Medic4all®
Telemedicine Solutions

Mobile Gateway

User Guide

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Mobile Gateway User Guide
November 2008

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1

Introducing Mobile Gateway

This chapter introduces the Mobile Gateway system and includes the following:

- **What is the Mobile Gateway Application?** below, provides a brief overview of the Mobile Gateway application.
- **Warnings and Precautions**, page 2, describes the manufacturer's warnings and precautions required when using the Mobile Gateway.
- **Mobile Gateway Components**, page 3, describes the main components of the Mobile Gateway system.

What is the Mobile Gateway Application?

The Mobile Gateway is a wireless medical measurements monitoring station, designed for use with a PDA at home, office or while traveling.

The Mobile Gateway receives medical data from wireless medical devices via Bluetooth and sends the data to the Web server via the Internet over cellular network or WiFi.

If you are subscribed to the Medic4all personal medical file (MWS) or if you are a customer of a call center based on the Medic4all platform, the medical measurements are automatically sent through the Internet to the appropriate medical database.

The Mobile Gateway application is active all the time to receive measurements from wireless medical devices and sends them to the Web medical file.

The Mobile Gateway application tries to send the measurements via the cellular network and in case the cellular service is not available the Mobile Gateway tries to send the measurements via WiFi if supported by the PDA.

In case of pending measurements the Mobile Gateway application tries to communicate with the Web server every 10 minutes.

Warnings and Precautions

- Consult your local provider concerning any operational difficulties. Do not attempt to repair the Mobile Gateway on your own. Any modifications made to the equipment void the device warranty and service contract obligations.
- Keep the Mobile Gateway away from electro-magnetic emitting devices.
- Do not store the Mobile Gateway in direct sunlight, at a high temperature, or in a location with excessive humidity.
- Avoid any mechanical shock to the Mobile Gateway such as a harsh drop.
- Use of the Mobile Gateway is not intended as a substitute for consulting with your physician.

Mobile Gateway Components

The Mobile Gateway system consists of two main components:

- PDA based on Windows Mobile 2005 or Windows Mobile 2006 Pocket PC (phone edition) with integrated GSM phone with cellular data interface/ (GPRS / UMTS / HSDPA), Bluetooth and optionally WiFi communication interfaces. Using this device it is possible to operate the Mobile Gateway over a cellular network as well as over WiFi networks.
- **Medic4all Mobile Gateway** application, receives the medical measurements via Bluetooth, stores them temporarily on the PDA and transmits them via the Internet to the user's Web account. The **Medic4all Mobile Gateway** application enables the user to configure the Mobile Gateway and to receive indications when measurements are received from the wireless medical devices and sent to the Web account. The **Medic4all Mobile Gateway Software** is installed on the user's PDA.

2

Installation and Configuration

This chapter describes the installation and configuration procedure of the **Medic4all Mobile Gateway Software**. It includes the following:

- **Installing the Medic4all Mobile Gateway Software**, below, describes the installation procedure of the **Medic4all Mobile Gateway Software**.
- **Configuring the Mobile Gateway,** page 12, describes the configuration process of the **Medic4all Mobile Gateway Software**.

Installing the Medic4all Mobile Gateway Software

The Mobile Gateway application installation is a standard install procedure for mobile phones and is done using Microsoft Active Sync application.

Before you start the installation please verify that Microsoft Active Sync application is installed on your computer.

Important: *For installation information on Microsoft Active Sync application please refer to Appendix A.*

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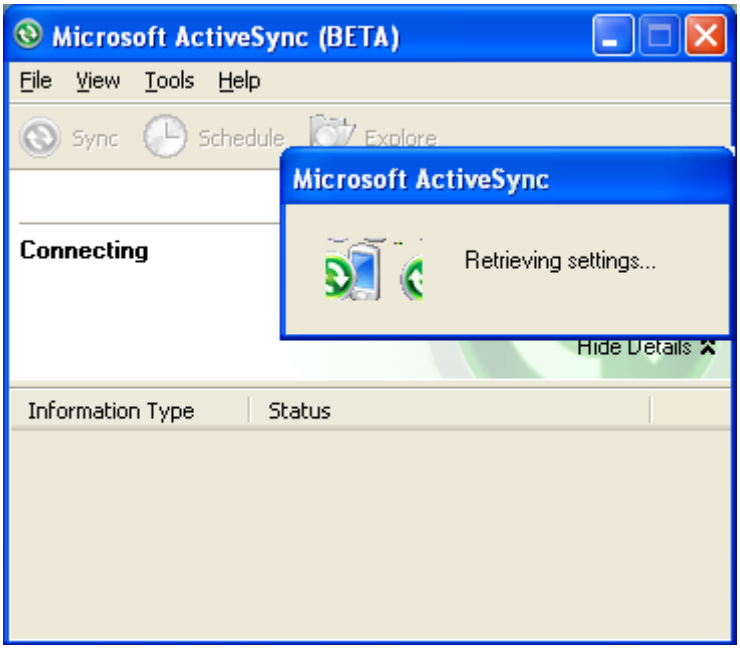
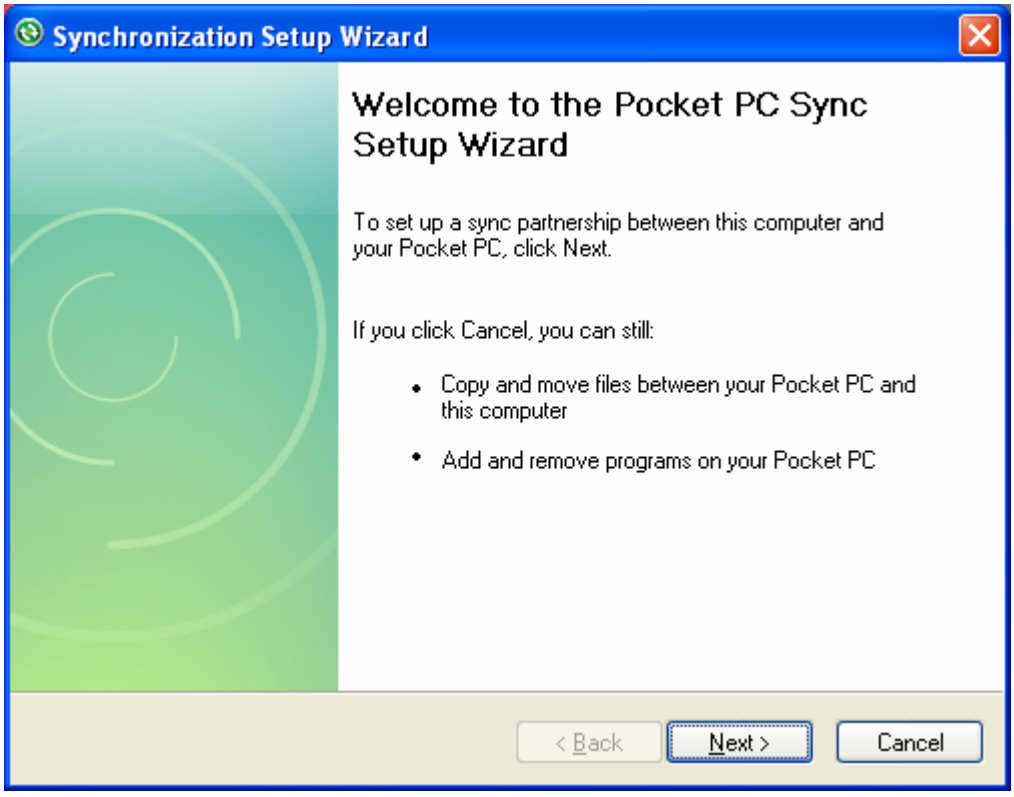
Note: *In order to operate the Mobile Gateway software, the PDA must have a .NET CF 2.0 framework installed. In case the .NET CF 2.0 framework is does not exist, it will be automatically installed as a part of the Mobile Gateway installation*

Connect the PDA to a USB cable and plug it into the PC. Wait a few seconds until the PC and the PDA start synchronizing and the following screen appears on the PC:



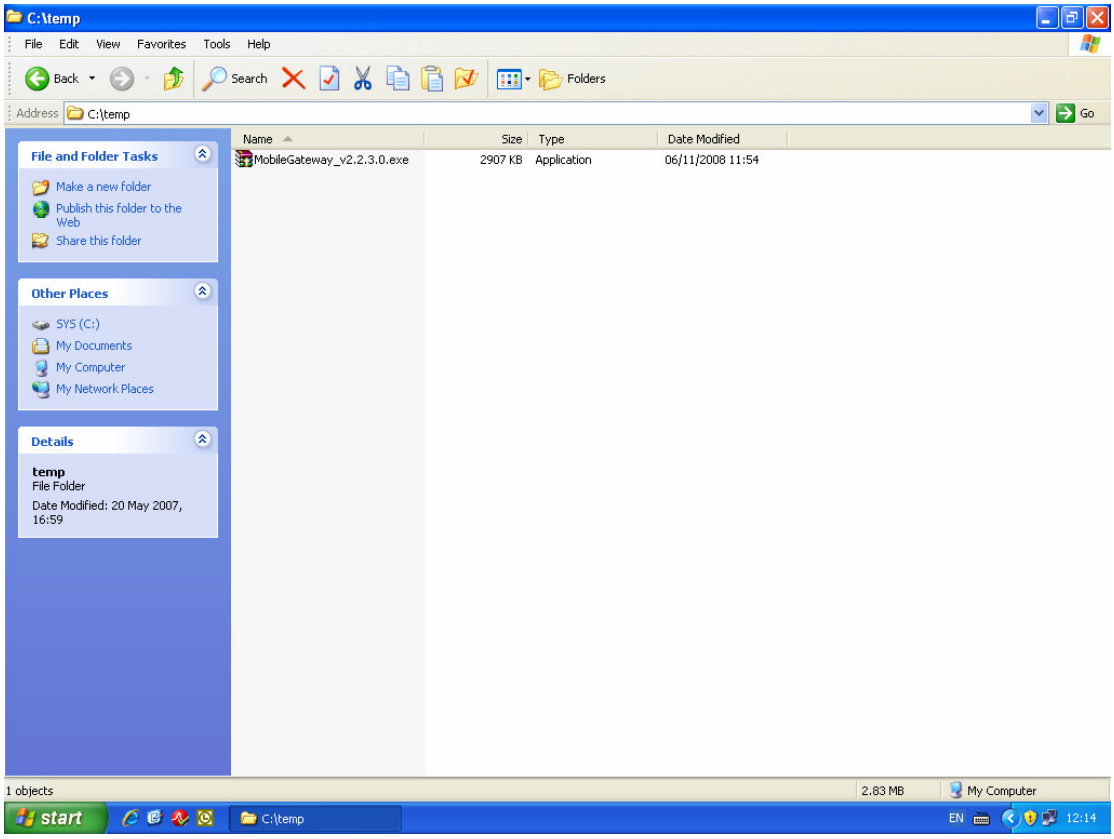
Once the synchronization is completed, the following screen appears on the PC:



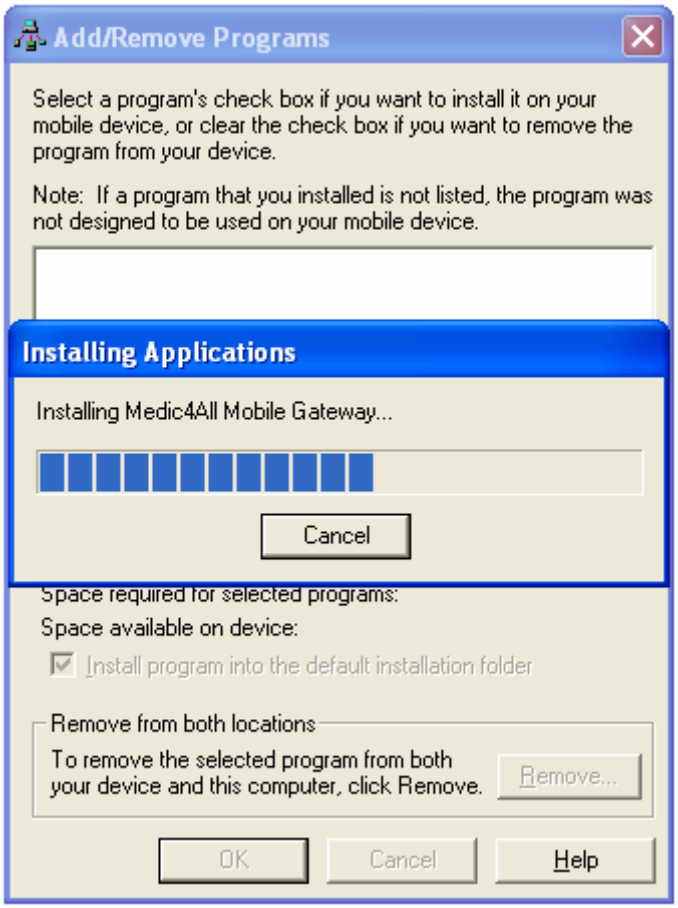
Press Cancel or else the communication between the PDA and the PC will be lost.

Look at the computer's system tray and verify that that icon of the ActiveSync program is green:

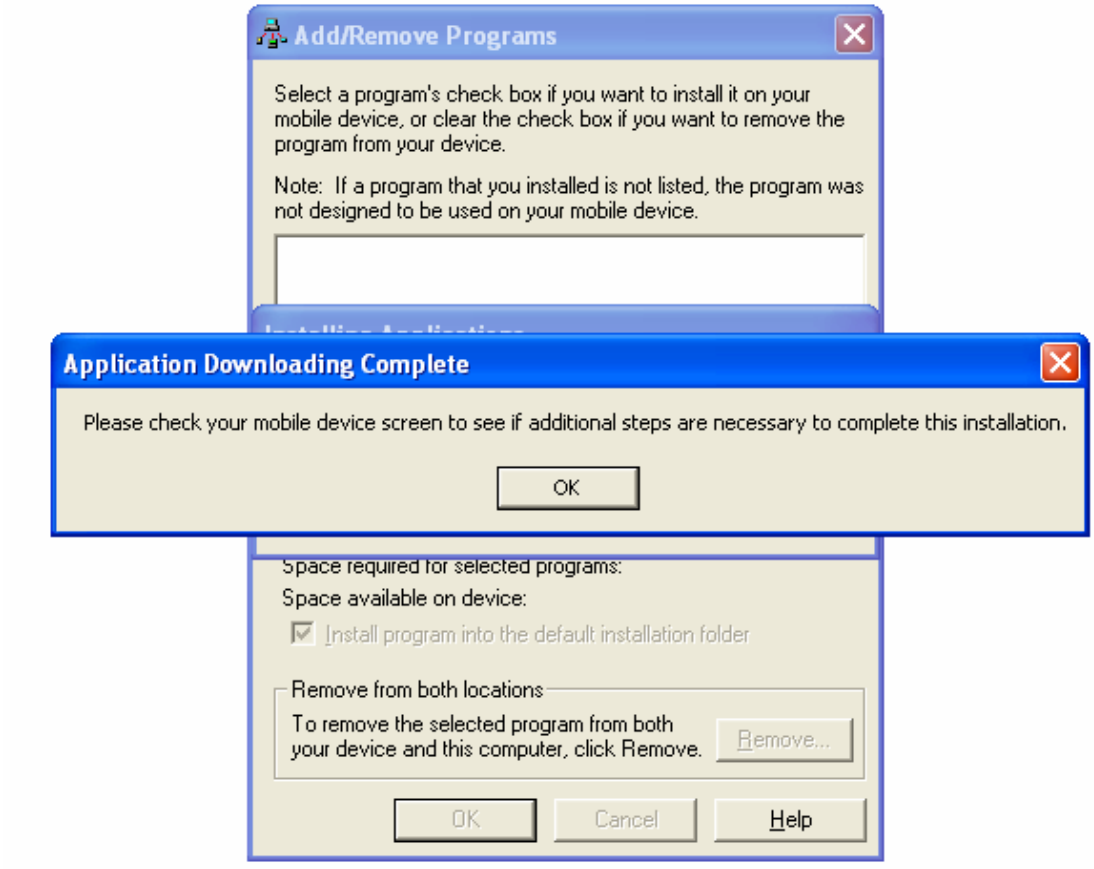
Download the Mobile Gateway application installation file and save it in any folder in your PC:



Run the Mobile Gateway installation file (double click on the file). The installation wizard will start:

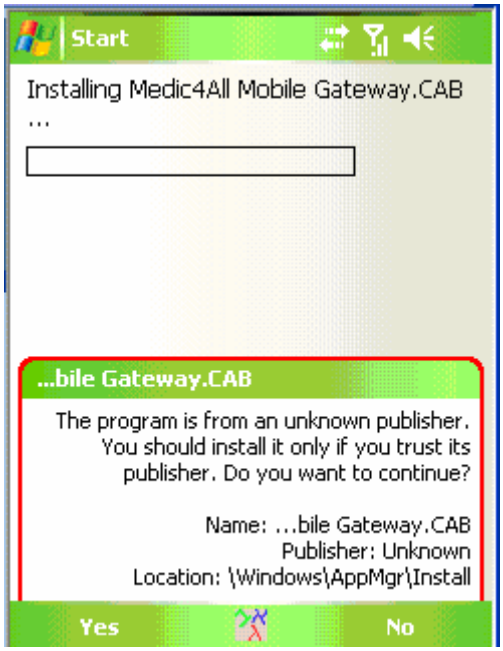


At the end of the process, the wizard will prompt a message box telling you to look at the PDA's screen:

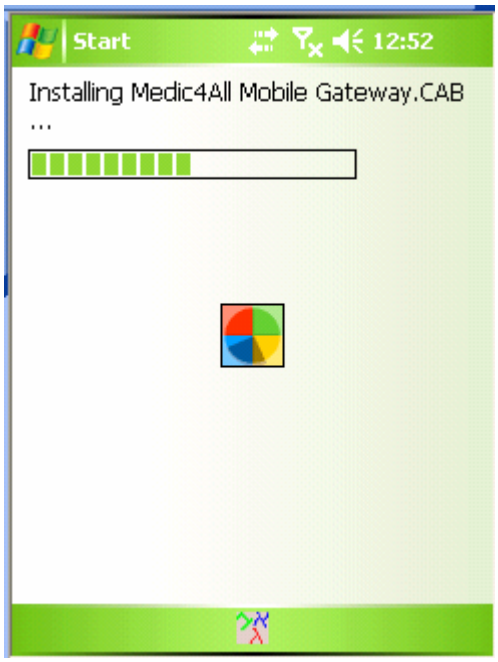


Press 'OK' and look at the PDA's screen.

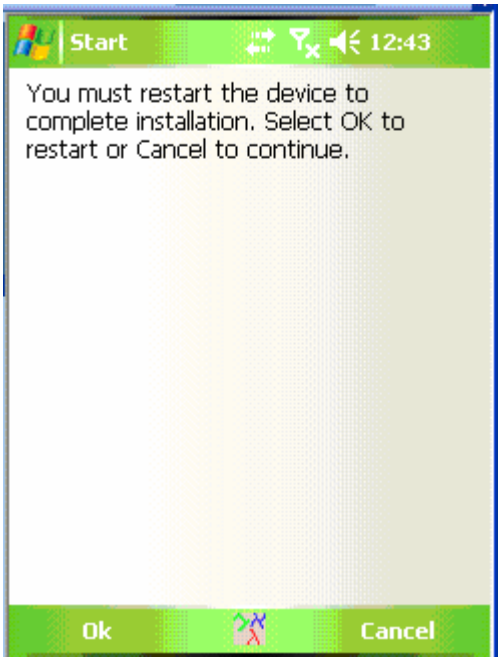
The PDA may indicate that that this program is from an unknown publisher.



Press 'Yes'. The installation process will continue.

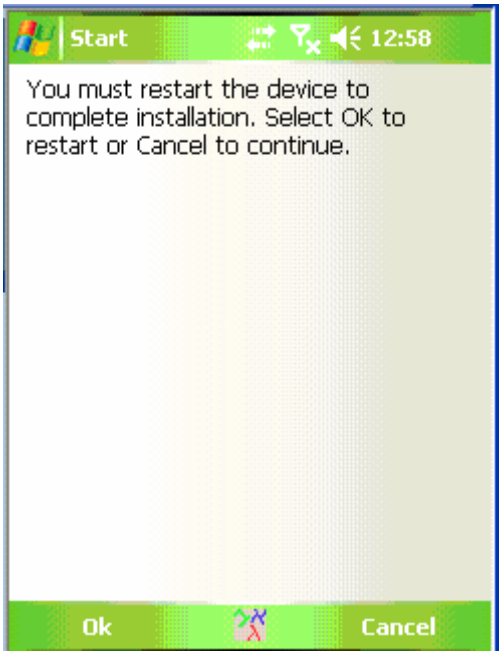


Once the installation is completed, the installation wizard will ask you to restart the PDA.



Press 'OK' and wait for the PDA to restart.

After restart, the installation will continue. The wizard may ask you to restart the PDA again (that is in case a .NET framework was not previously installed on the PDA):



Press 'OK' and wait for the PDA to restart.

After the PDA is restarted, the installation process is completed.

An icon will be added to the upper taskbar:

Mobile Gateway Application icon

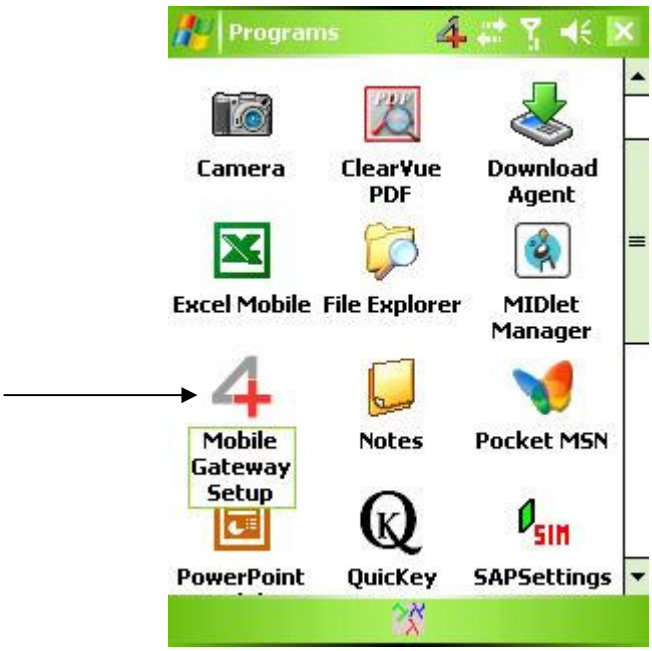
Configuring the Mobile Gateway

After the installation process, the next step is to configure the Medic4all Mobile Gateway.

To configure the Medic4all Mobile Gateway:

Run the **M4AGatewaySetup**, using one of the following options:

- From the windows taskbar, select **Start > Programs** and click on the **M4AGatewaySetup icon** from the Programs window.



- If you have already used this application in the past, then you can open it from the recent used application list.

  In the windows taskbar, select **Start >M4AgatewaySetup**

Start
03:11
Today
Calendar
Contacts
Internet Explorer
Messaging
Phone
Windows Media
Mobile Gateway Setup
הגדרות שפה
Programs
Settings
Help
Phone
Contacts

The **M4A Gateway setup** screen appears, enabling to configure the following:

- Mobile Gateway user.
- Mobile Gateway medical devices.
- General configuration.

Select the **Users** tab to enter or change the user information.

User configuration fields – used for adding / changing user configuration.

User name: a local name that will be displayed on the PDA desktop in the M4A Mobile Gateway display area.

User ID: the Web user ID that is used for registration and identification of the PDA user in the Web server.

Password: the Web password that is used for registration and identification of the PDA user in the Web server.

Update – saves the user configuration.

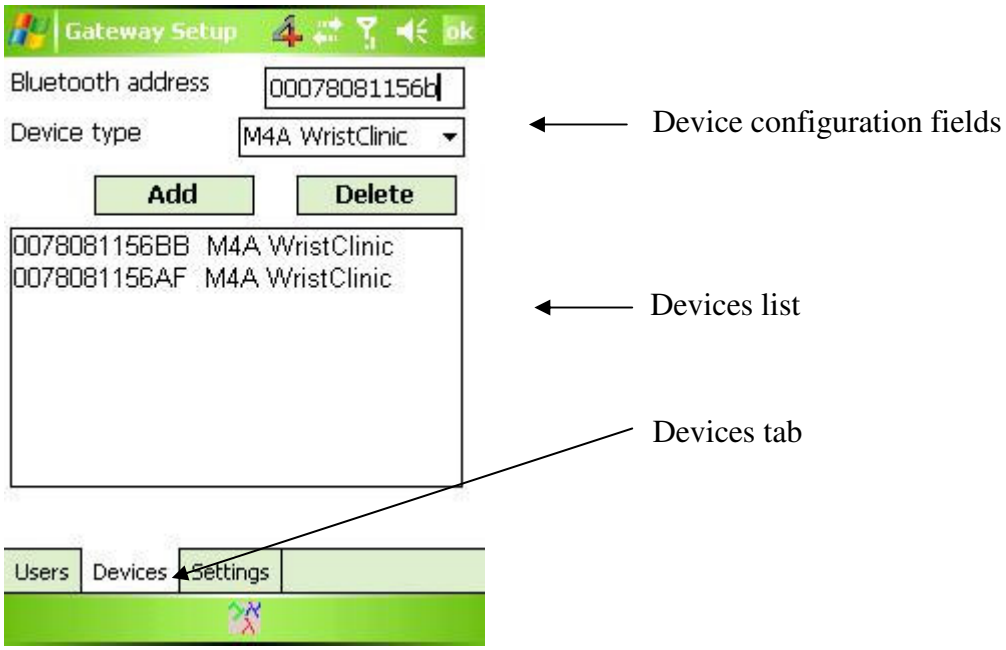
Check – checks the user registration with the Web server.

After entering the user's details, click on **'Update'** and then **'Check'**.

The Gateway will present the proper notification message whether the registration of the new user succeeded or failed:

Successful registration

Select the **Devices** tab to enter or change the medical device(s) information.



Device configuration fields – used for adding / changing device configuration.

Bluetooth address: 12 hex digits of the device Bluetooth address.

Device type: the type of the medical device. This information is used to correctly display the medical device type when receiving a measurement. Currently supported device types:

- M4A WristClinic – Medic4all WristClinic device
- A&D Weight Scale – A&D high precision weight scale
- A&D Blood Pressure – A&D blood pressure monitor

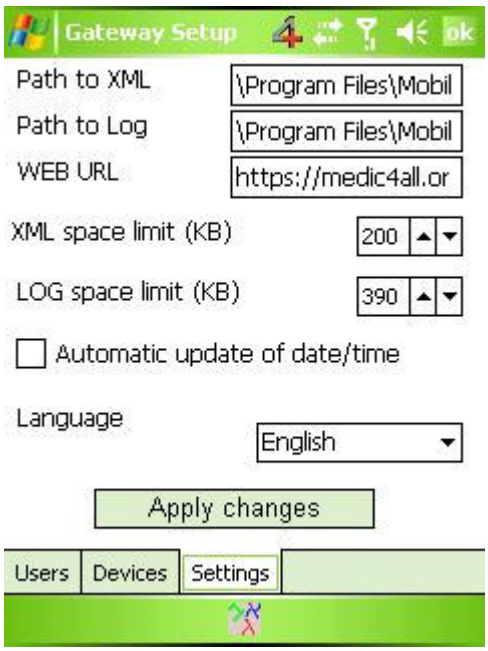
Devices list – list of the configured medical devices. For every device the Bluetooth address and the device type are displayed. Select the device from the list to delete the device.

Add – adds the device in the *Device configuration fields* to the device list.

Delete – deletes the selected device from the devices list.

Select the **Settings** tab to change the Mobile Gateway general configuration.

Note: *The parameters in the **Settings** tab except **language** are for advanced technical purposes and do not need to be changed for regular use*



General configuration fields – used for changing the general configuration.

Path to XML – PDA folder containing the pending measurements XML files which were received from the wireless medical devices and are waiting to be sent to the Web server.

Path to Log – PDA folder containing the Mobile Gateway application log files.

Web URL – Web server URL address.

XML space limit (KB) – maximum size (in KB) for the pending measurements XML files. When this limit is exceeded, oldest measurements are deleted.

LOG space limit (KB) – maximum size (in KB) for the Mobile Gateway application log files. When this limit is exceeded, oldest log files are deleted.

Automatic update of time / date – this field should be un-checked

Language – Select the language.

Apply changes – apply / save the general configuration changes.

3

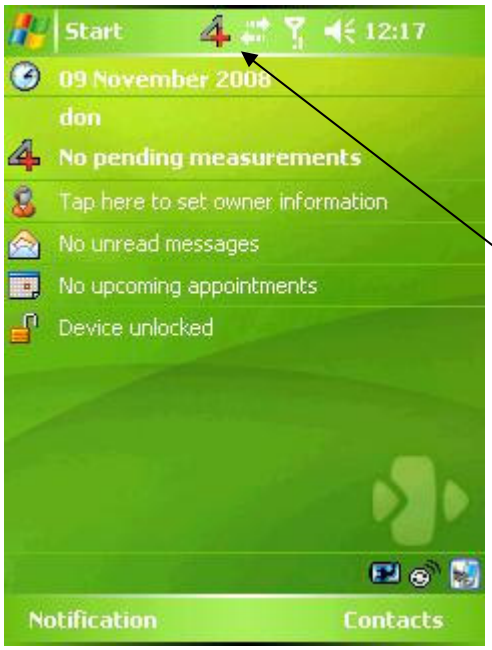
Working with the Mobile Gateway

This chapter includes the following:

- **Running the software** describes how the **Medic4all Mobile Gateway** application is started.
- **Gateway Operation** describes how the **Medic4all Mobile Gateway** application receives measurements from the medical devices and sends them to the Web server.

Running the Software

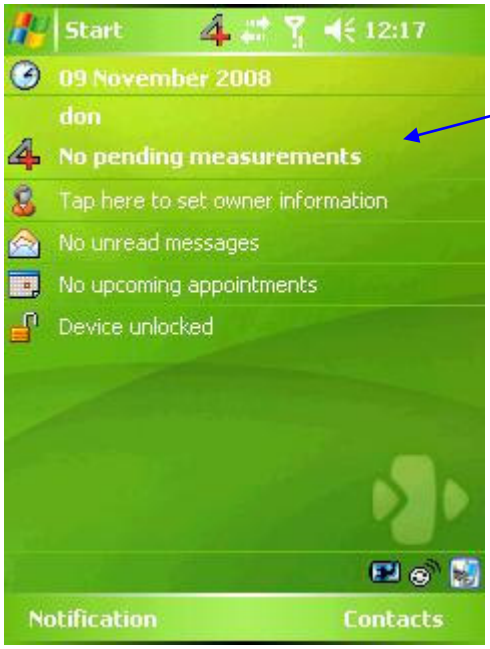
When starting your PDA, the software is automatically loaded and the **Medic4all Mobile Gateway** icon is displayed on the taskbar.



For changing the configuration of the Medic4all Mobile Gateway refer to chapter "Configuring the Mobile Gateway".

Gateway Operation

When the Mobile Gateway application is running, the application display area on the PDA desktop (also referred to as "Today screen") displays the User name and the status of pending measurements (the number of measurements received from the medical devices and not yet sent to the Web server).

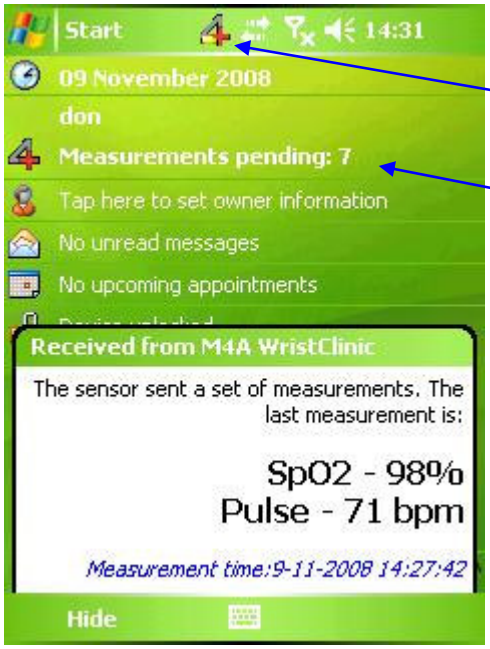


Application display area

When a measurement is received, a message box with the measurement result(s), measurement time / date and the medical device is displayed, and the measurement pending value is incremented.

The PDA tries to send the received measurement to the Web server at the moment it arrives to the PDA. A yellows rectangle on the application's icon indicates that the measurement is being sent to the web.

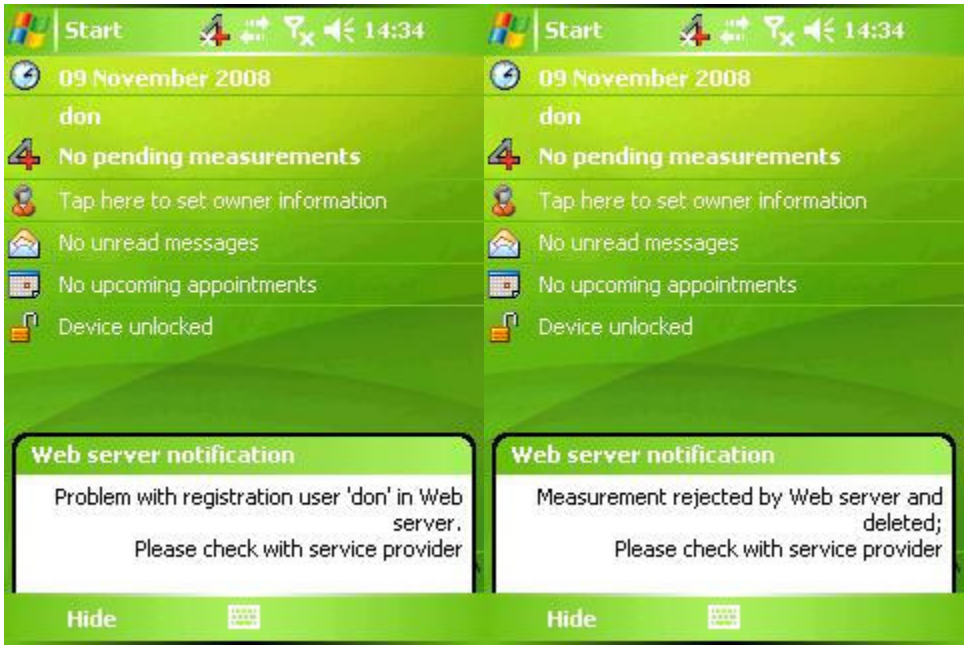
The number of the pending measurements indicates how many measurements are waiting to be sent to the Web server – see picture below:



After the measurement (and previous pending measurements) is successfully sent to the Web server, the application display area shows No pending measurements.

The yellow rectangle disappears from the application's icon.

In case the measurement reaches the Web server but rejected as a result of incorrect user configuration at the Web server, a message box describing the problem is displayed. In this case the measurement will be discarded.



In case there is no communication with the Web server, the measurements will be stored in the PDA and the pending measurements counter will show the number of measurements that are waiting to be sent to the Web server:

The X on the application's icon (on the task bar) indicates that there is no connection to the Web server.

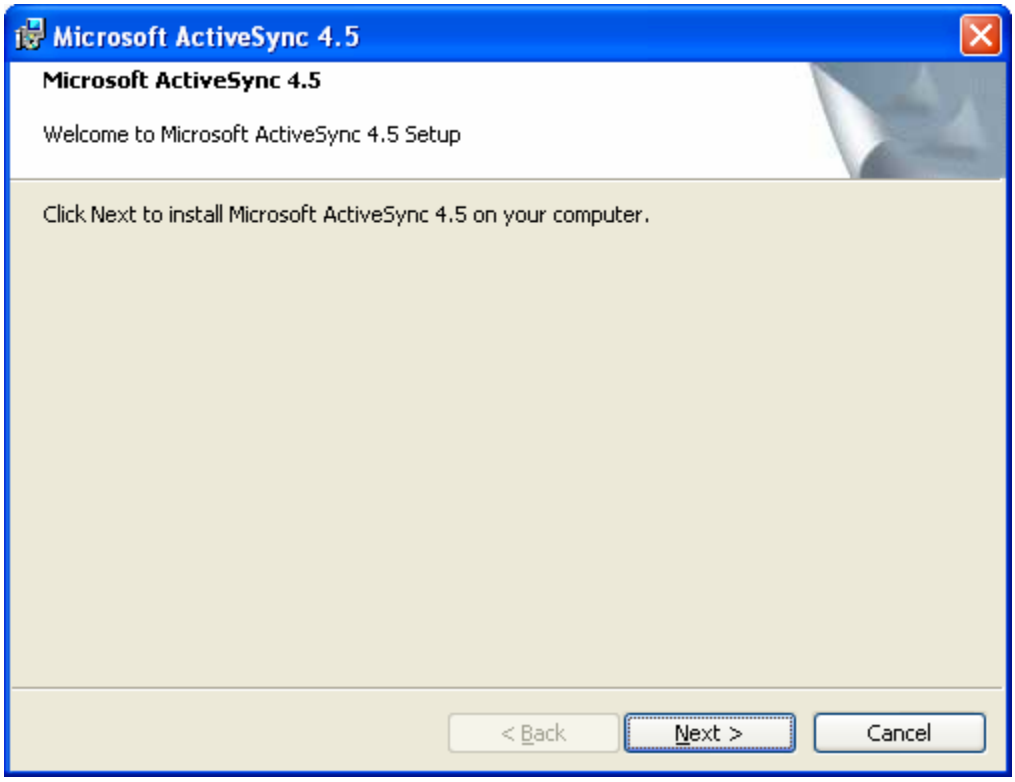
The application will try to send the measurements every 10 minutes.

When the connection becomes active, all measurements will be sent to the Web server and the pending measurements counter will be decreased to 0.

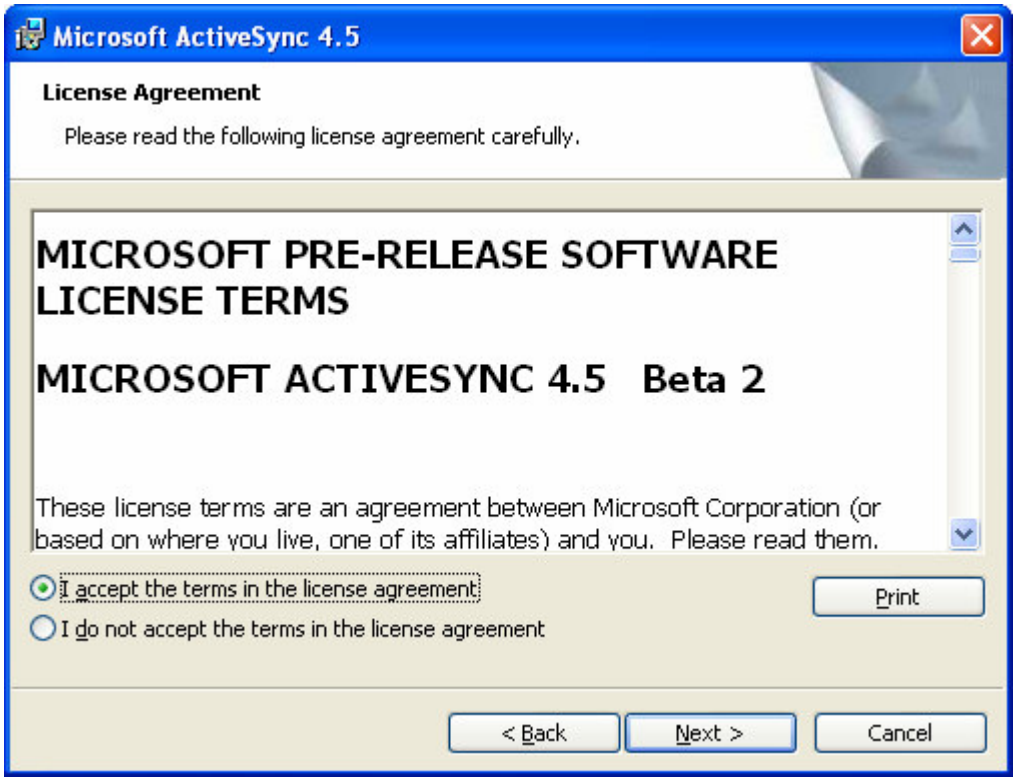
Appendix A - Microsoft ActiveSync installation

Before installing the ActiveSync application, verify that the PDA is not connected to the computer.

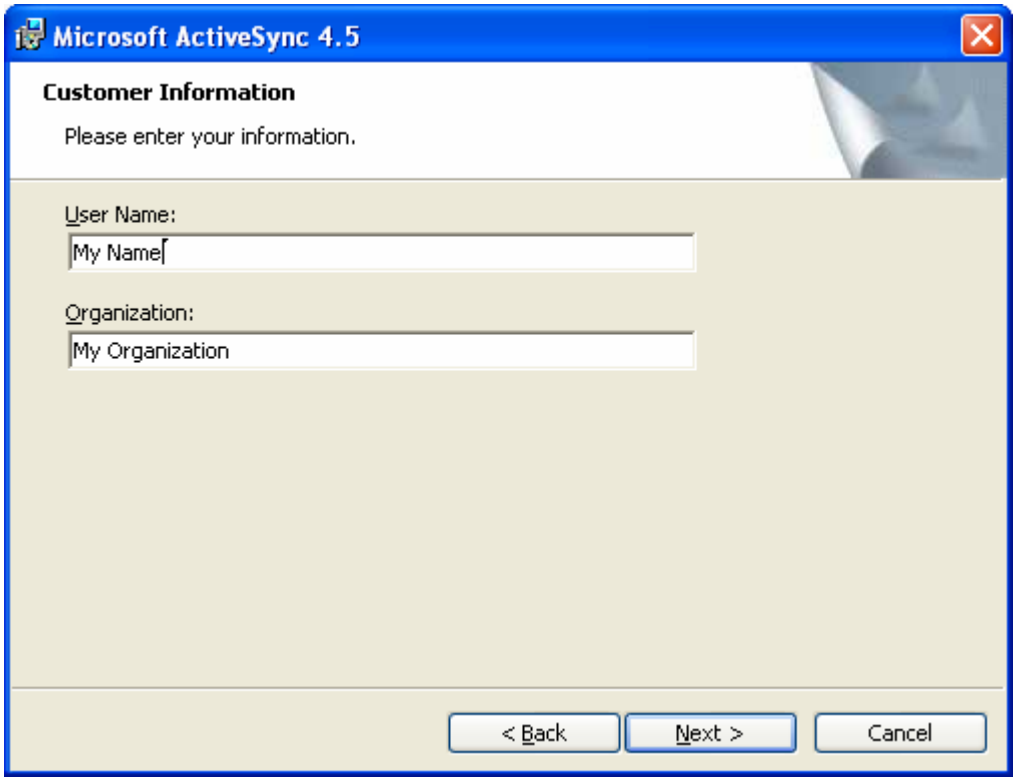
1. Run the ActiveSync setup application. The setup wizard will appear on screen. Press 'Next'.



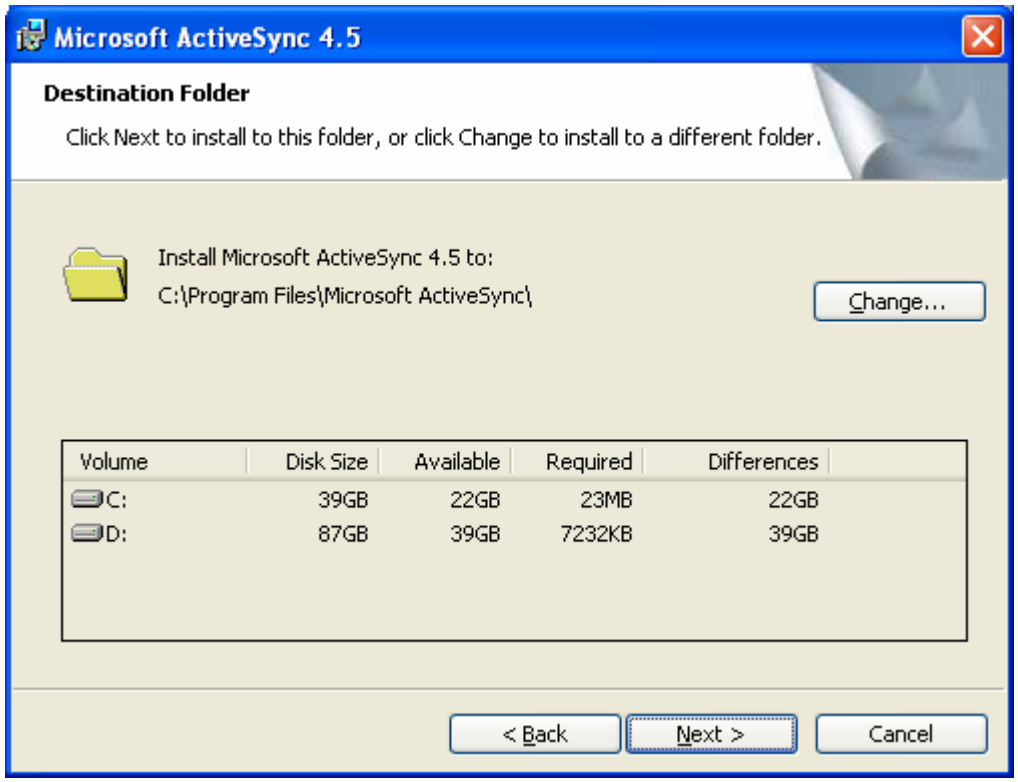
2. In the next screen, you need to choose the option: "I accept the terms of license agreement". Once you have done it, press on 'Next'.



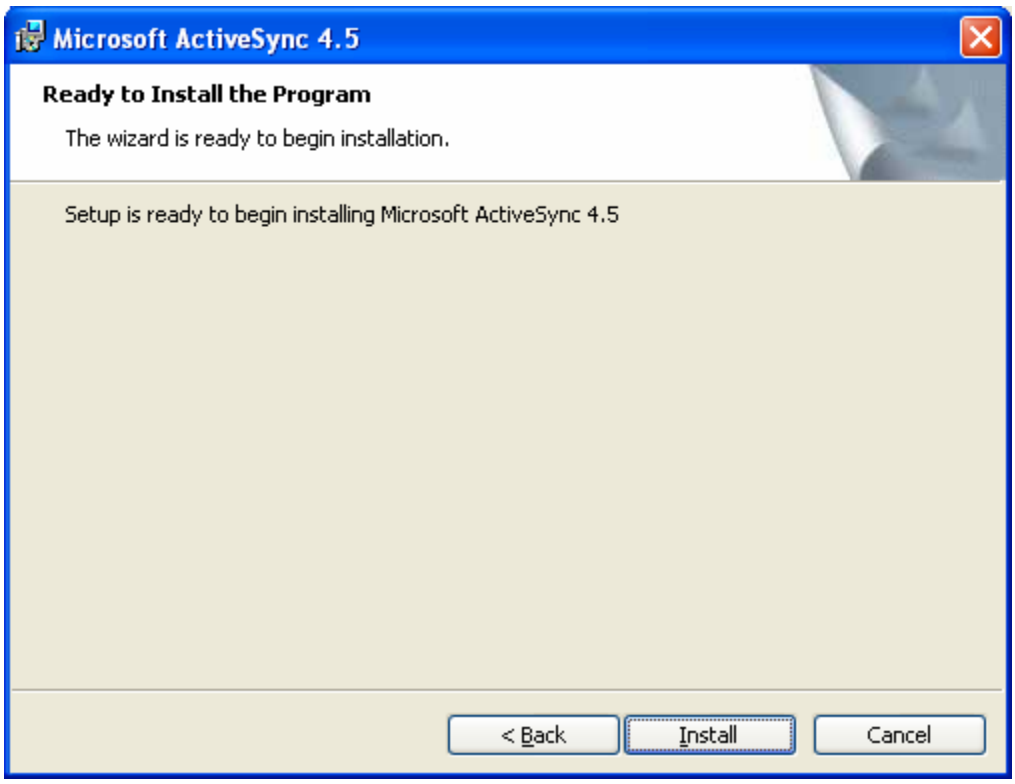
3. In the next screen, fill in your name and your Organization's name. Once you have done it, press on 'Next'.



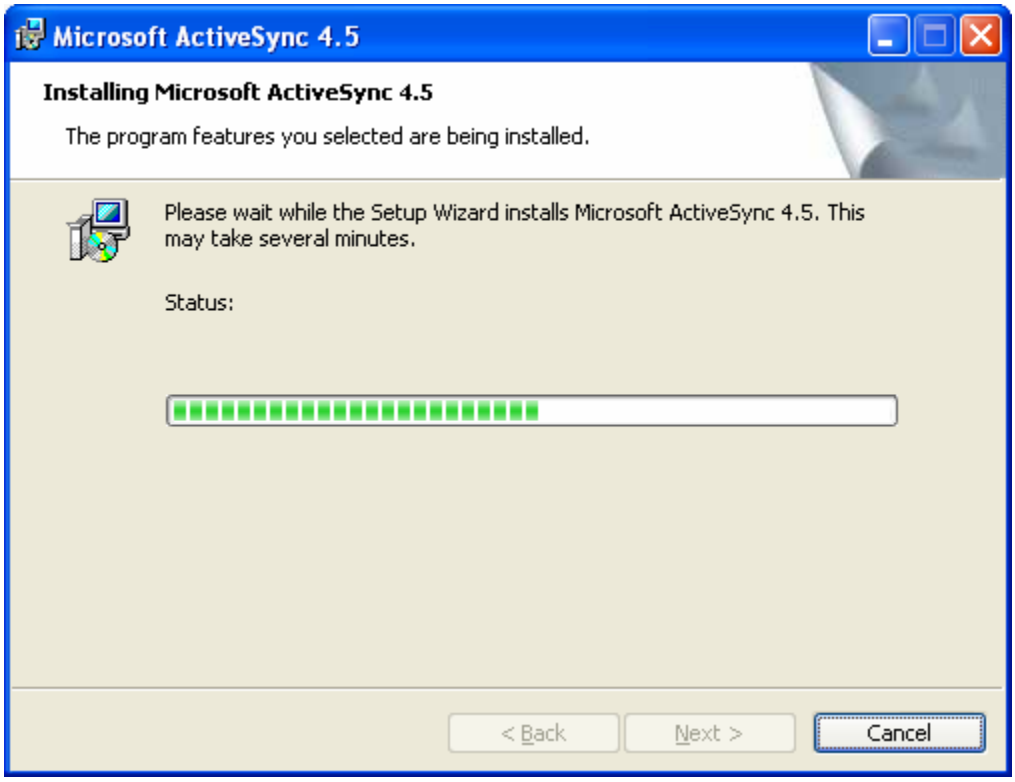
4. In the next screen the setup will suggest a destination folder for the application. If you don't want to change it, press 'Next'.



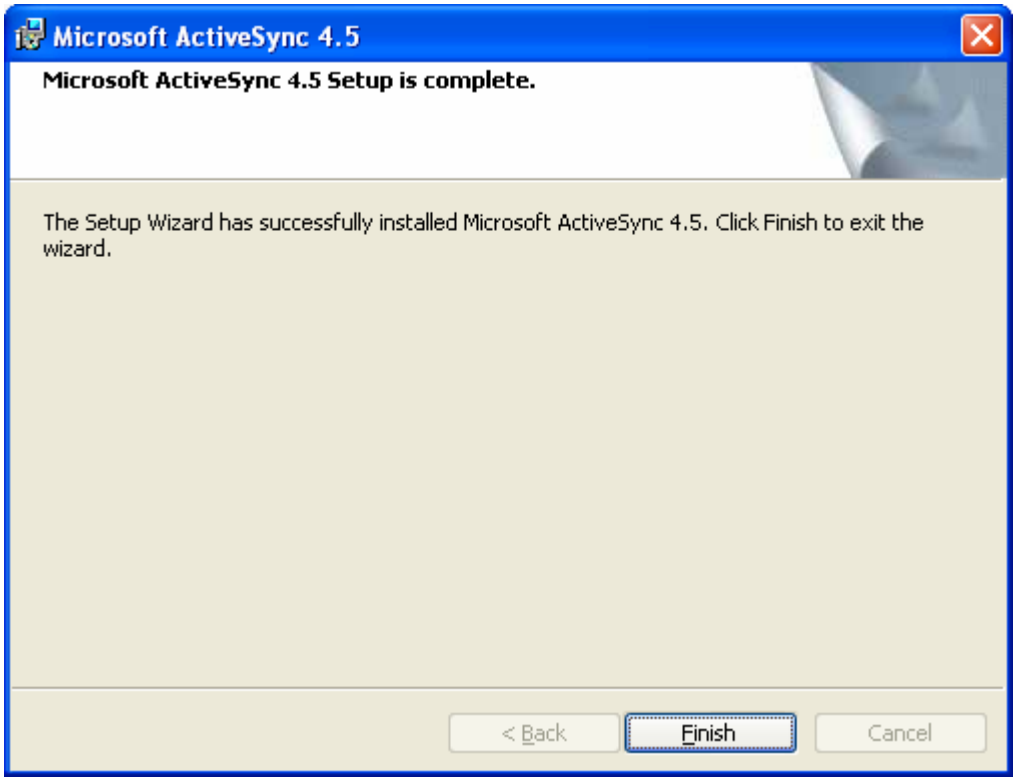
5. In the next screen, the setup notifies you that it is ready to install the application. Press on 'Install'.



6. Once you have pressed on 'Install', the installation process will start. Wait a few minutes until it finishes.



7. Once the installation process is finished, press on 'Finish'.



When the installation is finished, the ActiveSync icon will appear in the computer's system tray in gray color – Not Connected.