



EM 220

Mobile Printer

Bluetooth Connection Manual

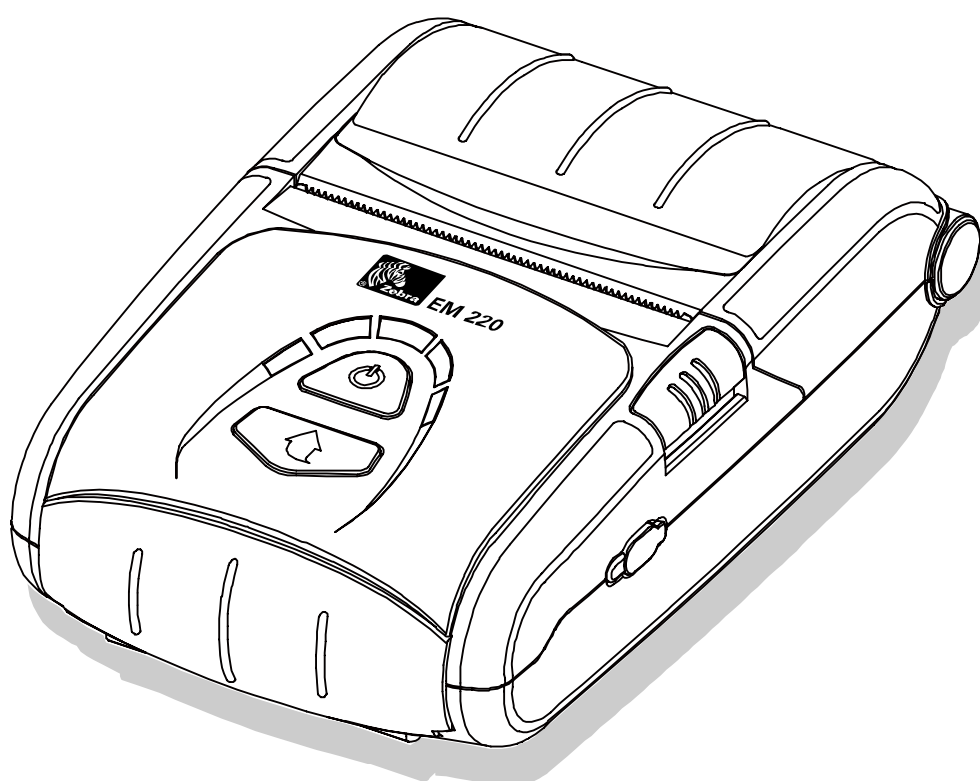


Table of Contents

1. Manual Information.....	6
2. Precautions	6
3. General Sequence for Bluetooth Connections	6
4. Bluetooth Connection Instructions	7
4-1 Connecting with an Intermec PDA (Device: CN2B, OS: Pocket PC 4.20.0)	8
4-2 Connecting with a SYMBOL PDA (Device: SYMBOL MC70, OS: Windows Mobile 5.0).....	12
4-3 Connecting with an HP PDA (Device: iPAQ hx2700, OS: Windows Mobile 5.1.1702)	17
4-4 Connecting with Bluetooth Dongle (BlueSoleil IVT Stack)	21
4-5 Connecting with Bluetooth Dongle (Widcomm Stack)	25

■ Proprietary Statements

This manual contains proprietary information of Zebra Technologies Corporation. It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the expressed written permission of Zebra Technologies Corporation.

Product Improvements

Since continuous product improvement is a policy of Zebra Technologies Corporation, all specifications and signs are subject to change without notice.

FCC Compliance Statement

NOTE: This equipment has been tested and found to comply with the limits of 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 or circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Exposure to Radio Frequency radiation. To conform to FCC RF exposure requirements this device shall be used in accordance with the operating conditions and instructions listed in this manual.

NOTE: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance.

Changes or modifications to this unit not expressly approved by Zebra Technologies Corporation could void the user's authority to operate this equipment.

Canadian Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

“IC:” before the equipment certification number signifies that the Industry Canada technical specifications were met. It does not guarantee that the certified product will operate to the user’s satisfaction.

Liability Disclaimer

Inasmuch as every effort has been made to supply accurate information in this manual, Zebra Technologies Corporation is not liable for any erroneous information or omissions. Zebra Technologies Corporation reserves the right to correct any such errors and disclaims liability resulting therefrom.

No Liability for Consequential Damage

In no event shall Zebra Technologies Corporation or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of or the results of use of or inability to use such product, even if Zebra Technologies Corporation has been advised of the possibility of such damages. Because some states do not allow the exclusion of liability for consequential or incidental damages, the above limitation may not apply to you.

Copyrights

The copyrights in this manual and the label print engine described therein are owned by Zebra Technologies Corporation. Unauthorized reproduction of this manual or the software in the label print engine may result in imprisonment of up to one year and fines of up to \$10,000 (17 U.S.C.506). Copyright violators may be subject to civil liability.

This product may contain ZPL®, ZPL II®, and ZebraLink™ programs; Element Energy Equalizer® Circuit; E3®; and AGFA fonts. Software © ZIH Corp. All rights reserved worldwide.

ZebraLink and all product names and numbers are trademarks, and Zebra, the Zebra logo, ZPL, ZPL II, Element Energy Equalizer Circuit, and E3 Circuit are registered trademarks of ZIH Corp. All rights reserved worldwide.

Monotype®, Intellifont® and UFST® are trademarks of Monotype Imaging, Inc. registered in the United States Patent and Trademark Office and may be registered in certain jurisdictions.

Andy™, CG Palacio™, CG Century Schoolbook™, CG Triumvirate™, CG Times™, Monotype Kai™, Monotype Mincho™ and Monotype Sung™ are trademarks of Monotype Imaging, Inc. and may be registered in some jurisdictions.

HY Gothic Hangul™ is a trademark of Hanyang Systems, Inc.

Angsana™ is a trademark of Unity Progress Company (UPC) Limited.

Andale®, Arial®, Book Antiqua®, Corsiva®, Gill Sans®, Sorts® and Times New Roman® are trademarks of The Monotype Corporation registered in the United States Patent and Trademark Office and may be registered in certain jurisdictions.

Century Gothic™, Bookman Old Style™ and Century Schoolbook™ are trademarks of The Monotype Corporation and may be registered in certain jurisdictions.

HGP Gothic B is a trademark of the Ricoh company, Ltd. and may be registered in some jurisdictions.

Univers™ is a trademark of Heidelberger Druckmaschinen AG, which may be registered in certain jurisdictions, exclusively licensed through Linotype Library GmbH, a wholly owned subsidiary of Heidelberger Druckmaschinen AG.

Futura® is a trademark of Bauer Types SA registered in the United States Patent and Trademark Office and may be registered in some jurisdictions.

TrueType® is a trademark of Apple Computer, Inc. registered in the United States Patent and Trademark Office and may be registered in certain jurisdictions.

All other product names are the property of their respective owners.

All other brand names, product names, or trademarks belong to their respective holders.

©2006 ZIH Corp.

1. Manual Information

This Bluetooth Connection Manual provides information on the connection of Bluetooth-enabled devices (PDAs, PCs, etc.) with the printer (EM 220).

2. Precautions

- 2-1 To connect the printer with another device via Bluetooth, the devices must be within 10m of one another. The connection is broken if the distance between devices exceeds 10m.
- 2-2 The maximum separating distance may be shortened if transmission obstacles, such as cement walls, are present.
- 2-3 If a device (such as a microwave oven, wireless LAN, etc.) that uses the same frequency is present, transmission may be interrupted. Separate the printer and Bluetooth-enabled device from such interrupting devices by a distance of at least 5m.

3. General Sequence for Bluetooth Connections

Bluetooth connection methods vary by device. The following is the general sequence for Bluetooth connections, provided for reference purposes.

- 3-1 Turn on power of each device
 - PDAs, PCs (Bluetooth Dongle), printers, etc.
- 3-2 Run a Bluetooth connection program on the PDA or PC.
- 3-3 Search for the peripheral with which to establish the connection.
 - Search for the printer.
- 3-4 Register this Printer (EM 220) from the search results.
 - If a security setting is enabled, register after entering the PIN Code.
(PIN Code=Pass Key: password of the Bluetooth device, Default code: 0000)
- 3-5 Test the connection.
 - When connected, confirm the designated COM port of fixed COM port and print.

4. Bluetooth Connection Instructions

This manual focuses on the use of the following devices:

Please use this manual as a guide when using devices other than those listed below.

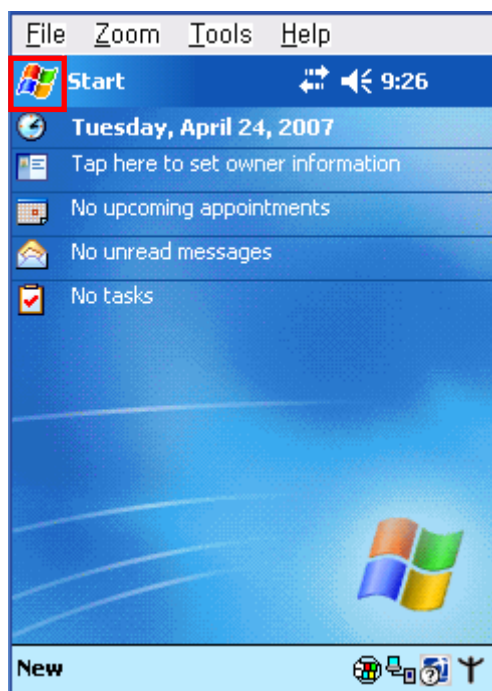
- Intermec PDA (Device: CN2B, OS: Pocket PC 4.20.0)
- SYMBOL PDA (Device: SYMBOL MC70, OS: Windows Mobile 5.0)
- HP PDA (Device: iPAQ hx2700, OS: Windows Mobile 5.1.1702)
- Bluetooth Dongle (BlueSoleil IVT Stack, Widcomm Stack)

After turning on the power of all Bluetooth devices, perform the connection process.

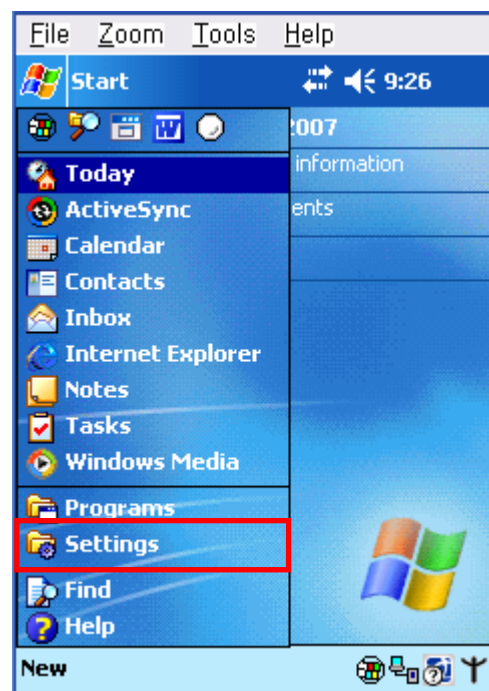
- PDAs, PCs (Bluetooth Dongle), printers (EM 220), etc.

4-1 Connecting with an Intermec PDA (Device: CN2B, OS: Pocket PC 4.20.0)

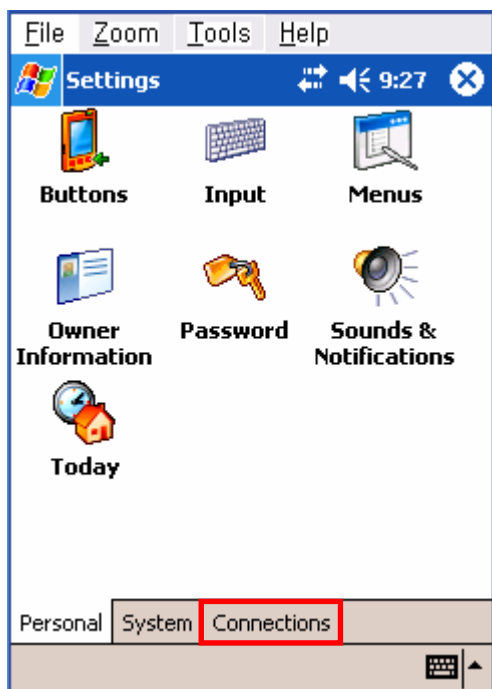
1) Click the  icon.



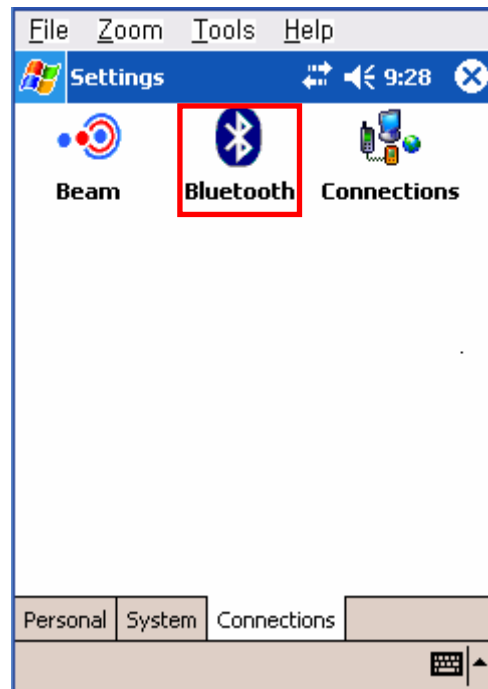
2) Click "Settings".



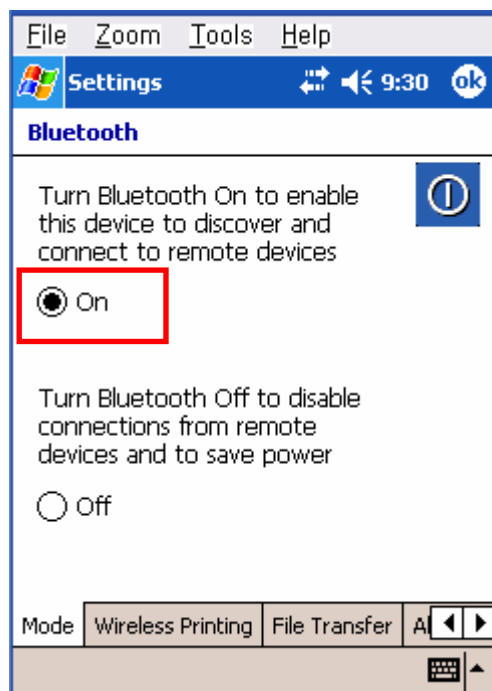
3) Click "Connections".



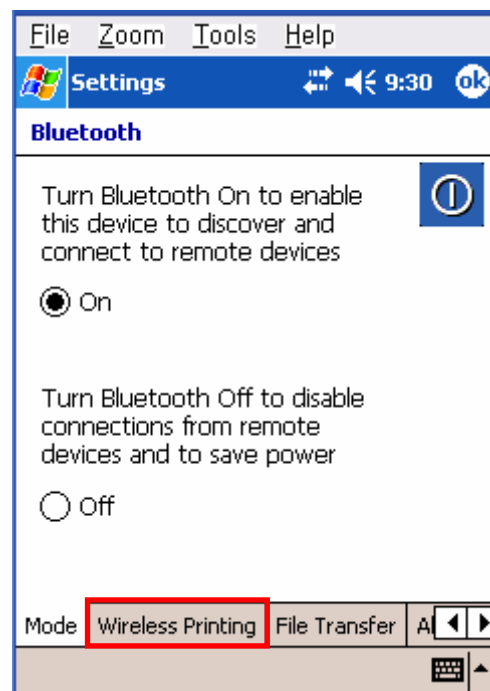
4) Click the "Bluetooth" icon.



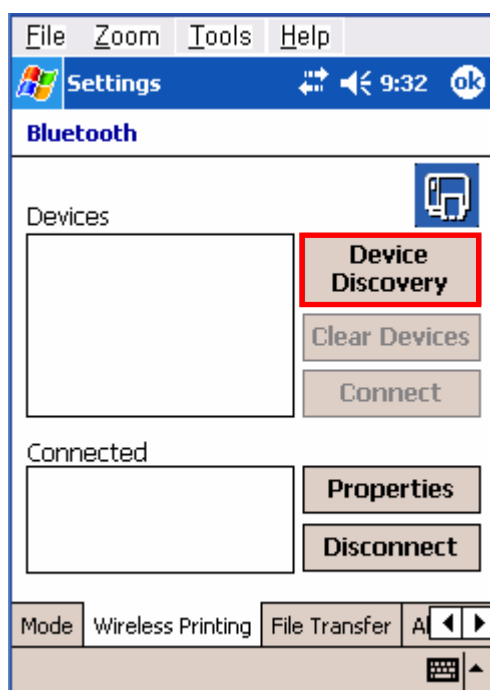
5) Click to check the “On” option.



6) Click the “Wireless Printing” menu bar



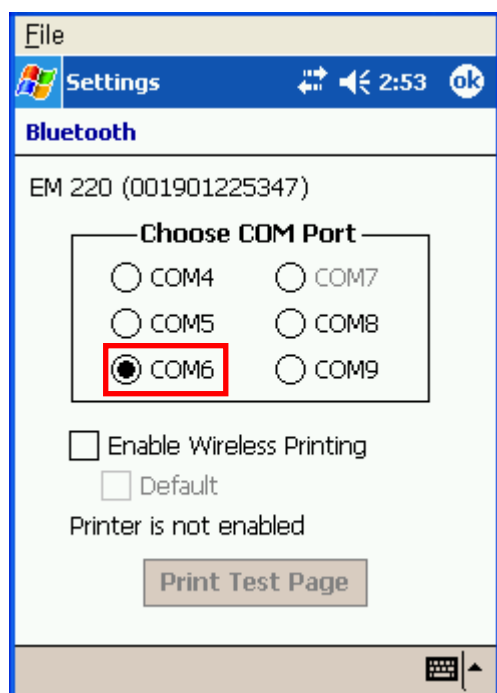
7) Click the “Device Discovery” button.



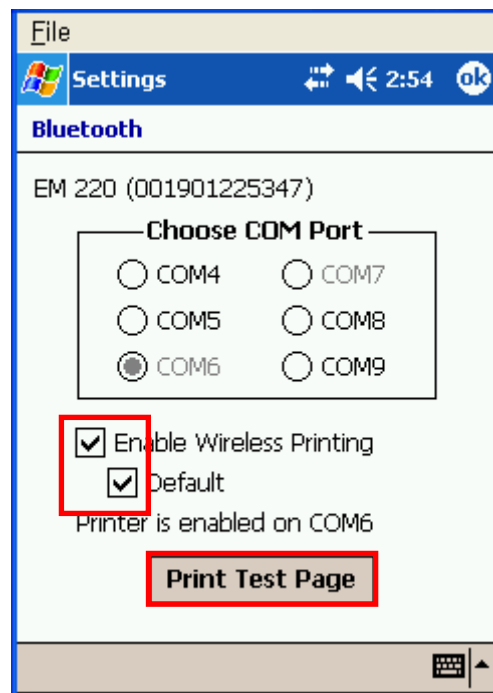
8) Select Devices of the EM 220,
and click the “Connect” button.



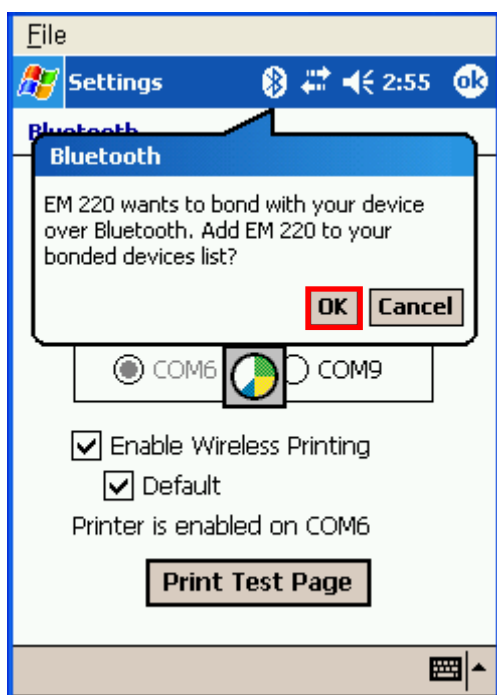
9) Select the COM port to be used.



10) Check the “Enable Wireless Printing” and “Default” checkboxes, and click the “Printer Test Page” button.



11) Click the “OK” button.



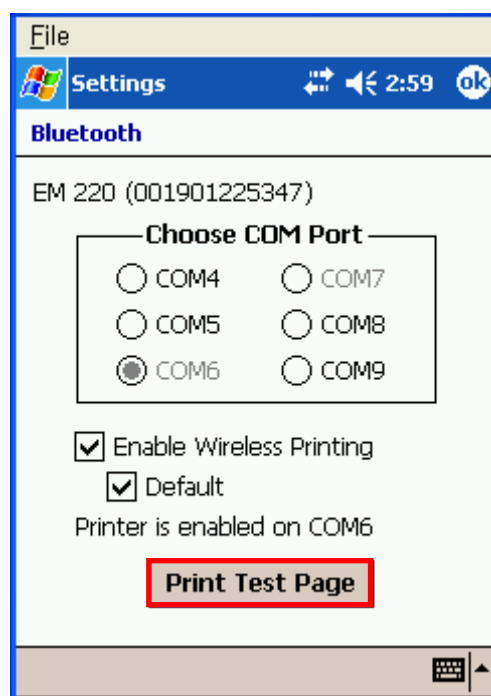
12) The PIN Code(Device PIN) window appears (if the EM 220 security function is enabled).



- 13) Input the PIN Code(Device PIN)
and click "Next". (Default code: 0000)

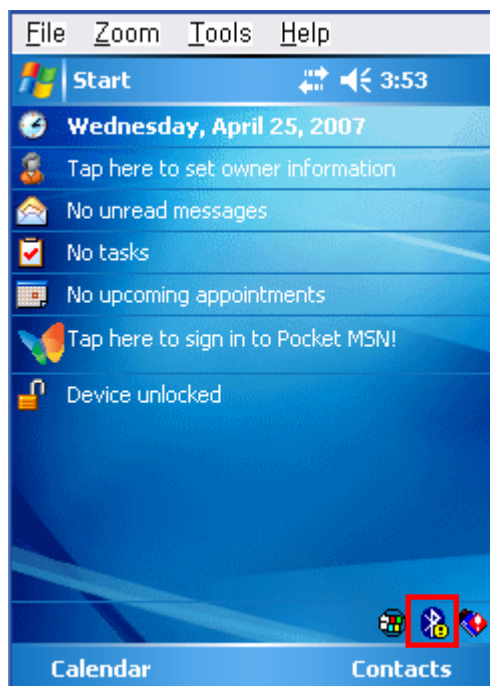


- 14) If after pressing the "Print Test Page" button,
the BT LED of the EM 220 turns on and
test printing is performed, the connection is
complete.

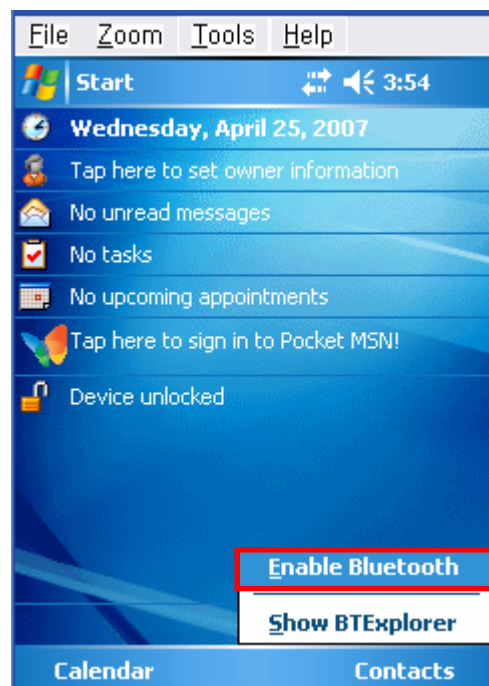


4-2 Connecting with a SYMBOL PDA (Device: SYMBOL MC70, OS: Windows Mobile 5.0)

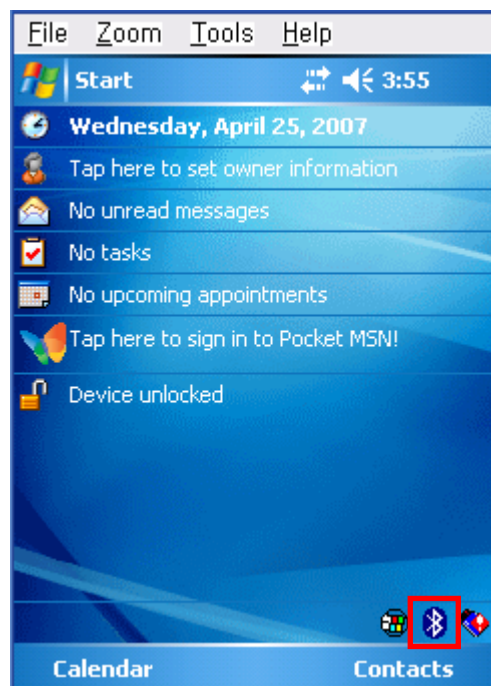
1) Click the  icon.



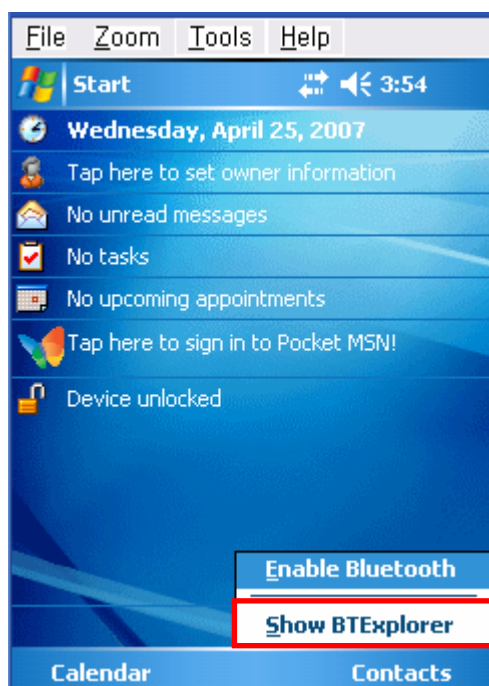
2) Click "Enable Bluetooth".



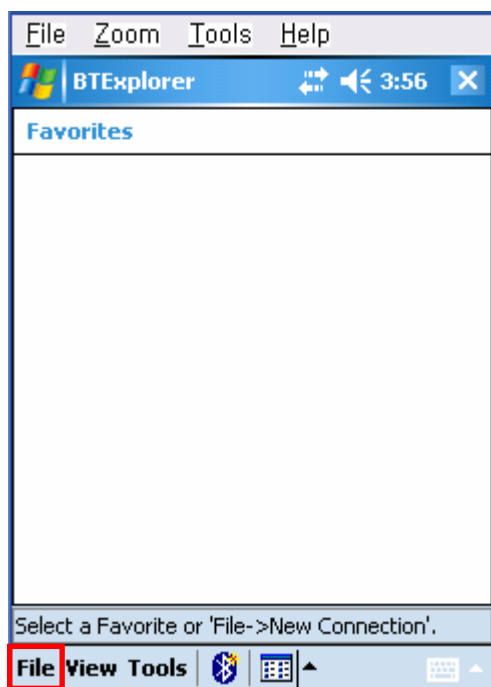
3) Click the  icon.



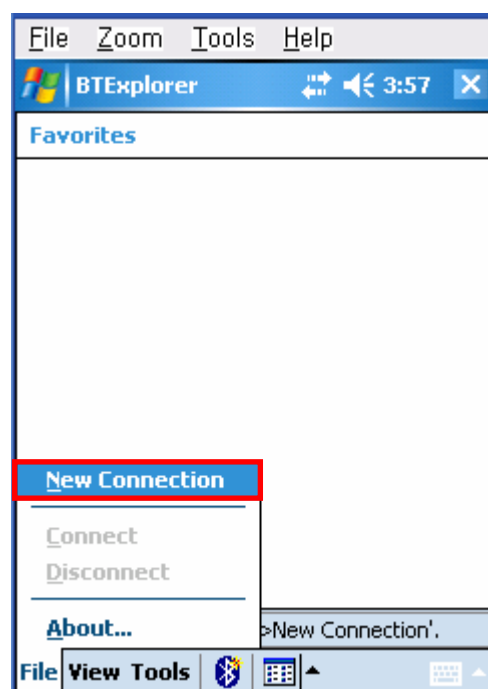
4) Click "Show BTE Explorer".



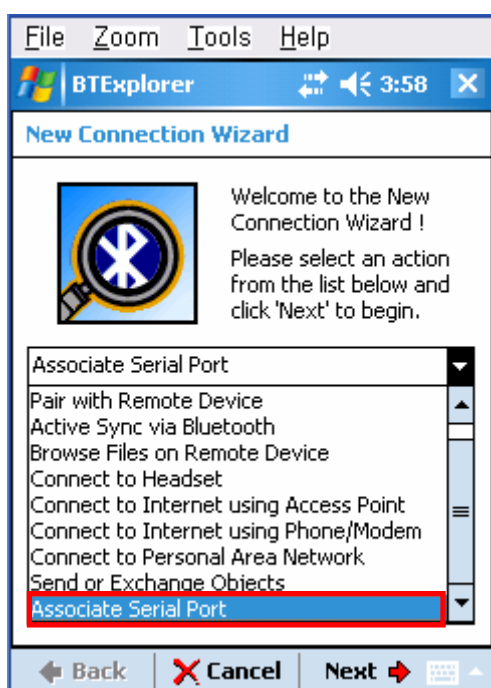
5) Click "File".



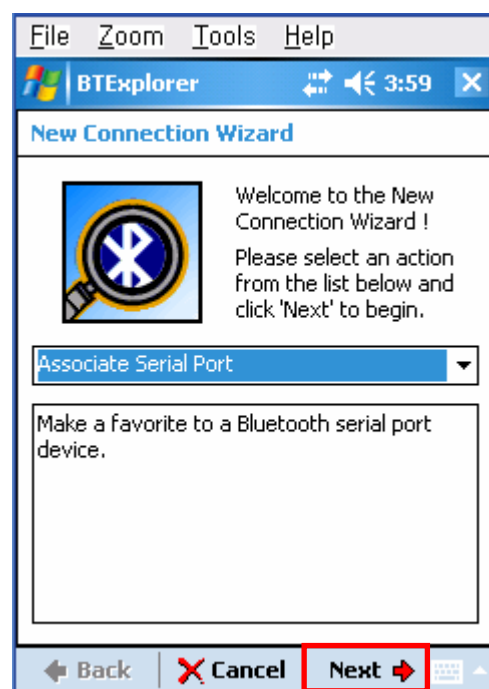
6) Click "New Connection".



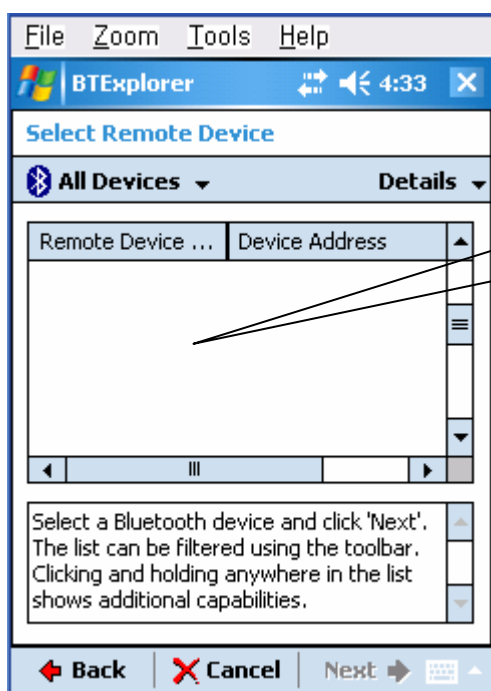
7) Click "Associate Serial Port".



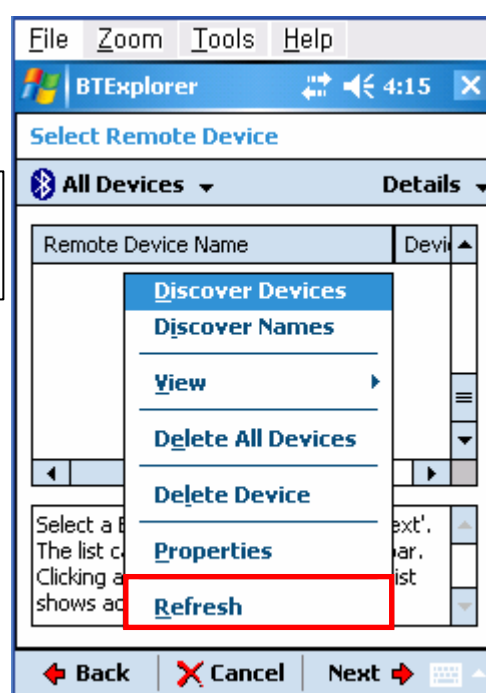
8) Click the "Next" button.



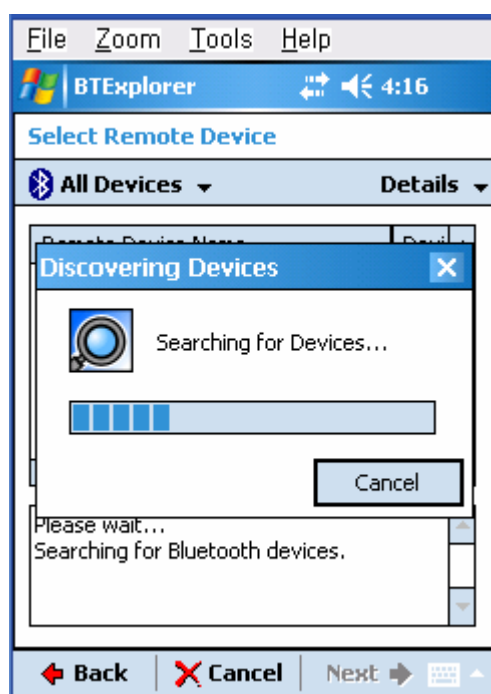
9) Click the List window for 2 seconds and the function folder appears.



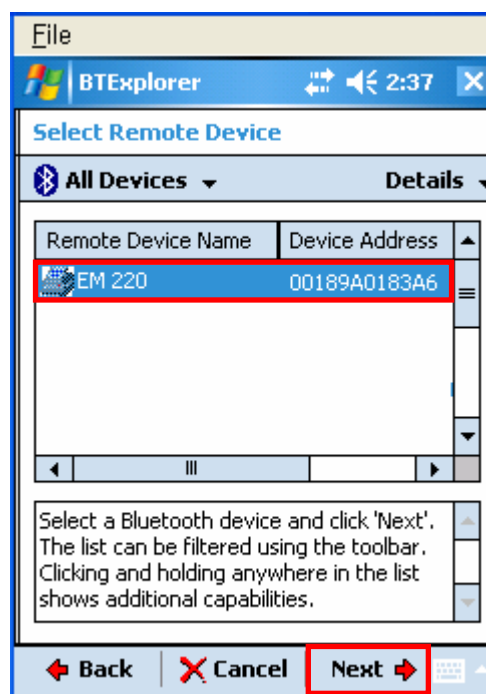
10) Click "Refresh".



11) Bluetooth devices in the proximity are discovered.



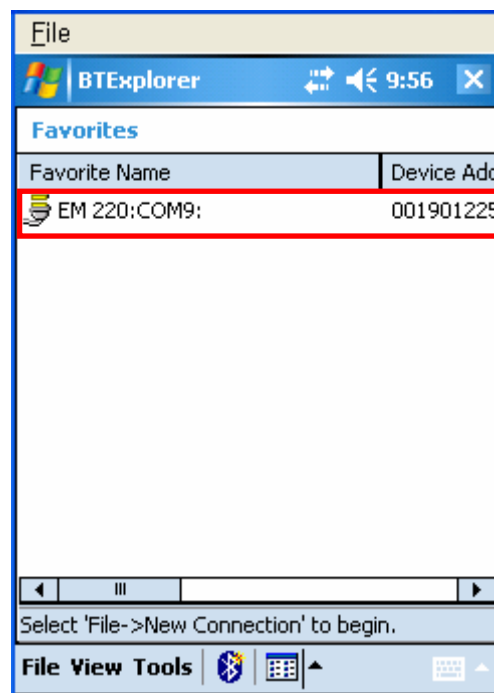
12) Select the Device Address of the EM 220, and click the "Next" button.



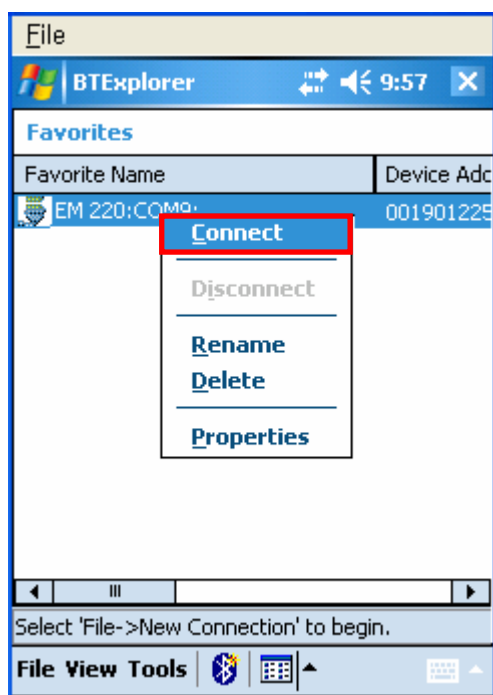
13) The Serial port is registered as COM9.



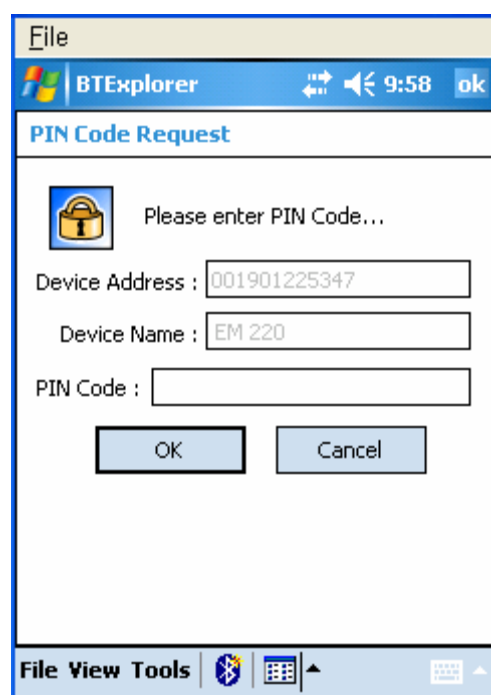
14) Click the EM 220 name for 2 seconds.



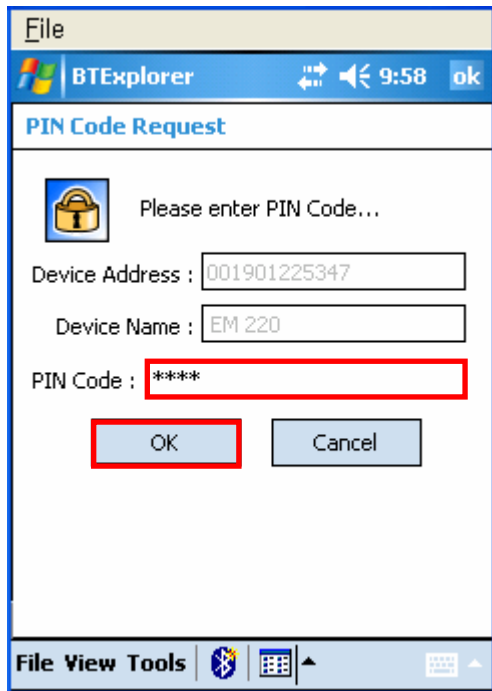
15) Click "Connect".



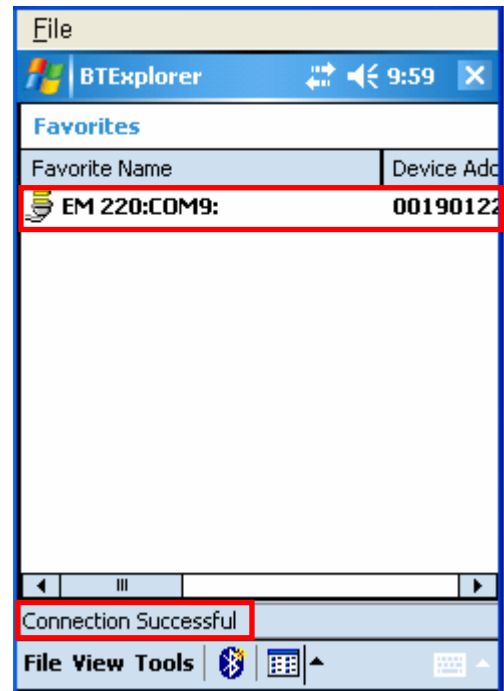
16) The PIN Code window appears (if the EM 220 security function is enabled).




- 17) Input the PIN Code and click “OK” .
(Default PIN Code: 0000)

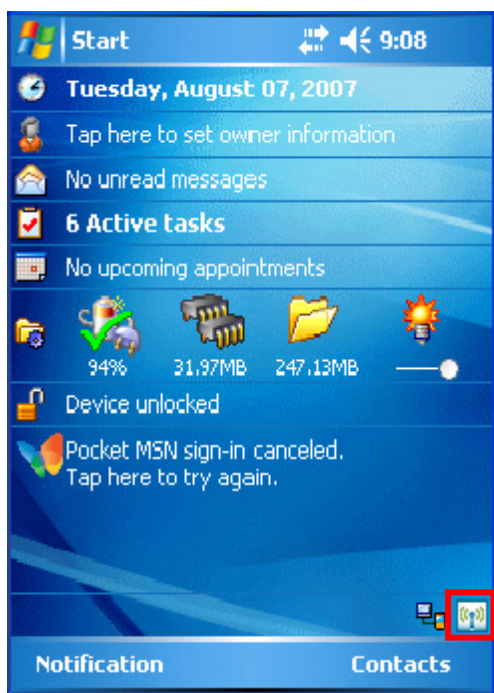


- 18) The “Connection Successful” message appears, and the connection is complete when the BT LED of the EM 220 turns on.



4-3 Connecting with an HP PDA (Device: iPAQ hx2700, OS: Windows Mobile 5.1.1702)

- 1) To run Bluetooth, first click the  icon at the lower right of the screen.



- 2) Click the Bluetooth logo button to activate the Bluetooth function.

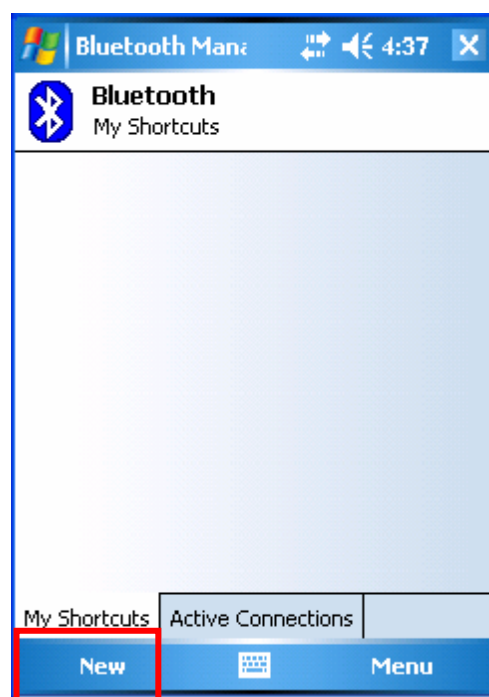
Not active



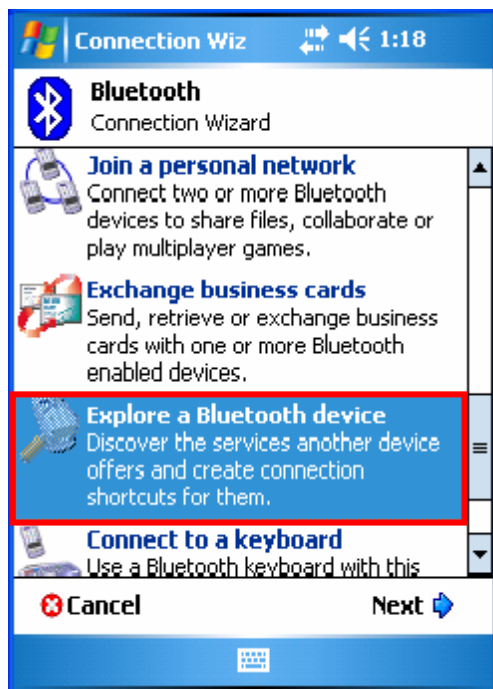
- 3) When activated, the Bluetooth button turns green. Click the "Manager" button to connect to the EM 220.



- 4) Click "New".



5) Click "Explore a Bluetooth device".



6) Click the EM 220 icon from the Bluetooth devices displayed in the search results.



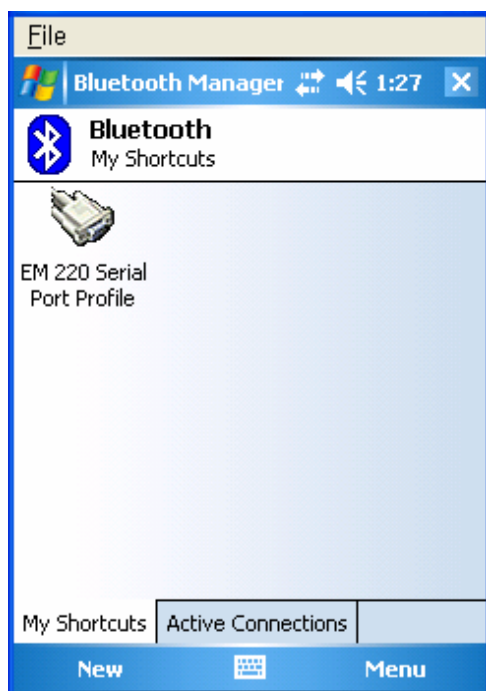
7) Select Serial Port Profile and click "Next".



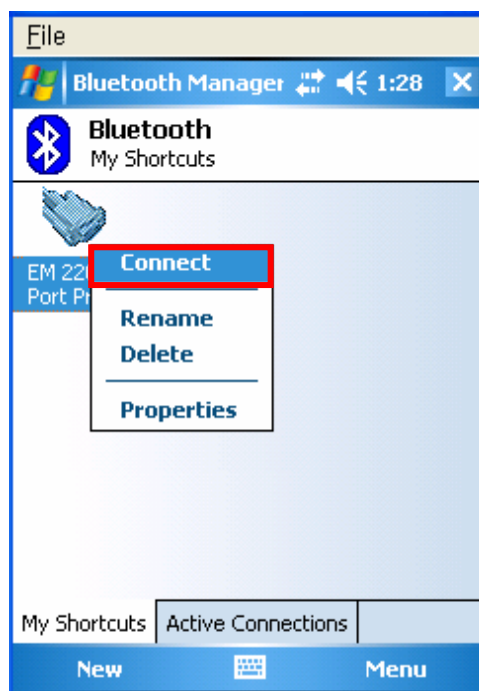
8) Click "Finish".



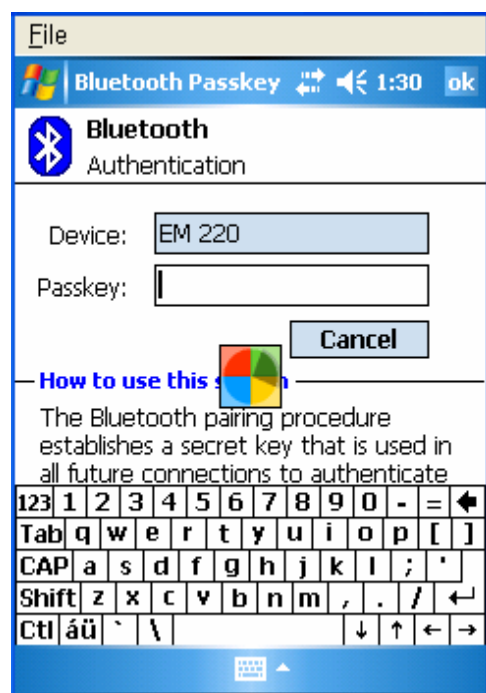
9) The EM 220 shortcut is produced.



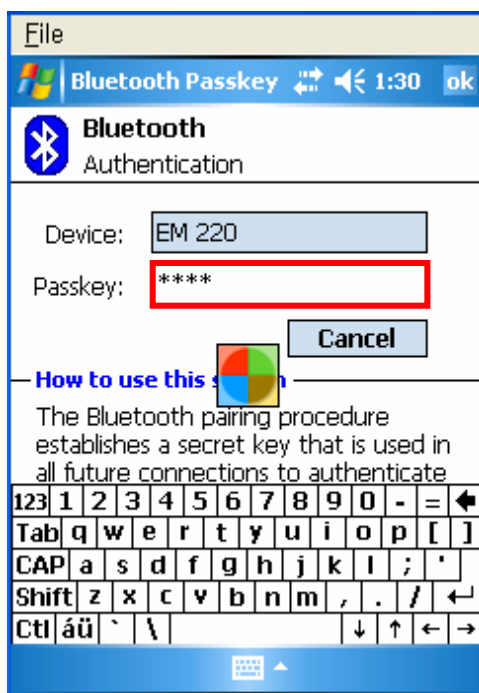
10) Clicking the shortcut for 2 seconds brings up the function folder. Click "Connect".



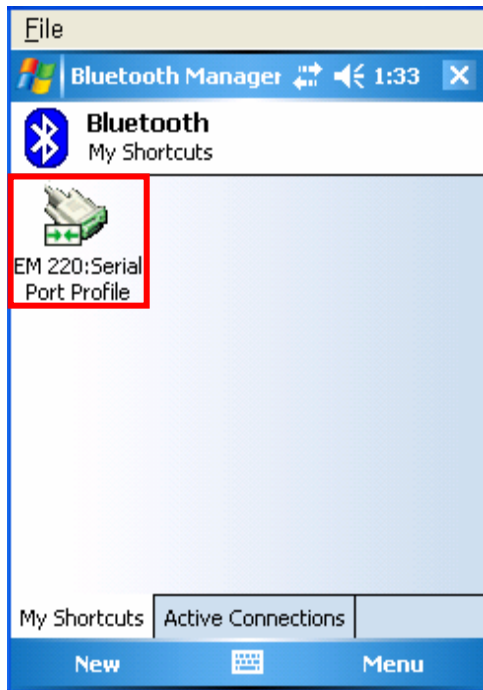
11) The Pass Key window appears (if the EM 220 security function is enabled).



12) Input the Pass Key and click "Enter" (Default Pass Key: 0000)

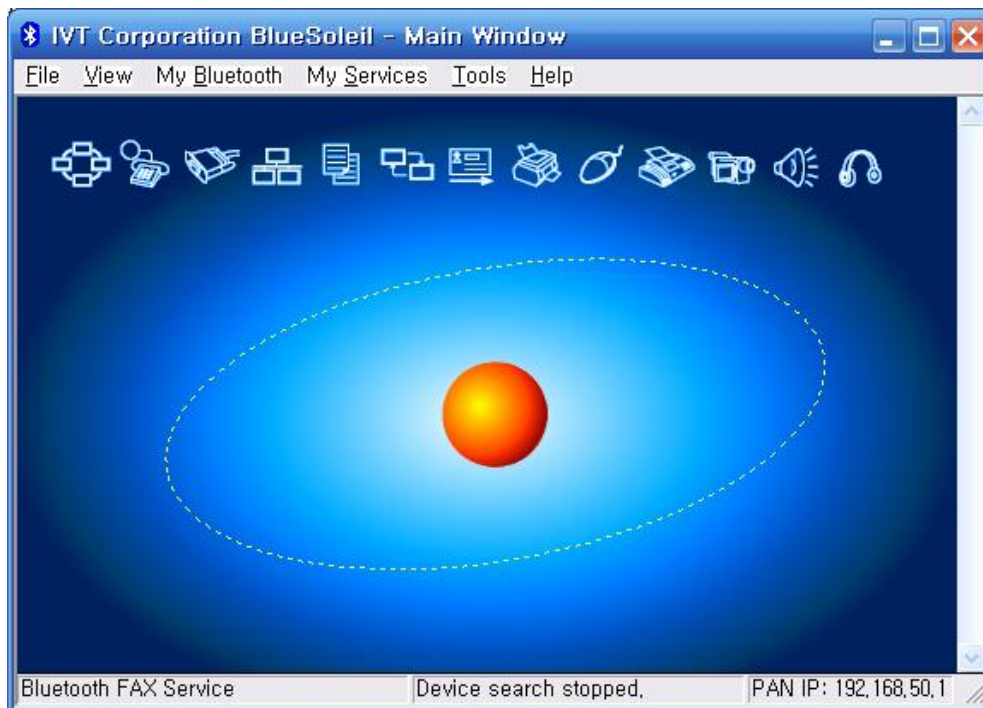


- 13) The shortcut changes to show a green indicator as Shown below. The connection is complete when the BT LED of the EM 220 turns on.

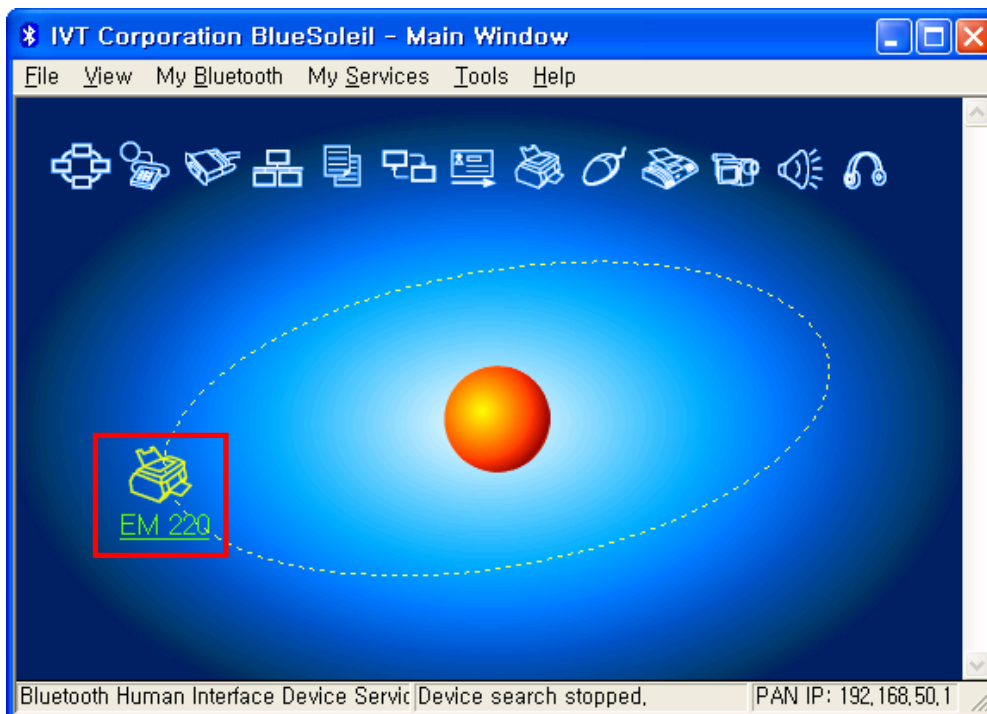


4-4 Connecting with Bluetooth Dongle (BlueSoleil IVT Stack)

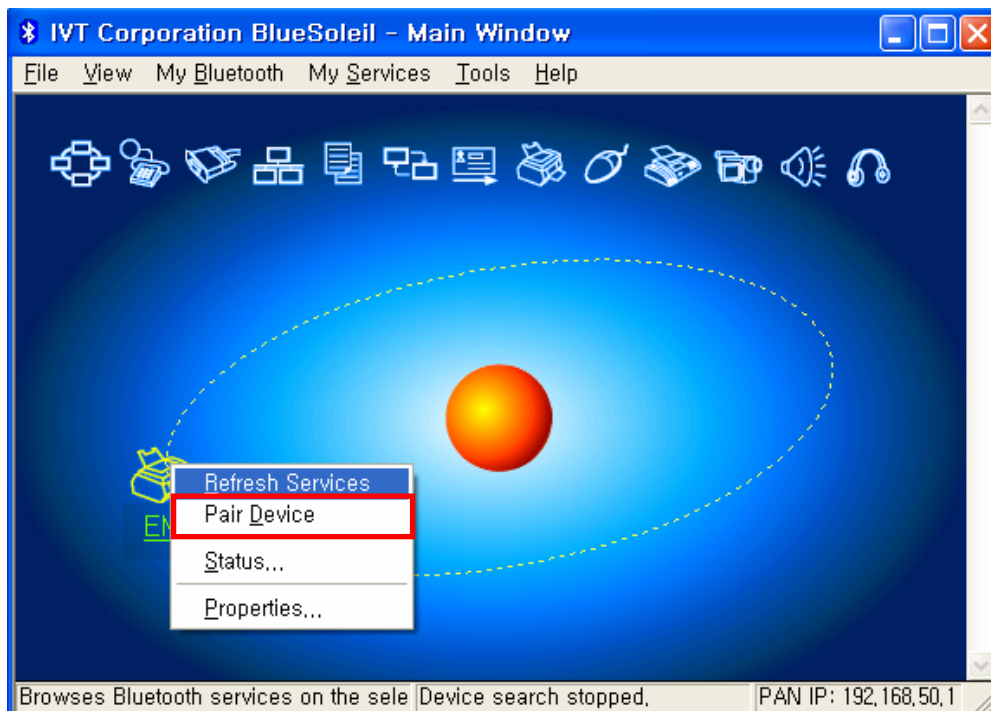
- 1) After purchasing Bluetooth Dongle, insert the CD in the PC and install Bluesoleil.
- 2) Connect Bluetooth Dongle to the USB port of the PC.
- 3) Click the Bluesoleil icon on the PC screen top.
- 4) Click the red sphere at the center of the Bluesoleil main screen.



- 5) The program initiates a search for Bluetooth devices in the proximity.

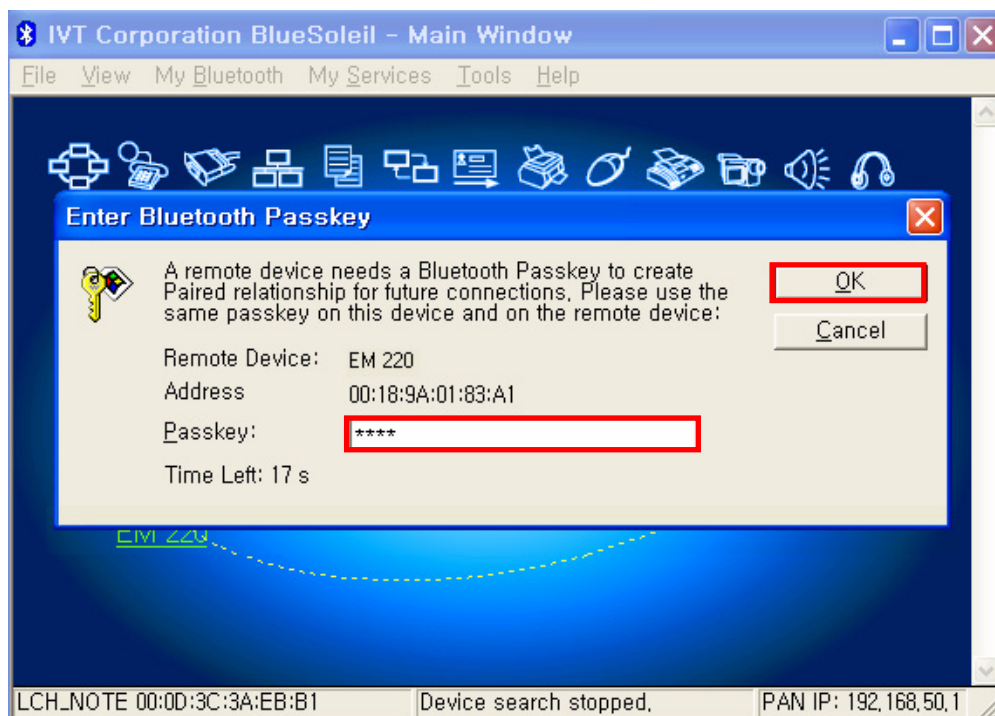


6) Click right button of the mouse above the “EM 220 Icon” and select the “Pair Device”.

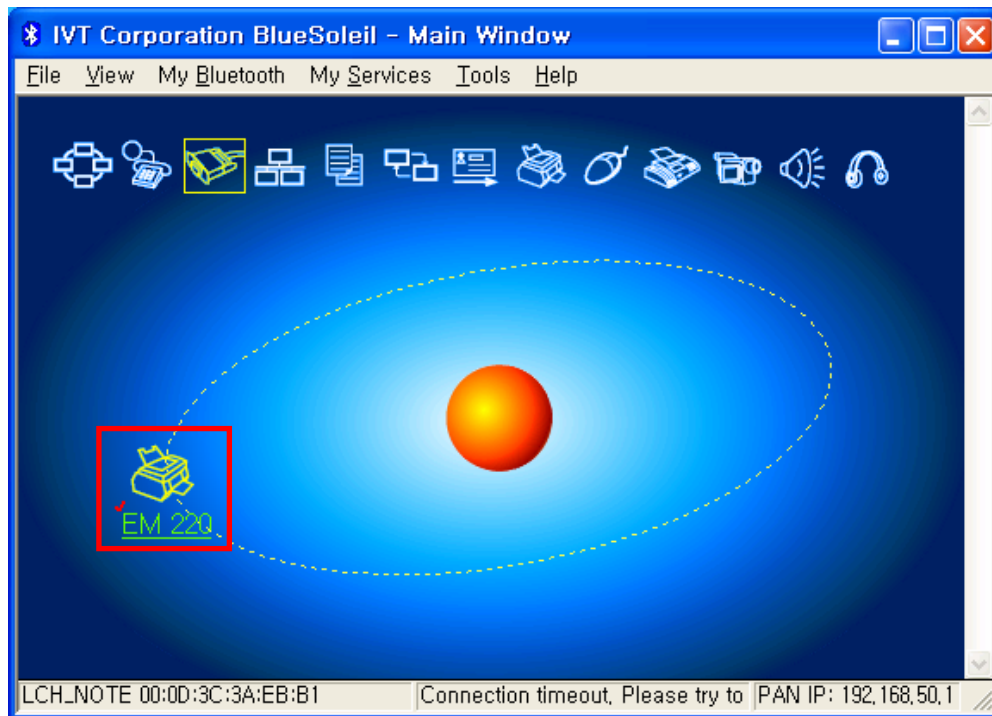


7) Enter the PIN Code in the Bluetooth Passkey window.

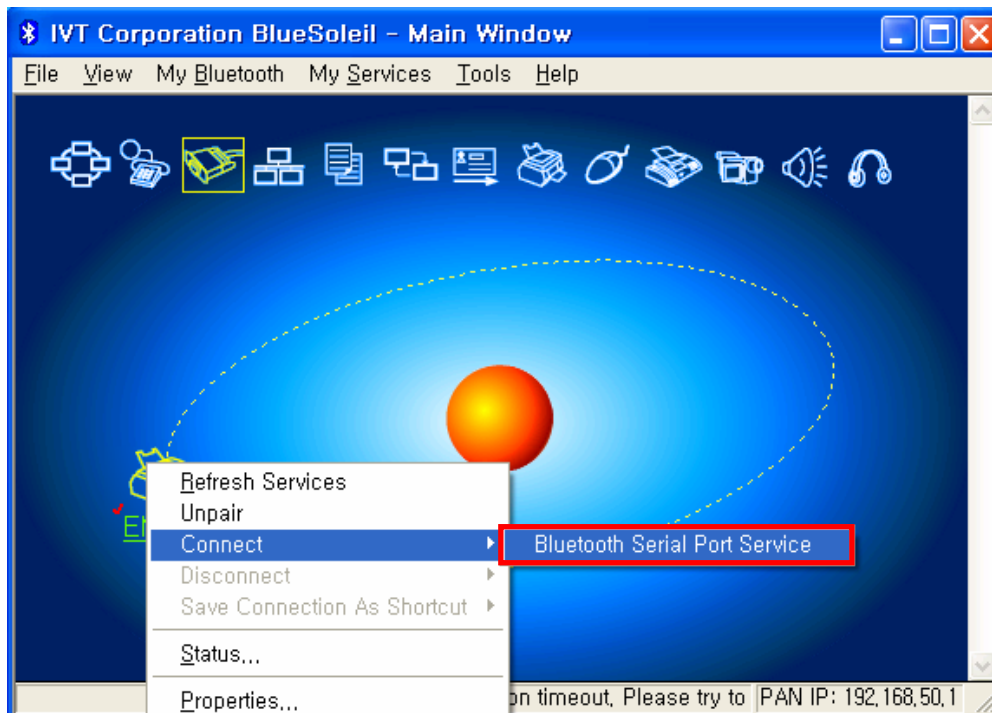
(Default Passkey: 0000)



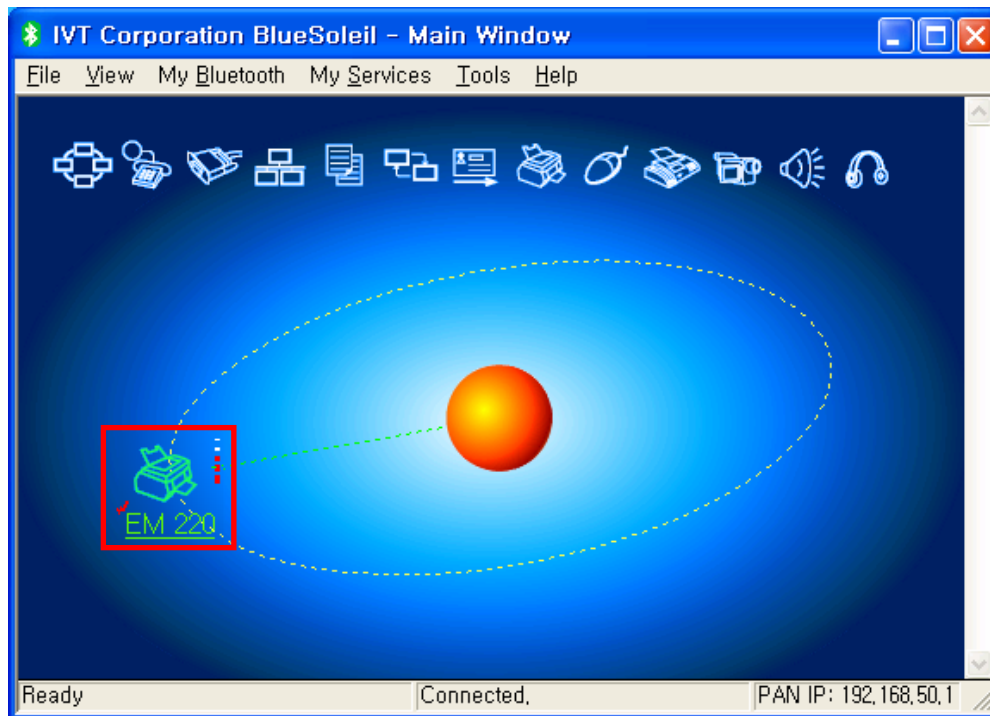
- 8) If the Passkey(PIN Code) is correct and pairing is completed, a red check symbol appears next to the EM 220 icon.



- 9) Click right button of the mouse above the “EM 220 Icon” and select the “Connect > Bluetooth Serial Port Service”.



- 10) When the connection is established, the icon turns green, and a green dotted line appears as shown in the image below.

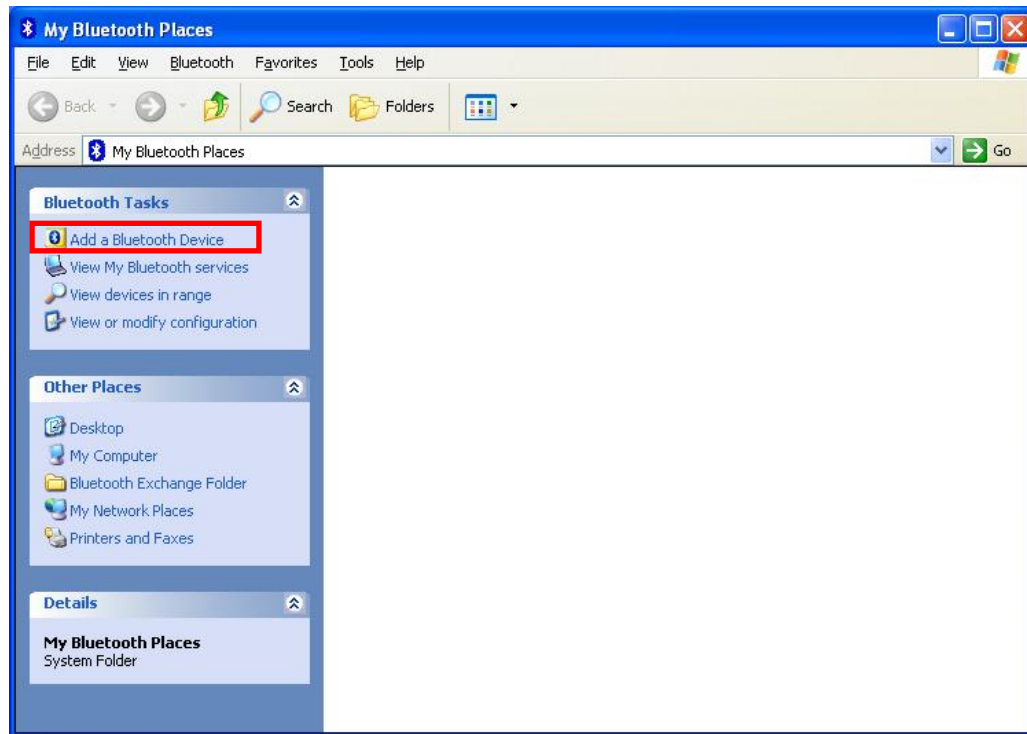


- 11) The connection is complete when the BT LED of the EM 220 turns on.
- 12) When the connection is complete, the message pictured below appears at the bottom right of the PC screen.
- The COM port number shown in the message indicates the COM port via which the EM 220 and the PC are connected.

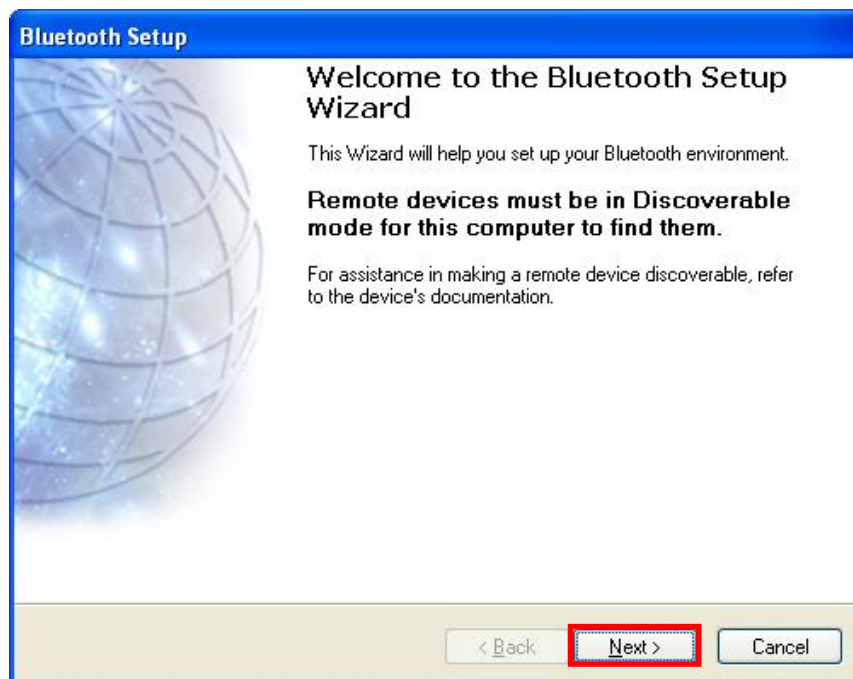
* My Bluetooth COM Port 4 (COM4) is connected to remote device.

4-5 Connecting with Bluetooth Dongle (Widcomm Stack)

- 1) After purchasing Bluetooth Dongle, insert the CD in the PC and install Bluesoleil.
- 2) Connect Bluetooth Dongle to the USB port of the PC.
- 3) Click the My Bluetooth Places icon on the PC screen top.
- 4) Click “Bluetooth Tasks > Add a Bluetooth services”



- 5) Click “Next”.



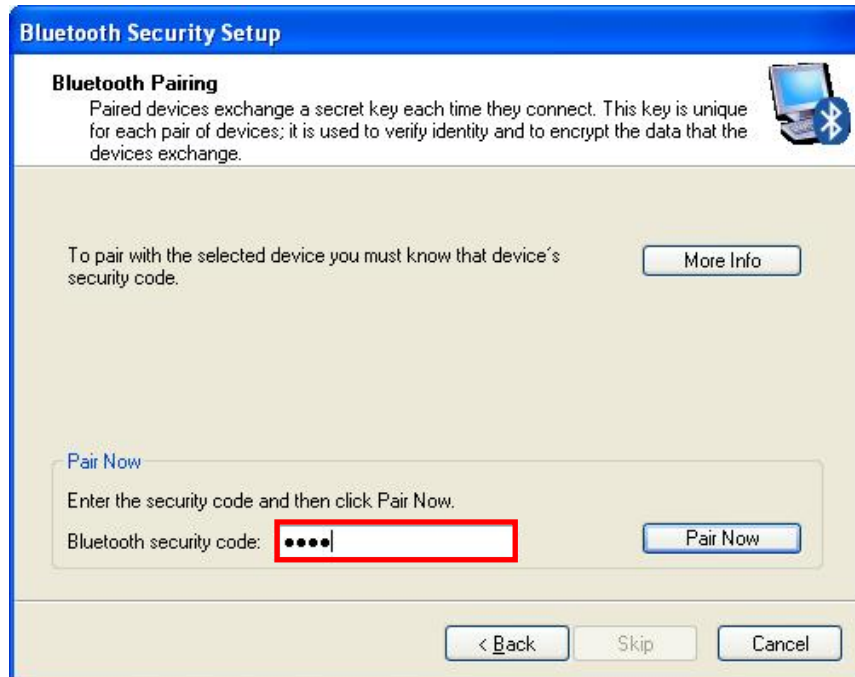
6) Select "Show all devices" and Click "Next".



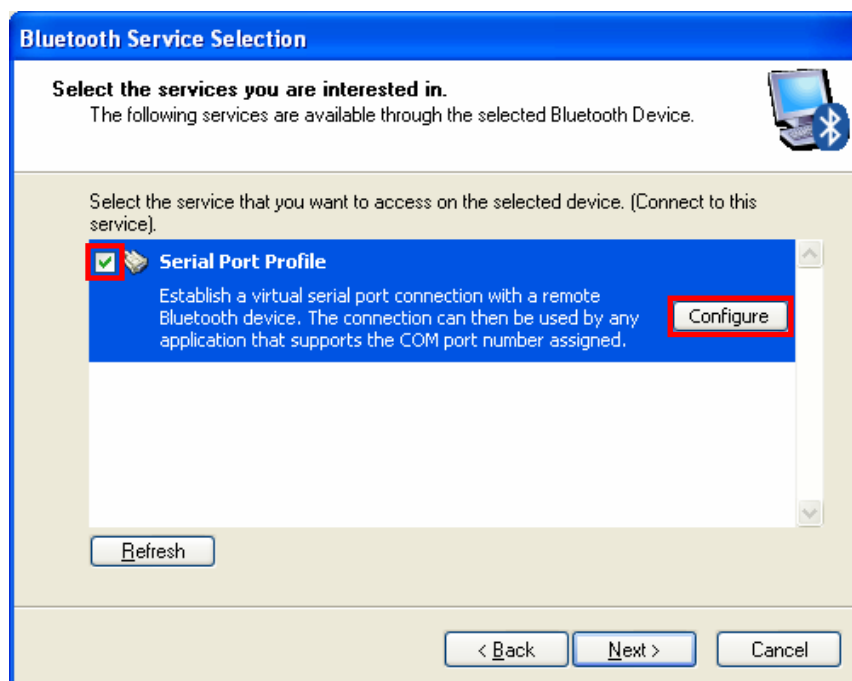
7) The program initiates a search for Bluetooth devices in the proximity. Click "Next".



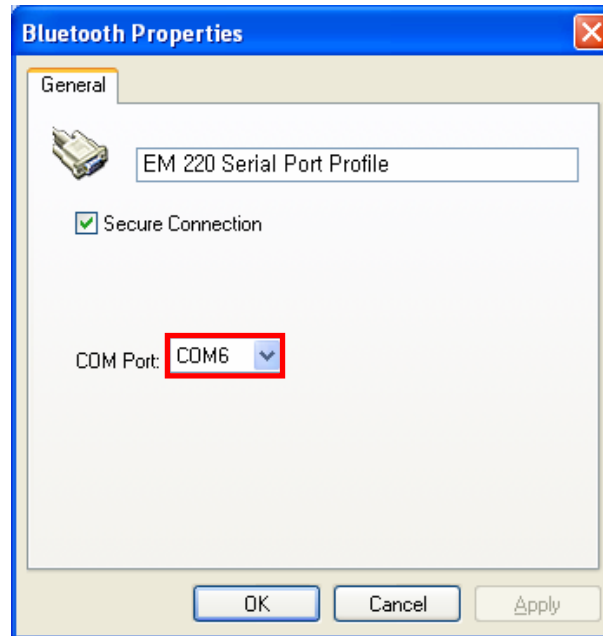
- 8) Enter the PIN Code in the Bluetooth Passkey window.
(Default Passkey: 0000)



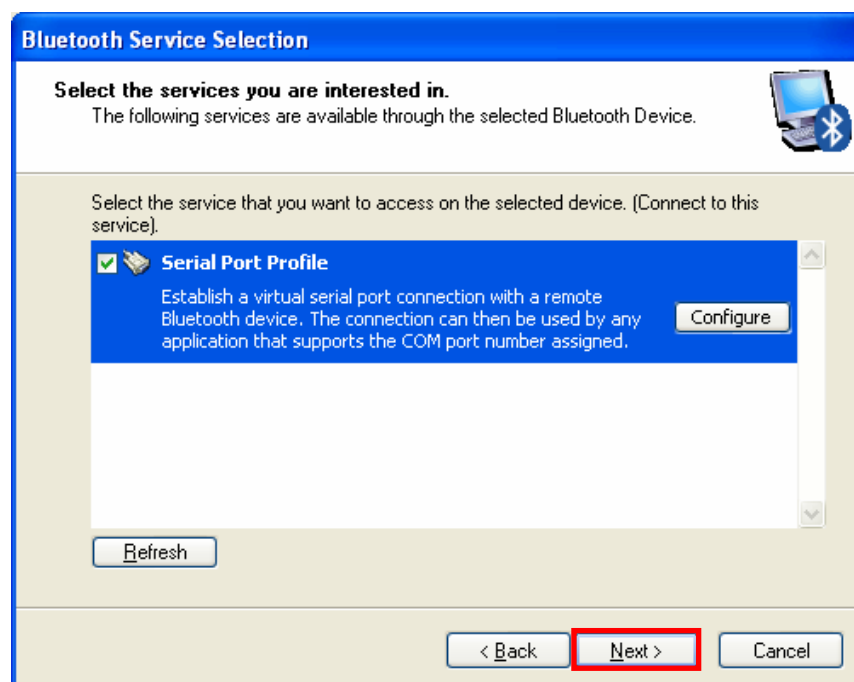
- 9) If the Passkey(PIN Code) is correct and pairing is completed, a green check symbol appears next to the Serial Port Profile icon. Click "Configure"



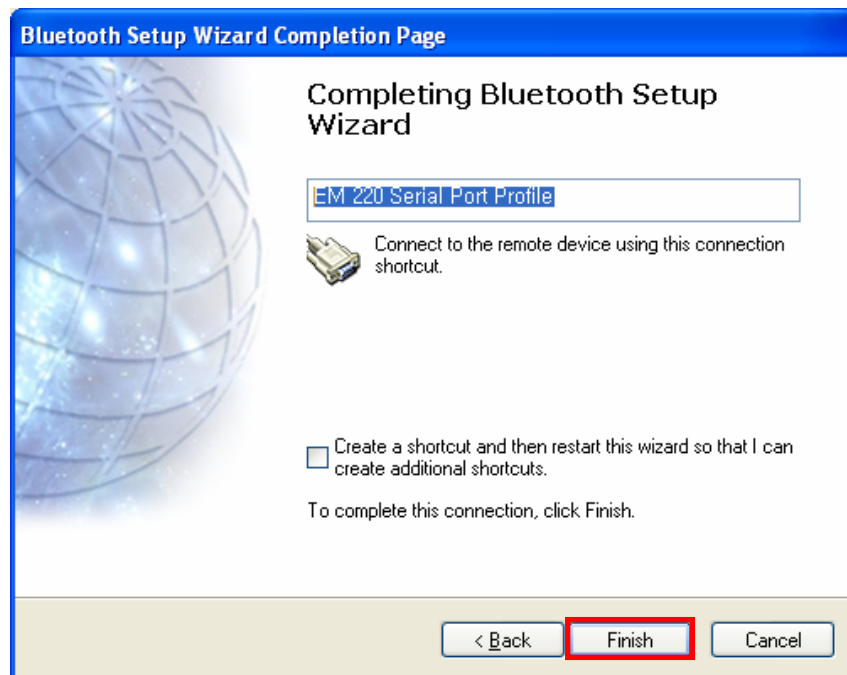
10) Check COM Port



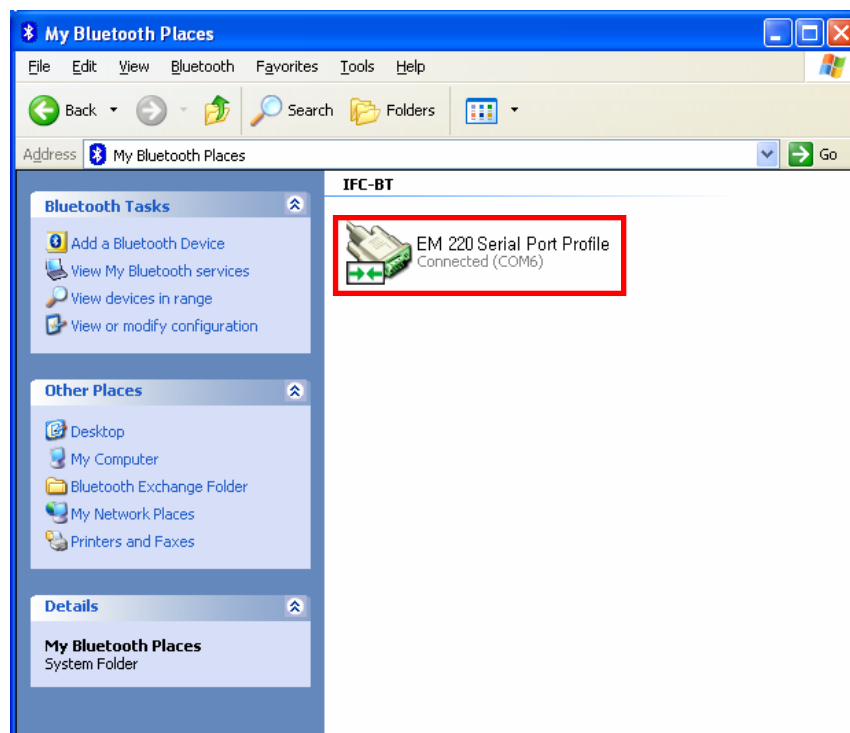
11) Click "Next"



12) Click “Finish”.



13) The shortcut changes to show a green indicator as shown below. The connection is Complete when the BT LED of the EM 220 turns on.





www.zebra.com

Zebra Technologies International, LLC

333 Corporate Woods Parkway

Vernon Hills, Illinois 60061, 3109 USA

Phone: +1.847.634.6700

Toll-Free: +1.800.423.0422

Fax: +1.847.913.8766