Utility menu is displayed.



Some of these menu options are disabled depending on the current state of your Sony Ericsson PC card and the version of Wireless Manager that is installed.

The Wireless Utility menu options are described below.

- **Help**

This menu option provides information about Sony Ericsson Wireless Utility.

- **Country (where provided)**

This menu option is displayed only if the wireless LAN connection for your Sony Ericsson PC card has not been configured for a specific country. This option allows you to select the operating characteristics that comply with the regulations in a specific country. See *Configuring your location* on page 56 for details.

- **Open Utility**

Opens Sony Ericsson Wireless Utility.

See *Creating a wireless LAN connection* on page 56 for details.

Note:

Use this option to access the wireless LAN functions if there is no SIM in your Sony Ericsson PC card.

- **Enable Radio/Disable Radio (802.11 only)**

This menu option is dynamic. It monitors the current state of the 802.11 (wireless LAN) radio transmitter and gives you the option to switch to the opposite state. For example, if the 802.11 radio transmitter in your Sony Ericsson PC card is enabled, the menu option reads **Disable Radio**. This option does not control the GSM GPRS/EDGE/UMTS radio.


You can also set the status of the 802.11 radio transmitter by selecting **Turn 802.11 Radio On/Off** from the File menu in the Wireless Manager application.

- **Hide**


When you select **Hide**, the Sony Ericsson Wireless Utility status icon is removed from the system tray. To display the Sony Ericsson Wireless Utility icon in the system tray after it has been hidden, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Sony Ericsson Wireless Utility**. On the Wireless Networks tab, select **Show wireless icon in systray**.

Enabling and disabling the 802.11 radio

To disable the 802.11 radio

Right-click  in the Windows system tray and select **Disable Radio**.

To enable the 802.11 radio

Right-click  in the Windows system tray and select **Enable Radio**.

Configuring your location

If you purchased your PC card in the United States, but are using it in another country, you must set the Location property to that country. Additionally, if you purchased your PC card outside of the United States, but are using it in the United States, you must change the Location property from Worldwide to USA. This option allows you to select the operating characteristics that comply with the regulations in a specific country. Before connecting to a wireless network, you should verify that the Country configuration is correct. If you travel to different countries, you must remember to change the Country configuration as appropriate.

This ensures compliance with local regulatory restrictions on transmit power and optimizes network performance.

Note:

Outdoor use of a wireless LAN in France is subject to regulations.

To configure your location

1. From the Windows system tray, right-click the **Wireless Utility status** icon. The Wireless Utility menu is displayed.
2. Select **Country**. This menu option is displayed only if the wireless LAN connection for your Sony Ericsson PC card has not been configured for a specific country.
3. From the Country dialogue box, select the location that you want to use for your wireless LAN adapter configuration. If the destination country is not listed, set the value to **Worldwide**.

Creating a wireless LAN connection

The method that you use to create a Wireless LAN Connection depends on the Windows operating system that is installed on your PC.


When the 802.11 radio is enabled for your PC card, the wireless LAN adapter scans for available networks. These networks are displayed in the Wireless Utility and in the 802.11 panel in Wireless Manager. You can use Wireless Utility to select one of the available open system networks and connect to it without any configuration. If, however, the network is secured, you must first configure a network connection by providing the authentication and network information to enable Wireless Utility to connect to that network.

Connecting to an open wireless LAN

Some wireless networks are configured as *open* systems, which do not require authentication. Open wireless networks allow anyone to connect to the access point. You may need to enter a user name and password in to a Web page before full Internet access is available.

Open wireless networks are typically used for public hotspots, such as hotels and cafes.

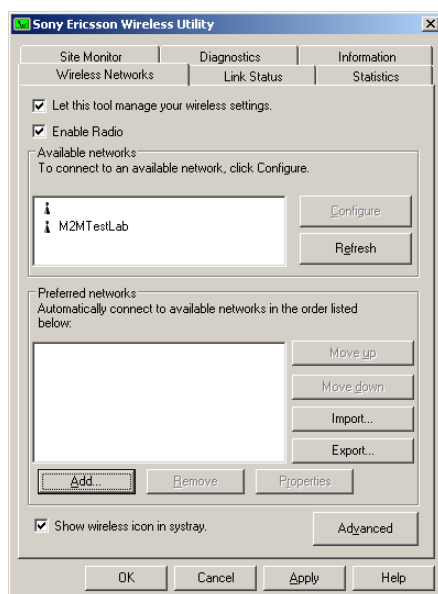
To connect to an existing open wireless network

1. From the Windows desktop, click the Wireless Utility status icon  in the system tray. The Connect to Wireless Network window is displayed.
2. In the Available Networks panel, select the wireless network that you want to access.
3. Click **Connect**.

If you want to connect to a wireless network that is not in the Available networks panel, you can manually configure a network connection to connect to that wireless network.

To manually configure your network connection

1. Open the Wireless Utility.



Note:

The names of wireless networks that are visible to your computer are displayed under Available networks.

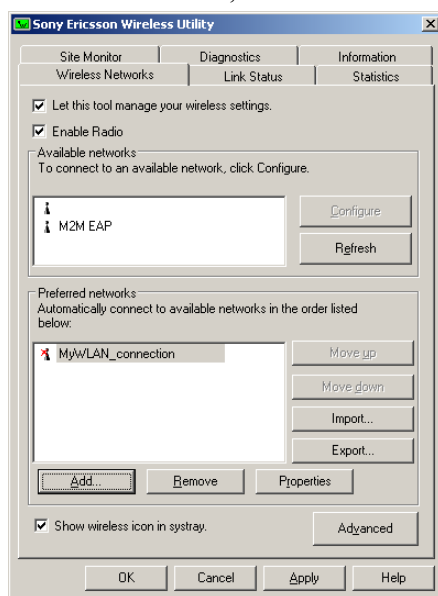
2. On the Wireless Networks tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot use Sony Ericsson Wireless Utility to manage your wireless settings. For this check box to be available, you must log on to your system as Administrator. If you are unable to log on as Administrator, contact your network administrator for assistance. Alternatively, if you are using Windows XP you can use Windows user interface to manage your wireless settings.

3. In the Preferred networks panel, click **Add**. The Wireless Network Properties dialogue box is displayed.
4. On the Wireless Network Properties tab, type the name of the network that you want to connect to in the **Network name (SSID)** field.
5. Click **OK**. Your network name is displayed on the Wireless Networks tab under Preferred networks.

- Click **OK**. To connect to the network, click **Wireless Utility status** icon from the Windows desktop, select the connection, and then click **Connect**.



Connecting to a secure wireless LAN

Some wireless LANs are configured to require connecting users to authenticate with the access point. Sony Ericsson Wireless Utility provides the tools that you need to configure the authentication and data encryption settings to connect to a secure wireless LAN.

Secure wireless LANs are typically used in corporate environments or by advanced users who require higher levels of security.

To connect to a secure wireless LAN, you must have the appropriate access and logon rights to that network. You must ensure that the security settings that you configure for your wireless connections match exactly with those that are supplied to you by the network administrator.

The following table lists the authentication methods that the Sony Ericsson Wireless Utility supports:

Authentication method	Description
Open	No authentication is used.
Shared	A pre-shared key (PSK) must be entered into the network configuration settings to connect to the wireless network.
802.1x	Requires authentication. The authentication credentials that are required depends on how the access point has been configured. For example, you might have to enter a user name and password which is verified with an authentication server.
WPA	Requires Wi-Fi Protected Access (WPA) authentication. This method requires that you also configure the encryption key settings.
WPA-PSK	WPA authentication is used with a pre-shared key. This method enables you to enter a static network key.
CKKM	Requires Cisco Centralised Key Management (CKKM) authentication. This method requires that you also configure the encryption settings.

If necessary, contact your network administrator to arrange access and request the following information:

- Network names (SSID) of the specific wireless networks to which you want to connect.
- Wi-Fi Protected Access (WPA) wireless network key information (may include network authentication type, encryption type, network key) for any WPA-enabled networks to which you want to connect.
- Wired Equivalent Privacy (WEP) wireless network key information (network key) for any WEP-enabled networks to which you want to connect. Your network key is either 5 or 13 ASCII (text) characters, or 10 or 26 hexadecimal (0-9, A-F) characters.

Note:

If you require access to a network account, you will also require the domain name of the account, a user name, and a password.

To configure a network connection to use Open authentication and WEP encryption

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**, and then type the SSID of the network to be configured in the **Network name (SSID)** field.
4. From the **Network Authentication** drop-down list, select **Open**.
5. From the **Data Encryption** drop-down list, select **WEP**.
6. Clear the **The key is provided for me automatically** check box.
7. In the **Network key** field, type the network key.
8. In the **Confirm key** field, retype the network key.
9. Click the **Authentication** tab and clear the **Enable IEEE 802.1X authentication for the network** check box.

Note:

Authenticate Prior to Windows Login is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

10. Click **OK**. The configuration of your wireless network connection is now complete.

To configure a network connection to use 802.1x with WEP or CKIP encryption and TLS or TTLS authentication

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **802.1x**.
5. From the **Data Encryption** drop-down list, select **WEP** or **CKIP**, depending on your network encryption. Contact your network administrator if you are unsure of which encryption type to use.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

6. Click the **Authentication** tab.
7. From the **EAP Method** drop-down list, select **TLS** or **TTLS**.

Note:

You need a certificate to use TLS authentication. Contact your network administrator to obtain a certificate.

8. In the Certificate pane, select the settings that are applicable for your network and usage.
9. In the **Logon/Identity** field, enter your logon information.
10. Click **OK**.
11. Click **Apply**.

To configure a network connection to use 802.1x with WEP or CKIP encryption and LEAP, FAST, PEAP, or MD5 authentication

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **802.1x**.
5. From the **Data Encryption** drop-down list, select **WEP** or **CKIP**, depending on your network encryption. Contact your network administrator if you are unsure of which encryption type to use.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

6. Click the **Authentication** tab.
7. From the **EAP Method** drop-down list, select **LEAP**, **FAST**, **PEAP**, or **MD5**.
8. If you selected PEAP, select the appropriate protocol from the **Tunneled Authentication Protocol** drop-down list.
9. In the Username and Password pane, configure the settings as appropriate for your network and usage.
10. Click **OK**.
11. Click **Apply**.

To configure a network connection to use WPA-PSK with automatic encryption

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.

4. From the **Network Authentication** drop-down list, select **WPA-PSK**.
5. In the **Network key** field, type the network key.
6. In the **Confirm key** field, retype the network key.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

7. Click **OK**.
8. Click **Apply**.

To configure a network connection to use WPA with automatic encryption and TLS or TTLS authentication

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **WPA**.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

5. Click the **Authentication** tab.
6. From the **EAP Method** drop-down list, select **TLS** or **TTLS**.

Note:

You need a certificate to use TLS authentication. Contact your network administrator to obtain a certificate.

7. In the Certificate pane, select the settings that are applicable for your network and usage.
8. In the **Logon/Identity** field, enter your logon information.
9. Click **OK**.
10. Click **Apply**.

To configure a network connection to use WPA with automatic encryption and LEAP, FAST, or PEAP authentication and WPA encryption

1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **WPA**.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

5. Click the **Authentication** tab.
6. From the **EAP Method** drop-down list, select **LEAP**, **FAST**, or **PEAP**.
7. If you selected PEAP, select the appropriate protocol from the **Tunneled Authentication Protocol** drop-down list.
8. In the Username and Password pane, configure the settings as appropriate for your network and usage.
9. Click **OK**.
10. Click **Apply**.

To configure a network connection to use CCKM with WEP, CKIP, or TKIP encryption and LEAP or FAST authentication


1. Open the Wireless Utility.
2. On the **Wireless Networks** tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select it, and then click **Apply**.
3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **CCKM**.

Note:

The **Authenticate Prior to Windows Login** feature is used to guarantee a network connection (including association, authentication, and DHCP). To enable this feature, select the **Authenticate Prior to Windows Login** check box. To disable this feature, clear the check box.

5. Click the **Authentication** tab.
6. From the **EAP Method** drop-down list, select **LEAP** or **FAST**.
7. In the Username and Password pane, configure the settings as appropriate for your network and usage.
8. Click **OK**.
9. Click **Apply**.

To connect to a secure wireless network

1. Make sure that the connection settings are configured for the wireless network that you want to access.
2. From the Windows desktop, click the Wireless Utility status icon  in the system tray. The Connect to Wireless Network window is displayed.
3. In the Available Networks panel, select the wireless network that you want to access.
4. Click **Connect**.

Running diagnostic tests on your wireless LAN adapter

You can run diagnostic tests on your Sony Ericsson 802.11 Wireless LAN Adapter to verify its operational and functional status.

Note:

Your network connection is temporarily disabled when you run a diagnostic test. When the test is completed, however, your network connection is automatically reestablished.

To run a diagnostic test on your wireless LAN adapter

1. Open the Wireless Utility.
2. Click the **Diagnostics** tab.
3. To see a description of a test, select a test. The **Recommendations** panel displays information about the selected test.
4. To run one or more tests, select the check box for each test that you want to run. Clear the check box for those tests that you do not want to run.
5. Click **Run**.

If the Sony Ericsson 802.11 Wireless LAN Adapter fails any of the diagnostic tests, see *Troubleshooting* on page 79.

Using the Windows XP wireless network connection utility

Microsoft Windows XP provides support for wireless networking technology. If you are using Windows XP, you can use the Windows XP user interface or you can use the Sony Ericsson Wireless Utility to create and manage your wireless LAN connections.

Note:

If Windows XP is your operating system, the Windows XP user interface is enabled by default. To use the Sony Ericsson Wireless Utility, you must enable it. For information about how to enable the Sony Ericsson Wireless Utility, refer to *To enable the Sony Ericsson Wireless Utility* on page 53.

Opening the Windows XP wireless network connection utility

To open the Windows XP wireless network connection utility

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Network Connections**.
2. From the Network Connections window, right-click on the **Wireless Network Connection** and select **Properties**. The Windows XP Wireless Network Connection Properties dialogue box is displayed.

Enabling the Windows XP wireless network connection utility

When you enable the Windows XP wireless network configuration utility, the Windows XP user interface becomes the default utility for managing wireless LAN connections. Also, any other wireless LAN utility (such as Sony Ericsson Wireless Utility) currently configured to manage your wireless LAN connections is disabled.

To enable the Windows XP wireless network connection utility

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, select the **Use Windows to configure my wireless network settings** check box.

Note:

To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. Click **OK**.

Configuring your location

In countries other than the United States and Japan you must set the Location property to the country in which you are using your Sony Ericsson 802.11 Wireless LAN Adapter. This option allows you to select the operating characteristics that comply with the regulations in a specific country. Before connecting to a wireless network, you should verify that the Country configuration is correct. If you travel to different countries, you must remember to change the Country configuration as appropriate.

This ensures compliance with local regulatory restrictions on transmit power and optimises network performance.

Note:

Outdoor use of a wireless LAN in France is subject to regulations.

To configure your location

1. Open the **Windows XP wireless network connection utility**.
2. On the General tab, click **Configure**.
3. Click the **Advanced** tab.
4. In the Property list, click **Location**, and then click the name of your location in the Value list. If your location is not listed, click **Default**.
5. Click **OK**.

Creating a wireless LAN connection


When the 802.11 radio is enabled for your PC card, the wireless LAN adapter scans for available networks. These networks are displayed in the Windows XP user interface and in the 802.11 panel in Wireless Manager. You can use the Windows XP wireless network connection utility to select one of the available open system networks and connect to it without any configuration. If, however, the network is secured, you must first configure a network connection by providing the authentication and network information to enable Windows XP to connect to that network.

Connecting to an open wireless LAN

Use the following procedure to connect to an open wireless LAN.

To connect to an existing open wireless network

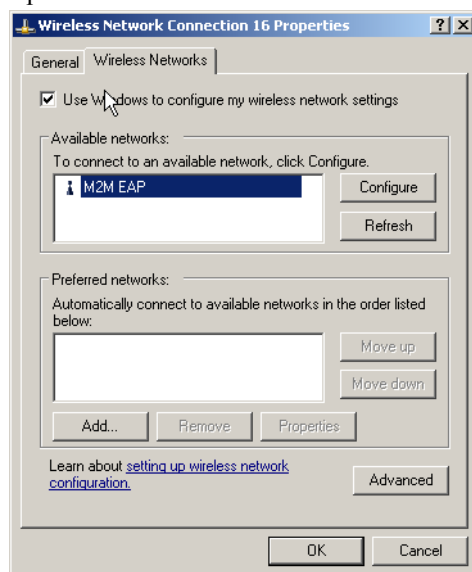
1. From the Windows desktop, select **Start ➤ Settings ➤ Control Panel ➤ Network Connections**.
2. Right click the wireless network connection for your Sony Ericsson PC card and select **View Available Wireless Networks**. The Wireless Network Connection window is displayed.
3. In the Available wireless networks panel, select the wireless network that you want to access.
4. Click **Connect**.

Alternatively, you can click the **Wireless Network Connection status** icon  in the system tray, and select **View Available Wireless Networks**. To use this option, you must first configure Windows to display to the Wireless Network Connection status icon in the system tray.

If you want to connect to a wireless network that is not in the Available networks panel, you can manually configure a network connection to connect to that wireless network.

To manually configure your network connection

1. Open the **Windows XP wireless network connection utility**.



Note:

The names of wireless networks that are visible to your computer are displayed in the Available networks pane. The name of your network is usually displayed here.

2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. On the Wireless Network Properties tab, type the name of the network that you want to connect to in the **Network name (SSID)** field.
5. Click **OK**. Your network name is displayed on the Wireless Networks tab under Preferred networks.
6. Click **OK**.

Connecting to a secure wireless LAN

Some wireless LANs are configured to require connecting systems to authenticate with the access point. Windows XP provides the tools that you need to configure the authentication and data encryption settings to connect to a secure wireless LAN.

Secure wireless LANs are typically used in corporate environments or by advanced users who require higher levels of security.

To connect to a secure wireless LAN, you must have the appropriate access and logon rights to that network. You must ensure that the security settings that you configure for your wireless connections match exactly with those that are configured for the access point.

The following table lists the authentication methods that the Windows XP wireless network connection utility supports.

Authentication method	Description
Open	No authentication is used.
Shared	A pre-shared key (PSK) must be entered into the network configuration settings to connect to the wireless network.
802.1x	Requires authentication. The authentication credentials that are required depends on how the access point has been configured. For example, you might have to enter a user name and password which is verified with an authentication server.
WPA	Requires Wi-Fi Protected Access (WPA) authentication. This method requires that you also configure the encryption key settings.
WPA-PSK	WPA authentication is used with a pre-shared key. This method enables you to enter a static network key.


If necessary, contact your network administrator to arrange access and request the following information:

- Network names (SSID) of the specific wireless networks to which you want to connect.
- Wi-Fi Protected Access (WPA) wireless network key information (may include network authentication type, encryption type, network key) for any WPA-enabled networks to which you want to connect.
- Wired Equivalent Privacy (WEP) wireless network key information (network key) for any WEP-enabled networks to which you want to connect. Your network key is either 5 or 13 ASCII (text) characters, or 10 or 26 hexadecimal (0-9, A-F) characters.

Note:

If you require access to a network account, you will also require the domain name of the account, a user name and a password.

To connect to a secure wireless network

1. Make sure that the connection settings are configured for the wireless network that you want to access.
2. From the Windows desktop, click the Wireless Utility status icon  in the system tray. The Connect to Wireless Network window is displayed.
3. In the Available Networks panel, select the wireless network that you want to access.

Notes:

- For the data encryption information, home users should refer to the access point settings; corporate users should contact their network administrator. For information on how to obtain a client certificate for TLS or TTLS authentication, contact your network administrator or see Obtaining Certificates.
- (Windows XP SP2 only) To automatically connect to your network when it is in range, select the **Connect when the network is in range** check box on the Connection tab.

Click **Connect**.

To configure a network connection to use Open authentication and WEP encryption

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**; and then, in the **Network name (SSID)** field, type the SSID of the network to be configured.
4. From the **Network Authentication** drop-down list, select **Open**.
5. From the **Data Encryption** drop-down list, select **WEP**.
6. Clear the **The key is provided for me automatically** check box.
7. In the **Network key** field, type the network key.
8. In the **Confirm key** field, retype the network key.
9. Click the **Authentication** tab and clear the **Enable IEEE 802.1X authentication for the network** check box.
10. Click **OK**. The configuration of your wireless network connection is now complete.

To configure a network connection to use 802.1x with TLS authentication

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**, and then type the SSID of the network to be configured in the **Network name (SSID)** field.
4. From the **Network Authentication** drop-down list, select **Open**.
5. From the **Data Encryption** drop-down list, select **WEP**.
6. Click the **Authentication** tab.
7. Click **Properties**. The Smart Card properties dialogue box is displayed.
8. In the When connecting pane, select **Use a certificate on this computer**.
9. In the **Trusted Root Certification Authorities** list, select the name of the appropriate certificate. Contact your network administrator if you cannot find the appropriate certificate or you do not know which one to use.
10. Click **OK**. The Wireless Network Properties dialogue box is displayed.
11. Click **OK**.
12. Click **OK**.

To configure a network connection to use WPA with TKIP or AES encryption and TLS authentication

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**, and then type the SSID of the network to be configured in the **Network name (SSID)** field.
4. From the **Network Authentication** drop-down list, select **WPA**.
5. From the **Data Encryption** drop-down list, select **TKIP** or **AES**, depending on your network encryption. Contact your network administrator if you are unsure of which encryption type to use.
6. Click the **Authentication** tab.
7. Click **Properties**. The Smart Card properties dialogue box is displayed.
8. In the When connecting pane, select **Use a certificate on this computer**.
9. In the **Trusted Root Certification Authorities** list, select the name of the appropriate certificate. Contact your network administrator if you cannot find the appropriate certificate or you do not know which one to use.
10. Click **OK**. The Wireless Network Properties dialogue box is displayed.
11. Click **OK**.
12. Click **OK**.

To configure a network connection to use WPA with TKIP or AES encryption and PEAP authentication

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**, and then type the SSID of the network to be configured in the **Network name (SSID)** field.
4. From the **Network Authentication** drop-down list, select **WPA**.
5. From the **Data Encryption** drop-down list, select **TKIP** or **AES**, depending on your network encryption. Contact your network administrator if you are unsure of which encryption type to use.
6. Click the **Authentication** tab.
7. From the **EAP Type** drop-down list, select **Protected EAP (PEAP)**.
8. Click **Properties**. The Smart Card properties dialogue box is displayed.

9. In the **Select Authentication Method** drop-down list, select **Secured password (EAP-MSCHAP v2)**. Confirm this setting by clicking **Configure**. The **Automatically use my Windows logon name and password (and domain if any)** check box should be selected.
10. Click **OK**. The Wireless Network Properties dialogue box is displayed.
11. Click **OK**.
12. Click **OK**.

To configure a network connection to use WPA-PSK with TKIP or AES encryption

1. Open the **Windows XP wireless network connection utility**.
2. On the Wireless Networks tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot manage your wireless settings. To configure settings on the Wireless Networks tab, you must be logged on as an administrator. If you cannot change the settings on your Wireless Networks tab, contact your network administrator.

3. In the Preferred networks panel, select the wireless network for which you want to configure a connection and click **Properties**. If the network you want is not listed, click **Add**, and then type the SSID of the network to be configured in the **Network name (SSID)** field.
4. From the **Network Authentication** drop-down list, select **WPA-PSK**.
5. From the **Data Encryption** drop-down list, select **TKIP** or **AES**, depending on your network encryption. Contact your network administrator if you are unsure of which encryption type to use.
6. In the **Network key** field, type the network key. The network key must be a text phrase from 8 to 63 characters long, or a hexadecimal key (0–9, A–F) 64 characters long.
7. In the **Confirm network key** field, retype the network key.
8. Click **OK**.
9. Click **OK**.

Advanced wireless LAN features


The following section contains information about advanced wireless LAN features.

Setting up an ad hoc group network

You can use your Sony Ericsson PC card to set up an ad hoc network. In ad hoc mode you directly connect to another computer for peer-to-peer communication, using wireless network adapters on each computer. This type of network does not include access into a wired network or the Internet. You can create this type of network to quickly move files from one computer to another.

For example, you might network all the laptops in a meeting in order to share information. The network is set up at the start of the meeting and is terminated when the last laptop is shut down. The following instructions explain how to set up an ad hoc network using two PCs, however, you can network any number of PCs together (each PC must have a unique address).

To create an ad hoc group network

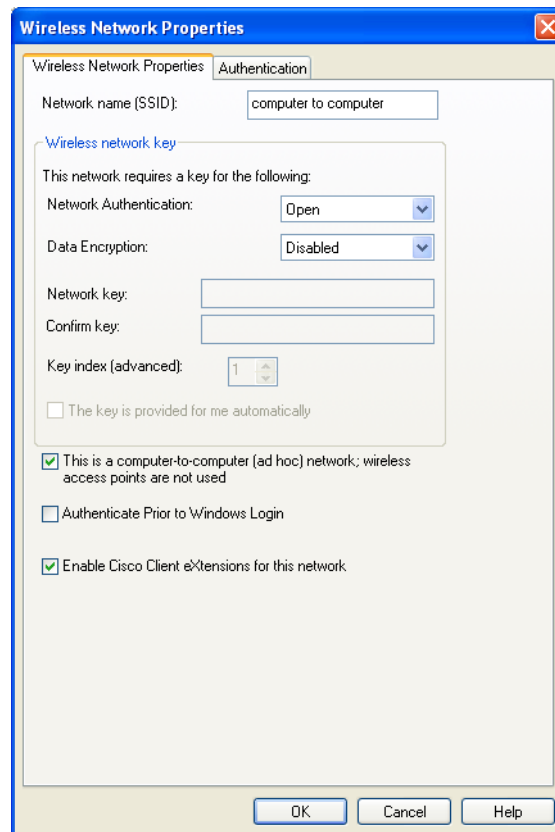
1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel** ➔ **Sony Ericsson Wireless Utility** .
2. Click the **Wireless Networks** tab.
3. Verify that the **Let this tool manage your wireless network settings** check box is selected. If it is not, select it, and then click **Apply**.

Note:

If this check box is unavailable, you cannot use Sony Ericsson Wireless Utility to manage your wireless LAN settings. For this check box to be available, you must log on to your computer using an account with administrator rights. If you are unable to log on as an administrator, contact your network administrator for assistance. Your network administrator can either grant administrator rights or arrange to have your computer automatically import the appropriate preferred networks. Alternatively, if you are using Windows XP you can use Windows Zero Configuration Service.

4. Under **Preferred networks**, click **Add**.
5. Type the name of your ad hoc network in the **Network name (SSID)** box. All users in an ad-hoc network must be set to the same Network (SSID) name. This may be any name which is not currently in use at that location.

6. Select the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box.



7. Configure the security settings for the ad hoc network:

- To configure a secured ad hoc network:
 - a. In the **Network Authentication** drop-down list, select an authentication method. Open and Shared are the only authentication methods available for ad hoc networks.
 - b. In the **Data Encryption** drop-down list, select WEP to encrypt transmissions or select Disabled to prevent encryption.
 - c. If you select WEP, type several character in the **Network key** field to represent the encryption key.
 - d. In the **Confirm key** field, type the encryption key again.
- To configure an open ad hoc network, in the **Network Authentication** drop-down list, select **Disabled**.

8. Click **OK**.

Your network name is displayed on the Wireless Networks tab in the Preferred networks panel.

For information about the status of your connection, see *Wireless Utility status icon* on page 54.

Connecting to an ad hoc network

To connect another computer to your ad hoc network

1. Start Windows on one of the other PCs that you want to connect to your ad hoc network.
2. From the Windows desktop, right-click **My Computer** and select **Map Network Drive**. The Map Network Drive dialogue box is displayed.
3. From the **Drive** drop-down list, select a letter that is not being used to represent another connection or drive.
4. In the **Folder** field, type \\<computer_name>\<drive_letter>\$ into the Folder field, where <computer_name> is the name or IP address of the computer on which you set up the ad hoc network and <drive_letter> is the letter of the drive that you want to connect to on the computer. For example, enter \\192.168.0.1\C\$ to connect to the C drive on a computer with an IP address of 192.168.0.1.

Note:

- To determine the name of a computer, open a command prompt on the computer you want to find the name of. Type **hostname** and press return. The computer name is returned.
 - You can also use a command prompt to make sure you can connect to another other PC. Type **ping <IP_address>** and press return, where <IP_address> is the IP address of the PC to which you are trying to connect. In the example, you would enter ping 192.168.0.1. PC 1 sends a small amount of data to PC 2, and if a connection is established between the PCs, replies for each packet of data sent are returned to PC 1.
5. If you are required to log on to the PC before access to the ad hoc network is granted, select **Connect using a different user name**. Make sure you have the user name and password that are required to connect to the PC to which you are connecting.
 6. In the Connect As... dialogue box, enter your user name and password
 7. Click **OK**, and then click **Finish**.

When the connection is established a new window that contains the hard drive of PC1 is displayed.

See your Windows documentation for additional information about setting up an ad hoc network.

Caution:

Unwanted users may try to connect to your ad hoc network. Use of security features such as WEP is recommended.

Sharing an Internet connection in an ad hoc network

After you successfully create an ad hoc wireless network you can use your Sony Ericsson PC card to share its internet connection with the other computers that are in the ad hoc network. The computer that provides the Internet connection is the *host* computer. All other computers are called *clients*.

The host computer is the only computer that connects directly to the Internet. It is recommended that the desktop computer having the fastest microprocessor and the most memory is used as the host computer.

The host computer must be running either the Windows 2000 or Windows XP operating system.

Internet Connection Sharing (ICS) requires that the host computer has either a modem or another network adapter in addition to your Sony Ericsson PC card. The modem or the additional network adapter is used to access the Internet. Your Sony Ericsson PC card is used to share the connections with other clients.

To set up Internet connection sharing on the host computer

1. Create an ad hoc group network on the host computer.
2. Connect the host computer to the Internet.
3. From the Windows desktop, select **Start ➤ Settings ➤ Control Panel ➤ Network Connections**. The Network Connections window displays the network connections configurations that have been set up on your PC.
4. Right-click on the connection that is used by the host computer to connect to the Internet, and select **Properties**.
5. On the Advanced tab, select the **Allow other network users to connect through this computer's Internet connection** check box.

Note:

To configure settings on the Advanced tab, you must be logged on as an administrator. If you cannot change the settings on your Advanced tab, contact your network administrator.

6. Click **OK**.

To set up Internet connection sharing on the client computer

1. Open the Wireless Utility.

Note:

The names of wireless networks that are visible to your computer are displayed under Available networks. The name of your network is usually displayed here.

2. On the Wireless Networks tab, verify that the **Let this tool manage your wireless settings** check box is selected. If it is not, select the check box.

Note:

If this check box is unavailable, you cannot use Sony Ericsson Wireless Utility to manage your wireless settings. For this check box to be available, you must log on to your system as Administrator. If you are unable to log on as Administrator, contact your network administrator for assistance. Alternatively, if you are using Windows XP you can use Windows user interface to manage your wireless settings.

3. In the Preferred networks panel, click **Add**. The Wireless Network Properties dialogue box is displayed.
4. On the General tab, in the **This connection uses the following items** list, select **Internet Protocol (TCP/IP)** and then click **Properties**.
5. In the Internet Protocol (TCP/IP) Properties dialogue box, select **Obtain an IP address automatically** (if it is not already selected), and then click **OK**.
6. On the Wireless Network Properties tab, type the name of the network that you want to connect to in the **Network name (SSID)** field.
7. Select the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box.
8. Click **OK**. Your network name is displayed on the Wireless Networks tab under Preferred networks.
9. Click **OK**. To connect to the network, click **Wireless Utility status** icon from the Windows desktop, select the connection, and then click **Connect**.

Bridging connections on Windows XP

The network bridge allows you to connect network segments by selecting the appropriate network connection and bridging them together. The network bridge manages your network segments, and creates a single IP subnet for the entire network. There is no configuration required, and you do not need to purchase additional hardware such as routers or bridges. IP addressing, address allocation, and name resolution is highly simplified in a single subnet IP network.

Only one bridge may exist on a Windows XP computer, but it can be used to bridge as many different network connections as the computer can physically accommodate.

To create a bridged connection on Windows XP

Before you begin make sure you are logged on to the computer as an administrator.

1. From the Windows desktop select **Start** ➔ **Control Panel**.
2. Double-click **Network Connections**.
3. Under LAN or High-Speed Internet select each of the private network connections that you want to be part of the bridge.
You must select at least two eligible network connections in order for Bridge Connections to create a bridge.
4. Right-click one of the highlighted private network connections, and select **Bridge Connections**.
You can create only one network bridge on a computer, but the bridge can accommodate any number of network connections.

Caution:

Do not use this method to share a corporate network connection without first agreeing upon security procedures with the network administrator.

Notes:

- Adapters that have Internet Connection Sharing (ICS) or Internet Connection Firewall (ICF) enabled cannot be part of the network bridge and will not appear on the Network Bridge checklist. Similarly, the Add to Bridge menu command is available only for adapters that you can add as connections to Network Bridge.
- Only Ethernet, IEEE-1394 adapters, or Ethernet compatible adapters such as wireless and home phone line adapters (HPNA), can be part of the network bridge.
- Do not create a bridge between the public Internet connection and the private network connection, or add the public Internet connection to an existing network bridge, if you do not have ICF or Internet Connection Sharing (ICS) enabled. To do so will create an unprotected link between your network and the Internet, and your network will be vulnerable to intrusions.
- If you remove adapters from the network bridge, and less than two adapters remain, Network Bridge will not perform its intended function, but it will continue to use system resources.
- Network adapters that previously appeared under LAN or High-Speed Internet, appear under Network Bridge when they are added as connections. Network adapters that provide Internet connectivity, such as DSL and cable modems, cannot be bridged and will always appear under LAN or High-Speed Internet.
- Network bridges with wireless or IEEE-1394 connections support traffic using Internet Protocol version 4 (IPv4) only.

5. Internet Connection Sharing, Internet Connection Firewall, Discovery and Control, and Network Bridge are not available on Windows XP 64-Bit Edition.

Caution!

When sharing an Internet connection, unwanted users within the range of the wireless LAN may be able to use it too. The use of security features such as WEP network keys is recommended.

Managing static IP addresses

You may require a static IP address for the WLAN connection in the office and a dynamic IP address outside the office.

If you are using Windows 2000, it is necessary to manually change the TCP/IP properties of your Sony Ericsson PC card.

To change the IP address for your wireless LAN connection

1. From the Windows desktop, select **Start ➔ Control Panel ➔ Network and Dial-up Connections**.
2. Right-click the WLAN connection and select **Properties ➔ General ➔ Internet Protocol (TCP/IP) ➔ Properties**.
3. Enter the static IP address for use in the office or select **Obtain IP address automatically** for use outside.

Under Windows XP, this situation can be automated:

1. From the Windows desktop, select **Start ➔ Control Panel ➔ Network Connections ➔ Wireless Network Connection ➔ General ➔ Internet Protocol (TCP/IP) ➔ Properties**.
2. On the **General** tab, select **Obtain IP address automatically**.
3. On the **Alternate Configuration** tab, select **User configured** and enter a static IP address and any other network parameters that are required.


Wireless LAN adapter diagnostics

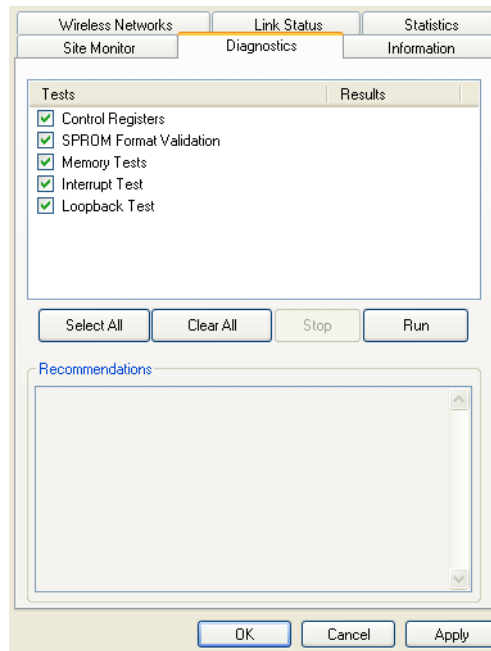
You can run several diagnostic test on your Sony Ericsson PC card to verify that the wireless LAN feature is operational and to provide functional status.

Note:

Your network connection is temporarily disabled when you run a diagnostic test. When the test is completed, however, your network connection is automatically re-established.

To run diagnostic tests for your Sony Ericsson PC card

1. Start **Sony Ericsson Wireless Utility** .
2. Click the **Diagnostics** tab.



3. To see a description of a test, select a test. The Recommendations panel displays information about the selected test.
4. To run one or more tests, select the check box for each test that you want to run. Clear the check box for those tests that you do not want to run. All tests are selected by default.
5. Click **Run**.

Wireless LAN information

The Information tab displays important information about your wireless LAN connection and your Sony Ericsson PC card such as your MAC address.

Displaying Windows network connections

The Windows connection icons that are displayed in the system tray, normally are hidden once a connection is made. As a result, all the icons that correspond to each of the your GPRS/EDGE/UMTS and CSD connections might not be displayed.

To display a Windows wireless connection icon in the system tray

1. From the Windows desktop, select **Start ➤ Settings ➤ Network Connections**.
2. Right-click a wireless connection, and select **Properties**.
3. Select the **Show icon in notification area when connected** check box.
4. Click **OK** to close the dialogue box. When you have an active connection, use your mouse to hover over the icon to view connectivity details.

Troubleshooting

This chapter lists issues that you might encounter when you use your Sony Ericsson PC card. These issues can be solved by using the instructions provided in this user guide, however, some might require you to contact your network operator.

Status information

You can display important hardware and software information about your Sony Ericsson PC card that is useful when talking to your service provider or troubleshooting issues on your own.

To view the Wireless Manager information

1. Start Wireless Manager.
2. Select **View** ➔ **Wireless Manager Information**. The Wireless Manager Information dialogue box is displayed.

Status log

Wireless Manager creates a status log that can be used for customer support and field diagnostic assistance.

Each time Wireless Manager runs, it creates the following text file in the Windows Temp directory:

Wireless Manager_Log.txt

The file is overwritten each time you run Wireless Manager.







An example of the contents of the log file is illustrated below:

```
03/05/01 14:17:56 - Signal Strength: 0
03/05/01 14:17:56 - Provider Name: MyOperator
03/05/01 14:17:57 - Radio State: 1
03/05/01 14:17:57 - GSM Registration: Searching
03/05/01 14:17:57 - GPRS Registration: Searching
03/05/01 14:17:57 - Network Operator:
03/05/01 14:18:06 - GSM Registration: Home Network
03/05/01 14:18:06 - GPRS Registration: Home Network
03/05/01 14:18:06 - Network Operator: MyOperator
03/05/01 14:18:21 - User: Connect: operatorinternet.apn
03/05/01 14:18:21 - Connection: Port successfully opened
03/05/01 14:18:21 - Signal Strength: 4
03/05/01 14:18:25 - Connection: Established: operatorinternet.apn
03/05/01 14:18:25 - Signal Strength: 4
03/05/01 14:18:32 - User: Disconnect
03/05/01 14:18:32 - Connection: Starting disconnect
03/05/01 14:18:34 - Connection: Disconnected
03/05/01 14:18:34 - Connection: Bytes Transmitted : 156
03/05/01 14:18:34 - Connection: Bytes Received : 468
03/05/01 14:18:34 - Signal Strength: 3
03/05/01 14:18:35 - User: Close Program
03/05/01 14:18:39 - User: Exit
```

Tip:

To quickly locate the temp folder, enter %TEMP% in the **Start** ➔ **Run** dialogue box, or in the address bar of Windows Explorer.

Wireless Manager icon errors

<i>Icon</i>	<i>Description</i>
	Indicates that the Radio is set to Off . Right click the Wireless Manager status icon in the Windows system tray and select Turn GSM GPRS/EDGE/UMTS Radio On .
	Indicates that your Sony Ericsson PC card cannot find a network, there is no network within range, or the received signal is too weak. Move to a location with a stronger signal.
	A signal is present but you cannot connect to the GPRS/EDGE/UMTS network. Indicates that a GSM network is present, but no GPRS/EDGE/UMTS service is available. This can be caused by: no GPRS/EDGE/UMTS service in the area, you are roaming on a network for which no GPRS/EDGE/UMTS roaming agreement exists, or there is a temporary fault on the network. Contact your network operator for more details.
	Sony Ericsson PC card is not present. Insert your Sony Ericsson PC card.
	Indicates that the 802.11 (wireless LAN) radio is turned off. Right-click the icon and select Enable Radio .
	Indicates that the PC card cannot find a wireless network, there is no network within range, or the received signal is too weak. Move to a location with a stronger signal.

Software errors

<i>Error</i>	<i>Description and resolution</i>
Grey menu options in the software applications	Grey text indicates a function that is temporarily unavailable. For example, you may be out of the coverage area.


GSM GPRS/EDGE/UMTS error messages**General**

<i>Error</i>	<i>Description and resolution</i>
Modem not responding.... Error	Check Wireless Manager to make sure that the radio is turned on.
Dial-Up fails	Try to connect again.

SIM card errors

<i>Error</i>	<i>Description and resolution</i>
Wrong PIN/ Wrong PIN2	You have entered your PIN or PIN2 incorrectly. Enter the correct PIN or PIN2, and click OK . See <i>SIM Lock panel</i> on page 34.
Codes do not match	When you want to change a security code (for example your PIN), you have to confirm the new code by entering it again. This error occurs when the two codes that you have entered, do not match. See <i>Phone Lock panel</i> on page 33.
PIN blocked/ PIN2 blocked	You have entered your PIN or PIN2 incorrectly three times in succession. To unblock, see <i>SIM Lock panel</i> on page 34.
PUK blocked – contact operator	You have entered your personal unblocking key code (PUK) incorrectly 10 times in succession. Contact your network operator or service provider.

Wireless LAN error messages

<i>Error</i>	<i>Description and resolution</i>
A network cable is unplugged	<p>Possible causes:</p> <ul style="list-style-type: none">• You have moved out of range of the wireless LAN signal. Move closer to the hotspot.• The wireless LAN is set to Off. Right-click the  icon and select Enable Radio.• The network transmission has been interrupted. Contact your network administrator.

Wireless LAN performance and connectivity problems

Data transfer is sometimes very slow

Microwave ovens and some cordless phones operate at the same radio frequency as the Sony Ericsson PC card wireless LAN adapter. When the microwave oven or cordless phone is in use, it interferes with the wireless network.

Therefore, check for possible sources of interference in the path between your Sony Ericsson PC card and the network access point.

Data transfer is always very slow

Some homes and most offices are steel-framed structures. The steel in such buildings may interfere with your network's radio signals, thus causing a slowdown in the data transmission rate. Try moving your computers to different locations in the building to see if performance improves.

Computer is not communicating with the network

If your network has a wireless LAN access point, check all cables and make sure that the access point is active and service is available. Verify that all of the wireless network properties settings are correct; see *Creating a wireless LAN connection* on page 56.

Also, make sure that your computer is receiving a good signal from the access point; see *Wireless Utility status icon* on page 54.


Network performance is really slow when the system is docked to a docking station that has an active Ethernet port

This condition occurs if you dock your system into a docking station that has an active Ethernet port while your Sony Ericsson PC card is still active and connected to a wireless LAN access point. This is because Windows must now handle two active network connections.

You must either disconnect the Ethernet cable from your docking station, or disable the wireless LAN radio on your Sony Ericsson PC card. If you disconnect the ethernet cable, you need to turn the proxy server off, go to **Tools** ➔ **Internet Options** ➔ **Connections tab** ➔ **LAN Settings** ➔ and uncheck the **Proxy Server** check box.

To disable the Sony Ericsson PC card wireless LAN radio, right-click the  icon and then select **Disable Radio**.

Note:

The radio is not automatically enabled when your computer next starts. To enable the radio, right-click the  icon and then select **Enable Radio**.

Windows error codes

Windows 2000

<i>Error</i>	<i>Description and resolution</i>
Error 619: The port is disconnected during dial-up.	An ISDN mode (V110 or V120) has been selected when creating a connection, but is not supported by the network. Select Analogue mode when creating the connection in the Connection Wizard .
Error 691: Access denied, user name and password incorrect on the domain during dial-up.	The domain name entry is incorrect. Correct the domain name entry or delete if not required.
Error 718: The card was unable to dial during dial-up.	This error indicates a PPP conversation started, but it was terminated because the remote server did not respond within an appropriate time. This can be caused by poor line quality or a problem with the server (ISP). This error can occur when your modem has connected to the ISP and has sent a username and password, but there is no response from the server. Wait a few minutes and try again.

All Windows operating systems

<i>Error</i>	<i>Description and resolution</i>
Error 734: The PPP link control protocol was terminated during dial-up.	The APN entry is incorrect, the signal is weak or the connection is lost whilst dialling. If you are experiencing problems contact your network operator and check the APN. This error applies to GPRS over DUN, for more information see <i>Configuring a GPRS over DUN connection</i> on page 21.
Error 678: Computer you are dialling is not responding during dial-up.	Either: Service is not supported by SIM (usually for CSD) or the remote computer at the other end is not answering. Check your network subscription with your network operator if necessary. Make sure that the server you are dialling is OK. If you are unsure which speed to choose from the Speed tab, start with Analogue 9600, and check to see if it works. Once your connection works on Analogue, you can try the V110/V120 settings to see if faster speeds are available. V110/V120 also connects faster than analogue. When roaming you may need to repeat this procedure to adapt your settings to the capability of the local network operator.
Connection Failed or Activation Failed. Please contact your Network operator.	No specific reason for failure is available. Wait a few minutes and try again. If you continue to get this error check your connection settings or call your network operator for help.
Connection Failed. Invalid APN. Please check and enter the APN again.	The APN entry is incorrect, the signal is weak or the connection is lost whilst dialling. If you are experiencing problems contact your network operator and check the APN.
Connection Failed. Invalid User Name or Password. Please check and enter the User Name and/or Password in your connection profile.	Choose to modify your connection in the <i>Connection Wizard</i> . Go to the <i>User ID</i> window and re-enter the User Name and Password given to you by your network operator. If you were not supplied with a User Name and Password leave the fields blank. Contact your network operator if you continue to have problems.

Connection Failed. Invalid Profile. Please check and re-enter your connection profile information, and try again. If the problem continues please contact your Network operator.	Your network operator does not recognize you. Check the setting you have entered to create your connection. If you still get the error, contact your network operator and check whether you have GPRS Internet enabled on your subscription and the setting you should enter to create a connection.
Disconnected from Network.	You have been disconnected from the network. Wait a few minutes and try again. If the problem persists, contact your network operator.
Connection failed. Temporary Network problem. Please try again. If the problem continues please contact your Network operator.	This error indicates a PPP conversation started, but it was terminated because the remote server did not respond within an appropriate time. This can be caused by poor line quality or a problem with the server (ISP). This error can occur when your modem has connected to the ISP and has sent a username and password, but there is no response from the server. Wait a few minutes and try again.
Connection Failed. Not authorised to access network. Please contact your Network operator.	Your network operator does not think you are authorised to access their network. Check the setting you have entered to create your connection. If you still get the error, contact your network operator and check your subscription.
Connection Failed. SIM is invalid for GPRS service. Please contact your Network operator.	Contact your network operator and request the GPRS Internet subscription is activated for your SIM.
Connection Failed. Access to network not allowed. Please contact your Network operator.	Your network operator is not allowing you to access their network. Check the setting you have entered to create your connection. If you still get the error contact your network operator and check your subscription.
Connection Failed. Roaming not allowed. Please contact your Network operator.	Contact your network operator to get your roaming activated.
Connection Failed. Please try again. If the problem continues please contact your Network operator.	You could not connect to the network. Wait a few minutes and try again. If the problem persists contact your network operator.
Connection Failed. Service not supported. Please try again. If the problem continues please contact your Network operator.	Your network operator is not allowing you to access their network. Contact your network operator and check that you have the subscriptions required activated for your SIM.
Connection Failed. Network Problem. Please try again. If the problem continues please contact your Network operator.	You could not connect to the network. Wait a few minutes and try again. If the problem persists contact your network operator.

Appendix A - Connection parameters

General connection parameters for CSD and GPRS

Required	Useful information
Telephone number or Access Point Name (APN)	<p>Number you need to dial to reach your network operator. Use the full number including country code and area code, e.g. +46 33 555 2525.</p> <p>Or</p> <p>The APN server resource to contact, for example, interent.operator.net - to connect to the Internet via the network operator's or your corporate Intranet via a VPN.</p> <p>Or</p> <p>If you select <Other> in the Connection Wizard, you will have to enter the APN.</p> <p>If your network operator is not listed, contact your network operator, or if you are connecting to a corporate network, contact your network administrator.</p>
Username	<p>The username your network operator gave you when the account was set up. Some dial-up accounts do not require a Username. In this case, leave the field blank.</p>
Password	<p>Password associated with the username, given to you by the network operator. Some dial-up accounts do not require a Password. In this case, leave the field blank.</p>
IP assignment: Server / Static	<p>An 'address' that the service provider knows you by and uses to route information to and from your Sony Ericsson PC card. Normally, this is assigned automatically. Your IP address will either be:</p> <p>Server - assigned automatically by the network operator when you connect.</p> <p>Static - assigned once by the network operator or the IT Manager.</p> <p>If your IP address is Static, you must enter it into Own IP address fields which is available when you select Details in the Connection APN dialogue.</p>
DNS assignment: Server / Static	<p>This tells your PC card where to find the network operator's DNS Service. DNS translates addresses such as www.SonyEricsson.com to the numeric IP address so that the information can be accessed. Normally, this is assigned automatically.</p> <p>Allocated automatically like IP assignment above, the DNS can be static or automatically allocated by the network operator when you connect. If static is selected, additional fields need to be completed containing the static information.</p>
Own IP address	<p>Only required if the IP assignment is static.</p> <p>Format example: 123.9.45.3.</p> <p>Do not enter any leading 0s when typing in IP address.</p>
Primary DNS	<p>Only required if the DNS assignment is static.</p> <p>Format example:123.9.45.2</p>
Secondary DNS	<p>Only required if the DNS assignment is static.</p> <p>Format example: 123.9.45.1</p>

CSD-specific parameters

Required	Useful information
Preferred Connection Speed (bits/s)	(Where selection is available) Select your preferred network connection speed from the drop-down list provided. If in doubt, start at 9600.
Connection Mode	Select the method you want to use to connect to the network from the options provided: analogue, ISDN V.110 or ISDN V.120
Compression	Use to speed up data transfer. You can select to Enable Data Compression and Header Compression .
Callback Number	Enter the number the callback should be made to. You can only use Callback if you are connecting to a source that gives permission for callbacks to be made, for example your company server.

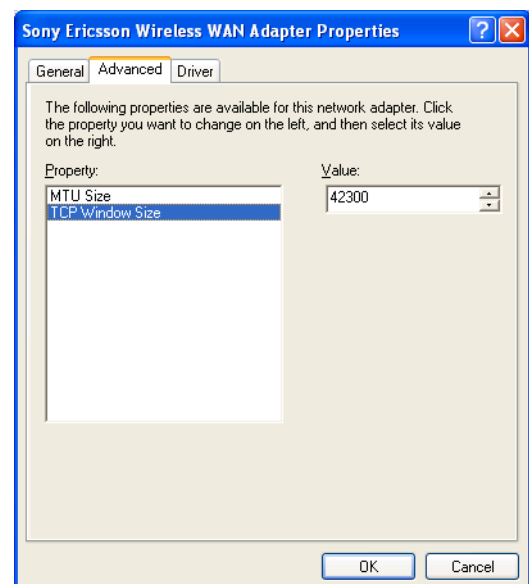
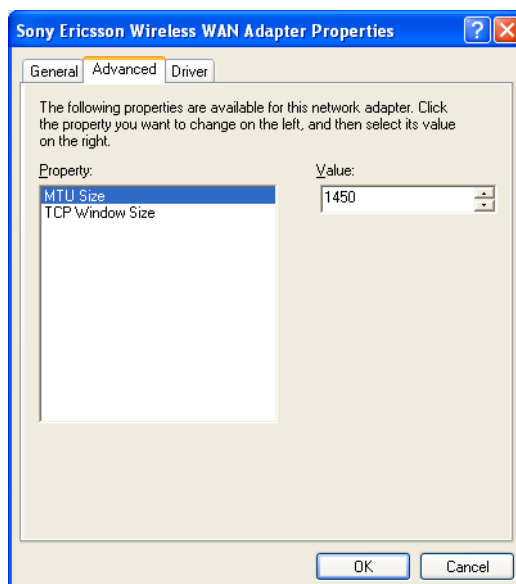
TCP/IP optimisation

To take full advantage of the high bandwidth of the PC Card, the TCP/IP window size parameter TCPWindowSize should be changed from the default Windows setting of 16k for Windows 2000, or 64k for Windows XP. Sony Ericsson recommends a TCP/IP packet size of 43200 for optimum performance with the PC Card. An MTU size of 1450 is also considered optimal for EDGE networks.

These settings are made automatically when the Wireless Manager is installed. You can display and, if necessary, change the properties of the Sony Ericsson Wireless WAN network adapter.

To optimise the TCP/IP properties for your Sony Ericsson PC card

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Network and Dial-up Connections**.
2. Locate the Sony Ericsson Wireless WAN adapter in the list, right-click on it and select **Properties**.
3. Click **Configure** on the Advanced tab. If directed by your network operator, you may change the settings by selecting TCPWindowSize or MTU and changing the value. Changes to these settings require the network adapter to be re-started by rebooting your computer.



If you have previously optimised TCPWindowSize, for example, as directed by a broadband Internet service provider, then check whether that setting is global or specific to the network adapter over which the broadband connection is made. It is preferable that all TCPWindowSize settings are specific to the network adapter involved. This ensures that each individual connection is appropriately optimised.

In some cases it might be necessary to set TCPWindowSize globally. For information and a utility on how to do this, go to the support section of www.SonyEricsson.com.

Appendix B - Changing the wireless LAN adapter properties

To configure the wireless LAN adapter properties

1. From the Windows desktop, select **Start** ➔ **Settings** ➔ **Control Panel**.
2. Double-click **System**.
3. Select the **Hardware** tab.
4. Select **Device Manager** ➔ **Network adapters** ➔ **802.11g Network Adapter** ➔ **Advanced**.
5. To change the value for any of the listed properties, click the property and then change the value in the **Value** box by either selecting a new value from the drop-down list or by typing in a new value, as appropriate.

Note:

It is strongly recommended that the values are changed only by network administrators or technicians with wireless LAN experience.

Item	Useful information
IBSS Channel Number	Selects the independent basic service set (IBSS) channel number on which to operate. Your Sony Ericsson PC card comes preset for use on channels 1-11. These values are legal in most countries. Some countries allow use on more channels. If you travel to one of these countries, you may change the value for IBSS Channel Number to 12 or 13.
Locale	<p>This property might not be available for your PC card.</p> <p>Selects the operating characteristics that comply with the regulations that apply in a particular country. Before connecting to a wireless network, you should verify that the Locale value is correct. If you travel to different countries with your Sony Ericsson PC card, you should change the Locale value to suit. If the destination country is not listed, change the Locale value to Worldwide. Reset the Locale value after returning.</p> <p>Residents of both Canada and the United States should use the value USA.</p> <p>For details of an easier way of changing this value, see <i>To configure your location</i> on page 56.</p>
Radio Enable/Disable	<p>Enables or disables the Sony Ericsson PC card wireless LAN radio. This may be necessary at times to turn off the radio to comply with restrictions prohibiting the emission of radio signals, such as during take-off and landing onboard a commercial aircraft.</p> <p>For instructions about how to enable or disable the radio, see <i>Enabling and disabling the 802.11 radio</i> on page 55.</p>
Rate	Sets the transmission rate. The default value is Use best rate . This automatically adjusts the data rate to the optimal rate based on the capabilities of the other clients and access points.
Fragmentation Threshold	The threshold at which the IEEE 802.11 adapter breaks the packet into multiple frames.
Locally Administered MAC Address	This is used to override the MAC address of your Sony Ericsson PC card wireless LAN network adapter.
PLCP Header	This is used to set the header type used for CCK rates. The type can be long, or auto (short / long).

Item	Useful information
Power Output	Sets the percentage of the maximum available output power to be used.
Power Save Mode	This is used to put your computer into the IEEE 802.11 Power Save mode. In Power Save mode, the radio is periodically powered down to conserve power. When in Power Save mode, packets are stored in the AP until the PC comes on.
RTS Threshold	If the number of frames in the data packet is at or above the RTS Threshold, a request to send/clear to send handshake is turned on before sending the data packet. The default value is 2347.

Appendix C - Additional information

The following section contains additional information about Wireless Manager.

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The validity, construction and performance of this Agreement shall be governed by the laws of Sweden.

Wireless LAN regulations

Make sure to check the regulations for your country before using your PC card.

France: Wireless LAN outdoor use is subject to regulations.

Glossary

1G

Term for the first generation of analogue cellular networks such as AMPS and TACS.

2G

Generic term for the second generation of cellular networks, when digital technology was used. GSM is a 2G network.

2.5G

2G network that includes the addition of packet-based data service. GSM networks with GPRS fall in to this category.

3G

Third generation of cellular networks, such as UMTS.

APN

Access Point Name. Used in GPRS to define services to which the terminal can connect. For example, Internet, WAP, MyCompany all represent typical APNs.

Bearer

Path over which data flows. Specifically in CSD the type of telephony link from the GSM network to the server – PSTN or ISDN.

bps

Bits per second – rate of data flow.

COM Port

Defines a serial/RS-232 port within the Windows environment. May be physical (COM1 port on the rear of the PC) or virtual (COM5 port communicating with a PC card modem)

CS

Circuit Switched. Connection from A to B which has a fixed bandwidth and is maintained over a period of time, for example a voice telephone call.

CS-1 to CS-4

Coding Scheme. Determines the data rate per timeslot in GPRS.

CSD

Circuit Switched Data. CSD is a GSM service providing a CS data connection at a rate of 9.6 or 14.4 kbps.

DUN

Dial-Up Networking.

E-GPRS

Enhanced GPRS. A GPRS network enhanced with EDGE technology to provide greater speed and capacity.

EDGE

Enhanced Data rates for Global Evolution.

e-GSM

Extended GSM. New frequencies specified by the European Radio Communications Committee (ERC) for GSM use when additional spectrum is needed (Network-dependent). It allows operators to transmit and receive just outside GSM's core 900 frequency band. This extension gives increased network capability.

ETSI

European Telecommunications Standards Institute.
www.etsi.org

GGSN

Gateway GPRS Support Node.

GPRS

General Packet Radio Services.

GSM

Global System for Mobile Communications. GSM is the world's most widely-used digital mobile phone system, now operating in over 160 countries around the world.

GSM 850

Refers to a GSM system running in the 850MHz band. Used in the USA and Canada.

GSM 900

GSM network operating in the 900MHz band. Used mainly in Europe, Australia and South Africa.

GSM 1800

Also known as DCS 1800 or PCN, this is a GSM digital network working on a frequency of 1800 MHz. It is used in Europe and Asia-Pacific.

GSM 1900

Also known as PCS. Refers to a GSM system running in the 1900MHz band. Used in the USA and Canada.

HTML

HyperText Markup Language.

HTTP

HyperText Transfer Protocol.

ISDN

Integrated Services Digital Network. Can provide circuit-switched data connections in multiples of 64 kbps.

ISP

Internet Service Provider.

kbps

Kilobits per second – rate of data flow.

LAN

Local Area Network.

ME

Mobile Equipment.

MO

Mobile Origination. For example, an SMS message sent from a mobile terminal.

MMI

Man-Machine Interface.

MS

Mobile Station.

MT

Mobile Termination.

PC

Personal Computer.

PCS

Personal Communications Services, often used to describe GSM1900 networks.

PC Card

A card having physical and electrical characteristics specified by PCMCIA providing extra functionality when inserted into a laptop PC. Typical examples are modems and network cards. Type refers to the thickness of the card.

PCMCIA

Personal Computer Memory Card International Association – defines specifications for PC Cards. www.pcmcia.org.

PDF

Portable Document Format. A common format for the electronic distribution of documents.

PDP

Packet Data Protocol.

Phone book

Memory in the SIM card where phone numbers can be stored and accessed by name or position.

PSTN

Public Switched Telephone Network, for example ordinary analogue phone line for speech and/or computer modem.

RADIUS

Remote Access Dial-In Service. Facility at the ISP or corporation to manage remote data connections.

RAS

Remote Access Service.

RX

Receive

SC

Service Centre (for SMS).

Network operator

A company that provides services and subscriptions to Sony Ericsson PC card users.

SIM card

Subscriber Identity Module card – a card that must be inserted in any GSM-based mobile terminal. It contains subscriber details, security information and memory for a personal directory of phone numbers. The card can be a small plug-in type or credit card-sized, but both types have the same functions. Most Sony Ericsson PC cards use the small plug-in card.

SMS

Short Message Service. Allows messages of up to 160 characters to be sent and received via the network operator's message centre to a SMS-enabled PC card.

SMS CB

Short Message Service Cell Broadcast is designed for simultaneous delivery of messages to multiple users in a specified area. Typically, GSM operators use SMS CB to send different news or data to users who subscribe to the service.

TCP/IP

Transmission Control Protocol/Internet Protocol.

TCP/IPv4

TCP/IP Version 4. Most widely implemented form of TCP/IP today having a 4 byte address format such as 212.161.127.136.

TE

Terminal Equipment. Generic term for GSM terminals such as phones and PC cards.

Terminal Adaptor

Generic term for the equipment terminating a digital communications line such as an ISDN2 line. Your Sony Ericsson PC card is a Terminal Adaptor since it interfaces to GSM digital data services.

TLS

Transport Layer Security. Used by Web browsers, for example.

TX

Transmit

Type II

Refers to thickness of a PC Card as defined in the specification from PCMCIA.

UMTS

Universal Mobile Telecommunications System (UMTS)

UMTS is a 3G technology standard for wide-area wireless data communication that is based on the GSM standard. The UMTS standard uses advanced network operator mobile internet services to achieve data transfer rates up to 384 kbps, which are ideal for media streaming, video MMS, instant shopping and banking.

URL

Uniform Resource Locator.

USSD

Unstructured Supplementary Services Data. Narrow-band GSM data service. For example, entering *79*1234# might return the stock price for stock 1234.

V.110

ETSI standard for data over an ISDN circuit.

V.120

ETSI standard for data over an ISDN circuit.

VPN

Virtual Private Network.

WHQL

Windows Hardware Quality Labs. A Microsoft test and approval process. The Device Drivers for Sony Ericsson PC cards are signed by WHQL so that Windows 2000 and XP do not warn the user of unknown and untested software.

WWW

World Wide Web.

XML

Extensible Markup Language.

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