BT-3005

BT V2.0 USB Module

Note:

Table of Contents……2

Introduction……..3

1. Configuration and devices.....3

2. Device properties.....4

3. Options.....4

4. Discovery.....4

5. Adding a COM port.....5

6. Hardware.....5

7. Adding a device.....6

8. Joining a Personal Area Network.....7

9. Adding a modem.....8

10. Adding a printer.....8

11. File Sending and Receiving.....9

Introduction

This article describes how to install and configure a Bluetooth device in Microsoft Windows XP Service Pack 2 (SP2).

Note If you install a Bluetooth adapter that is not supported in Windows XP SP2, follow the recommendations that the Bluetooth adapter's manufacturer provides.

Installing a Bluetooth adapter that is on the list of supported adapters for Microsoft Windows XP Service Pack 2 (SP2) is only a matter of connecting the device. No configuration is needed before you make the connection.

When you install a supported Bluetooth adapter in Windows XP SP2, the adapter becomes active together with the following Microsoft components:

- **Microsoft Bluetooth Enumerator**
  This component enumerates Bluetooth devices and capabilities.

- **Bluetooth Device (Personal Area Network)**
  This driver supports Personal Area Network (PAN) connections between devices.

- **Bluetooth Device (RFCOMM Protocol Transport Driver Interface [TDI])**
  This component supports dial-up networking (DUN). It also supports other types of connections between devices.

- **Bluetooth Support Service (BthServ)**
  This service maintains and updates device pairing information. It also performs other functions that are related to Bluetooth features.

These components are available in Device Manager after you install a Bluetooth adapter. Other drivers and components are also installed.

1. Configuration and devices

You can use the Bluetooth Devices item in Control Panel to configure Bluetooth settings. By using Bluetooth Devices, you can do one or more of the following:

- Add or remove a device.

- View the properties of a device.

- Change your Bluetooth options.

- Add a COM port.

In Bluetooth Devices, the **Devices** tab shows all the devices that are currently configured on your computer. By using the **Devices** tab, you can add a device, remove a device, or view the properties of a device.

2. Device properties

When you view the properties of a Bluetooth device, you see the following information:

- The device type
- The hardware address of the Bluetooth adapter
- The date and time of the last connection
- Information about whether a passkey is used for pairing with the device

You can also change the name that Windows uses for the device. This change also affects the name that is used by the Bluetooth File Transfer Wizard and by Add Modem.

The **Services** tab shows information about the services that the device supports. For example, when a Bluetooth phone or a personal digital assistant (PDA) is connected to your computer, this tab may show COM ports that are available for synchronization. This tab may also show Internet dial-up networking connections. You can also select the services that you want to use.

3. Options

The **Options** tab in Bluetooth Devices provides options that control how devices discover and connect to your computer. The main option is **Turn discovery on**. This option lets devices discover your computer so that you can make a connection.

Other options on this tab include the following:

- **Allow Bluetooth devices to connect to this computer**
  This check box controls whether any devices can connect to your computer. If this check box is cleared, no devices can connect to your computer.
- **Alert me when a new Bluetooth device wants to connect**
  This option controls whether you receive notification when a device tries to connect to your computer. If this check box is cleared, you do not receive notification.

Other options on the **Options** tab let you turn on or turn off the Bluetooth icon in the notification area and restore default settings.

4. Discovery

Typically, your Bluetooth-enabled computer will discover other devices. Therefore, you only have to turn on the **Turn discovery on** option when your computer acts as a device. For example, you might want to turn on this option when your computer is connected to another computer by a Personal Area Network (PAN). When computers are connected by a PAN, one of the computers must have discovery turned on.

By default, discovery is not turned on in Windows XP SP2, because a discoverable Bluetooth device may be less secure than a device that is not discoverable. We recommend that you keep the **Turn discovery on** check box cleared unless you want another Bluetooth device to discover the computer. When the connection is complete, the Add Device Wizard turns off discovery automatically.

5. Adding a COM port

You can add an incoming port that receives a connection from a Bluetooth device, or you can add an outgoing port that makes a connection to a Bluetooth device. To connect to a Bluetooth device using a COM port, follow these steps:

1. Use the port configuration options in Device Manager to set the COM port configuration.

   For the correct data rate and for other settings, see the documentation for the program that you want to use over the connection.

2. Set the COM port in the program to the port number that is specified on the last page of the Add Bluetooth Device Wizard.

   This port number is also listed on the **COM Ports** tab in Bluetooth Devices.

Bluetooth devices that use a COM port require special programs on your computer. These programs are typically included with the device. You can also obtain these programs from the device manufacturers. To set up your program to use a COM port, follow the instructions in the program documentation.

6. Hardware

The **Hardware** tab in Bluetooth Devices lists the Bluetooth devices that are installed on your computer. This is the same list that is shown in the Bluetooth Radios category in Device Manager. When you select a device in the list and then click **Properties**, you see the same device properties as you would see in Device Manager.

7. Adding a device

When you add a Bluetooth device to your computer, address information is exchanged. Sometimes, access keys are also exchanged. This process is known as *pairing* or *bonding* the two devices. When you add a device, one of the devices must be discoverable. Some devices let you turn discovery on and off, and others are always discoverable. For example, some mouse devices are always discoverable.

When you use Bluetooth to connect two computers, the computer that is added as a device must have discovery turned on. You can turn on discovery by using the **Options** tab in Bluetooth Devices.

Steps to take on the computer

To add a device, follow these steps on your computer:

1. In **Bluetooth Settings**, click **Add**.

2. In the Add Bluetooth Device Wizard, click to select the **My device is set up and ready to be found** check box, and then click **Next**.

   Note You cannot click **Next** until you click to select the **My device is set up and ready to be found** box. A device that has discovery turned off cannot be detected during a search.

   When you click **Next**, your computer searches for any discoverable devices that are in range. When the search is complete, the devices appear in the wizard.

3. Select a device to add, and then click **Next**.

After you select the device to add, you can enter a passkey for the device. A passkey is a code that is used to control access to a device. Using a passkey may help improve the security of your connection. However, the device that you add may not require a passkey.

When you enter the passkey, your computer tries to connect to the device to verify the passkey. When you connect to another computer, you receive a message that the computers are trying to connect.

Steps to take on the device

When you have completed the steps on your computer, enter the passkey on the Bluetooth device. If the device is another computer, this computer displays a message that indicates that you are requesting a connection. Follow these steps on the computer that you are adding as a Bluetooth device:

1. Click in the message that indicates that you are requesting a connection.

   The Add Bluetooth Device Wizard starts and provides a field for entering the passkey.

2. Enter the passkey. You may also choose to have a passkey generated for you.

When the passkey is verified, the connection is complete. The device is now visible on your computer. If the device is another computer, its computer name is visible on the first computer.

On the last page of the Add Bluetooth Device Wizard, you can turn discovery off on the computer that you add as a device. By default, the option to turn discovery off is selected so that the computer does not remain discoverable at all times.

After a device is added

After a device is added, it appears in Bluetooth Devices. You can view the device properties to examine the services provided, to change the name of the device, or to gather other information. You can also establish connections.

8. Joining a Personal Area Network

Personal Area Networking (PAN) provides ad hoc networking between Bluetooth devices. All devices that you want to network must support PAN to create a PAN network. To join a PAN network, you can use any one of the following methods:

- Click the **Join a Personal Area Network** option in the Bluetooth taskbar icon menu.
- Double-click the **Bluetooth Network Connection** icon in the Network Connections item in Control Panel.
- Click **View Bluetooth network devices** in the **Network Tasks** pane in Network Connections.

Each of these methods opens the **Bluetooth Personal Area Network Devices** dialog box. This dialog box shows a list of devices that you can connect to. You can also add or remove devices from this list by using the options at the bottom of the dialog box.

To make a connection, click the device that you want to connect to, and then click **Connect**. When the connection is complete, TCP/IP networking is available between your computer and the other device. (If you click a device that you are already connected to, the **Connect** button becomes a **Disconnect** button.)

Note When both PAN devices in a connection are Windows XP-based computers, the connection is a point-to-point connection, and you cannot use one computer to act as a router to a local area network (LAN) or to the Internet. To do this, you need a network access point (NAP).

Windows uses Automatic Private IP Addressing (APIPA) to assign addresses to the computers in an ad hoc network. When APIPA is used, the Dynamic Host Configuration Protocol (DHCP) is not needed. To view the APIPA address, type **ipconfig** at a command prompt, and then press ENTER. You receive output that is similar to the following:

Ethernet adapter Bluetooth Network Connection:

Connection-specific DNS Suffix . :

Autoconfiguration IP Address. . . : 169.254.143.66

Subnet Mask . . . . . : 255.255.0.0

Default Gateway . . . . . :

The **General** tab on the **Status** dialog box shows the connection speed and the packet transmission information for the connection. The **Support** tab is the same as for other network connections. By using the **Support** tab, you can view information about IP addressing information, obtain details about the connection, or repair the connection.

9. Adding a modem

In Windows XP SP2, you can add a Bluetooth device that has support for dial-up networking as a modem. To do this, follow these steps:

1. Click **Start**, click **Run**, type **telephon.cpl**, and then click **OK**.
2. On the **Modems** tab, click **Add**.

   The **Select Bluetooth Device** dialog box opens.
3. Click to select a Bluetooth device to use as a modem.

If you configure Windows to detect modems while a Bluetooth adapter is connected, Windows automatically opens **Select Bluetooth Device** when it detects a Bluetooth device that has support for dial-up networking.

After you select a device, you can configure the device by using **Phone and Modem Options**. To connect to the Internet, you can create a new connection in the Network Connections folder.

Notes on modem support

- Windows XP automatically generates a passkey for the connection between the mobile phone and your computer. You can use this passkey or enter one of your own. Passkeys can have up to 16 characters. The passkey must be entered within 30 seconds, or authentication may not succeed.
- Some mobile phones already have a passkey. If your phone has a passkey, enter the passkey in the Bluetooth Connection Wizard.
- Bluetooth is not a secure wireless technology. Your data may be visible to other devices or computers that are in range.
- If your mobile phone does not support dial-up networking, you cannot install the phone by using the Add Hardware Wizard. To install the phone, use **Bluetooth Devices**.
- When a mobile phone is connected as a modem, it appears in Device Manager as a modem.

10. Adding a printer

Windows XP SP2 supports Bluetooth printers. You can use the Add Printer Wizard to access printer features. To start the Add Printer Wizard, click **Start**, click **Printers and Faxes**, and then click **Add a printer**.

When you select **A Bluetooth printer** in the Add Printer Wizard, your computer searches for Bluetooth printers. When your computer locates a printer, you can select it to install. To install the printer, you have to install drivers for the printer, just as you do for any other type of printer.

When the printer is installed, the printer port appears as a Bluetooth virtual printer port on the **Ports** tab of the printer's **Properties** dialog box.

11. File Sending and Receiving

You can transfer one file at a time between your computer and another Bluetooth device by using the Bluetooth File Transfer Wizard. For example, you can transfer files between your computer and a mobile phone or a PDA. You can also transfer files between two computers that use Bluetooth.

Sending a file

To send a file to another computer, follow these steps:

1. Click **Start**, click **Run**, type **%windir%\system32\fsquirt.exe**, and then click **OK**.
2. On the **Do you want to send or receive a file?** page of the Bluetooth File Transfer Wizard, click **Send a file**, and then click **Next**.
3. On the **Select where you want to send the file** page, click **Browse**, click the computer or the device that you want to send the file to, and then click **Next**.

   Note The **Use a passkey** option is unavailable when your connection to the other device already uses a passkey.
4. On the **Select the file you want to send** page, click **Browse**, and select the file that you want to send.

   Note You can only send one file at a time. Do not click **Next** until you have set the receiving device to receive the file. If the receiving device is not ready to receive the file, the transfer will not succeed.
5. When the receiving computer or device is ready to receive the file, click **Next**.

Receiving a file

To receive a file from another computer, follow these steps:

1. Click **Start**, click **Run**, type **%windir%\system32\fsquirt.exe**, and then click **OK**.
2. In the Bluetooth File Transfer Wizard, click **Receive a file**, and then click **Next**.

   You receive a "Windows is waiting to receive the file" message.
3. On the sending computer, click **Next** to start the transfer.

   Note During the transfer, a progress bar appears on the sending computer. When you transfer a file to a Windows XP-based computer, a progress bar also appears in the Bluetooth File Transfer Wizard.
4. On the **Save the received file** page, type the name of the file in the **File name** box, click **Browse** to select the location where you want to save the file, and then click **Next**.

Federal Communications Commission (FCC) Requirements

This 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee 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.

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

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

This device complies with Part 15 of the 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 received, including interference that may cause undesired operation.

This device is intended only form OEM integrators under the following conditions:

1)The transmitter module may not be co-located with any other transmitter or antenna.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

The final end product must be labeled in visible area with the following:
"Contains TX FCC ID: SLH-BT-3005"

End Product Manual Information

The user manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements.The transmitter module may not be co-located with any other transmitter or antenna.

CE Declaration of Conformity

Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low- voltage Directive (73/23/EEC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive 99/5/EC and 89/336EEC.

The equipment was passed. The test was performed according to the following European standards.

EN 300 328 V.1.6.1

EN 301 489-1 V.1.4.1 / EN 301 489-17 V.1.2.1

EN 50371:2002

EN 60950-1:2001