

User's Guide

BT-0030H Bluetooth USB Dongle

Ver 1.0

REGULATION INFORMATION

The [Bluetooth USB Dongle](#) must be installed and used in strict accordance with the manufacturer's instructions. This device complies with the following radio frequency and safety standards.

FCC (Federal Communications Commission)

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may cause undesired operation.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice: The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification not expressly approved by the party responsible could void the user's authority to operate the device.

R&TTE Directive

This device complies with the specifications listed below:

- ETS 301-489 -1&-17 General EMC requirements for Radio equipment.
- ETS 300-328 Technical requirements for Radio equipment.
- EN60950 Safety Requirements for Radio equipment

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1. Introduction

1.1 Bluetooth™ Technology

The Bluetooth™ wireless technology is a short-range radio technology being developing by Ericsson, Intel, 3Com, Nokia, Toshiba, and other well-known companies.

The Bluetooth™ wireless technology, based on a low-cost and short-range radio link, helped to get rid of the cables that were used in the home and office to connect devices together: desktops, laptops, telephones, printers, PDAs, fax machines, keyboards, and other similar digital products. Meanwhile, it can easily simplify both communication and synchronization between devices. Any digital device that utilizes the Bluetooth™ wireless technology will be able to take advantage of the technology.

1.2 Bluetooth USB Dongle

The Bluetooth USB Dongle built-in Bluetooth™ wireless technology allows a computer with a USB port to communicate with other Bluetooth-enabled devices. The Bluetooth USB Dongle bundles a Bluetooth software driver for performing wireless network applications such as file transfer, network access, dial-up networking and so on.

2. Software Installation

Through simplified installation of the Bluetooth™ software, you can easily establish wireless communication among all Bluetooth™-enabled devices. In the Bluetooth Neighborhood window as [figure 2.1.1](#), you can clearly see all Bluetooth™ devices surround you and easily gain further diverse functions with them. Furthermore, you can get rid of those awkward cables from now on.

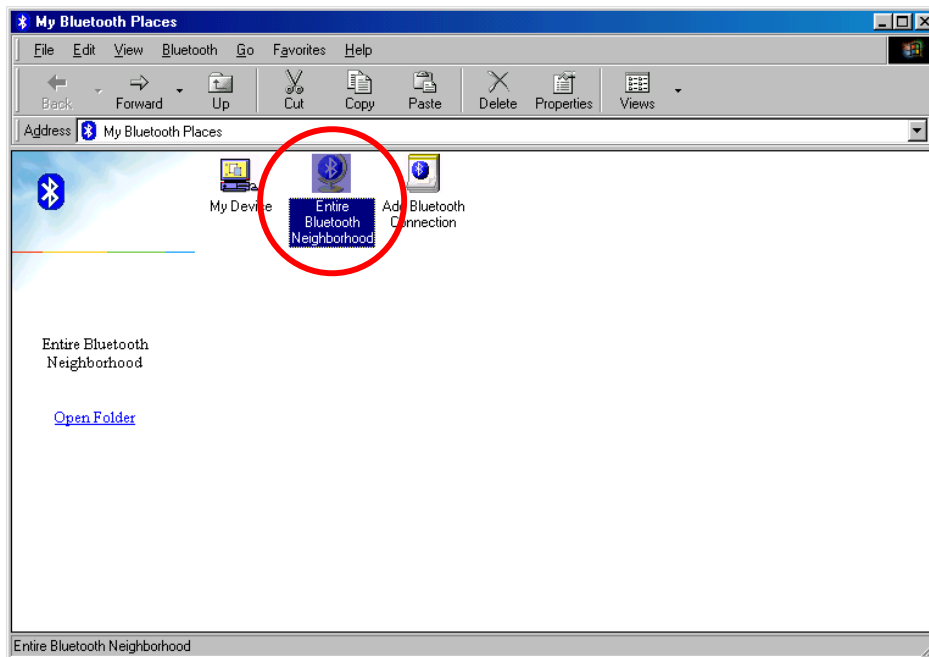


Figure 2.1.1 Bluetooth Neighborhood window

Note: Please close other running applications before the installation of Bluetooth software.

2.1 System Requirements

It is necessary to install corresponding application software before starting to use Bluetooth USB Dongle. Therefore, please check your system in advance and ensure it meets in the minimum requirements as described below.

- Processor: Intel Celeron / Pentium III / Pentium IV; AMD Duron / Athlon
- Operating System: Microsoft Windows 98SE / ME / 2000 / XP
- System memory: 32MB at least
- Hard Drive Free Space: 11.5MB

2.2 Before Installing

To prevent potential problem during installing the software, please do not plug the Bluetooth USB Dongle into the device until the software installation is finished.

Please remove any previous Widcomm Bluetooth software version exists in your system, the remove procedure is as follows:

1. Click **Start/Settings**, then select **Control Panel**.
2. In the Control Panel window, double click **Add/Remove programs** icon.
3. Find out the item **Widcomm Bluetooth Software x.x.x.** and then remove it by clicking the **Remove** button.

2.3 Install Widcomm Bluetooth software

Insert the Bluetooth Software CD into CD-ROM drive. If the Auto-Run function of CD-ROM is enabled (in Windows, the default setting of this function is usually enabled), then installation program will start automatically. If not, you can utilize the Windows Explorer to browse CD content and run **Setup.exe** manually.

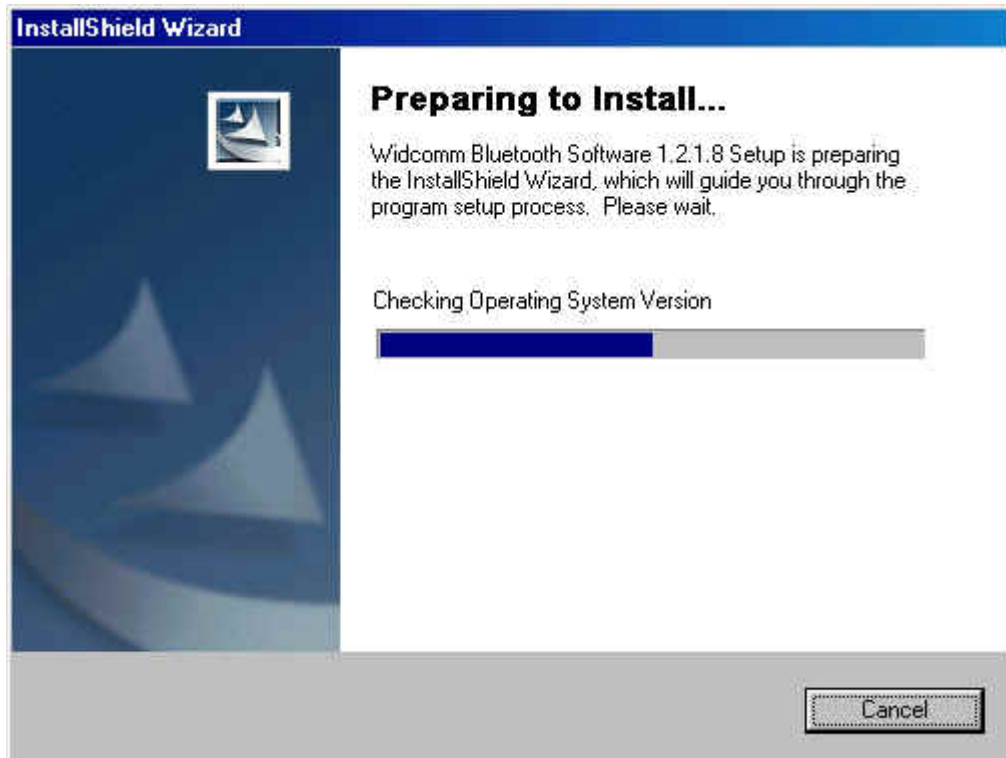


Figure 2.3.1 Installation is preparing

With ensuing window appears, please click **Next** button to continue the software installation, In *Device Information* window, check the item ***I accept the terms in the license agreement*** and click **Next** button to continue.

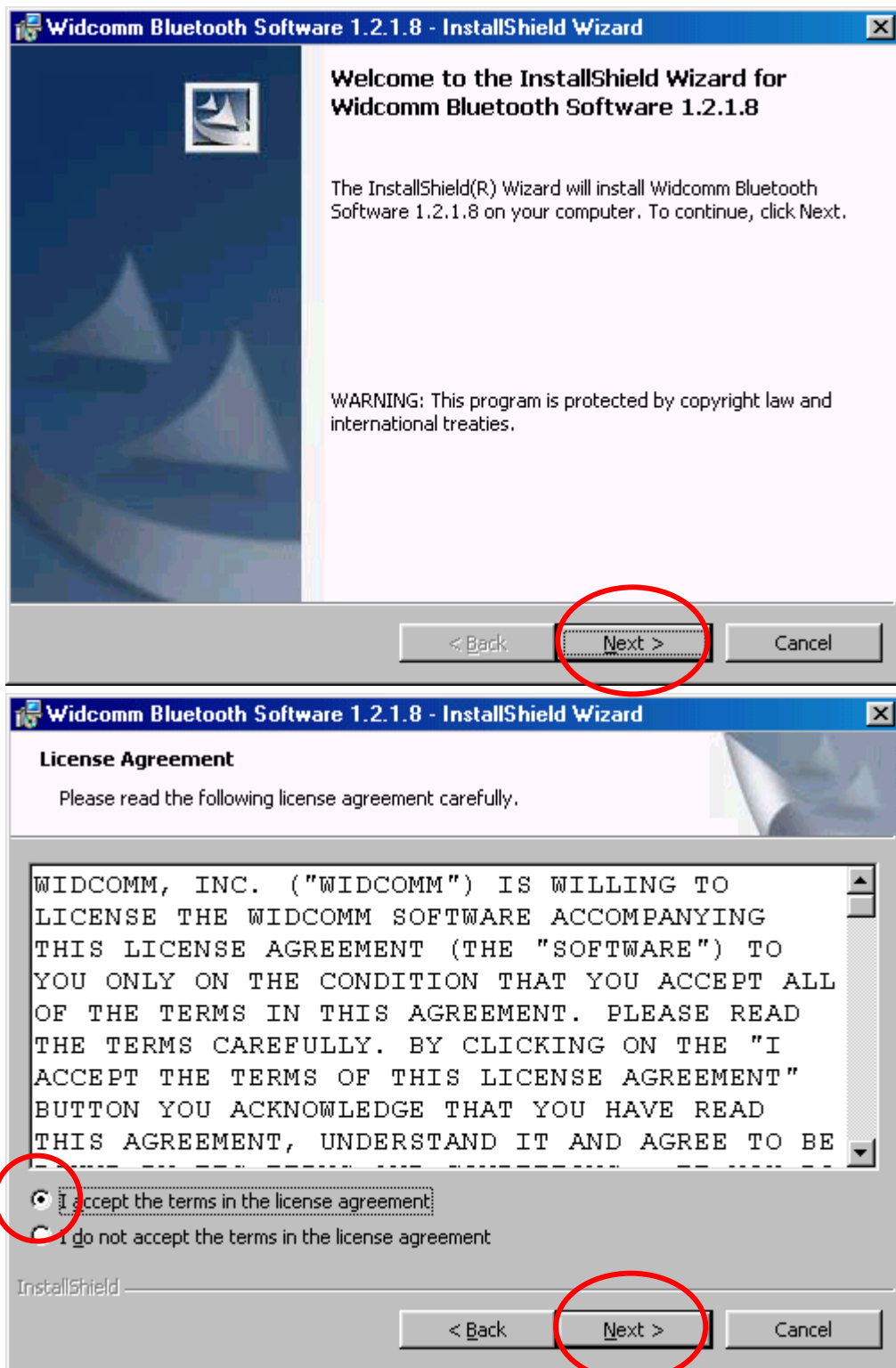


Figure 2.3.2 License Agreement window

In **Device Name** item in the *Device Information* window, fill in the blank with a name that you prefer. That can provide distinct identification of your system when it interacts with other devices in the Bluetooth environment.

In **Device Type** item, choose **Desktop** or **Laptop** depends on the device type you are using now.

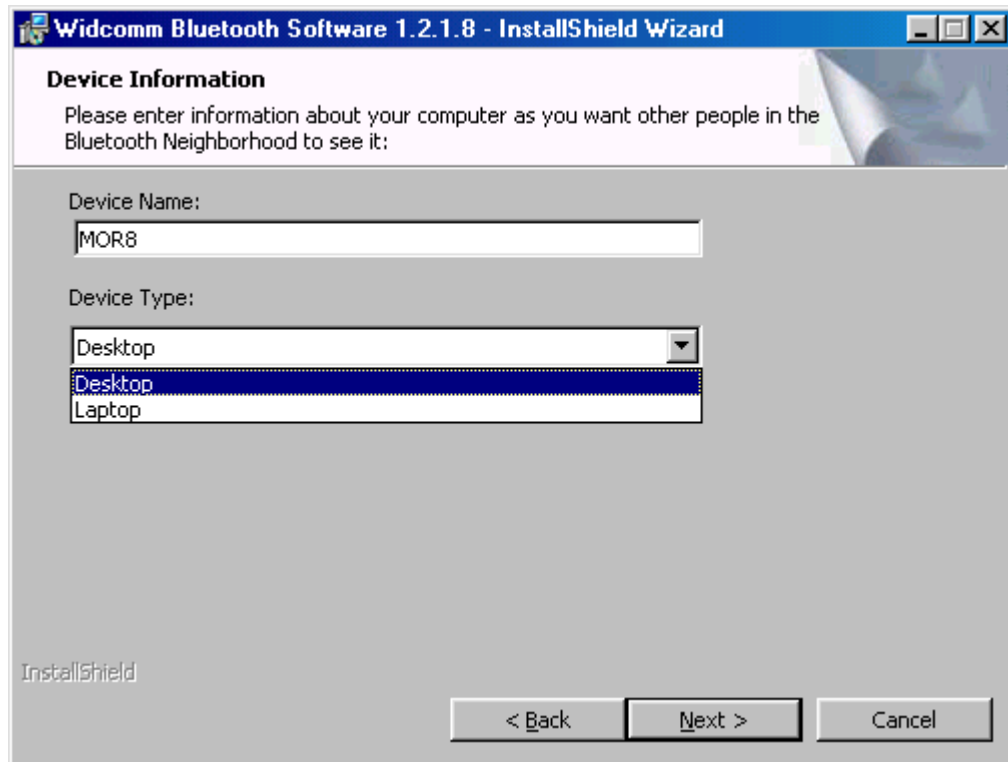


Figure 2.3.3 Device Name & Type window

The software default destination folder is located in **C:\ Program Files \ Widcomm \ Bluetooth Software**. If you want to change the folder, click **Change...** button then select one. If everything is ready and done, please click **Next** button to begin the installation.

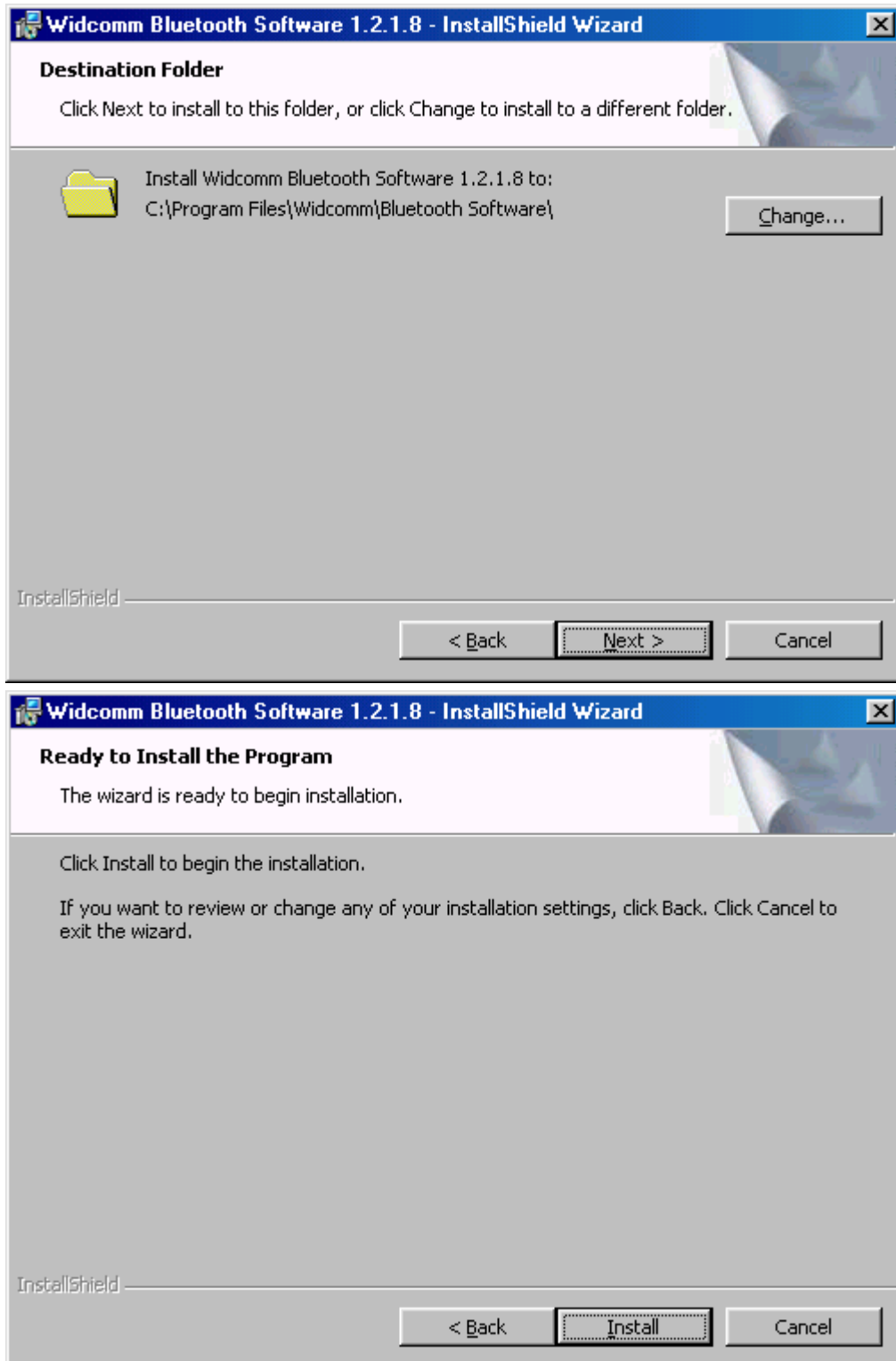


Figure 2.3.4 Destination folder select

The software installation is processing now.

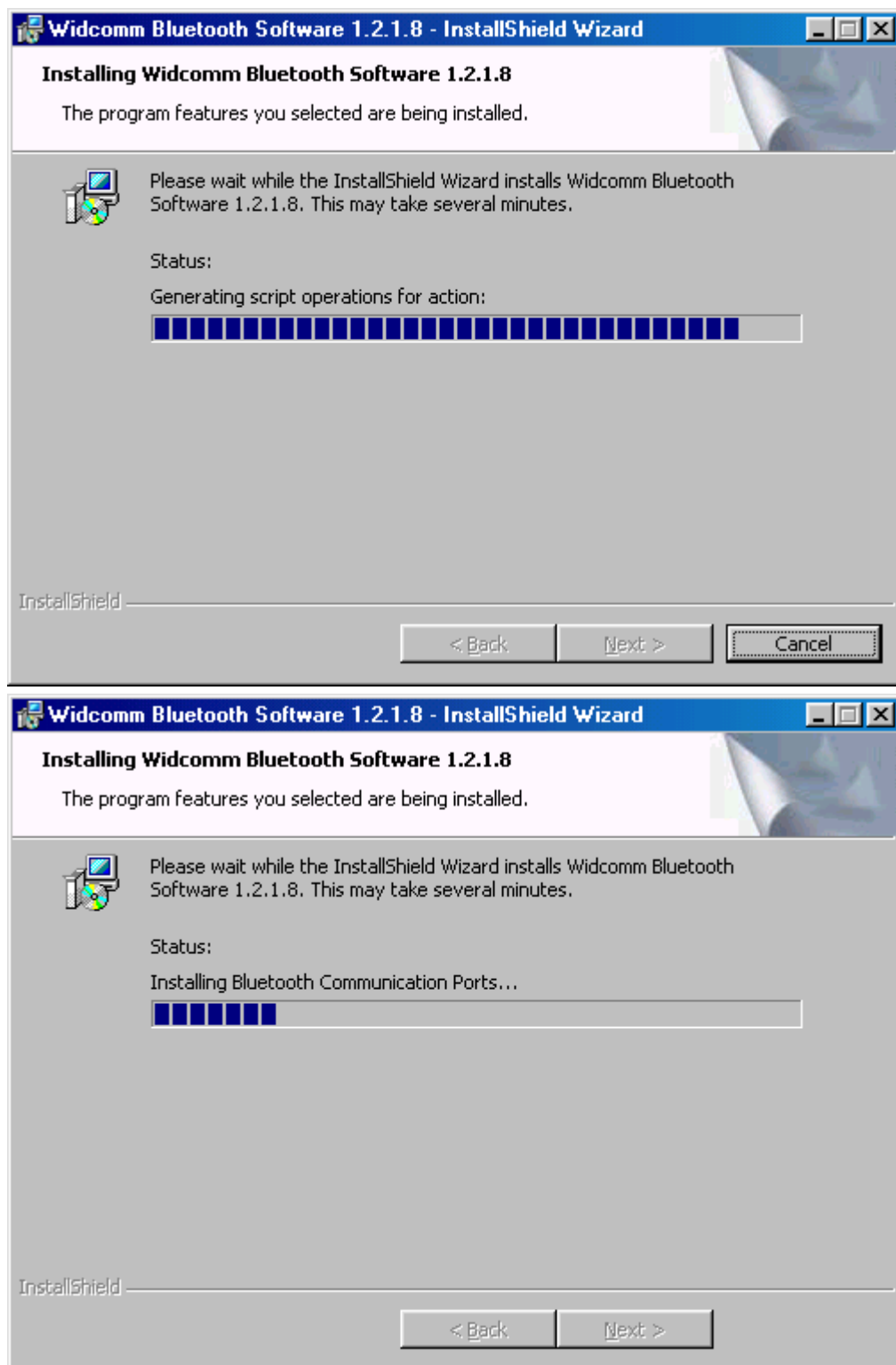


Figure 2.3.5 Installation running window

Note: During the processing of the Bluetooth Software installation under Windows 98SE or Windows 2000, it is possible to meet Microsoft Digital Signature issues such as *Bluetooth Personal Area Network Driver*, *Bluetooth Communication Ports*, *Widcomm Bluetooth Null Modem*, *Widcomm Bluetooth Modem*, *Widcomm Bluetooth Fax Modem*, and *Unknown Software package*. Please confirm them manually by pressing Yes button from then pop-up window so as to finish the entire installation.

Please reboot your system after the software installation is finished.

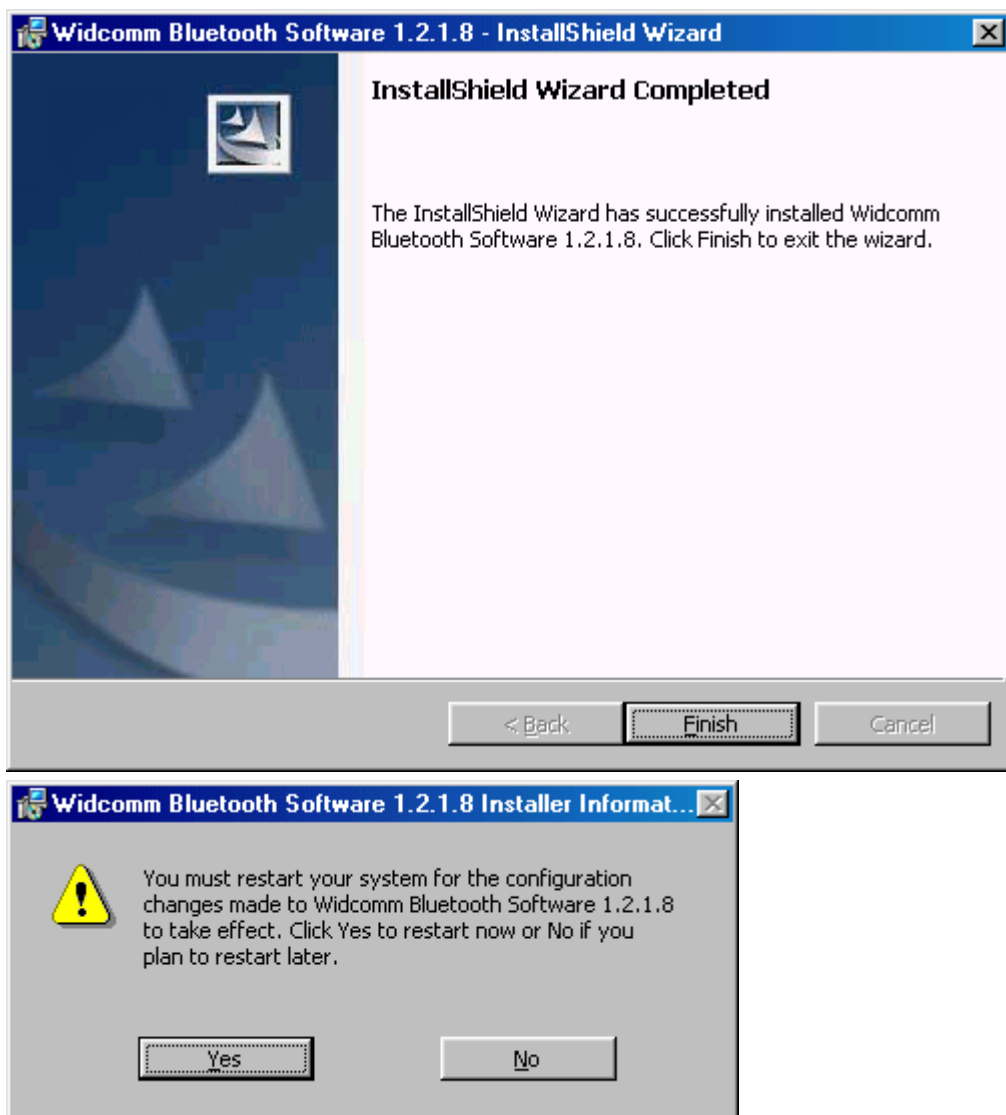


Figure 2.3.6 Installation finished window

There are two new Bluetooth icons appear on the desktop and the toolbar respectively when logged in Windows operating system.

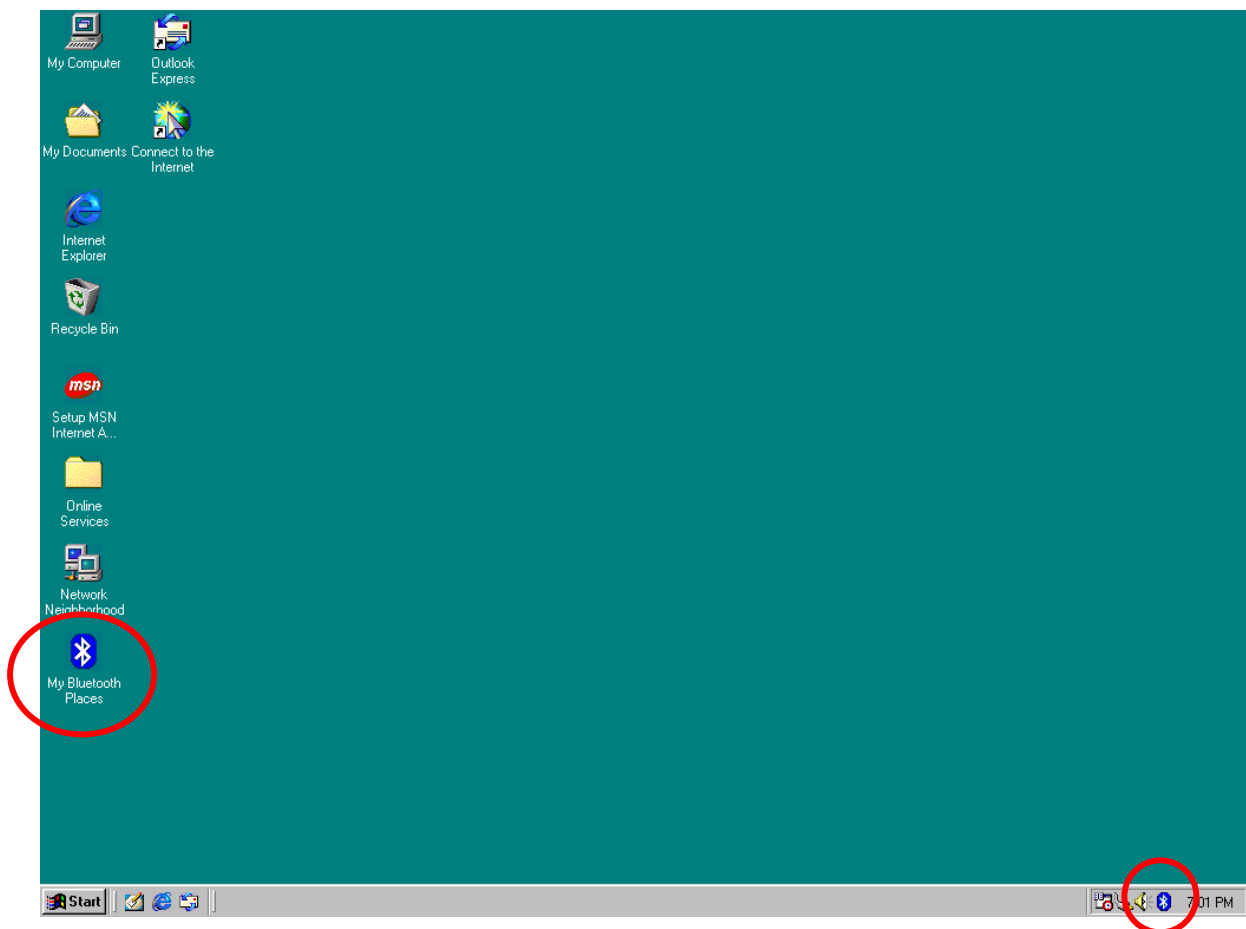


Figure 2.3.8 Bluetooth software icons

3. Hardware Installation

The Bluetooth USB Dongle can be used both desktops and laptops with a USB port as shown bellow:

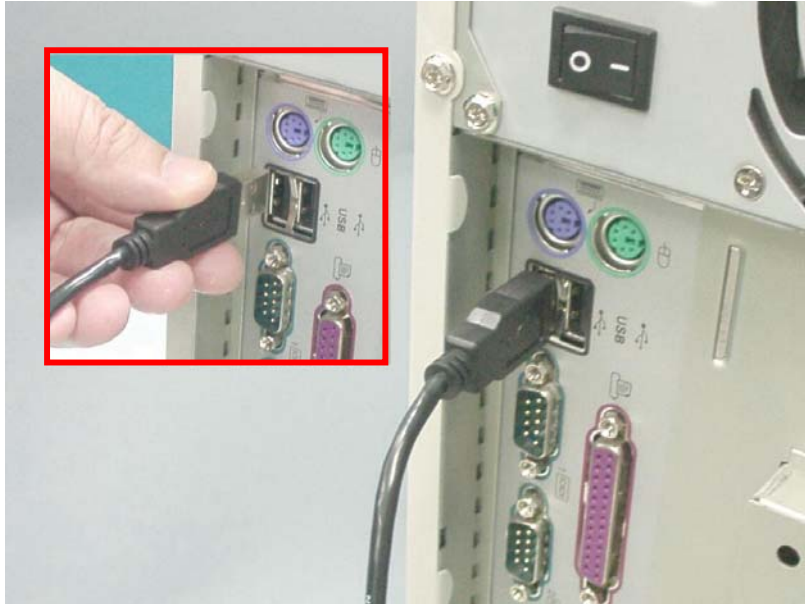


Figure 3.1 Plug Bluetooth USB Dongle connector into USB port on desktop

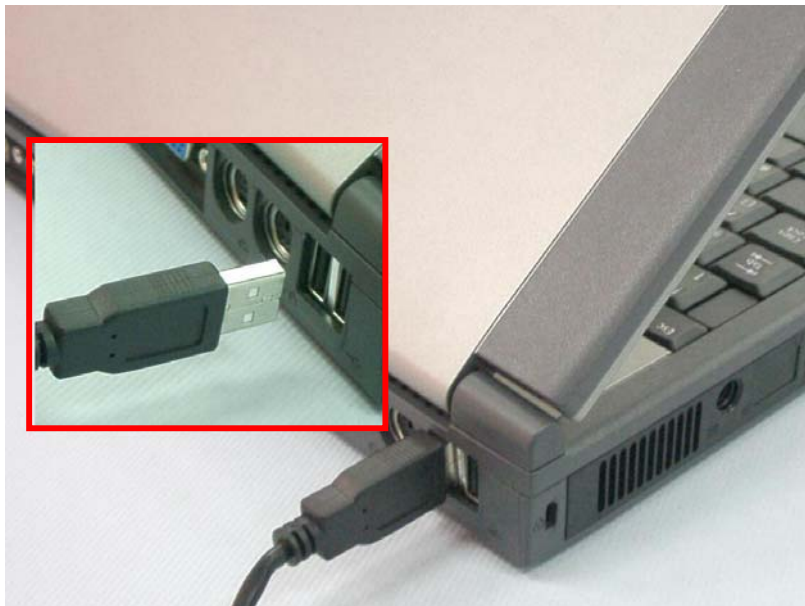


Figure 3.2 Plug Bluetooth USB Dongle connector into USB port on laptop

Furthermore, the implementation of the Bluetooth USB Dongle allows you randomly place the Bluetooth USB Dongle in limited distance around the computer you connected to.

4. Using Software

Bluetooth for Windows is the solution for the seamless integration of Bluetooth technology into personal computers.

Most Bluetooth enabled devices have the capability to act as:

- A Bluetooth server: these devices provide one or more services, such as access to the Internet, to the other Bluetooth devices.
- A Bluetooth client: these devices use the service(s) provided by Bluetooth servers.

Bluetooth for Windows software provides:

- Clients
 - 1) To locate other Bluetooth devices in the immediate vicinity (inquiry).
 - 2) Discover the services that those devices offer (discovery).
 - 3) Connect to, use, and disconnect from those devices.
- Servers
 - 1) To include / exclude individual services in the list of services it provides to clients.
- Extensive security, including:
 - 1) Authorization
 - 2) Authentication
 - 3) Encryption

Bluetooth for Windows supports:

Windows XP / Windows 2000 / Windows ME / Windows 98SE

4.1 Local Device services

As figure 2.1.1 shows, double click on the **Local Device** icon and then go into the sub-window.

Local Device window shows all local services that a Bluetooth™ Server is capable of providing. The services include:

- Bluetooth Serial Port
- Dial-Up Networking
- Fax
- Network Access
- File Transfer
- Information Exchange
- Information Synchronization

All services will automatically start when the Bluetooth™ Software is initialized. Auto start-up can also be disabled for individual service (by using *Bluetooth Configuration Console/Local Services tab*, and double click on respective service to change *start-up* property). To stop a service that is in action, just right-click on the icon of service, and choose stop from the pop-up menu.

Note: Those services that you stopped are unavailable for clients to use unless you restart them again.

Connections are usually established and disconnected by the client side. However, if necessary, you can also interrupt the connection from server side directly, or re-start the service from stopped state (it means the server side can not actively connect to client side but allows client side to establish the connection).

In Local Device window, right-click on the icon of **service**, and choose **stop/start** from the pop-up menu.

4.2 Bluetooth Neighborhood services

In the Bluetooth Neighborhood window, you can use *Search For Devices* function to make Bluetooth USB Dongle look for other Bluetooth-enabled devices in the vicinity and display those devices it detected. The list below shows the entire services that remote bluetooth-enabled devices can provide:

- Bluetooth Serial Port

Establishes a Bluetooth wireless connection between two devices. The connection may be used by applications as though a physical serial cable connected the devices.

- Dial-Up Networking

Bluetooth client can dial-up to Internet by using a modem that is physically connected to the Bluetooth server.

- Fax

Bluetooth client can send a fax wirelessly by using a Fax machine that is physically connected to the Bluetooth server.

- File Transfer

When File Transfer service is established between two Bluetooth devices, you can easily browse, drag/drop, open, print, cut/copy, paste, delete, or rename files/folders in local device and remote device.

- Information Exchange

This service allows two Bluetooth-enabled devices exchange personal information manager data such as business card, calendar items, e-mail messages, and notes.

- Information Synchronization

This service allows two Bluetooth-enabled devices to synchronize Personal Information Manager data each other.

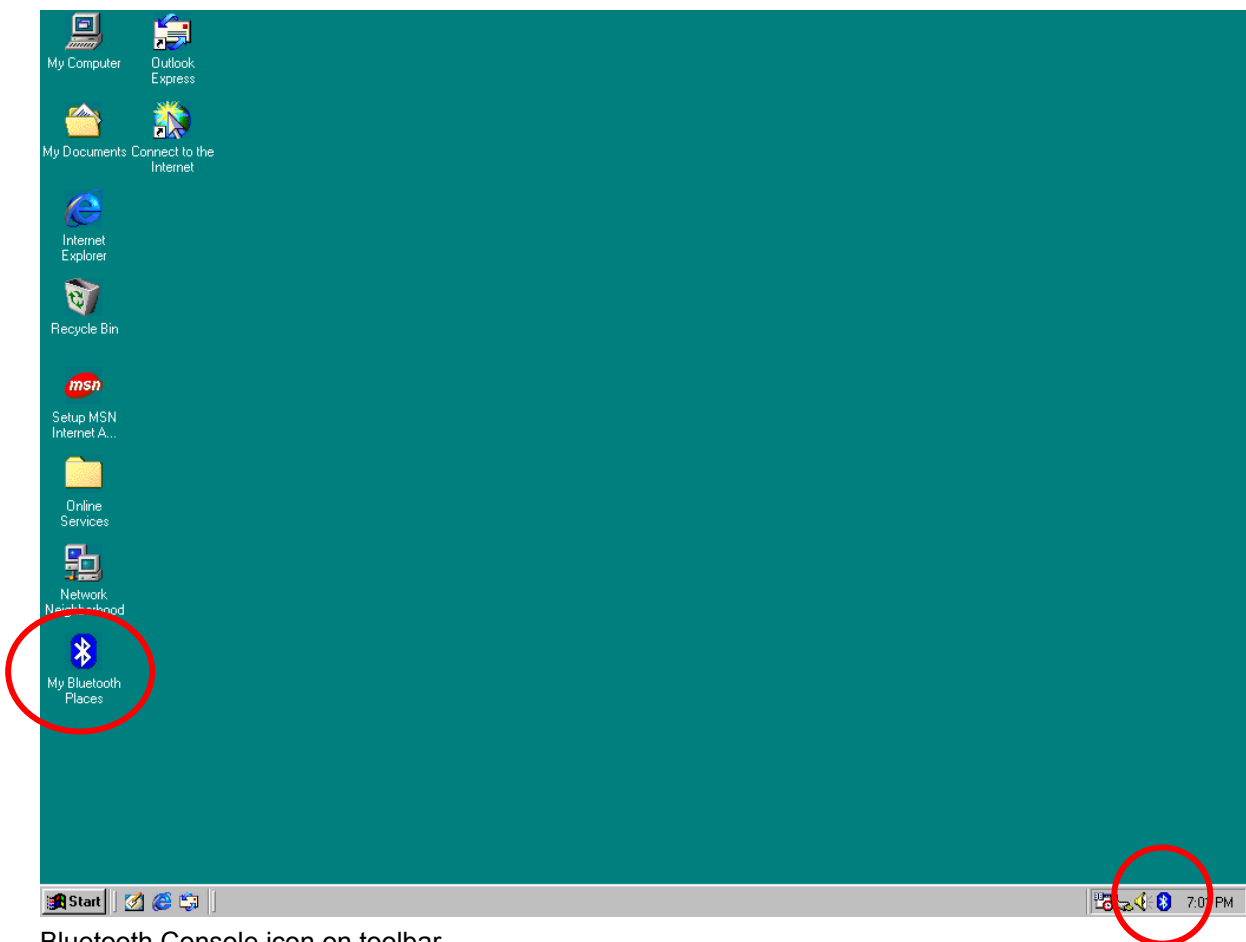
- Network Access

Establishes a wireless connection between the client and a server that is physically connected to the Local Area Network (LAN). If the client has permission from the server, the wireless connection can be used as if the client were hard-wired to the LAN.

5. Bluetooth for Windows Console

After Bluetooth for Windows installed in your system, a shortcut called Bluetooth System Tray (BT Tray) is added to the Windows Start up folder. This function will automatically execute whenever system starts and show it's icon on the Windows toolbar. The BT Tray provides several practical functions:

- Unobtrusive notification when intervention is required to authorize a security request or enter a Bluetooth passkey.
- Dialog boxes that prompt for security authorization and allow passkey entry.
- Bluetooth “pairing” support.
- Access to the Bluetooth *Configuration* window.

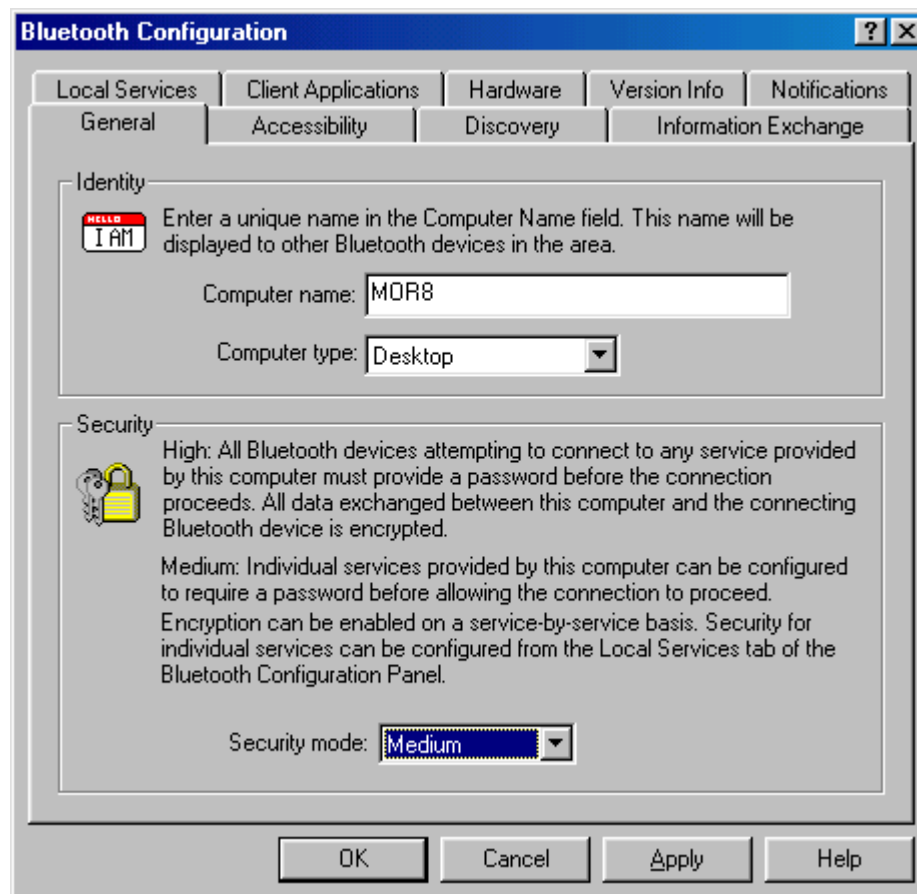


Bluetooth Console icon on toolbar

5.1 Bluetooth Configuration

The Bluetooth Configuration window divides into eight tabs:

- General
Identifies the computer name and type, besides, you can also select the level of security.
- Accessibility
Determines which individual Bluetooth-enabled devices are allowed to access to this computer.
- Discovery
Perform a periodic search for Bluetooth devices. This filters which specify devices or classes and types within class of devices are discovered.
- Information Exchange
Allows to change the storage folder for data/objects, and modifies the attribution of items.
- Local Services
Configures the properties of the local services. Properties include Authorization, Authentication, Start-up, Encryption, COM port, and Modem type.
- Client Applications
Configures the properties of the client applications that your computer will use to access Bluetooth services on a remote device. Properties include Authentication, Encryption, add COM port, and select COM port for Bluetooth Serial port.
- Hardware
Shows the hardware's information.
- Version Info
Shows every component's version information.



Bluetooth Configuration tabs

6. Specification

General Radio	Carrier Frequency: 2.4~2.4835GHz Data Rate: 1Mbps
Radio Performance Receiver	Rx sensitivity: -85dBm
Radio Performance Transmitter	Power at Antenna Port (Class 1 / 100 meter free space)
Antenna	Integrated PCB antenna
Environment	Operating Temperature: 0°C~+65°C Storage Temperature: -30°C~+80°C
USB Adapter	USB Compliance Ver 1.1
Input Power	DC 5V
Input Current	80mA (Max.)
Support Function	File Transfer, Dial-Up Networking, Network Access, Fax, Information Exchange, Point to multi-Point connection (1 server, 7clients).