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Wireless Technology, Inc.

**MACH SERIES
INTERNET PROTOCOL
TRANSCEIVERS**

*Installation and
Operation Manual*

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INFORMATION

FCC NOTICE

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, and
- 2.) This device must accept any interference that may be received, including interference that may cause undesired operation.

READ THIS MANUAL

Every effort has been made to insure that this WTI system is of the highest quality. This product has been carefully inspected to comply with rigid quality standards before shipment to you. In consideration of your investment and the desire to obtain full performance capability engineered into your new WTI product, we recommend that you read this manual before attempting to operate your system.

FOR MORE ASSISTANCE OR MORE INFORMATION:

Wireless Technology, Inc. (WTI)
2064 Eastman Avenue, Suite 113
Ventura, CA 93003-7787

TEL 805/339-9696
FAX 805/339-0932

EMAIL: sales@wirelesstech.com

INTERNET: <http://www.gotowti.com>

The software/firmware furnished with the equipment is confidential to and is copyrighted by *Wireless Technology, Inc.* (WTI) It is not to be copied or disclosed in any manner without the consent of *Wireless Technology, Inc.* (WTI) The software/firmware is furnished to the purchaser under a license for use on a single system.

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PRODUCT WARRANTY AND REPAIR

PRODUCT WARRANTY

We appreciate your purchase of *Wireless Technology, Inc.* (WTI) security products. We take pride in the quality of our products and have manufactured each new WTI product to exacting quality standards. In normal use, it will provide you with years of satisfactory performance. However, should you experience difficulty; you are protected under the provisions of this warranty.

WTI warrants to the original user a product that is free of defects in materials and workmanship in normal use. WTI warrants to the original user that WTI's wireless RF transmission system products will be free of defects in materials and workmanship in normal use for a period of 12 months from the date of sale. WTI's obligation under this warranty shall be limited to the repair, including all necessary parts and the cost of labor connected therewith, or at our option, the replacement of any product that shows evidence of a manufacturing defect within the warranty period.

This warranty is extended to all WTI products purchased and used within the United States of America and is valid only when service is rendered by the authorized *Wireless Technology, Inc.* (WTI) Warranty Station.

This warranty shall not apply to appearance or accessory items including, but not limited to, knobs, connectors, cabinets and connecting cables. This warranty shall not, in addition, apply to repairs or replacements necessitated by any cause beyond the control of WTI including, but not limited to, acts of nature, improper installation, misuse, lack of proper maintenance, accident, voltage fluctuations, unauthorized repairs or modifications.

This warranty becomes void in the event serial numbers are altered, defaced or removed, or an attempt is made to field service or alter performance of any RF transmission component.

WTI reserves the right to make changes in design, or to make additions to, or improvements upon, products without incurring any obligation to install the same on products previously manufactured.

The foregoing is in lieu of all other warranties expressed or implied and WTI neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of our products. In no event shall WTI or its Authorized Dealers be liable for special or consequential damage arising from the use of this product, or any delay in the performance of this warranty due to causes beyond its control.

PRODUCT WARRANTY AND REPAIR

REPAIR AUTHORIZATION

Please contact *Wireless Technology, Inc.* (WTI), to obtain a repair authorization number (RA) and provide the following information:

- 1.) Product Model & Serial Numbers
- 2.) Date of shipment, purchase order number, sales order number or WTI invoice number.
- 3.) Details of the defect or malfunction. If there is a dispute regarding the warranty or product, which does not fall under the warranty conditions stated within the description of the written warranty, please include a written explanation with the product when returned.

SHIP FREIGHT PRE-PAID TO:
Wireless Technology, Inc. (WTI)
2064 Eastman Avenue, Suite 113
Ventura, CA 93003-7787
TEL 805/339-9696
FAX 805/339-0932

RETURNS

No unauthorized returns will be accepted. All returns must have an authorized (RA) number issued by the factory (CA number if returned for credit and RA number if returned for repair). Products returned for repair or credit will be rejected if no authorization number has been issued or freight has not been pre-paid. All merchandise returned for credit will be subject to a 20% restocking and refurbishing charge.

SAFEGUARDS AND TOOLS

IMPORTANT SAFEGUARDS

1.) Read Instructions. It is important to read all safety and operating instructions before installing or using this equipment.

2.) Retain Instructions. Retain this manual and any supplements for future reference.

3.) Follow Instructions. Follow all instructions herein for use of this equipment.

Do not attempt to open the sealed Transmitter and Receiver Assembly. There are no user-serviceable parts inside. Refer servicing to the *Wireless Technology, Inc. (WTI)* factory service center only.

4.) Heed warnings. Adhere to all warnings on the equipment, and in this manual.

5.) To reduce the risk of electric shock or equipment damage, work on the unit only when the power is shut off and is unplugged from its power source to prevent accidental activation. Also take precautions to avoid contact between the equipment and other electrical wires or power sources that may be present at the installation site.

RECOMMENDED TOOLS AND ACCESSORIES FOR PROPER INSTALLATION:

- 1.) Tie-wraps to secure cable runs
- 2.) #1 and #2 Phillips screwdriver
- 3.) #3 Slot screwdriver
- 4.) Cordless power drill
- 5.) Set of open end or SAE wrenches
- 6.) Silicone caulking compound for antenna connector
- 7.) Self-sealing connector tape - Used to weatherproof all outdoor cable connections
- 8.) Appropriate conduit if boxes are mounted outdoors.
- 9.) Hand held radios

INTRODUCTION



WIRELESS BRIDGE

WTI IP2400 is a fully compliant with IEEE802.11b standard wireless LAN/Bridge. WTI IP2400 provides not only mobile users to connect to their corporate Ethernet-based LANs, but also the bridge between two or more wired LAN functions. This guide specifically address the Bridge function of WTI IP2400

PACKAGE CONTENTS

The Wireless Bridge includes the following items:

1. Wireless Bridge
2. USB Cable
3. The CD including:
 - Wireless bridge Utility & Driver software
 - User's Manual (this document)
4. Quick Installation Guide
5. 12 VDC Switching Power Supply*

*** Caution: You must use the power supply supplied by WTI. Failure to comply with any rules will result in void of warranty support by WTI.**

FEATURES

- Plug-and-Play installation
- Control via USB port
- Easy-to-use Windows-based SNMP user interfaces for configuration, and monitoring
- Firmware upgradeable
- Wireless data encryption with 64 and 128 bits encryption for security
- Supports RTS threshold control for better throughput
- Auto fallback data rate under noisy environment
- Supports SNMP utility management

SYSTEM REQUIREMENTS

1. Computer with USB support or Ethernet connection
2. Windows 98, Millennium (ME), 2000 Professional
3. Wireless bridge (2)
4. Ethernet Cross Over Cable if connecting Wireless AP/Bridge directly to Ethernet PC (Optional)

CONNECTING THE WIRELESS BRIDGE TO YOUR NETWORK

Locate an optimum location for the Wireless Bridge. The best place for your Wireless bridge is usually at the center of your wireless network, with (LOS) line of sight to all of your remote locations.

1. Fix the direction of the antenna. Place it in a location, which can best cover your wireless network. Normally, the higher you place the antenna, the higher the performance will be.
2. Connect an RJ-45 connector to the Wireless Bridge. Then, connect the other end of the Ethernet cable to a switch or hub. The Wireless Bridge will then be connected to your 10/ 100 Network. Or you could connect directly to a Network ready PC with an Optional **Crossover Cable**
3. Connect the Primary AC Power (120-240VAC, 50-60Hz) to the Wireless Bridge's Power Socket. **Only use the power supply, supplied with the Wireless bridge. Use of a different power supply may result in product damage.**
4. The Hardware Installation is complete.

CONFIGURING THE WIRELESS BRIDGE

The Wireless bridge can be configured one of two ways, through the AP/Bridge DFU Utility or the SNMP Manager.

AP/Bridge DFU Utility

The AP Utility can be used when configuring the Wireless Bridge through a USB connection and is compatible with Windows 98, Millennium, and 2000.

SNMP Manager

The Wireless Bridge SNMP Manager can be used when configuring the Wireless Bridge through an Ethernet connection and is compatible with Windows 98, Millennium, and 2000.

DEFAULT SETTINGS:

IP Address : 192.168.0.1
SubNet Mask : 255.255.255.0
ESSID : WTI
Mode: Point-to-Point Bridge

SETUP – DRIVER INSTALLATION

INSTALLING THE USB DRIVERS FOR THE WIRELESS AP/BRIDGE

Installing the Driver Software for Windows 98

Windows 98 will automatically identify the Wireless AP/Bridge, once it is connected to the PC, and prompt you to install the necessary driver. Make sure that the Setup CD is inserted into your CD-ROM drive and click the Next button on the Add New Hardware Wizard screen to proceed.

1. Select Search for the best driver for your device. (Recommended) and click the Next button. This will search for the Windows 98 driver.
2. Windows will now ask you where to search for the driver software. Select Specify a location and type in the blank field D:\ Access Point\ DFU\ Driver (where "D" specifies your CD-ROM). Then, click the Next button.
3. Windows will now search for the driver. After Windows has acknowledged finding the driver, click the Next button.
4. Windows will now install the driver files. Click the Finish button when completed.

Installing the Driver Software for Windows Millennium (ME)

1. Windows Millennium will automatically identify the Wireless Network Wireless Bridge, once it is connected to the PC, and prompt you to install the necessary driver. Make sure that the Setup CD is inserted into your CD-ROM drive.
2. Select Specify the location of the driver (Advanced) and click the Next button. This will search for the Windows Millennium driver.
3. Windows will now ask you where to search for the driver software. Select Specify a location and type in the blank field D:\ Access Point\ DFU\ Driver (where "D" specifies your CD-ROM). Then, click the Next button.
4. Windows will now search for the driver. After Windows has acknowledged finding the driver, click the Next button.
5. Windows will now install the driver files. Click the Finish button when completed.

Installing the Driver Software for Windows 2000

1. Windows 2000 will automatically identify the Wireless Network Wireless Bridge, once it is connected to the PC, and prompt you to install the necessary driver. Make sure that the Setup CD is inserted into your CD-ROM drive and click the Next button on the Found New Hardware Wizard screen to proceed.
2. Select Search for a suitable driver for my device (recommended) and click the Next button. This will search for the Windows 2000 driver.
3. Under "Optional Search Locations", select Specify a location and click the Next button.
4. Windows will now ask you where to search for the driver software. Type in the blank field D:\ Access Point\ DFU\ Driver (where "D" specifies your CD-ROM). Then, click the OK button.
5. Windows will now search for the driver. After Windows has acknowledged finding the driver, click the Next button.
6. Windows will now install the driver files. Click the Finish button when completed.

SETUP – WIRELESS BRIDGE UTILITY

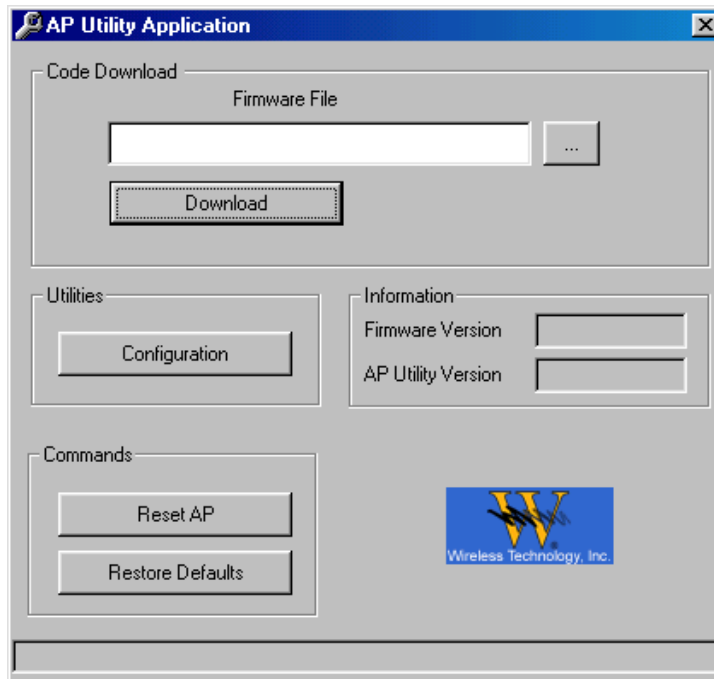
WIRELESS AP/BRIDGE DFU UTILITY

The Wireless AP/Bridge DFU is provided to allow you further customization of the Wireless Bridge through USB port.

INSTALL WIRELESS BRIDGE UTILITY

1. To install the Wireless Bridge Utility, first put the Setup CD into your CD-ROM drive. Then, click the Windows Start button and select Run from the Start Menu. In the "Open" field, type: D:\ Access Point\ DFU\ setup. exe. (where "D" specifies your CD-ROM)
2. This will bring up the Welcome screen. After reading this screen, click the Next button to continue.
3. The Destination screen will show you the default destination chosen by the utility. If you should want to install this in another location, click the Browse button and select an alternate destination. When you are ready to continue, click the Next button
4. The next screen will show the Program Folder that the utility will use. If you want to put the utility in another Program Folder, click an Existing Folder or, if you don't want to run this out of a Program Folder, delete the Program Folder name. Then, click the Next button to continue.
5. The Utility has now been installed. Then complete installation.

CONFIGURING THE WIRELESS IP2400 AP/BRIDGE WITH USB PORT/AP/BRIDGE DFU UTILITY



The AP Utility consists of:

1. Code Download (Firmware upgrade).
2. Utilities (Configuring Wireless Bridge).

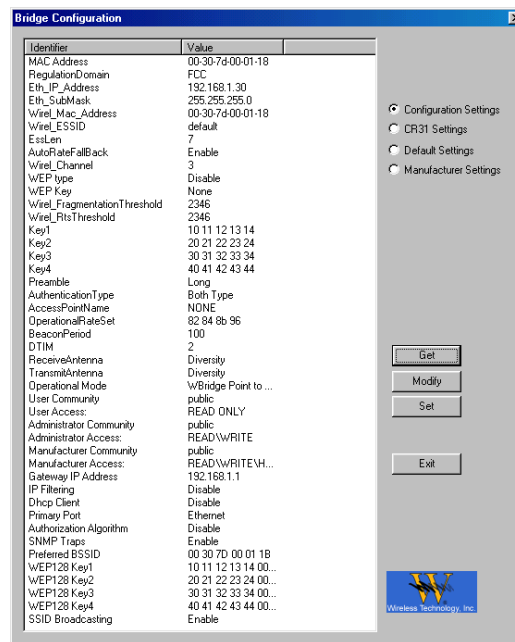
CODE DOWNLOAD (FIRMWARE UPGRADE)

The Wireless Bridge firmware upgrade can be done through the USB port with AP Utility.

Caution: You do not need to use this feature unless you have an updated latest AP/Bridge firmware. Please check at the <http://www.gotowti.com> website for the latest firmware.

1. Click "..." button and a dialog box appeared. Select the firmware file, which you want to upgrade your Wireless Bridge. Then click "Open" button
2. Click "Download" button to process firmware upgrade
3. The AP Utility process firmware upgrade now. Please wait for a moment.
4. Firmware upgrade succeeded.

UTILITIES (CONFIGURING WIRELESS AP/BRIDGE)



- A. Under the window that appears, there are four options:
The "Get" button in order to view the current parameters of the Wireless Bridge
The "Modify" button in order to set new values to the pre-selected parameters
The "Set" button to download any changes to the Wireless Bridge.
The "Exit" button to exit this utility
- B. Configuration Settings: Select "Configuration Settings" then click "Get" button. The "Identifier" and "Value" column display Wireless Bridge's status. From this screen, you can view the status information and modify the Wireless Bridge status.
- **MAC Address:** The MAC Address of the Wireless Bridge. Unique 48-bit, hard-coded Media Access Control address known as the station identifier.
 - **Regulation Domain:** Different Country and region
 - **Eth_IP_Address:** The IP Address of the Wireless Bridge. Network-assigned Internet Protocol address of the Wireless Bridge.
 - **Eth_SubMask:** The Ethernet Station and the Wireless Point must be on the same subnet. The IP address for the Wireless Bridge must correspond to the Subnet Mask. Subnet Mask consists of four sets of three digits that divide a network into subnetworks.
 - **Wirel_ESSID:** The ESSID (up to 32 printable ASCII characters) of the unit is a string used to identify a WLAN. The ID prevents the unintentional merging of two co-located
 - **WLANs.**
 - **ESSID Length:** The length of the ESSID (number of characters).
 - **AutoRateFallBack:** Select Enable or Disable. When this is enabled the transmission rate is defined by the past transmission status.

CONFIGURATION

- **Wirel_ Channel:** Select the channel to be used. The channels differ from country to country.
- **WEP key:** The WEP key if the WEP option is enabled in order to activate WEP encryption for transmissions between the stations and the Wireless Point
- **WEP type:** The Wired Equivalent Privacy Algorithm (64 or 128 bits)..
- **Wireless Fragmentation Threshold:** The size at which packets will be fragmented. Choose a setting within a range of 256 to 2346 bytes. This is the option for the Fragmentation Threshold activation.
- **Wireless RTS Threshold:** Minimum packet size to require an RTS (Request To Send). For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. This is the option for the RTS Threshold activation.
- **WEP Keys #1 -#4:** The default key that will be used. May be edited only if WEP type is 64 bits.
- **Preamble Type:** Select Short or Long Preamble Type. Preamble is the first subfield of PDU, which is the appropriate frame format for transmission to PHY (Physical layer). There are two options, Short Preamble and Long Preamble. The Short Preamble option improves throughput performance.
- **Authentication Type:** Select Open System or Shared Key Authentication Type.
- **Open System:** With this setting any station in the WLAN can associate with an Wireless Bridge and receive and transmit data (null authentication).
- **Shared Key:** With this setting only stations using a shared key encryption identified by the Wireless Bridge are allowed to associate with it.
- **Both:** With this setting stations communicate with or without data encryption.
- **Access Point Name:** Type the Wireless Bridge's name.
- **Operational Rate Set:** By default the unit adaptively selects the highest possible rate for transmission. In case of obstacles or interference, the system will step down. Select the basic rates to be used among the following options: 1 -2 (Mbps), 1 -2 -5.5 - 11 (Mbps). Select the Operational Rate set among the following options, 82 84 8B 96 (1 - 2 -5.5 -11 Mbps) or 82 84 0B 16 (1 -2 Mbps).
- **Beacon Period:** Set the Beacon Period parameter, which specifies the duration between beacon packets (milliseconds). The range for the beacon period is between the range 20-1000 with a typical value of 100.
- **DTIM:** Set the DTIM period. Determines at which interval the AP will send its broadcast traffic. Default value is 4 beacons.
- **Receive Antenna:** Set the Receive Antenna to Diversity.
- **Transmit Antenna:** Set the Transmit Antenna to Diversity.
- **User Community:** Indicates the user's password. The default password is "public"
- **User Access:** Indicates the user's access rights.
- **Administrator Community:** Indicates the administrator's password. The default password is "public".
- **Administrator Access:** Indicates the Administrator's access rights.
- **Manufacturer Community:** Indicates the manufacturer's password.
- **Manufacturer Access:** Indicates the manufacturer's access rights.
- **Gateway IP Address:** Network Gateway
- **IP Filtering:** Enable/ Disable the possibility to allow only IP protocol packets to pass through the WLAN and any other protocol packets filtered out.
- **DHCP client:** Enable/ Disable automatic IP Address assignment by the DHCP server
Primary Port: Determines the Wireless Bridge's IP Address.

CONFIGURATION

- **Primary Port:** The interface which determines the DHCP server (EthernetPort/ Wireless Port).
 - **Authorization Algorithm:** Enable/ Disable the association with authorized MAC Addresses stations.
 - **SNMP traps:** Enabled/ Disabled SNMP traps, which are the messages indicating the actions related to the Wireless AP/Bridge that have taken place.
 - **WEP 128 keys #1-# 4:** The default key that will be used. May be edited if WEP type is 128 bits.
- C. Under the window that appears, there are four options:
The "Get" button in order to view the current parameters of the Wireless Bridge
The "Modify" button does not work in this section.
The "Set" button does not work in this section.
The "Exit" button to exit this utility.

CONFIGURING THE WIRELESS AP/BRIDGE WITH ETHERNET PORT/SNMP UTILITY

NOTE:

1. ***If you AP/Bridge unit is connected to a Hub, use the Ethernet Cable provided with the kit.***
2. ***If you are connecting to the AP/Bridge unit from a PC directly without a Hub, an Optional Cross Over Cable would be required to make the connection***

SNMP UTILITY LOCATION

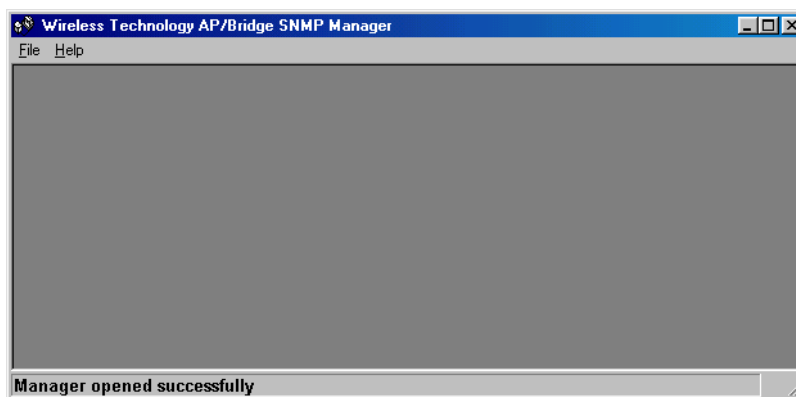
Start SNMP Manager function:

1. Connecting an Ethernet station to the Wireless AP/Bridge. You need to check if the station IP address and the Subnet mask are configured properly and are within the same **Range** of the Wireless AP/Bridge unit. Also the IP address for Wireless AP/Bridge must correspond to the Subnet mask.

**** IMPORTANT ****

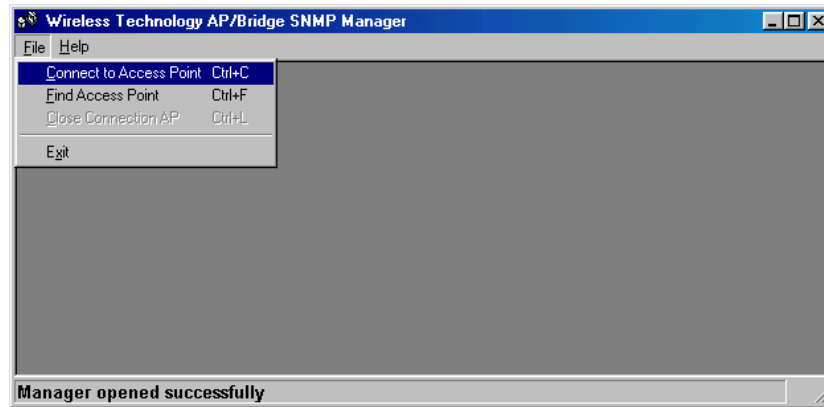
By default the AP/Bridge unit is setup with IP 192.168.0.1 and Subnet 255.255.255.0, Your Ethernet Station must be similar to this: IP 192.168.0.2 and Subnet 255.255.255.0

2. Execute SNMP manager application, under " File " menu :

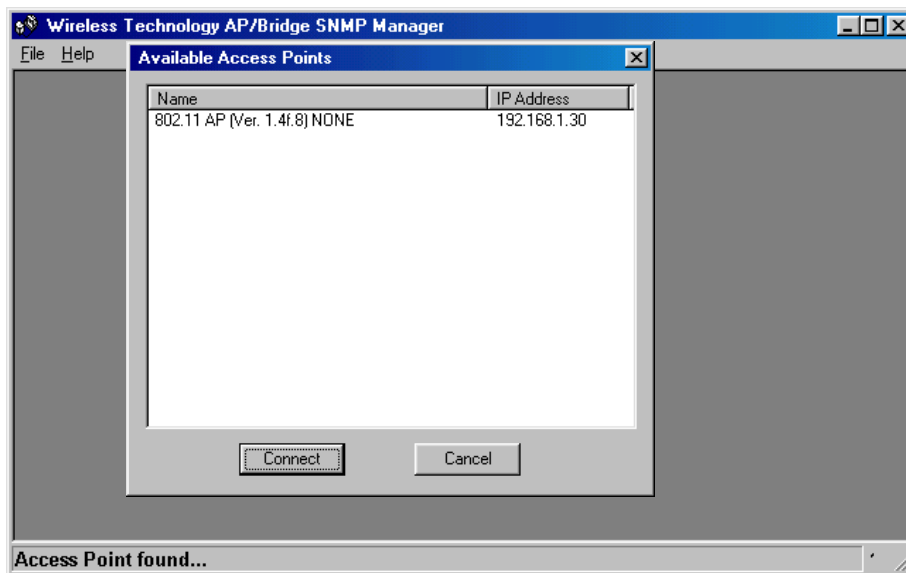


Connect to Access Point: Directly connect with the Wireless AP/Bridge by first typing its IP Address in the panel which appears and then at the Community field, type the appropriate password (default password : public) Press "OK" button for connection

CONFIGURATION

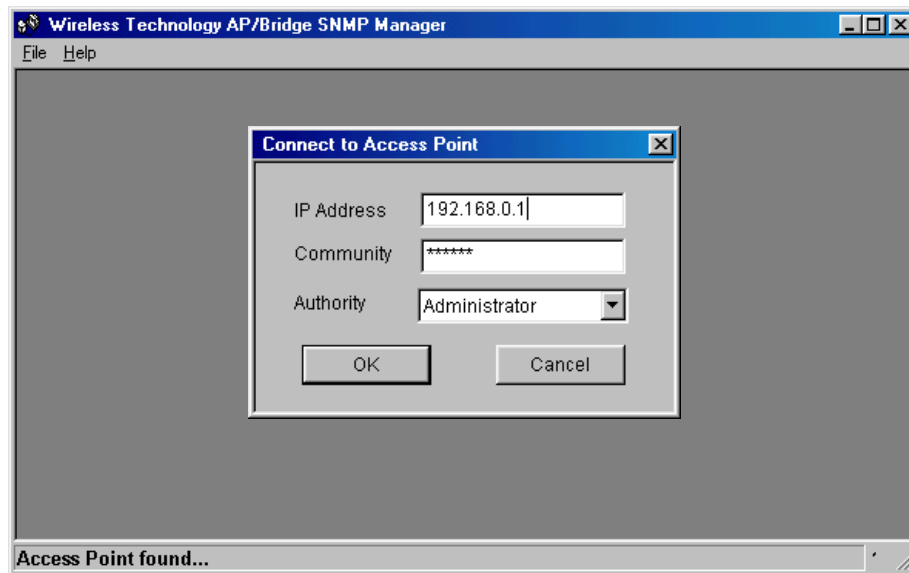


Find Access Point: This submenu allows you to find and connect with an Wireless Bridge without the necessity of knowing its IP Address. Choose this submenu in order to find the Wireless Bridge available for connection.



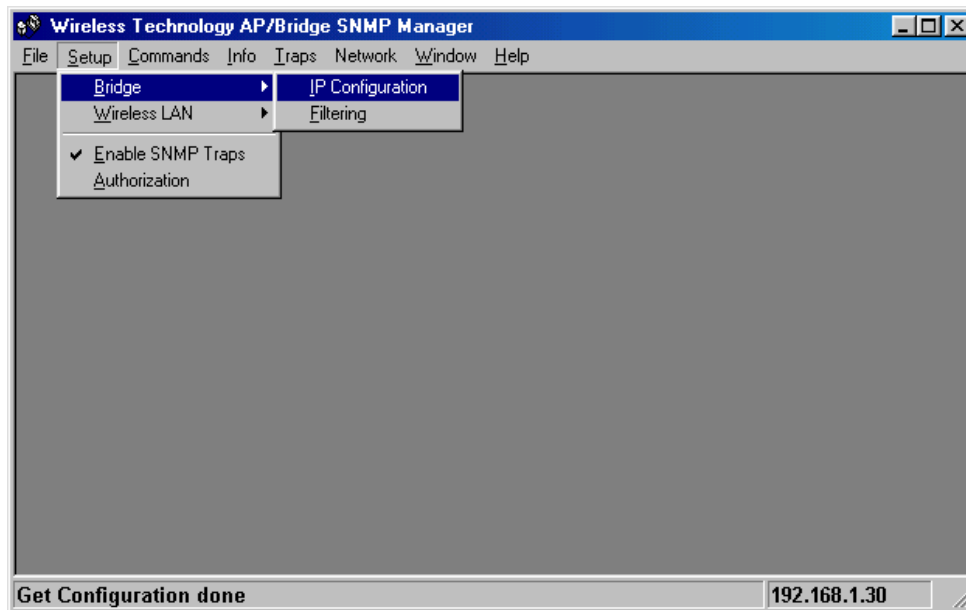
Select one of the available Wireless AP/Bridge and press "Connect". Then "Connect to Access Point" dialog appears. Typing its IP Address in the panel which appears and then at the Community field, type the appropriate password (default password : "public" Press "OK" button for connection.

CONFIGURATION



Now, you can use SNMP manager to configure the Wireless AP/Bridge File Menu.

- **Close Connection AP** - Terminates the connection with the Wireless AP/Bridge.
- **Download Changes** - When all the desired values of the parameters have been set you are able to download the changes (save the changes) to the Wireless AP/Bridge by selecting this submenu.
- **Options** - Defines the polling interval according to which the AP Configuration polls the Wireless Bridge in order to update the statistics and the Associated Stations List.

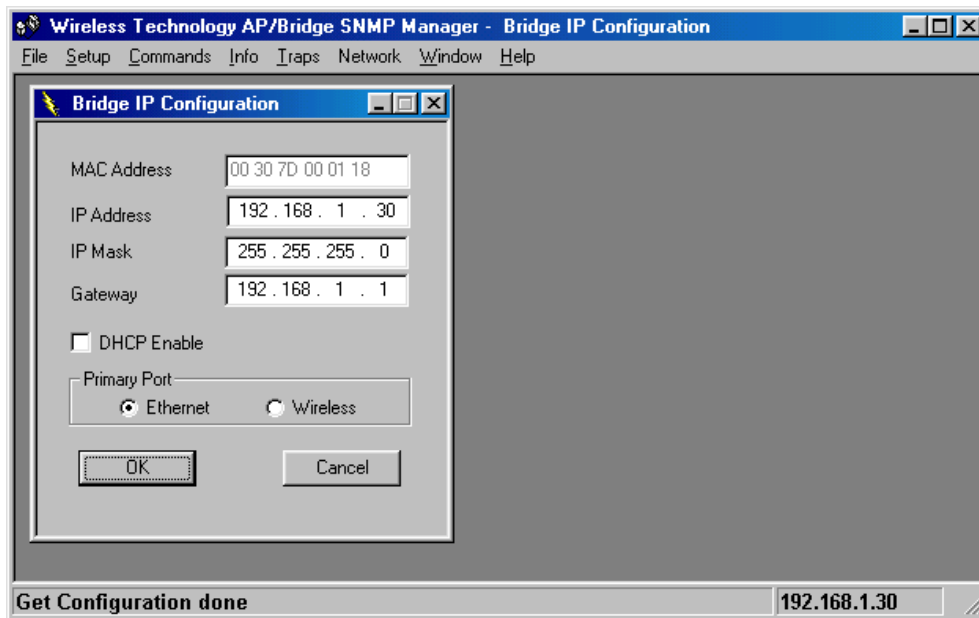


SETUP MENU

BRIDGE

Under the "Bridge" submenu, there are two options:

1. IP Configuration
2. Wireless LAN



IP Configuration

- **MAC Address:** The MAC Address of the Wireless AP/Bridge. Unique 48-bit, hardcoded Media Access Control address known as the station identifier.
- **IP Address:** The IP Address of the Wireless AP/Bridge. Network-assigned Internet Protocol address of the Wireless AP/Bridge.
- **IP Mask:** The Ethernet Station and the Wireless Point must be on the same subnet. The IP address for the Wireless AP/Bridge must correspond to the Subnet Mask. Subnet Mask consists of four sets of three digits that divide a network into subnetworks
- **DHCP Enable:** DHCP client is enabled the IP Address field displays the IP Address that was dynamically assigned to the Wireless Bridge by the network DHCP server and the IP Mask field displays the IP Mask utilized by the network DHCP server. Additionally you have to select the Primary Port which is the interface that determines the DHCP server.

If changes are made, you need to "Download Changes" under the "File" menu in order to save them.

Filtering

- **IP Routing:** If the IP Routing is enabled, only the IP protocol packets will pass through the WLAN and any other protocol will be filtered out. If changes are made, you need to "Download Changes" under the "File" menu in order to save them.

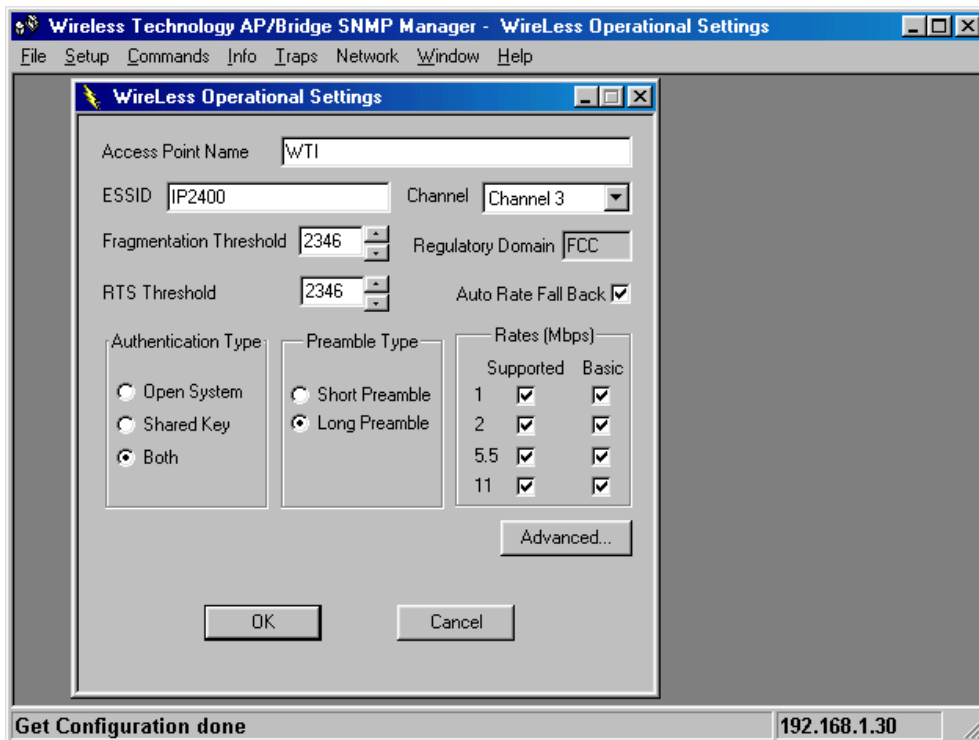
WIRELESS LAN

Under the "Bridge" submenu, there are three options:

1. Privacy Option
2. Operational Settings
3. Authorized MAC Address

Privacy Options

- By choosing this option you must define the encryption key values of your choice. There are four 5 Hex digit encryption keys available if you select 64bit WEP or there are four 13 Hex digit encryption keys available if you select 128bit WEP.
- The key is enabled only if you select it in the "Default key" option. Enable the WEP (Wired Equivalent Privacy) option in order to activate WEP encryption for transmissions between the stations and the Wireless Bridge.
- WEP is an authentication algorithm which protects authorized Wireless LAN users against eavesdropping. If changes are made, you need to "Download Changes" under the "File" menu in order to save them.



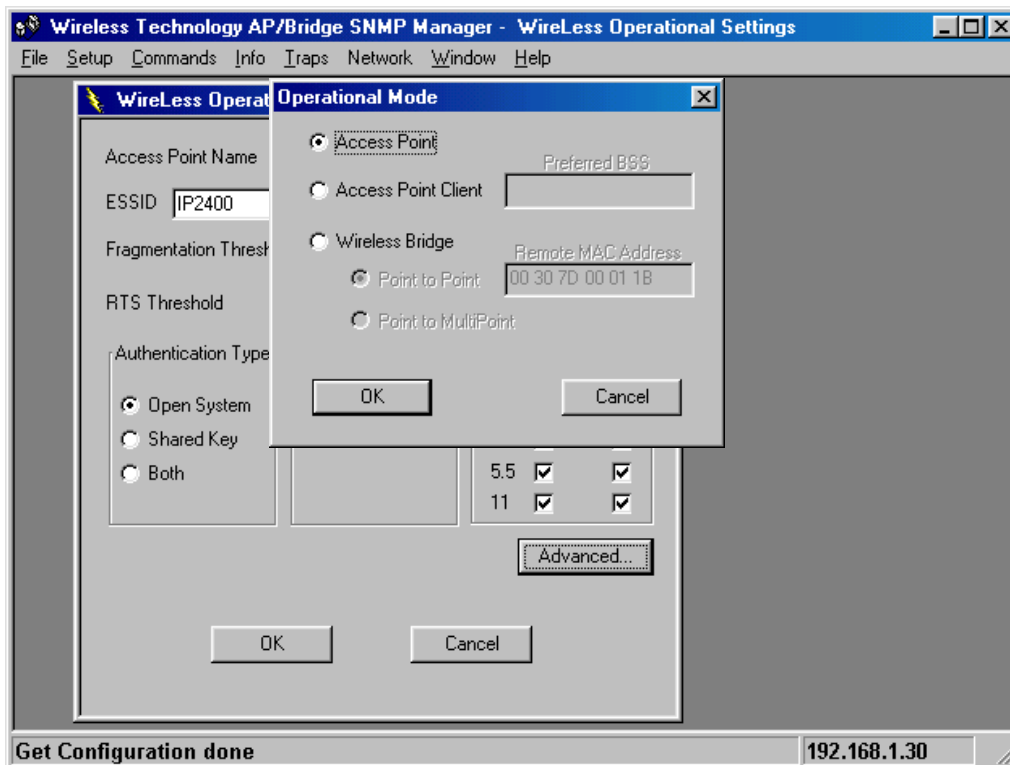
Operational Settings

Using this option you can either view or modify the Wireless LAN parameters of the Wireless Bridge

- **ESSID:** It is an ASCII string up to 32 characters used to identify a WLAN that prevents the unintentional merging of two co-located WLANs. The ESSID value must be the same in all stations and Wireless in the extended WLAN.

CONFIGURATION

- **Channel:** The channels differ from country to country. Select the channel to be used.
- **Fragmentation threshold:** The size at which packets will be fragmented. Choose a setting within a range of 256 to 2346 bytes.
- **RTS Threshold:** Minimum packet size to require an RTS (Request To Send). For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. This is the option for the RTS Threshold activation.
- **Authentication Type:** Select Open System, Shared Key, or Both Open System: With this setting any station in the WLAN can associate with an Wireless Bridge and receive and transmit data (null authentication). Shared Key : With this setting only stations using a shared key encryption identified by the Wireless Bridge are allowed to associate with it. Both: With this setting stations communicate with the Wireless Bridge either with or without data encryption.
- **Preamble Type (Short/ Long):** Preamble is the first subfield of PPDU, which is the appropriate frame format for transmission to PHY (Physical layer). There are two options, Short Preamble and Long Preamble.
- **Rate:** By default the unit adaptively selects the highest possible rate for transmission. Select the basic rates to be used among the following options 1 - 2 -5.5 -11 (Mbps).
- **Auto Rate Fall Back:** When this is enabled the transmission rate is the optimum rate. In case of obstacles or interference, the system will automatically fall back.
- **Regulatory Domain:** The value of this field is already set and can not be modified.



CONFIGURATION

If you press the "**Advanced**" button on the following three operational modes are available. For each mode you can either view or modify the Wireless LAN parameters of the Wireless Operation Mode Settings window.

- **Access Point:** This mode provides access from wireless stations to wired LANs and from wired LANs to wireless stations. Furthermore, wireless stations within the range of the AP device may communicate with each other via the AP.
- **Access Point Client:** The Access Point can also act as a client on a wireless lan. When configured as a client, the access point functions in the capacity of a wireless end station only. Communication through the wireless interface of the device can only be accomplished using another Access Point functioning in AP mode. When configured as a client, the access point connects to a single computer or an Ethernet LAN via the Ethernet interface.
- **Preferred BSS:** It is enabled if you select the Access Point Client option. BSS corresponds to the MAC Address of the desired AP.
- **Wireless Bridge:** This mode enables a wireless connection between two or more wired LANs. Two types of connections are possible:

Point to Point: The Wireless Bridge can communicate with a specific Remote MAC Address.

Remote MAC Address: It is enabled if you select Point to Point option. It corresponds to the MAC Address of the Wireless Bridge of the Remote LAN.

Please Note: You must assign the MAC address of the remote Bridge in order for Point-to-Point Bridge function to work. Also make sure that both units are in the same Channel and with the same ESSID

Point to Multipoint: The Wireless bridge can communicate with any Wireless Bridge available in the same channel sort of Master/Slave operation

In order to setup Point-to-Multipoint use, you have to setup the one unit as Pont-to-Multipoint mode (Master) all the other remote unit must be setup as Pont-to-Point mode.

Remote MAC Address: It is enabled if you select Point to Point option. It corresponds to the MAC Address of the Master Wireless Bridge.

Please Note: You must assign the MAC address of the Master Bridge in order for Point-to-Multipoint Bridge function to work. Also make sure that both units are in the same Channel and with the same ESSID. The remote will only communicate to Master Bridge units. They will not communicate with other remote units.

When Authorization Algorithm (see the next menu - Authorized MAC Address, is enabled, the Wireless Bridge can communicate with any Wireless Bridge whose MAC Address exists in the Authorization Table.

If changes are made, you need to "Download Changes" under the "File" menu in order to save them.

Authorization Mac Addresses

For security reasons the Wireless Bridge has the ability to associate with authorized MAC Addresses stations.

- "Load file" button in order to load a file with the MAC Addresses that can be associated with the Wireless Bridge (Authorized MAC Addresses).
- "Download" button in order to download the Authorized MAC Address to the Wireless Bridge.
- "Get" button in order to get from the Wireless Bridge the Authorized MAC Addresses.

If changes are made, you need to "Download Changes" under the "File" menu in order to save them.

Authorization:

Under the "Bridge" submenu, there are three options:

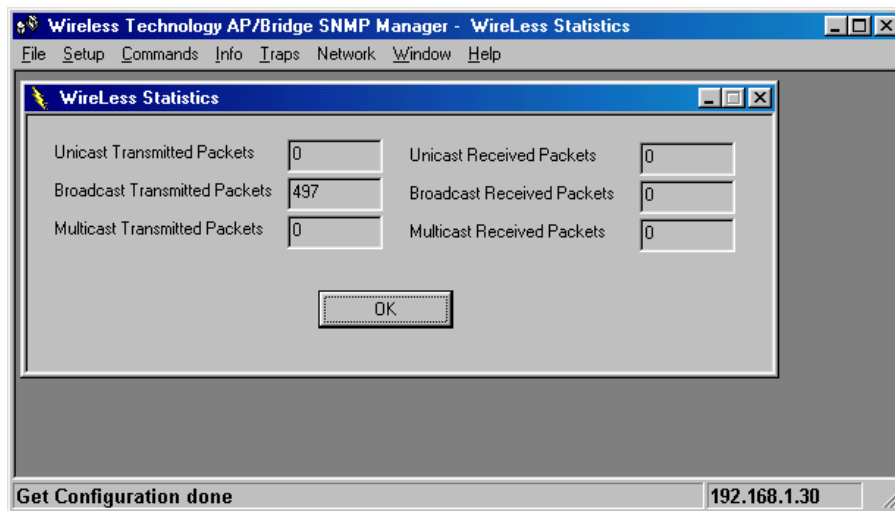
Using this submenu the Administrator can change the passwords which referred to the community field for the User and the Administrator Authority

If changes are made, you need to "Download Changes" under the "File" menu in order to save them.

Commands Menu :

- **Reset Devices** - You can reset the Wireless Bridge. This action takes place after a user makes configuration changes in order to initiate the changes.
- **Restore Defaults** - You can restore the factory default values of the Wireless Bridge.

Info Menu :



Info :

- **Wireless Statistics** - This submenu reports the statistics concerning the unit's Wireless activity
- **Ethernet Statistics** - This submenu reports the statistics concerning the unit's Ethernet port activity

Traps :

Provides information for trap messages

View Record - You can see additional information for every Trap Message

Network Menu :

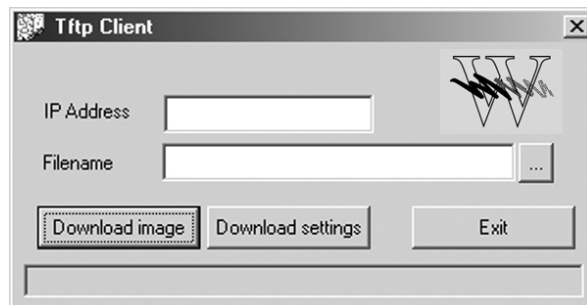
- Provides information about the Network. Under this menu there is only the Associated Station submenu.
- **Associated stations** - Using this submenu you can view the MAC Addresses of the Associated stations with the Wireless Bridge.

Window Menu :

Under this menu there are the following submenus

1. **Cascade** - All opened windows are arranged on the desktop in a cascade fashion.
2. **Tile** - All open windows are visible on the desktop.

WIRELESS BRIDGE FIRMWARE UPGRADE



Ethernet Port / TFTP Client Utility

TFTP Client Utility location :

The Wireless bridge firmware upgrade can be done through the Ethernet port with TFTP Client Utility

1. Type the IP address of the Wireless Bridge in the "IP Address" field
2. Click " ..." button and an open file dialog box will appear. Select the firmware file which you want to upgrade then click "Open" button
3. Click "Download Image" button to process firmware upgrade
4. The AP Utility process firmware upgrade now . Please wait for a moment.
5. Firmware upgrade succeed.

INFORMATION AND FREQUENTLY ASKED QUESTIONS

APPLICATION AND NOTE

- All USB device can not connect to the Wireless Bridge via wireless media.
- The Wireless Bridge can communicate with other Wireless Bridge available in the same channel and ESSID.
- When Authorization Algorithm (Authorized MAC Address), is enabled, the Wireless Bridge can communicate with any Wireless Bridge whose MAC Address exists in the Authorization

FREQUENTLY ASKED QUESTIONS

What is Ad-hoc?

An Ad-hoc wireless LAN is a group of computers, each with a WLAN adapter, connected as an independent wireless LAN. Ad hoc wireless LAN is applicable at a departmental scale for a branch or SOHO operation.

What is Infrastructure?

An integrated wireless and wired LAN is called an Infrastructure configuration. Infrastructure is applicable to enterprise scale for wireless access to central database, or wireless application for mobile workers.

What is Roaming?

Roaming is the ability of a portable computer user to communicate continuously while moving freely throughout an area greater than that covered by a single Wireless Network Wireless Bridge. Before using the roaming function,

What is BSS ID?

A specific Ad hoc LAN is called a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSS ID.

What is ESS ID?

An Infrastructure configuration could also support roaming capability for mobile workers. More than one BSS can be configured as an Extended Service Set (ESS). Users within an ESS could Roam freely between BSSs while served as a continuous connection to the network wireless stations and Wireless Network Wireless Bridges within an ESS must be configured with the same ESS ID and the same radio channel.

What is WEP?

WEP is Wired Equivalent Privacy, a data privacy mechanism based on a 64 / 128 bit shared key algorithm, as described in the IEEE 802.11 standard.

1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18 19
20 21 22 23 24 25 26 27 28 29
30 31 32 33



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