YAESU
The radio

WiRES-II
Wide-Coverage Internet Repeater Enhancement System

WiRES™-II

REFERENCE MANUAL

YAESU MUSEN CO., LTD.

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INTRODUCTION

This manual describes the installation and operation of WiRES-II hardware and software.

WiRES™ (Wide-Coverage Internet Repeater Enhancement System) is a protocol allowing the use of Internet voice technology to link repeaters via networks created and/or hosted in the WiRES™ host server. Access to faraway repeaters is provided by the use of DTMF tones generated by the users' hand-held or mobile Amateur Radio transceivers. Once a link is established, the voice signals are relayed to the appropriate repeater ("node") via the Internet.

Unique features are the "SRG" ("Sister" Repeater Group) configuration, which utilizes peer-to-peer communication in a network of up to ten nodes, and the "FRG" (Friends' Repeater Group) configuration, which provides linking to thousands of WiRES-II nodes throughout the world.

You are encouraged to read this manual thoroughly, to facilitate the trouble-free installation of WiRES-II into your repeater system. We hope your communication experience is enhanced by the installation of WiRES-II!

WiRES™-II END-USER LICENSE AGREEMENT

IMPORTANT – READ CAREFULLY: This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and YAESU MUSEN CO. LTD. (Japan) (hereinafter referred to as "YAESU MUSEN") for the WIRES™ computer software ("Software"). By indicating your agreement at the end of this document, or exercising your rights to make and use copies of the SOFTWARE, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, you may not use the SOFTWARE.

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YAESU MUSEN the right to cease support for the Servers and the Services at any time, to remove the Servers from operation at any time and for any length of time, and to transfer the hosting, maintenance or ownership of the Services to a third party at anytime.

YAESU MUSEN collects information about you and your use of the Services, including data you will provide in order to obtain a sever I.D. number. All that information may be shared with third parties without notice to you.

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To update and monitor your use of the Services, to determine how the Software is performing, and to provide you with updates and better performance, YAESU MUSEN will, with no notice to you, routinely and remotely inspect and modify the files on the computer on which you installed the Software. YAESU MUSEN will have access to all data and applications on that computer, and YAESU MUSEN will operate that computer from time to time (to install patches and updates, for example).

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WiRES™-II END-USER LICENSE AGREEMENT

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No failure or delay in exercising any right hereunder will operate as a waiver thereof, nor will any partial exercise of any right or power hereunder preclude further exercise.

If any provision of this Agreement shall be adjudged to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this Agreement shall otherwise remain in full force and effect and enforceable.

This Agreement shall be deemed to have been made in, and shall be construed pursuant to the laws of the State of California and the United States without regard to conflicts of laws provisions thereof, and without regard to the United Nations Convention on the International Sale of Goods.

Unless waived by YAESU MUSEN its sole discretion, the jurisdiction including personal jurisdiction and venue for actions related to the subject matter hereof shall be the California state and United States federal courts in the Central District of California. You will not contest venue and jurisdiction of such courts on any basis, including personal jurisdiction, venue, or the convenience of parties or witnesses.

Any waivers or amendments shall be effective only if made in writing. This Agreement is the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements and communications as well as any different or additional terms of any subsequent purchase order, confirmation or similar form relating to the subject matter of this Agreement, unless mutually agreed upon by the parties in writing.

YOU AGREE THAT YOU HAVE NOT RELIED ON ANY PROMISES OR REPRESENTATIONS, NOT EXPRESSLY SET FORTH IN THIS AGREEMENT, TO MAKE THIS AGREEMENT.

ABOUT WiRES™-II OPERATING MODES: SRG AND FRG

Two basic configurations of WiRES exist in the WiRES-II format: SRG and FRG.

SRG (Sister Repeater Group)

In the SRG ("Sister Repeater Group") configuration, you operate within WiRES-II in a small-ten-node (maximum) network that is ideal for closed-group operations (such as that between locations that have a "Sister City" relationship, for example). Within the network, all nodes operate using the same repeater node list, so you can link only to stations within this ten-node network. Because there are only ten nodes maximum, access to any of these nodes is possible using a single DTMF tone when calling at the beginning of each transmission. This single DTMF tone locks communication between the calling node and the called node, but local (non-linked) transmissions are also possible, simply by omitting the DTMF tone at the beginning of the transmission.
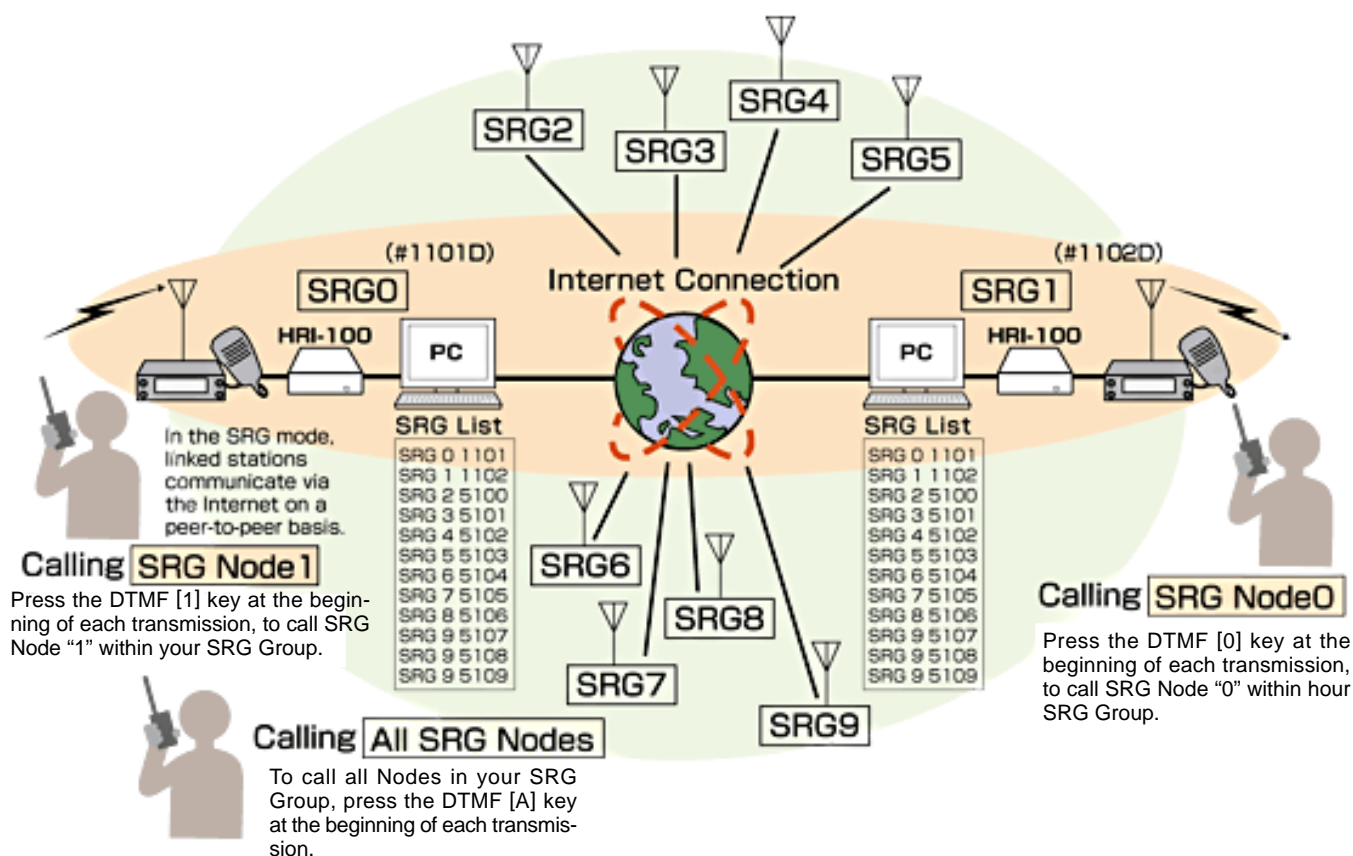
ABOUT WiRES™-II OPERATING MODES: SRG AND FRG

FRG (Friends' Repeater Group)

When operating in the FRG ("Friends' Repeater Group") configuration, you may call any repeater registered with the WiRES-II FRG server. In the case of FRG operation, a six-digit DTMF code is required for access, and once the link is established this code need not be sent again (this is called the "LOCK" mode), if the link is within the TOT period, unless the operator wants the ability to make non-linked transmissions ("UNLOCK" mode), in which case the six-digit code must be sent at the beginning of each transmission (For example, using the DTMF Autodial feature of the transceiver). Group calling to pre-set ten-repeater "B," "C," and "D" lists is also possible.
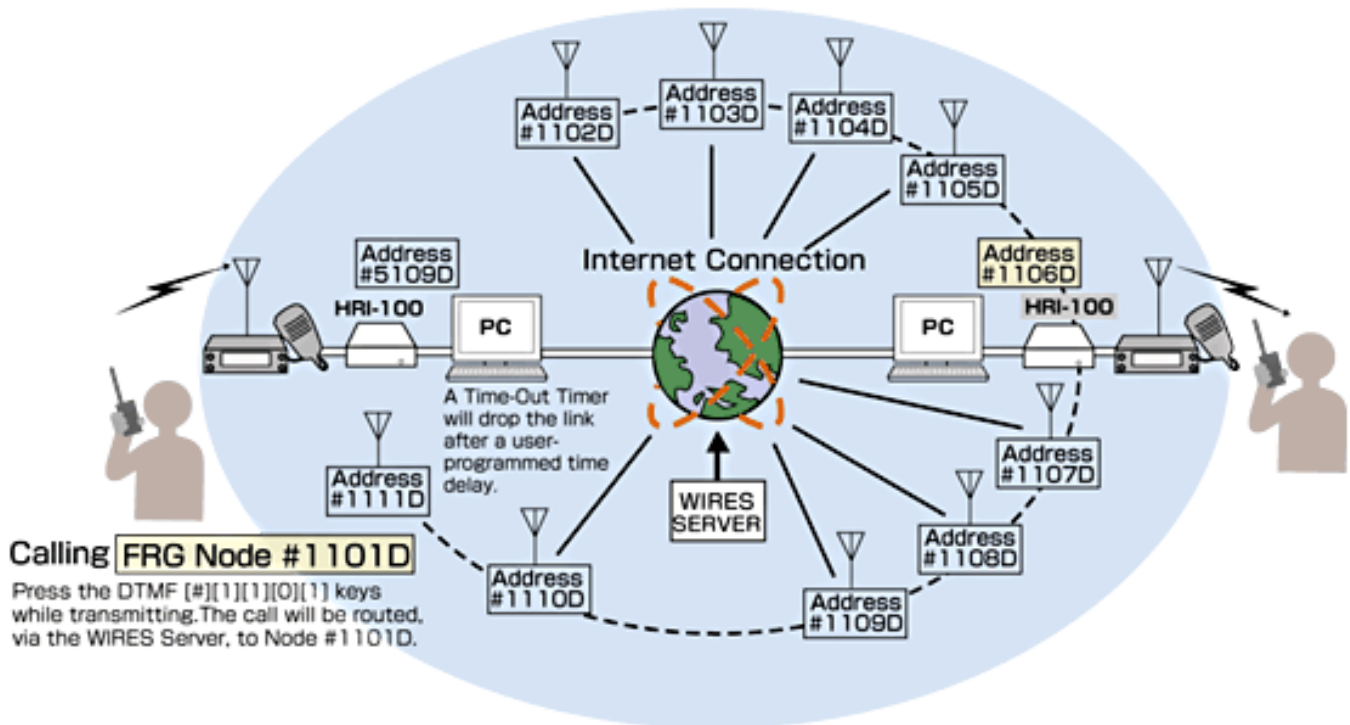
WiRES™-II System Components

In addition to the HRI-100 kit, you will need the equipment listed below to establish a WiRES-II™ connection.

❏ **Transceiver**
- ❍ To prevent having to open your radio and modifying it to get the required connection points for WiRES-II™ operation, it is advisable to use a transceiver with a standard data port, which uses a 6 pin mini-DIN connector on the rear of the radio. This will allow "Plug and Play" operation.
- ❍ A transceiver capable of generating DTMF signals either through the transceiver or external microphone is required.

❏ **Internet line**
- ❍ DSL 8M or faster internet connection.
- ❍ As for one WiRES-II™ node, one global IP is necessary. If you are using your Internet line for a LAN or other purposes, your audio signal may be degraded significantly. It is suggested that a dedicated Internet connection be used for WiRES-II™ operation.
- ❍ Please open 40000-50000 of the UDP port when you use a router. Please be sure to confirm with the manufacturer of your router that it can be programmed to the correct settings. Not all routers are compatible with WiRES-II™.
- ❍ If you are working through a firewall, set your router ports as shown above and program your firewall settings to allow inbound WiRES-II™ information to be received by your PC. This may be required when using the programs, VSLAN.exe, VSDialup.exe, and WiRES-II.exe.
- ❍ If your internet connection becomes noisy or unstable, there may be some interruption in your voice transmission or your link may drop completely.

❏ **Personal Computer**
- ❍ Microsoft® Windows® 2000 / Windows® XP / Windows® Vista™ / Windows® 7
- ❍ Processor Clock Frequency
  (Microsoft® Windows® 2000: 400 MHz (or faster) / Windows® XP: 800 MHz (or faster) / Windows® Vista™ : 1.2 GHz (or faster) / Windows® 7: 1.2 GHz (or faster))
- ❍ 100 MB of available hard disk space
- ❍ RAM
  (Microsoft® Windows® 2000: 256 MB (or more) / Windows® XP: 512 MB (or more) / Windows® Vista™ : 1 GB (or more) / Windows® 7: 2 GB (or more))
- ❍ COM PORT (RS-232C) / If a COM port is not available in your PC, you will need to purchase and install an aftermarket USB⇔RS-232C (COM) converter interface.
- ❍ A video card and display with a resolution of 1024 x 768 or more, and a minimum of 256 colors, are recommended.
- ❍ LAN port for the internet connection (10BASE-T/100BASE-TX/1000BASE-TX or equvalent)
- ❍ 8 kHz sampling rate Sound Card (note that some sound cards may not work properly)
- ❍ In most cases the Wires program should operate with no problems but some functions of the WiRES-II™ program may not function correctly depending on variations of the "OS", "CPU" and "sound cards".
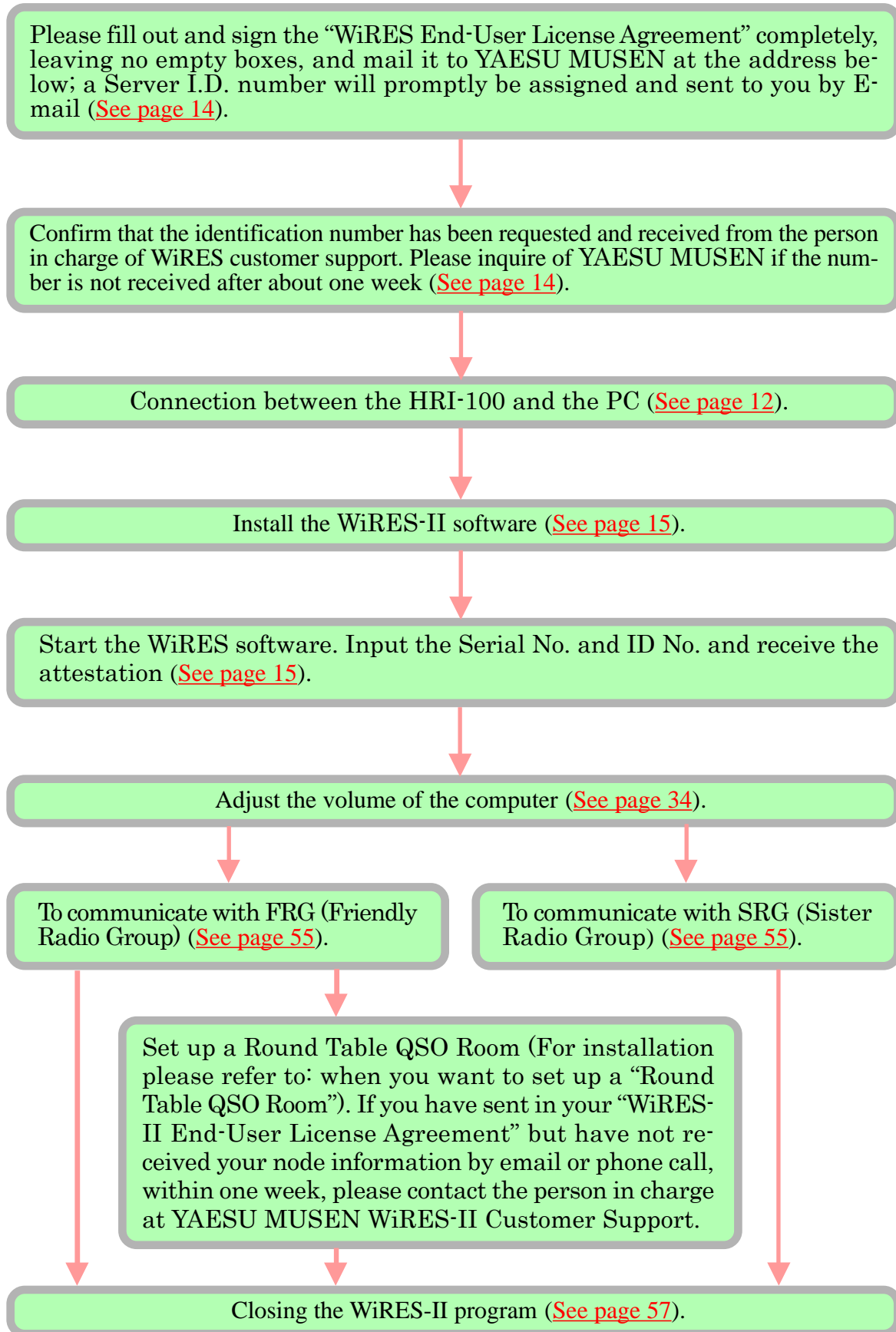
❏ **Software**
- ❍ Please visit the YAESU MUSEN web site for "Download" of software and "Installation" details (http://www.vxstd.com/en/wiresinfo-en/). The server identification number and the serial number of the HRI-100 is required to access the "Download" and "Installation" page on the web site.
- ❍ When install the WiRES-II™ program from the supplied CD, execute the "setup.exe" program in the CD ROM, then install the WiRES-II™ program in accordance with the installation chapter of the WiRES-II™ Installation Manual (begining from page 15).
- ❍ If you use the supplied USB Serial Cable, install the driver into your computer from the supplied CD. The installation manual of the USB Serial Cable's driver is contained in a supplied CD.

❏ **Others**
- ❍ Can not register multiple WiRES-II™ nodes by the same personal callsign.

WiRES™-II SETUP FLOWCHART

Please fill out and sign the "WiRES End-User License Agreement" completely, leaving no empty boxes, and mail it to YAESU MUSEN at the address below; a Server I.D. number will promptly be assigned and sent to you by E-mail (See page 14).

Confirm that the identification number has been requested and received from the person in charge of WiRES customer support. Please inquire of YAESU MUSEN if the number is not received after about one week (See page 14).

Connection between the HRI-100 and the PC (See page 12).

Install the WiRES-II software (See page 15).

Start the WiRES software. Input the Serial No. and ID No. and receive the attestation (See page 15).

Adjust the volume of the computer (See page 34).

To communicate with FRG (Friendly Radio Group) (See page 55).

To communicate with SRG (Sister Radio Group) (See page 55).

Set up a Round Table QSO Room (For installation please refer to: when you want to set up a "Round Table QSO Room"). If you have sent in your "WiRES-II End-User License Agreement" but have not received your node information by email or phone call, within one week, please contact the person in charge at YAESU MUSEN WiRES-II Customer Support.

Closing the WiRES-II program (See page 57).

HRI-100 INTERFACE BOX

Front Panel

① POWER

This green LED indicates when power is applied to the **HRI-100**.

HRI-100 INTERFACE BOX

Rear Panel

①　　　　②　　③　　　④　　　⑤

RS-232C　　MIC　SP　RADIO　DC IN 12V
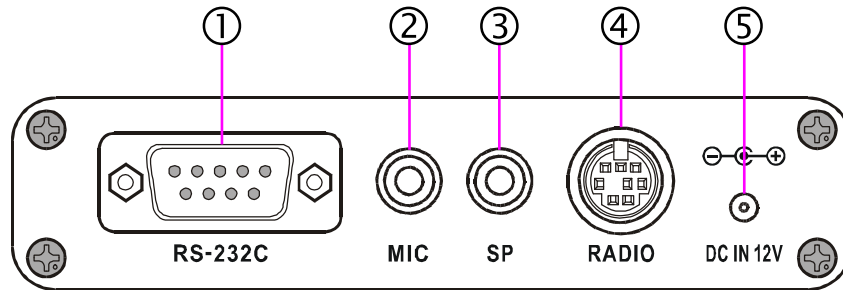
① RS-232C

This DB-9 connector is for interconnection of the **HRI-100** to the personal computer's COM port. Use a straight serial cable for this connection, not a null-modem type.

② MIC

This 3.5 mm jack is used for connection to the Sound Card's MIC line. This jack provides audio output from the **HRI-100** to the Sound Card.

③ SP

This 3.5 mm jack is used for connection to the Sound Card's "Speaker" line. It provides audio input from the Internet to the **HRI-100**.

④ RADIO

Connect the **PTT/COR** controls and **AUDIO IN/OUT** signals from the repeater to this jack using the supplied control cable.

Pin No.	Function	Cable Color
1	BUSY/COR	GREEN
2	–	–
3	AUDIO OUT	RED
4	–	–
5	GND	YELLOW
6	PTT	GRAY
7	AF INPUT	WHITE
8	–	–
Case	GND	Shield

⑤ DC IN 12 V

This is the **HRI-100**'s power input jack. The **HRI-100** requires a well-regulated source of 12 Volts DC, at up to 500 mA of current. On the connector supplying power to the **HRI-100**, the center pin carries the positive side of the DC circuit.

SYSTEM SETUP

Transceiver

Transceiver | **HRI-100** | **Computer**

Supplied Connection Cable

Supplied MiniDIN8pin~MiniDIN6pin Cable
P/N: T9101527

DC 12V

Ground
(YELLOW)

Packet Data Input
(RED)

PTT
(GRAY)

Squelch Control
(GREEN)

1200 bps Packet Data Output
(WHITE)

To Internet Line
(LAN Connection)

RS-232C Cable

SYSTEM SETUP

Repeater

HRI-100

Modem

Computer

To Internet Line

DC 12V

Supplied Connection Cable

Repeater

− BATT +

MIC IN   SPEAKER

Sound Board

ACC   LINE   GND

EXT SP   TX   RX

COM 1   COM 2

GRAY (PTT) → Pin 12 [EXT PTT]

Shield (GND) → Pin 7 [GND]

WHITE (MIC) → Pin 6 [DISC OUT]

RED (SP) → Pin 3 [TX AF IN]

YELLOW (GND) → Pin 2 [RX SQ (−)]

GREEN (BUSY) → Pin 1 [RX SQ (+)]

Mini 8-pin DIN Cable (Option P/N: T9101523A)

RS-232C Cable

REGISTRATION WITH THE **WiRES™-II** SERVER

In order for you to use WiRES-II, it is necessary to obtain a Server I.D. number, which is issued by YAESU MUSEN, upon receipt of a signed copy of the "WiRES™ End-User License Agreement" (enclosed). *Please fill out and sign the "WiRES™ End-User License Agreement" completely, leaving no empty boxes, and mail it to YAESU MUSEN at the address below; a Server I.D. number will promptly be assigned and sent to you by E-mail.*

North/South America   YAESU USA, INC.
Attn: WiRES Customer Support
6125 Phyllis Drive, Cypress, CA 90630

In Europe   YAESU UK LTD.
Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

In ASIA and Oceania   YAESU MUSEN CO., LTD.
Tennozu Parkside Building
2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002 Japan

Once the Server I.D. number is assigned by YAESU MUSEN, you may now complete the setup of your WiRES-II system and use the WiRES™ server. Please keep a reference copy of the server I.D. number in a safe place, so you will always have access to it.

YAESU MUSEN has developed WiRES™ to further the success of the Amateur Service, and to enhance the effectiveness of your repeater system's performance. It is our intention to maintain support for WiRES™ indefinitely; however, if YAESU MUSEN management judges, in the future, that technological innovations or regulatory changes warrant, it may be necessary to discontinue management of the WiRES™ server.

WiRES™-II SOFTWARE INSTALLATION

Before attempting installation of the WiRES-II software, you must obtain a Server I.D. number from YAESU MUSEN. Without this Server I.D. number, even though you have completed the installation steps, the WiRES™ Server will not recognize your node within the system.

Please visit the YAESU MUSEN web site for "Download" of software and "Installation" details (http://www.vxstd.com/en/wiresinfo-en/). The server identification number and the serial number of the HRI-100 are required to access the "Download" and "Installation" page on the web site.

Before beginning the installation process, please close all other applications you may have running on your computer.

In the descriptions regarding installation and operation, "Click" means to perform a single click using the Left mouse button. Double-click also refers to the left mouse button. Any operations referring to the right mouse button will specifically designate the right button.

1. The WiRES software is downloaded to an arbitrary folder installed on the personal computer. If the WiRES-II program is running, please close it before installing the new WiRES-II software. Other start-up applica- tions must end, also. Please log on to Windows 2000/Windows XP/Windows Vista/Windows 7 as user (Administrator) who has the manager authority of the computer.
2. To start the installation process, open the wi3510e folder and double-click on the setup.exe file.
3. When the "Welcome" window appears, click on [**Next**].
4. When the "License" window appears, select "I accept the Agreement". If you agree to its Terms and Conditions, then click on [**Next**] to enter the next step. If you do not click on the "I accept the Agreement" option, installation will abort.
5. The next window, "Choose Destination Location," has three check-box selections to be addressed.
   Autostart
   ■ A screen will appear, with the title "Create Shortcut." Find the check-box with the title "**Register** [**Startup**]**?**" Click in the box. This option allows the WiRES-II program to run automatically when Windows starts.
   Network Environment
   ■ If using a Dial-up connection for Internet access, click in the "**DialUp**" box; if using a high-speed (permanent) connection (such as DSL, ISDN, etc.), whether or not you are engaged in a LAN environment for everyday operation, click in the "**LAN**" box.
6. When the above three selections have been made, click on [**Next**] at the bottom of the page. The "WiRES-II" program will now install.
7. On some computers, you may be required to "re-boot" the computer after the installation is completed. In this case, re-boot the computer into Windows.
8. When program installation has been completed, one of two windows will appear. If "DialUp" was selected in step (6) above, the [**VsDialUP**] icon will appear on the Desktop; if "LAN" was selected, the [**VsLAN**] icon will appear on the Desktop.
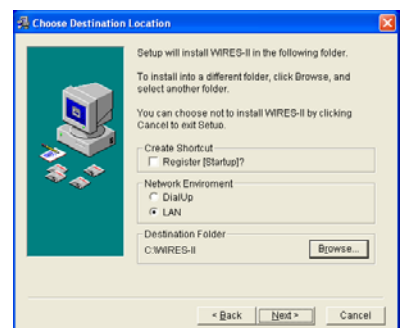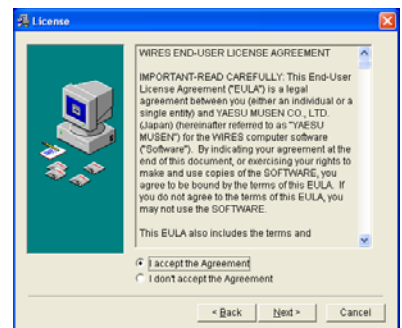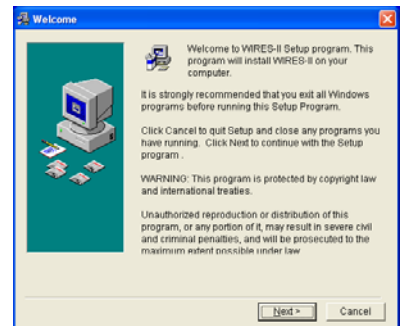
WiRES™-II SOFTWARE INSTALLATION

9. If you selected "DialUp" during the setup process, double-click on the [**VsDialUP**] icon to get the "**WiRES-II Dial-UP**" window. A "dial-up list" will appear. You should see one or more dial up services listed in the "dial-up list". If the list is blank, please see the Note that follows Step 9 (Below). If at least one dial-up service is listed, click on the dial-up service you wish to use. You must click on the dial-up service listed in the "dial-up list". When you click on the dial-up service in the "dial-up list", the dial-up service will automatically be entered into the [**Dial-up to Use**] box. If there is more than one dial-up service listed, then enter your "User Name" and your Password associated with that dial-up service.

    Note: If during the dial-up procedures in step 9 above, a list of ISP Providers did not appear in the dialer window, you will need to set up a Windows Network Connection. The following example is for Windows XP. Other versions of Windows may be different.

    At the Windows XP desktop click
    Start ➪ Control Panel ➪ Network   Connections.
    Under "Network Tasks" click on "Create a new connection". A "Welcome to the new Connection Wizard" will appear. Click "Next". Under "How do you want to connect to the Internet", select "Connect using a dial-up modem". Click "Next". In the "ISP Name" box, type the name of your ISP Provider. Click "Next". Enter the IPS phone number And click "Next". Under "Create this connection for" it is suggested that you select "Anyone's use". Click "Next". Under "Internet account information", enter your ISP account name and your password. Click "Next". Click "Finish" in the "Completing the new connection wizard".

    The information you have just entered will appear in a dial-up window. If all of the information in this window is correct, click on the "X" in the upper right corner of the Dialer window. You have now completed setting up your Windows Network Connection. Please return to Step 9 above to continue the WiRES-II setup.

    Program Automatic Start-up Functions
    There is an automatic re-connect function within the WiRES-II Dial-up window, which is engaged if you put a check-mark in the [**AUTOSTART**] check box. If you put a check-mark in the box, the program will automatically start up if the connection has been interrupted or otherwise terminated. The connection will re-connect within five minutes, depending on your computer or other traffic considerations.
    The connection will be automatically connected to the telephone line again after 1-5 minutes (at random), meaning, the dial-up will try to automatically connect the telephone line until it makes a connection or, it is stopped manually.
    In the case of LAN operation, the Internet connection is always present; clicking on the [**VsLAN**] icon will start the "WiRES-II" program.

10. Discussions of the various set-up pages will be found on the following pages.
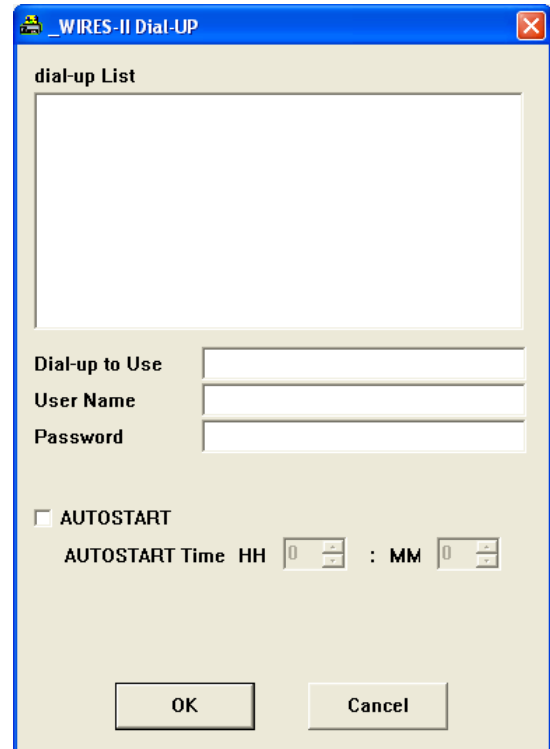
# WiRES™-II SOFTWARE INSTALLATION

─── **Important Note** ───

❏ If using a Router, please be sure to configure the Router correctly. Routers using NAT or Static IP Masquerade may be used. Set the Router configuration using UDP setting open. In the case of a WAN, it must be a Global IP (a Fixed IP is not required). Consult your Router's Instruction Manual for further advice.

❏ If you are using a router, please check to be sure that the "40000 - 50000" ports are "open" for the passing of UDP traffic.

❏ When using **Windows XP(SP2)**
When the "Windows Security Alert" window appears. Click on the "Unblock" box to release the communication block with the Firewall software.

❏ When using **Windows Vista**
When the "Windows Security Alert" window appears. Click on the "Unblock" box to release the communication block with the Firewall software. In the next window Click "Continue".
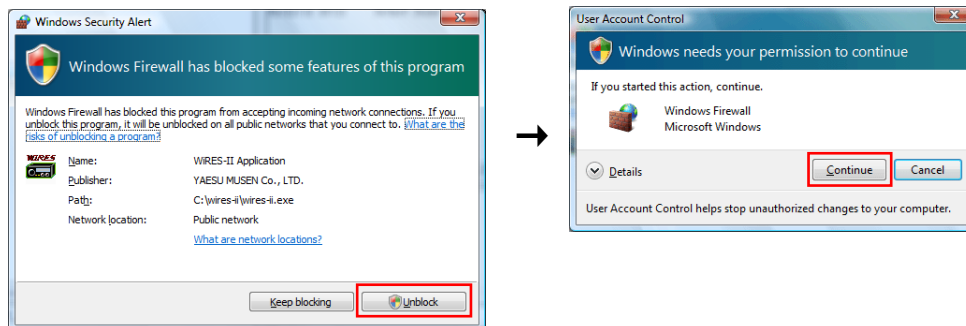
❏ When using **Windows 7**
When the "Windows Security Alert" window appears, click on the "Public networks, such as those in airports and coffee shops" box. Then click on the "Allow access" box to release the Firewall software communications block.
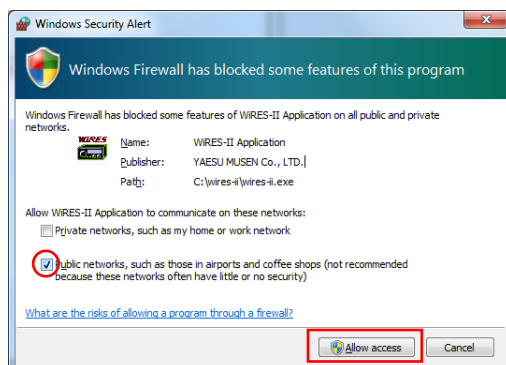
WiRES™-II FUNCTIONAL SETTING PAGE

This page is where you perform the actual operations for the registry of your node. This registry is necessary in order for you to gain access to the WiRES server.

1. Double-click the "VsLAN" or "VsDialUP" logo. WiRES-II starts, and the opening Window is displayed. If the icon is not displayed on the desktop at start-up when registering, and the WiRES software is installed,
   Please select VsLAN or VsDialUP from among the "all programs" list.
2. The "WiRES ID Activation" Window is displayed.
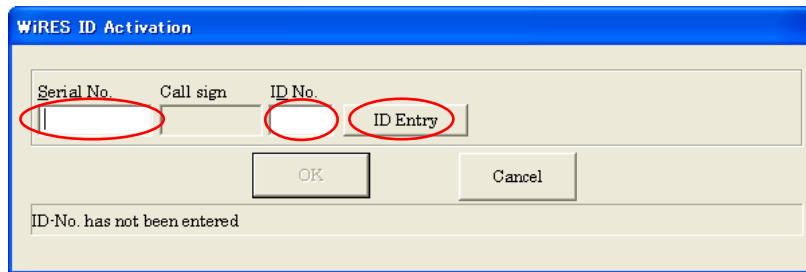
3. Enter your **HRI-100** serial number and your ID number.
4. Click [ID Entry] on the right side to automatically connect with the WiRES server.
   If the data entered agrees with the "Server ID Number" and the serial number that were registered by "WiRES END-User License Agreement", then "ID Entry Complete", "Call Sign", "City", "State", and "Country" are automatically displayed.

The following are possible causes, when "Server or ID Not Found" is displayed under the left of the dialog box.
❒ The corresponding "ID Number" and "Serial Number" are not registered in the WiRES server.
❒ If you are using a firewall, please check to be sure that the 40000 - 50000 ports are "Open" for the passing of the UDP traffic.
❒ The router is connected with the network environment by a LAN etc., and either "Setting of the firewall" of the router or "Internet Protocol address conversion setting", is not set correctly.

WiRES ID Activation
Serial No.: This is the 8-digit alphanumeric serial number of your **HRI-100**.
Call sign: This field, as mentioned above, will be automatically filled by the server when you sign in, based on correct entry of the ID Number and the Serial Number.
ID No.: This is an Identification Number which is provided from YAESU MUSEN, to establish a secure identification of your node. Click on the [**ID Entry**] box to activate the entry process for this field. When you sign on to the server, and all the information matches the records at the server, the "CALL," "CITY," and "COUNTRY" fields will automatically be filled by the server. If these three fields do not automatically appear, then you may have made an error in the input of the ID Number or the Serial Number. Please check your work, and try again.

Selecting the [**Cancel**] command:
❒ Click the right mouse button on the [**VsDialUP**] icon ( ) or [**VsLAN**] icon ( ) in the Task bar to open the pop-up menu.
❒ Click the left mouse button on "Quit" in the pop-up menu. The [**VsDialUP**] icon ( ) or [**VsLAN**] icon ( ) will disappear from the Task bar.
❒ Click the left mouse button on the close button ( ) in the upper right corner of the WiRES-II main page.

WiRES™-II FUNCTIONAL SETTING PAGE

The following screen appears when the WiRES server is normally registered. "Serial No." and "ID No." become grayed out. The following fields may be filled in by the user. "ICON select", "Freq", "SQL Type", "G.Loc", "Comment", "QSL exchange", "Message", and "Remote control". Please see the following for details.

Serial No: The serial number of your **HRI-100** when activated will be displayed.

Call sign: When you first sign on to the WiRES server (WiRES Activation), the callsign registered for use with the **HRI-100** will appear here automatically.

ID No.: The WiRES ID number of your node station when activated will be displayed here automatically.

City, State, Country: When first activating your WiRES account (WiRES Activation), the location (City/State/Country) registered for your node will appear here automatically.

ICON select: You may select an Icon to appear in the I.D. List, if you like.
Only users who are utilizing the WiRES-II software Version 3.100 or later may use these Icons.

Freq: Type the operating frequency of your WiRES-II Node here, for the information of other users (In version 3.141, this information was in the "Comment" display field).

SQL type: Type in any CTCSS or DCS access requirements for your WiRES-II Node here, for the information of other users (In version 3.141, this information was in the "Comment" display field).

G.Loc: You may display information about your node's Maidenhead Grid Square Locator as well as Latitude/Longitude, for indication in the "Active ID" and/or "Group" windows viewed by other users.
The information may be typed into the Location Info window.
Loc button:
Pressing this button opens up a pop-up text entry window (the Location Info window).
Lat:
Latitude position information from the Location Info window will appear here.
Lon:
Longitude position information from the Location Info window will appear here.
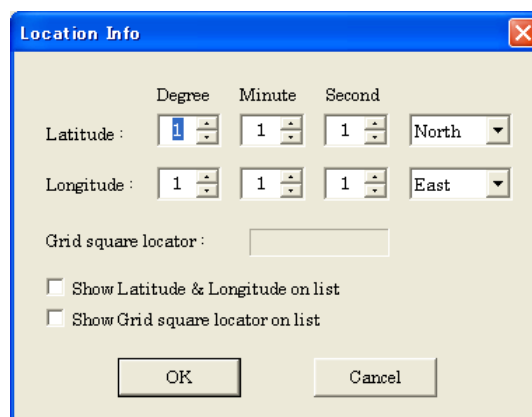
WiRES™-II Functional Setting Page

Location Info window:
Pressing the [Loc] button opens this pop-up text entry window.
You may then enter location information for your node; it will be displayed on the "Active ID" and/or "Group" windows viewed by other users.
This information appeared in the "Comment" column on the WiRES-II version 3.227 and earlier versions.
The location information which can be set is described below.

Latitude
Enter the Latitude in Degrees, Minutes, and seconds, and indicate North or South Latitude.

Longitude
Enter the Longitude in Degrees, Minutes, Seconds, and indicate East or West Longitude.

Grid square locator
Your Maidenhead Grid Square Locator position information will appear here, calculated from your node's Latitude and Longitude.

Show Latitude & Longitude on list
Having entered the above-described Latitude and Longitude information, place a "check" here to enable the display of this data on the "Active ID" list and the "Group" list.

Show Grid square locator on list
Having entered your Grid Square Locator information, place a "check" here to enable the display of this data on the "Active ID" list and the "Group" list.

[OK][Cancel] button
Pressing the [OK] button saves updates to the position information you have entered.
Pressing the [Cancel] button cancels updating of the position information.

Comment:
Any comment that you would like to have appear in the "Comment" area of the I.D. list may be added here.(maximum 80 characters)
For example, you may wish to add your name, the input frequency of your node, or other additional information for quick reference by others.
Note:Each item (Freq,SQL type,G.Loc,Lat, and Lon) is treated internally as information on the Comment column.(To have interchangeability in the old version, and the communication format.) The number of characters that can be input to the Comment column decreases when this information is input to this column.

QSL exchange:
When you check this box, you will be able to see electronic QSL cards from Nodes now connected to your node, displayed in the "View QSL window". Your electronic QSL card will also be displayed if the other Node has the same function available.
The pictures for the QSL function are acceptable in the Bitmap format and as big as QVGA 320 x 240. Please note that the higher resolution pictures will require longer downloading time depending on your Internet connection environment.

Message:
You may send as many as 200 characters of your message to go with your QSL card when the node on the other end opens the "View QSL" window on his/her node PC. This message info can also be viewable through the "Get Info" from the ID List.

WiRES™-II FUNCTIONAL SETTING PAGE

Remote control: (default = off) You may select "on", to permit your node to be operated remotely. When this function is on, you may remotely control your node using the WiRES-II Remote Monitor Software (wiresmon.exe) from a separate remote PC. If you do not wish your node station to be controlled remotely, please set this function to OFF.

Please be sure to use Remote Monitor software (wiresmon.exe) Version 1.500 or later.

Please be noted that this function does not work on the old version.

Note: This function is not available on older versions of this software.

Password: When planning to use the WiRES-II Remote Monitor Software (wiresmon.exe), you may type in the password you intend to use, during your remote-control operation.

Port (TCP): (default = 46080) When the WiRES-II Remote Monitor Software (wiresmon.exe) is used to engage the Web monitoring function, the TCP port numbers to be used are even numbers from 40000 to 50000.

Note: You will probably need to set your PC and router firewall settings to release any desired TCP ports to allow communication in addition to the UDP 40000-50000.

WiRES™-II MAIN PAGE

The Main page of the WiRES-II program consists of eleven main boxes.
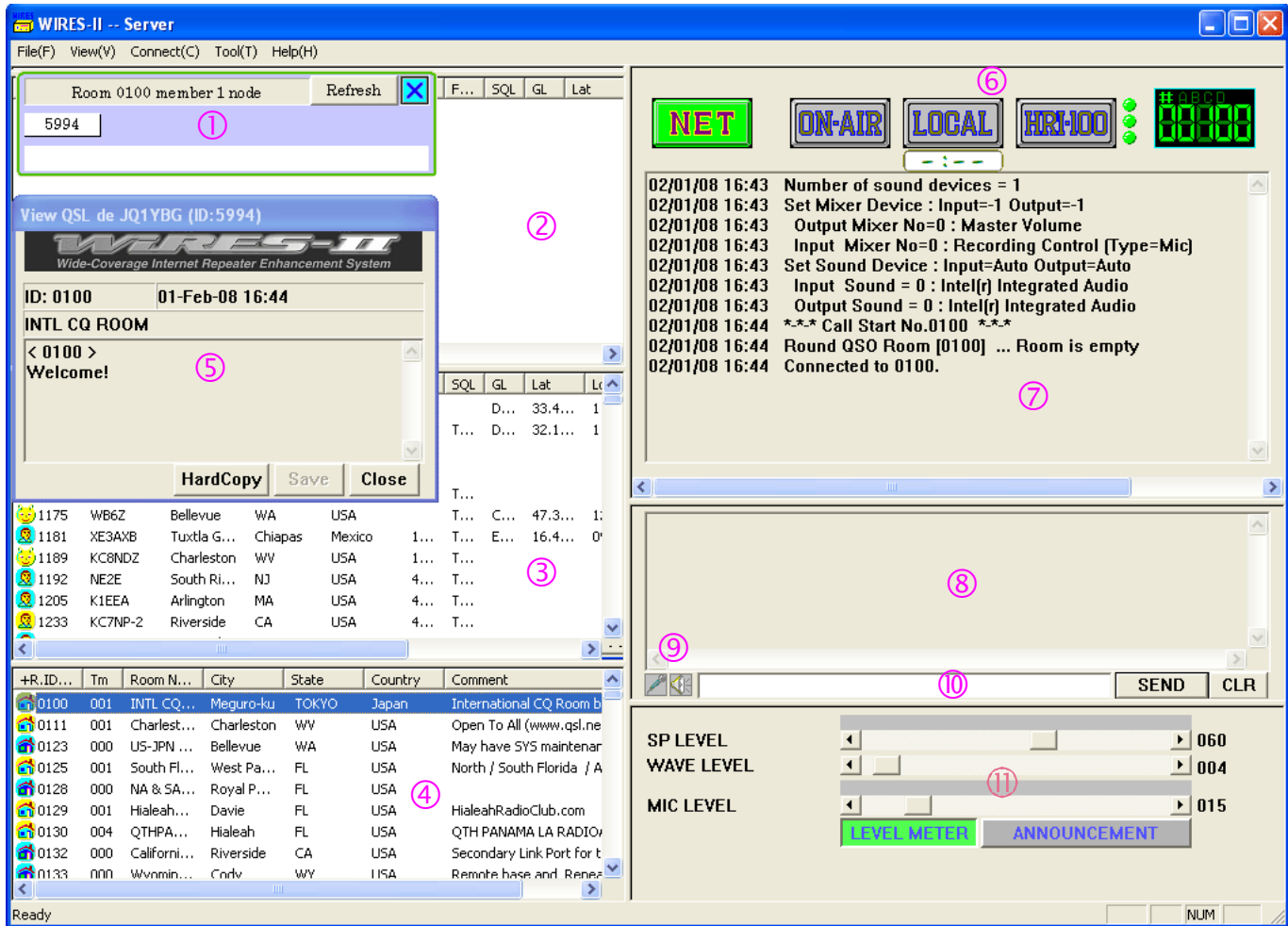
① **Connect ID window**

During Round Table QSO Room operation, or a group call using the SRG/FRG [A]/[B]/[C]/[D] lists, this pop-up window will show the ID numbers, and a list of the node(s) to which you are connected. Moreover, if a connection is in progress, you may go to the [View] menu and use the "Connect ID window" to view the connected ID numbers.

Furthermore, when the WiRES-II software window is minimized, you cannot view this Connect ID window. Use the [View] menu's Connect ID window in this situation.

Window title

During Round Table QSO Room operation, the Room Number and number of participating nodes will be displayed, as shown below: "Room 0100 member 3 nodes"

Connect ID list

All connected Node ID numbers are shown in the Connect ID list. When one of the stations in the list Transmits, its ID will change to a reversed-green field.

When the transmission is begun from a Node, The Node ID number becomes a green reversing display and the Node ID number and callsign are additionally displayed in the lower window.

Example of the window lower side display;

Send Node : 5109 (JQ1YBF)

Note: Callsign displayed here is the callsign of the Node on the list, and not the callsign of the amateur radio station using the Node.

WiRES™-II MAIN PAGE

Refresh **button**

When this button is pushed, the contents of "Group window" will be updated.
This is handy for updating the "Connecting Node list" display.

☒ **(close) button**

Clicking on this button closes the Connect ID window.
When the Connect ID window has been closed, you may select Connect ID window in the [View] menu.
Furthermore, when you disconnect from a link, the Connect ID window will automatically close.

② Group window

WiRES-II active Node and Round Table QSO Room information, as specified, by "Group window change" Parameter settings are displayed in the window on the left of the screen.
(the content of the display is not in real time, but it is automatically updated regularly).
The content that can be displayed is as follows:

[View]→[Group settings]→[SRG/FRG/Bookmark list]

In this setting, the list of WiRES-II active stations (Nodes and Round Table QSO Rooms) assigned by "Group settings" is displayed.
In this setting, the first column is the list of the active ID numbers, as in the following display.
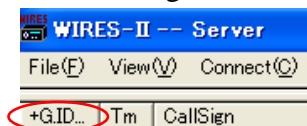
[View]→[Group settings]→[Connecting Node list]

In this setting, the list of WiRES-II Nodes that can be talked to, while connected, is displayed.
However, a Node registered with confidential information on the server is not usually displayed.
When you want to display a Node registered with confidential information, it is necessary to set it as an SRG/FRG Node on "Group settings". In this setting, the first column is the list of the connected ID numbers, as in the following display.
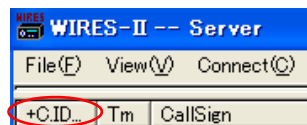
The following content is displayed by the connection destination.

Node (SRG/FRG)
Connected Node information is displayed.

Group call
Information on all Nodes connected to the WiRES server is displayed here. (Nodes not connected to the WiRES server will not be displayed.

Round Table QSO Room
Nodes information with access in the connected Round Table QSO Room is displayed.

[View]→[Group settings]→[MyRoom access list]

Note: This list appears only when you have registered for, and established, a Round Table QSO Room.
In this setting, the list of WiRES-II Nodes with access to the Round Table QSO Room that operates with your PC is displayed.
In this setting, the first column is the list of the MyRoom ID numbers, as in the following display.
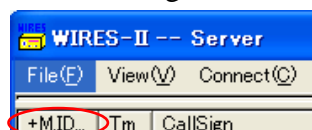
WiRES™-II Main Page

Command

The following screen operations and the commands can be executed in "Group window".

Sort

Additionally, when each node is selected, it is possible to rearrange the order of the list.

The Sort Display function will show a "+" for ascending order, and a "-" for descending order.

Note: *Sort is processed only with the following operations:*
> ** When you start WiRES-II software. (Sort is done in ID ascending order.)*
> ** When you click the item name. ("+Tm" etc.) (The Sort item is specified.)*
> ** When a Refresh command is executed.*
> ** When a file is output by the "Make list file" function (Only the list that is set for file output is sorted).*
> *Since screen updates are not real time, you may notice that some items were or were not acted upon even though some items may change frequently.*
> *To execute a Sort under a specified condition, please perform a Refresh, or click the item name column.*

The following commands can be executed by right-clicking in the display part of "WiRES No.".

Connect

This allows you to connect immediately to the selected Node or a Round Table QSO Room.
(When "MyRoom access list" is displayed, it is not possible to select it.)

Get Info

This brings up any information (including a picture, if provided) about the selected node(or Room) that has been stored by that node's owner or that Room's owner.

Window default

When this is clicked, all window contents (Group window, Active ID window, and Round Table QSO Room window) will be reset to their default conditions.

Refresh Group list

(It is only possible to select this when "MyRoom access list" is displayed.)

Right-click when this command is selected, and the contents of "Group window" are updated.
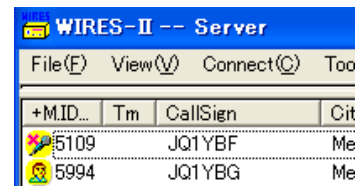
Reject

(It is only possible to select this when "MyRoom access list" is displayed.)

When a Node connecting with the "Round Table QSO Room" that you have engaged is selected by right-clicking, and this command is chosen, the same operation as the "Remove button" on "MCU/ Room-Info" is executed.

The release operation of the Reject setting, may be executed from the "MCU/Room-Info" setting window.

Mute

(It is only possible to select Mute when "MyRoom access list" is displayed.)

When a Node connecting with the "Round Table QSO Room" that you have engaged is selected by right-clicking, and this command is chosen, the state of "Mute" condition is set to the Node. (The same operation as the "Mute button" on "MCU/Room-Info" is executed.)

Moreover, when a Node in the state of Mute is selected by right-clicking, and this command is chosen, the state of the "Mute" condition can be released.

Note: *When the Mute release operation is done by wild-card range specification ("?"), from a list of Nodes in the state of Mute, it operates as follows:*
(a) The Mute release operation of the Node is effective only while connected to it. (When the connection with the Node is terminated (disconnected), the Mute operation from the list becomes invalid.)
(b) The state of the Mute release is not reflected in the set value of "Round QSO Room mute ID list". (Only in this case, the operation becomes different from "Mute button".)

WiRES™-II MAIN PAGE

(c) When a Node is reconnected, the state of Mute is determined by the set value of "Round QSO Room mute ID list".
Please execute the "MCU/Room-Info" setting window for details on setting the state of Mute.

Items in the summary list are indicated below.

ICON:

Icons associated with each node signed on to the server are shown at the left side of the list. When that node is active, the color of the icon changes from blue (   ) to yellow (   ). If the node owner has modified the default icon on their side (via the Personal ID's "ICON select" option), that icon will be reflected on the ID list on your node's PC.
Four kinds of icons can be selected by setting "ICON SELECT" from "Personal ID".

0   (OM), 1   (YL), 2   (Dog),   3   (Cat)

For Round Table QSO Room, the Round Table QSO Room's icon [or   ] is displayed.

When "MyRoom access list" is displayed, the Mute icon [   ] is displayed, as is Node in the state of Mute.
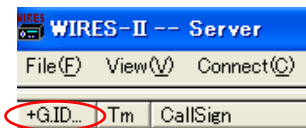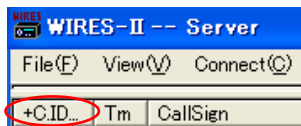
Explanation of each window:
ID No:
The ID Number of the WiRES-II Node or Round Table QSO Room is displayed.
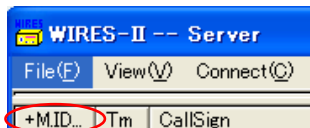The display form changes depending on the content of the displayed window as follows.

SRG/FRG/Bookmark list

Connecting Node list

MyRoom access list

This list appears only when you have registered for, and established, a Round Table QSO Room.
Tm:
This displays the number of nodes currently connected to the Round Table QSO Room.
Call sign:
This displays the Callsign of the WiRES node or the name of the Round Table QSO Room is displayed.
City:
The City location of the WiRES node is displayed.
State:
This is the field for the U.S. State where the WiRES Node is located (if applicable).
Country:
This is the Country location of the WiRES node.

WiRES™-II MAIN PAGE

Freq (MHz):
This field shows the operating frequency of the node radio or repeater.
SQL:
This field displays any CTCSS, DCS, or other Tone Control being used on the node.
GL:
Maidenhead Grid Square Locator for the WiRES nodes.
Example: DM03XT
Lat:
Latitude information for the WiRES nodes, displayed in the format [aa.bb.cc], where
        aa: Degrees
        bb: Minutes
        cc: Seconds
Example: 33.49.12N corresponds to 33 Degrees, 49 Minutes, 12 Seconds North Latitude.
It does not correspond to a decimal representation of the Latitude.
Lon:
Longitude information for the WiRES nodes, displayed in the format [aaa.bb.cc], where
        aaa: Degrees
        bb: Minutes
        cc: Seconds
Example: 118.02.24W corresponds to 118 Degrees, 02 Minutes, 24 Seconds West Longitude.
It does not correspond to a decimal representation of the Longitude.
Comment:
Any comments from the node owner will appear here.

③ **Active ID window**
WiRES-II active Node information is displayed in the left center of the window .
(The content of the display is not in real time, although, It is automatically updated regularly.)
Command
The following screen operation and the command can be executed in "Active ID window".
Sort
What's more, when each node is clicked, it is possible to rearrange the order of the list.
The Sort Display function will show a "+" for ascending order, and a "-" for descending order.
Note: The Sort command is only processed during the following operations.
        * When you start WiRES-II software. (Sort is done in ID ascending order.)
        * When you click the item name part. ("+A.ID No" etc.)(The Sort item is specified.)
        * When the Refresh command is executed.
        * When the file is output by the "Make list file" function.
   *(Only the list that is set for file output is sorted)*
        Since screen updates are not real time, you may notice that some items were or were not acted upon even though some items may change frequently.
        To perform a repeat Sort under a specified condition, please perform a Refresh or click the item name column.

WiRES™-II MAIN PAGE

The following command can be executed when right-clicking in the display part of "WiRES No.".
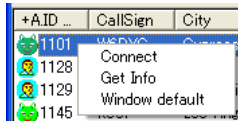
Connect
This allows you to connect immediately to the selected node.
Get Info
This brings up any information (including a picture, if provided) about the selected node that has been stored by that node's owner.
Window default
When this is clicked, all window contents (Group window, Active ID window, and Round QSO Room window) will be reset to their default conditions.

Items in the summary list are indicated below.

ICON:
Icons associated with each node signed on to the server are shown at the left side of the list. When that node is active, the color of the icon changes from blue ( ) to yellow ( ). If the node owner has modified the default icon on their side (via the Personal ID's "ICON select" option), that icon will be reflected on the ID list on your node's PC.
Four kinds of icons can be selected by setting "ICON SELECT" from "Personal ID".

   0   (OM), 1   (YL), 2   (Dog),   3   (Cat)

Explanation of each window:
ID No:
This displays the server ID numbers for the Active nodes at the present time. The window is labeled "A.ID NO" for clarity.
If you click on the node's ID number, you can execute the commands below with respect to that node:
Call sign:
The Callsign of the WiRES node is displayed.
City:
The City location of the WiRES node is displayed.
State:
This is the field for the U.S. State where the WiRES Node is located (if applicable).
Country:
This is the Country location of the WiRES node.
Freq(MHz):
This field shows the operating frequency of the node radio or repeater.
SQL:
This field displays any CTCSS, DCS, or other Tone Control being used on the node.
GL:
Maidenhead Grid Square Locator for the WiRES nodes.
Example: DM03XT
Lat:
Latitude information for the WiRES nodes, displayed in the format [aa.bb.cc], where
   aa: Degrees
   bb: Minutes
   cc: Seconds

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Example: 33.49.12N corresponds to 33 Degrees, 49 Minutes, 12 Seconds North Latitude.
It does not correspond to a decimal representation of the Latitude.

Lon:
Longitude information for the WiRES nodes, displayed in the format [aaa.bb.cc], where
>   aaa: Degrees
>   bb: Minutes
>   cc: Seconds

Example: 118.02.24W corresponds to 118 Degrees, 02 Minutes, 24 Seconds West Longitude.
It does not correspond to a decimal representation of the Longitude.

Comment:
Any comments from the node owner will appear here.

④ **Round Table QSO Room window**

WiRES-II active Round Table QSO Room information is displayed in a window at the left of the screen.
(This information is regularly updated automatically but is not in real time.)

Command
The following screen operation and command can be executed in the "Round Table QSO Room window".

Sort
Additionally, when each node is clicked, it is possible to rearrange the order of the list.
The Sort Display function will show a "+" for ascending order, and a "-" for descending order.

Note: The Sort command is only processed during the following operations.
>   ** When you start WiRES-II software. (Sort is done in ID ascending order.)*
>   ** When you click the item name part. ("+ Tm" etc.)(The Sort item is specified.)*
>   ** When Refresh command is executed.*
>   ** When the file is output by the "Make list file" function.*
>   *(Only the list that is set for file output is sorted)*

Since screen updates are not real time, you may notice that some items were or were not acted upon even though some items may change frequently.
To perform a repeat Sort under a specified condition, please perform a Refresh or click the item name column.

The following commands can be executed when right-clicking in the display part of "WiRES No.".
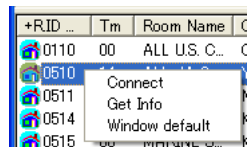
Connect
This allows you to connect immediately to the selected Round Table QSO Room.

Get Info
This brings up any information including the list of the connecting nodes (and a picture, if provided) about the
selected Round Table QSO Room that has been stored by that Room's owner.

Window default
When this is clicked, all window contents (Group window, Active ID window, and Round Table QSO Room window) will be reset to their default conditions.

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Items in the summary list are indicated below.

ICON:

The Round Table QSO Room Icon (   ) is shown to the left of the ID number for that room.
When there is an active QSO in progress in a Round Table QSO Room, its icon will change to yellow (   ).

Explanation of each window:

ID No:
This displays the server ID numbers for the active Round Table QSO Rooms at the present time.
The window is labeled "R.ID NO" for clarity.
If you click on the node's ID number, you can execute the commands below with respect to that node:

Tm:
This displays the number of nodes currently connected to the Round Table QSO Room.

Room name:
The name of the Round Table QSO Room is displayed here.

City:
The city in which the Round Table QSO Room host node is located is displayed here.

State:
The U.S. State in which the Round Table QSO Room is located is displayed here (if applicable).

Country:
The country in which the Round Table QSO Room host node is located is displayed here.

Comment:
Any brief remark added by the Round Table QSO Room manager will appear here.

⑤ **View QSL window**

When connected to another node or Round QSO Room via the Internet, the following "QSL Window" information is displayed:

ID :   The node ID number is displayed.
Date: Day - Month - Year - Time of Connection
CALLSIGN: The callsign of the node or Round QSO Room's Room Name.
QSL Image: The image stored in the Personal settings area.
                    This picture only appears, when received from another node,
                    when the "QSL exchange" check box has been set to ON.
                    If the image on the QSL is large, or if the connection quality
                    is not good, it may take some time to download the QSL Card.
Message: The message stored in the "Message" area under "Personal
                    settings" will appear here.
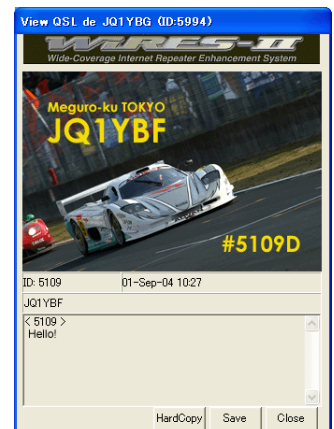
[HardCopy] button
You may print a copy of the received QSL Card by clicking here. This is the same as the standard Windows® function (pressing [Alt] + [Print Screen]).
When this button is pushed, this image is also available for manipulation in software like Paint® (paintbrush), and it is possible to retain this image as a BMP file, if you like.

[Save] button
If you click on this button, you will be able to save the QSL Card, along with the node ID and the callsign. The image is saved as a BMP file, while a text (.txt) file is also retained, including the callsign and node ID.

[Close] button
Click on this button to close the View QSL window. If the connection to the other node is severed, this window will close automatically.

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⑥ **Status indicator**

The communication status is shown on the right side of the WiRES-II software window.

IDLE & **NET**

Connection status with the other repeater stations is shown in this section.
The description displayed is as follows.
IDLE: When the WiRES-II software is not connected to another node, this status is displayed.
NET: When your node connects to another node, **IDLE** changes to **NET** and remains in the **NET** status for the duration of the connection. When the link is disconnected, this status box will revert to **IDLE**.

ON-AIR **ON-AIR** & **ON-AIR LOCK**

This area describes the displays relating to the Transmit/Receive and other status indications for your node. The displays are described below.
ON-AIR: This display indicates that your node is in the "Standby" state, with no communication in progress between your node and another node.
ON-AIR: While your node is connected to another node **NET**, and your node transmitter is keyed via PTT control from the other node, this status box changes to the **ON-AIR** "ON-AIR" display.
After PTT control is released by the other node, this box returns to its original gray appearance.
During "LOCAL" communication, this green box does not become illuminated.
ON-AIR LOCK: If you left-click your mouse on the "ON-AIR" button, it changes to "ON-AIR LOCK" and transmission will be prohibited.
If the "ON-AIR LOCK" function is engaged, all transmission will be prohibited, and connection to your node will also be impossible.
If you then left-click on the "ON-AIR LOCK" indication, the node will revert to the "ON-AIR UN-LOCK" state, and normal operation may resume.
When an ON-AIR LOCK/UNLOCK icon is issued locally (at the node PC), the Log window will display one of the indications shown below.
Transmission prohibited: "*Localhost* ON AIR LOCK"
Transmission permitted: "*Localhost* ON AIR UNLOCK"
Similarly, when an ON-AIR LOCK/UNLOCK command is issued remotely (at the remote PC using the Remote Monitor Software(WiRESmon.exe)), the Log window will display one of the indications shown below.
Transmission prohibited: "*Monitor* ON AIR LOCK(xxx.xxx.xxx.xxx)"
Transmission permitted: "*Monitor* ON AIR UNLOCK(xxx.xxx.xxx.xxx)"
Furthermore, when plug-in software for adjustment of the voice audio level (Voice Check plug-in) is installed, the ON-AIR LOCK function, if engaged, will be cancelled.

LOCAL **LOCAL** & **INTERNET**

The operational status of your node station is shown in this section.
The displayed status depends on the condition of COR line connected between **HRI-100** and your repeater, and on the connection condition with the other node station.

WiRES™-II MAIN PAGE

The precise descriptions of the displays are as follows.

LOCAL : When your node is inactive, this status is displayed.

LOCAL : While your node's COR line is active, this status is displayed.

This status is displayed, when the WiRES-II software is in one of the following conditions:

(a) When the WiRES-II software is not connected to a node, and your node is receiving a signal from a local station.

(b) When the WiRES-II software is connected to another node **NET** and your repeater is receiving a signal from a local station, and cannot send the received voice signal data, or when the other node is busy.

INTERNET : This status is displayed while the WiRES-II software is real-time sending the voice signal data to the other node station, without recording the received voice signal data at your repeater (into the buffer).
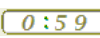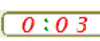
⎡ - : - - ⎤ (TOT counter)

Voice communication cannot be sent continuously from your Node to a connected destination Node for more than three minutes. (TX Timeout function)
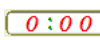
Moreover, when a voice transmission that has been sent from a connected destination Node exceeds three minutes of continuous transmission, further transmission is prevented by the (hardware timer) function of the HRI-100.

The transmission time or the reception time remaining, is displayed by the "TOT counter" function as follows:

⎡ 2:34 ⎤ :The time left is displayed in blue during a remaining time of 3:00-1:00.

⎡ 0:59 ⎤ : The time left is displayed in yellow during a remaining time of 0:59-0:20.

⎡ 0:03 ⎤ : The time left is displayed in red during a remaining time of 0:19-0:01.

⎡ 0:00 ⎤ (blinking): After three minutes, the display starts blinking in red and the display reads 0:00.

Note1: WiRES-II limits continuous transmission to three minutes. Care must be taken to limit each transmission to three minutes.

Moreover, the use of the Internet for the WiRES-II transmission line may generate delay in the Your voice transmission. Allow a few seconds delay (break time) before beginning a transmission.

When the break time is too short, the transmission might not reset the timer between the beginning of your transmission and the end of the previous node's transmission. (especially when connected by "Round Table QSO Room" or "Group call".) As a result, a continuous transmission of three minutes or more may be generated without intending it. The hardware timer function of the HRI-100 will prevent your voice from being transmitted after three continuous minutes.

Note2: "TOT counter" function doesn't synchronize with continuous transmission prevention (hardware timer) function of the HRI-100. Therefore, there may be a difference in the transmission stop timing set in the "TOT counter" display, and the continuous transmission prevention of the HRI-100 (hardware timer) function.

Note3: This function does not work when the "TEST button" of Sound settings or ID settings are used.

HRI-100 **HRI-100**

The connection status between the WiRES-II software PC and the **HRI-100** is shown in this section. The descriptions of the displays are as follows.

HRI-100 : When the WiRES-II software can communicate with **HRI-100** normally, this status is displayed. The WiRES-II software can perform normally under this condition.

HRI-100 : This status displays when communication failure occurs between the WiRES-II software (PC) and the **HRI-100**.

WiRES™-II Main Page

The WiRES-II software will not work normally in this condition.
Check the connections between the PC and the **HRI-100**, and verify that the proper COM port is being used.

(Firmware status indicator)

These status indicators show the occurrence of data failure in the firmware of the **HRI-100**.
There are three indicators to the right of "**HRI-100**" (Gray).
For normal operation, all 3 indicators should be lit green.

During SRG operation, the number (0 - 9) of the SRG node with which you are in communication (that is, its numerical position in the list, not the server ID number), is shown in reversed green type.

During FRG operation, the actual node ID number is displayed.

During Round Table QSO Room operation, this window indicates the total number of nodes operating in the Room.
If you go to View-Log and click on Round Table QSO, this window changes to a private log window for your Round Table QSO Room, showing the total number of nodes signed in.

⑦ **Log window**

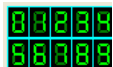The status of calls between the WiRES-II Server and various worldwide nodes is displayed on this page. Additionally, in the **[View] - [Log]** menu, you may choose [Node] or [Round QSO] to select display of an activity log for your own node, or for the Round Table QSO Room hosted on your node. Log entries are maintained on a first-in, first-out basis, and when the software is cleared, the log will also be cleared automatically.

```
10/02/07 14:21   JI3YZK(5304),JN1YBQ(5944),JG2TYQ(5256),JN3NOW(6146),JM1XTK
(5841),JG2GOU(6130),JH9YAY(5927),JA3ENN(6173),
10/02/07 14:21   7N3FAU(5970),JQ1YOX(5846),JA6BJB(5676),JP1KJD(5478),JQ1VUE
(5868),JH4AAC(5435),JQ1YRQ(6131),JQ1YRQ(5190),
10/02/07 14:21   JH1SYW(6320),
10/02/07 14:22   JP1AVE(6110) OUT.
10/02/07 14:22   JH4AAC(5435) OUT.
10/02/07 14:22   JH0WKC(6073) OUT.
10/02/07 14:22   end-key detected  .. Hangup
10/02/07 14:22   * Conference End. *
10/02/07 14:23   *-*-* Call Start No.0511  *-*-*
10/02/07 14:23   Round QSO Room [0511]  ... Room is empty
10/02/07 14:23   Connected to 0511.
```

Node log

Information regarding the status of communication involving your node, including chat information, is found in the Node log.
Please refer to the clause of "Node log" of "Log message(Error code etc.)" for details of the content of the display.
When you want to save the contents of this window, use the "Log-file save" option for your Node under the "General settings" menu.

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Round Table QSO Room log

If your home node hosts a Round Table QSO Room, you may switch to this window to view activity in the QSO Room for administrative purposes. If you do not have a QSO Room registered on your home node's PC, this function will not work.

Please refer to the clause of "Round Table QSO Room log" of "Log message(Error code etc.)" for details of the content of the display.

When you want to save the contents of this window(the Round Table QSO Room's activity log), use the "Log-file save" option for the Round Table QSO Room hosted on your node under the "**[View] - [MCU/Room-Info]**" menu.

⑧Chat window

The Chat window is capable of storing up to 3000 letters and numbers related to Chat operation. Information is retained on a first-in, first out basis. When the program is restarted, all information stored prior to the restart will be dumped.

Should you wish to retain the contents of this window, use the Log-file save function under "General settings".
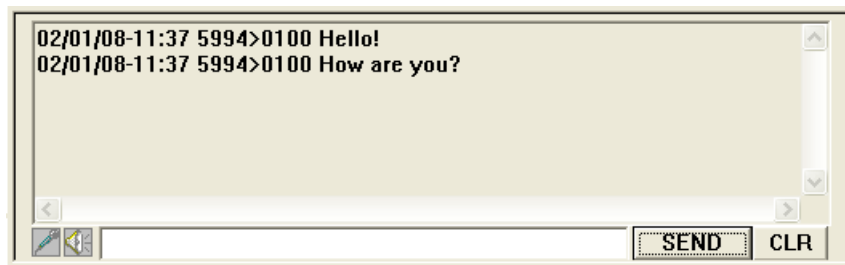
⑨Rec & Play Indicator

This indicator at the left side of the Chat input line in the WiRES-II software displays the status of recording and replaying voice signal data.

 (Rec Indicator)

The WiRES-II software is temporarily recording and storing the voice signal data which will be transmitted to the other node later (because it currently is busy).

The icon will change to reverse-font yellow while the WiRES-II software is recording the voice signal data into the buffer.

After saving the voice signal data, the WiRES-II software returns this indicator to its original state.

 (Play Indicator)

The recorded voice data will be sent out to the connected node when it is no longer busy.

When the WiRES-II software is sending the saved voice signal data, this indicator changes to reverse-font yellow.

After sending the saved voice signal data, the WiRES-II software returns this indicator to its original state.

⑩Chat input line

This is the text box into which you can type messages to other nodes. Click on [SEND] to transmit the message. You may enter the "##" and four-digit node number, followed by a space, to begin a chat with a node different from the one to which you currently are connected.

When "CLR" is checked, the Chat window will be eliminated.

You may also enter DTMF tone commands here, which will be executed when you press [Enter] key, or click on [SEND] or [CONNECT].

WiRES™-II MAIN PAGE

The commands available are:

The [#∗∗∗∗∗] command may be sent when you are not connected to any other node. For example, if you enter [#5109D] then click on [Connect], you will command the system to attempt a connection to node #5109D.

The [#5555D/#55555/#05555] command lets you cancel the Return Room function. This command cancels the Return to resident Round Table QSO Room function (an automatic function that returns you to the Round Table QSO Room you defined as your "Resident" Room).

The [#6666D/#66666/#06666] command is the announcement command about the connecting station. When the Server receives this command, information about the connecting station will be announced.

The [#7777D/#77777/#07777] command lets you call "CQ" through the WiRES Server. The Server will arbitrarily select an idle node on-line within the system, and your call will appear on that node's output. This command also may be executed only when you presently are not connected to any other node.

The [#8888D/#88888/#08888] command orders the system to re-connect you to the last node to which your node was connected. This command also may be executed only when you presently are not connected to any other node.

The [#9999D/#99999/#09999] command is the "disconnect" command, valid only when you are connected to another node. The [∗] command is not valid in the Chat window.

The [#0000D/#00000] "Response" command is used in the SRG mode. It commands the Server to identify the node from which an incoming SRG call was received.

Sound control

The Sound Level Bars permit adjustment on the Input/Output sides of the Sound Card. The adjustment scale of 0 - 100 is shown on the side of the Level Bar.

[SP LEVEL] (parameters : 0-100 / default = 60)

[WAVE LEVEL] (parameters : 0-100 / default = 4)

The volume of the audio signal output from the terminal Speaker of PC sound card can be controlled from WiRES-II software using this function.

(The audio signal output from the terminal Speaker is sent to the transceiver through the HRI-100, and modulates the transmitted signal.)

∗ In this function, Playback volume is controlled by setting the device selected by "Mixer (OUT) of Sound device".

The volume between these is adjusted.
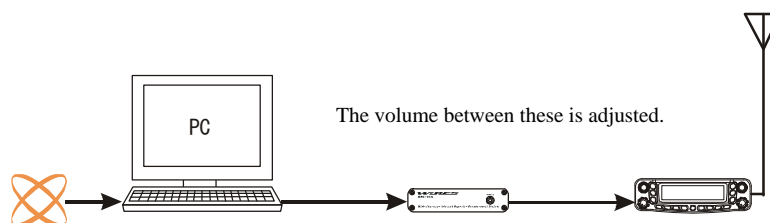
For Windows2000/XP

SP LEVEL: "Volume control(Playback volume control)" of OS is adjusted.

WAVE LEVEL: "Wave(Playback volume control)" of OS is adjusted.

Note:*In Windows 2000/XP, we recommend the following volume control settings:*

① *Set "SP LEVEL" to the default value (060).*

② *Adjust "WAVE LEVEL" for an appropriate (not distorted) speaker volume.*

③ *Fine-tune "SP LEVEL" for the desired operation.*

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For Windows Vista / Windows 7

SP LEVEL: Operates as the playback volume only for WiRES-II software (WiRES-II.exe).
(The "WAVE LEVEL" bar does not appear.)
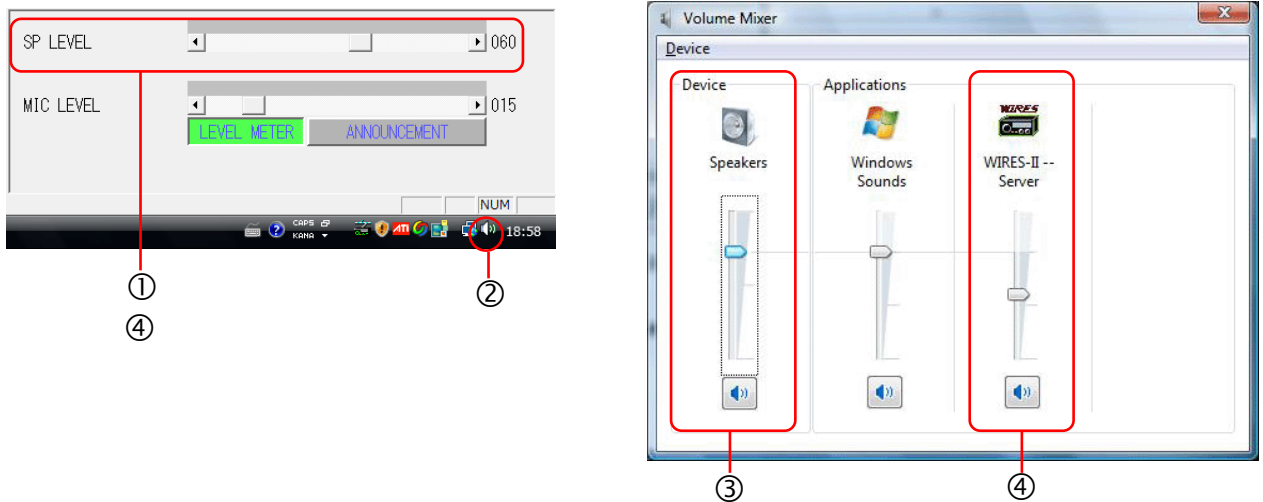
Note: In Windows Vista / Windows 7, a special volume control is provided for each application by the OS. The special volume is adjusted by "SP LEVEL". The volume of the OS Speakers (Mixer Playback volume) is not affected.

In Windows Vista / Windows 7, we recommend the following volume control settings:

① *Set "SP LEVEL" to the default value (060).*

② *Right-click the mouse on the speaker icon, and the "Volume mixer" window appears.*

③ *Adjust the Speaker volume of the OS (Playback volume mixer) to an appropriate (not distorted) level.*

④ *Fine-tune "SP LEVEL" for the desired operation.*
("SP LEVEL" and "WiRES-II" settings are synchronized.)

**[MIC LEVEL / LINE-IN LEVEL]** (parameters : 0-100 / default = 15)

The volume of the audio signal input from the terminal MIC or LINE-IN of the PC sound card can be controlled from WiRES-II software by this function.
(The voice received with the transceiver is sent to the terminal MIC or LINE-IN of PC through HRI-100, and sent to "Node" or "Round Table QSO Room" at the connection destination.)

∗ In this function, Recording volume of the device selected by "Voice in select" setting and "Mixer(IN) of Sound device" setting is controlled.

MIC LEVEL : Recording volume adjusts "Microphone" volume level of the OS.

The volume between these is adjusted.
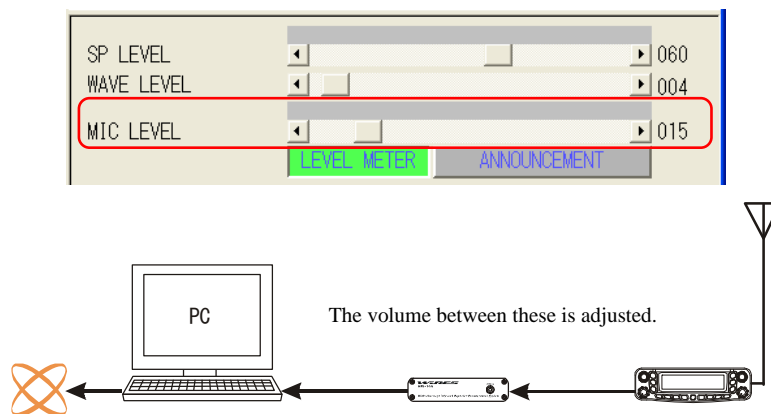
WiRES™-II MAIN PAGE

LINE-IN LEVEL : Adjust the recording volume with the "LINE-IN" volume level of the OS.
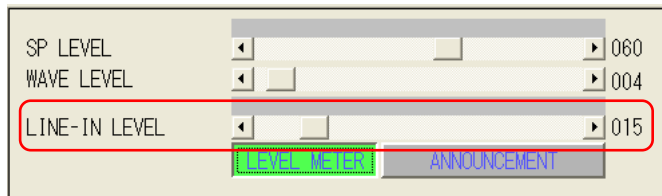
Other (IN) : This display appears when "Other" is set to "ON" with the "Voice in select" setting.
Note: When "Other" is set to "ON" by "Voice in select" setting, "SP LEVEL", "WAVE LEVEL",and "MIC LEVEL / LINE-IN LEVEL" will not be controlled and adjusted by the WiRES-II software. Please adjust them with the Windows OS audio adjusting functions.

[LEVEL METER] button (default = on)
This button enables/disables a graphical representation of the setting of the Level Meter.
`LEVEL METER`:Level Meter is disabled (OFF).
`LEVEL METER`:Level Meter is enabled (ON).
When this button is set to ON (green indication), the SP LEVEL and MIC LEVEL / LINE-IN LEVEL indicator bars will be displayed. However, it is possible that, with some computers, sound cards, and/or operating systems, a proper display cannot be achieved. If you encounter this, please turn off this function.

[ANNOUNCEMENT / ANNOUNCEMENT MUTE] button (default = off)
When you click on this button, it is possible to temporarily mute the sending of announcements.
`ANNOUNCEMENT`: The announcements features work normally.
`ANNOUNCEMENT MUTE`: Announcements are temporarily muted.
Clicking on the `ANNOUNCEMENT` will cause the display to change to `ANNOUNCEMENT MUTE`, and audio from announcements will be muted.
The parameters of "Announcement" menu in the "General settings" folder are kept even if Announcements are temporarily muted.
When you click on the `ANNOUNCEMENT MUTE`, or the link is disconnected, the "mute" state returns to the normal "not muted" condition, and the red box will revert to its normal `ANNOUNCEMENT` state.
Furthermore, when connecting or disconnecting, regardless of the state of the `ANNOUNCEMENT`, the connection/disconnection sound will be sent.
Additionally, when "Return to Resident Round QSO Room" operation has been engaged, a disconnect command will cause the "mute" state to be cancelled. If you want to mute audio further, use the ANNOUNCEMENT MUTE selection in the "General settings" folder, "Announcement" menu.

WiRES™-II PROPERTY SCREEN

The "Property Screen" is where various states of operation are set.
You may access the "Property Screen" by clicking [Property] under the [File] tab in the "WiRES-II MAIN Screen" toolbar.
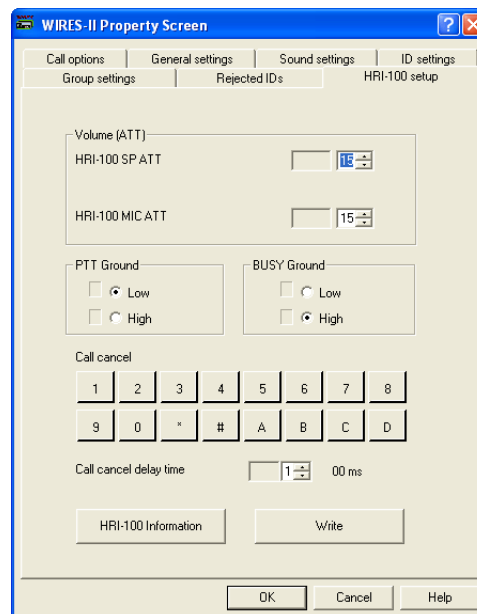In the properties screen you may adjust the operating settings and connection conditions, etc. of the WiRES software.
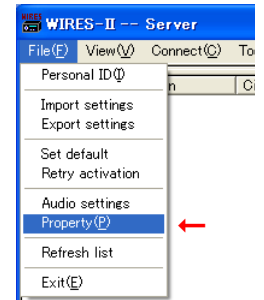
HRI-100 setup

[File]-[Property]-[HRI-100 setup]

These parameter configurations can be performed to run the HRI-100 properly via this window.

Volume (ATT)

This area is used for adjustment of the volume levels for transmitted and received audio.

These adjustments provide varying degrees of attenuation, so a high number indicates a lower volume level.

[HRI-100 SP ATT] (parameters : 0-85 / default = 15)

The PC Sound Card "Speaker" output is passed to the HRI-100, and thence to the "TX Audio" input of the Node radio/repeater's 6-pin mini-DIN (Packet) or MIC jack.

This parameter adjusts the level of attenuation to be applied to the output from the Sound Card Speaker jack, so as to set the proper audio to the node radio/repeater.

You will be able to adjust your audio by the sliding bar in the window to the right for SP LEVEL / WAVE LEVEL.

If the adjustment is insufficient, please adjust the level using this parameter (the scale unit is in dB of attenuation, the greater in the parameter value shows the lower audio input).

[HRI-100 MIC ATT] (parameters : 0-85 / default = 15)

Audio output from the receiver of the node radio/repeater's receiver is passed to the HRI-100's "Radio" jack, and thence on to the HRI-100's MIC jack for interconnection to the PC Sound Card's MIC input jack.

This parameter adjusts the level of attenuation to be applied to the input signal from the node radio/repeater.

You will be able to adjust your audio by the sliding bar in the window to the right for MIC LEVEL / LINE-IN LEVEL.

WiRES™-II PROPERTY SCREEN

If the audio is insufficient, you may adjust the level using this parameter (the scale unit is in dB of attenuation.
Increasing the attenuation will reduce the audio input).
If the audio level is extremely high and cannot be adjusted, try connecting with the LINE-IN jack of your PC instead. You may also need to adjust the LINE-IN level via the adjustment window on your PC.
On the other hand, if your audio level is too low, you may connect to the MIC IN jack of your PC. You may also need to adjust the MIC IN level accordingly.
Note: If the attenuation of "HRI-100 MIC ATT" is too high, the DTMF tone may not pass through to activate the WiRES-II commands correctly.

[PTT Ground] (default = Low)
This sets the polarity of the PTT terminal of your repeater ("Active Low" or "Active High" options).
If the repeater goes to transmit when the HRI-100 is connected for the first time, please change this parameter if no signal is present.
For example, if this parameter is set as "Low", then PTT OFF = "Low" and "PTT Engaged" is "High".

[BUSY Ground] (default = High)
This sets the polarity of the BUSY terminal of your repeater ("Active Low" or "Active High" options).
If the Squelch is properly set (no noise is present, but the "BUSY" box on the "WiRES-II" Main Screen does not change to gray (in other words, if it stays as green), please change this parameter accordingly.

[Call cancel]
The receiving audio containing the DTMF tones (from the node receiver/repeater) may create some invalid commands to the WiRES-II software that would create improper WiRES-II operation.
When the [Call cancel] button is selected, it will cancel all operation associated with the receiving DTMF tones.
You will be able to select any combination of DTMF digits that you would like to block to avoid unwanted DTMF orders and radio behaviors.
Each Blocked Digit is marked with an "X" in the box.
Note: Please select this Blocking Function only when necessary since this may cause some unforeseen disruption in your operation.

[Call cancel delay time] (parameters : 0-1000 / default = 100ms)
This defines the minimum interval time between two sequential DTMF numbers that identifies them as two independent numbers.

[HRI-100 Information] button
By clicking this button, your current contents of the HRI-100 will appear on your screen.

[Write] button
By clicking this button, your current configuration data will be written and saved in the EEPROM memory of the HRI-100.
It is necessary to command this order once you have completed, in order to save all your changes and orders.
Note: Simply pressing [OK] will not save any changes or alterations of your new selections. No parameters or protocols from the Import settings will be saved until you click [Write] to save the parameters on the EEPROM memory as well.

[OK][Cancel] button
When the [OK] button is pressed, all items on the Property Screen will be confirmed and written to the memory.
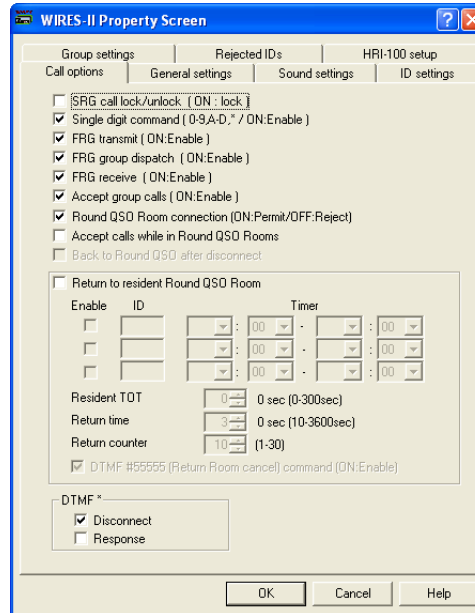If the [Cancel] button is pressed, all Property Screen items modified since the last [OK] command will revert to their previous settings.

WiRES™-II PROPERTY SCREEN

Call options

[File]-[Property]-[Call options]

This screen is used to set the calling and communication method to be used during your WiRES operation. Basically, there are two general modes of operation:

[SRG call lock/unlock (ON:lock)] (default = off(unlock mode))

Click this box if you wish your SRG Individual Calls to operate in the LOCK mode; leave this blank if you wish your SRG Individual Calls to operate in the UNLOCK mode.

Lock mode

In the "LOCK" mode, the calling command is sent at the beginning of a transmission, as a single DTMF tone for your SRG or a 6-tone DTMF string (#nnnnn or #nnnnD depending on whether the node station being called has a 4-digit or 5-digit ID). In the case of FRG, the DTMF code needs to be sent only once, and thereafter your Internet connection link will be maintained until the cut-off command (#99999 or #9999D) is sent. If no cut-off command is sent, the link will time-out based on the configuration of the "TOT (Time Out Timer)" setup as described in the "General settings" page.

Unlock mode(default)

In the "UNLOCK" mode, the aforementioned single-tone (SRG) or 6-tone (FRG) DTMF command must be sent at the beginning of each transmission; if no DTMF tone is sent on the second transmission the link will not be maintained in the UNLOCK mode.

The UNLOCK mode allows both linked and local communications to be interchanged, "on the fly", without the need to wait for the Time-Out Timer to bring down the link.

Also, when communicating with the Node #4 station on your SRG list, you can instantly change to a link with the Node #3 station by just pressing the [3] key on your radio's DTMF pad; if you are operating in the "LOCK" mode, you have to disconnect the link to the Node #4 station first, and then send the [3] DTMF digit to open the link to establish your connection to the Node #3 station.

Or you may quickly jump to a group call by sending the [A] DTMF code, if desired.

[Single digit command (0-9,A-D,*/ ON:Enable)] (default = on)

This command allows enabling/disabling of the use of a single digit command for your WiRES operation. In the SRG mode, the 0-9 keys may be used for calling individual stations, while the A-D keys are used for group calling in both the SRG and the FRG mode.

WiRES™-II PROPERTY SCREEN

If you check the box ON (Enable), single digit commands will be accepted.

If you check the box OFF, single-digit commands will be prohibited.

Note: in certain noisy conditions, turning this parameter OFF may help prevent false triggering of the system.

Also remember that if you turn this function OFF, you cannot use the single * key to shut down your connection; you must hit #9999D or #99999 to terminate your communication.

Likewise, is not possible to make simultaneous SRG and FRG calls (and Group calls) when this function is set OFF.

[FRG transmit (ON:Enable)] (default = on)

This function allows you to enable (or disable, by leaving the box un-checked) to call individual stations on the FRG I.D. List.

If you place a check in this box, you will be able to call, for example, node #1101D by entering that string of six digits from the DTMF keypad of your radio to access the WiRES node station.

[FRG group dispatch (ON:Enable)] (default = on)

This funciton enables (or disables, by leaving it un-checked) the making of Group calls pursuant to the "B/C/D" FRG Groups you may have already set up.

If you have entered node stations into one or more FRG Groups, pressing the single DTMF key corresponding to that group designator (such as the [C] key for FRG Group "C") is all you have to do to call all nodes in that group (in this case, Group "C").

[FRG receive (ON:Enable)] (default = on)

This parameter allows you to enable or disable the acceptance of incoming calls from other FRG nodes. When ON is selected, all incoming FRG calls will be accepted.

If OFF is selected, FRG calls will not be accepted, with one exception:

if you have placed a node on one of the FRG Lists, calls from those nodes will be accepted even with this parameter set to OFF (this allows you to accept calls from a limited number of FRG nodes).

Any nodes listed in the Reject IDs list will be rejected regardless of the setting of this parameter.

[Accept group calls (ON:Enable)] (default = on)

This parameter stipulates whether or not Group calls will be accepted from any other SRG or FRG node stations.

If ON is selected, Group calls will be accepted.

If OFF is selected, Group calls will be rejected.

[Round QSO Room connection (ON:Permit/OFF:Reject)] (default = on)

This parameter stipulates whether or not to permit connecting to a Round Table QSO Room.

If ON(permit) is selected, your node will permit connection to the Round Table QSO Room.

If OFF(reject) is selected, your node will reject connection to that Round Table QSO Room.

Note: When the function of the "Return to resident Round QSO Room" is on, some parameters may not be activated.

See "Conditions of Resident Room Connection" for the details.

[Accept calls while in Round QSO Rooms] (default = off)

When this box is checked, you will be able to accept an individual call to your node while you are involved in a Round Table QSO Room; you will automatically be checked out from the Round Table QSO Room, and then connected automatically to the calling node.

[Back to Round QSO after disconnect] (default = off)

If you have checked Accept calls while in Round Table QSO Rooms, this option provides the automatic re-connection function to the Round Table QSO Room from which you exited when the call to your node completed.

WiRES™-II PROPERTY SCREEN

[Return to resident Round QSO Room] (default = off)

To define the conditions to connect with the designated Round Table QSO Room as follows ;

ON : The automatic connection function is enabled.

OFF : The automatic connection function is disabled.

This function can also be activated and changed by the DTMF #55555 command other than from your PC. The Resident Room ID & Timer function will be simultaneously on (as "Enable") accordingly when activated(changed) by the DTMF #55555 command.

[Resident Room ID & Timer]

You may be able to register the Round Table QSO Room IDs that you would like to connect, with up to three rooms, including time to stay connected in each room.

○ **Enable**(default = off)

You may select On/Off of the automatic connection of each Round Table QSO Room respectively.

ON : Enable to connect to the designated Round Table QSO Room at the time of your choice.

OFF : This function will be de-activated.

When unable to reconnect/return to the designated Round Table QSO Room within the times selected (as reported as "return to room No.$ [XXXX] count over." on the log screen), this selection (although once selected) will be de-selected (to OFF).

If you wish to re-connect or re-activate this automatic reconnection function, you need to choose this function to activate (set to ON) again on your PC or use the DTMF #55555 command to re-activate the "Return to resident Round Table QSO Room" function.

○ **ID**

Designates the Room ID that you would like to connect automatically.

You may register up to three rooms. You may also be able to define the different rooms at the same time frame.

○ **Timer** (StartTime - EndTime)

Defines how long you wish to connect with each Round Table QSO Room (in 5 minute increments). You may register up to three rooms. If you would like to connect for 24 hours, select "00:00 - 24:00".

Note: If two or more automatically connected nodes are corresponding, priority of the parameter of the line above is given to the "Resident Room ID & Timer" set screen.

Conditions of Resident Room connection

In the time specified with Resident Room ID & Timer parameters, the connection to specified Round Table QSO Room is defined, "Automatic Connection".

A manual connection by the Connect command is treated as "Automatic connection" when connecting it with specified Round Table QSO Room in the time specified with Resident Room ID & Timer parameters.

Oppositely, all other connections are defined, "Normal Connection".

    <u>Example</u>

    Resident Room ID & Timer parameters:

    parameter = Enable / ID / timer

    No.1 = ON / 0100 / 12:00-18:00

    No.2 = ON / 0710 / 18:00-22:00

    No.3 = OFF / 0511 / 18:00-03:00

When the connection to #0100 is engaged between 12:00:00 - 18:00:00, this connection is recognized as "Automatic Connection".

When the connection to #0100 is engaged between 18:00:01 - 11:59:59 (following day), this connection is recognized as "Normal Connection".

When the connection to #0710 is engaged between 18:00:00 - 22:00:00, this connection is recognized as "Automatic Connection".

When the connection to #0710 is engaged between 22:00:01 - 17:59:59 (following day), this connection is recognized as "Normal Connection".

When the connection to #0511 is OFF as in rule No.3, this connection is not recognized as "Automatic Connection". Your connection to #0511 will be treated as a "Normal Connection" at anytime.

Any and all connections other than above will be treated as "Normal Connection".

WiRES™-II PROPERTY SCREEN

[Resident TOT] (parameters = 0-300[sec] / default = 0[sec])

The connection with the designated Resident QSO room will be maintained for the length of time set by the "Resident Room ID & Timer", unless disconnected by a DTMF command, etc. or any internet traffic communication errors.

After the time specified in "Resident Room ID & Timer" has passed, the clock that displays the INTERNET listening status is started.

The connection will be automatically released (disconnected) when no audio is detected during the INTERNET listening watch time.

The watch time is set here.
When entering the state of the INTERNET listening (INTERNET) status in the watch time, if audio is detected, the automatic connection does not release. The connection is maintained. (Exclude this for "Resident TOT = 0[sec]".)
The watch that displays the INTERNET listening (INTERNET) status begins again when the INTERNET (INTERNET) listening status returns to the LOCAL turned (LOCAL) off status.

> **Example**
> Resident Room ID & Timer parameters:
> parameter = Enable / ID / timer
> No.1 = ON / 0100 / 10:00-14:00
> Other parameters:
> Resident TOT = 30sec

10:00:00 = To be connected to #0100 automatically. ("Automatic Connection" as set by the rule No.1)
14:00:00 = The system detected overtime. (the "Resident TOT" function starts to count down)
14:00:20 = Voice transmission was begun from your Node.
　　　　　(INTERNET listening (INTERNET)) (countdown discontinuance by "Resident TOT" function)
14:01:10 = Voice transmission ended from your Node.
　　　　　(LOCAL turning off(LOCAL)) (countdown reset start by "Resident TOT" function)
18:01:40 = To disengage automatic connection.("Disconnect") (countdown completion by the "Resident TOT" function)

Note: This set-up is only effective when the "Resident TOT" function is working in the "Automatic connection" status. Any values and parameters of the "Normal connection" will be disregarded.

[Return time] (parameters = 10-3600[sec] / default = 30[sec])

This parameter works as a countdown timer to define the time, during the "IDLE" condition, for your node to return to the "Resident Round Table QSO Room".

If the Return Time is set to very short intervals, the "Transmit Error" alert may be so frequently sent out that it might annoy other users. It is recommended that you make adequate intervals for pleasant operation.

Select the most appropriate value from below :

　　　5 minutes = 300sec
　　　10 minutes = 600sec
　　　15 minutes = 900sec
　　　20 minutes = 1200sec
　　　30 minutes = 1800sec
　　　40 minutes = 2400sec
　　　50 minutes = 3000sec
　　　60 minutes = 3600sec

WiRES™-II PROPERTY SCREEN

[Return counter] (parameters = 1-30 / default = 10)

When the Return to Resident Round Table QSO Room feature is On, the number of attempts to connect for this feature may be programmed here.

When it was not possible to connect to the designated Round Table QSO Room after the specified number of attempts are executed. "return to room No.$ [XXXX] count over." Will be displayed on log, and the check of the parameter related to "Resident Room ID & Timer" is removed automatically.

If you wish to make the automatic connection setting that was turned off, function again, place a check on "Resident Room ID & Timer" set screen of PC; or turn on the "Return to resident Round Table QSO Room" function with the "DTMF #55555 command".

Note: If you make your automatic return attempt more frequent than necessary, the error alert sound would accordingly be transmitted, undesirably, more than necessary.

Please set an appropriate value with the "Return time" setting for your present operation.

[DTMF #55555(Return Room cancel)command (ON:Enable)](default = on)

This parameter enables/disables the use of the DTMF #55555 command to cancel the automatic return to the Resident Round Table QSO Room.

ON: The DTMF #55555 command is enabled.

OFF: The DTMF #5555 command is disabled.

[DTMF *] (default = Disconnect)

When this box is checked, the DTMF [*] key may be used singly as a "Disconnect" command (the same function as "#9999D", "#99999" or "#09999").

During SRG operation, if you receive a call, you may also press [*] to respond to the calling station. When you do this, you are placed automatically in the "Lock" mode, and you can then communicate with the other SRG stations without making additional DTMF entries at the beginning of each transmission.

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.
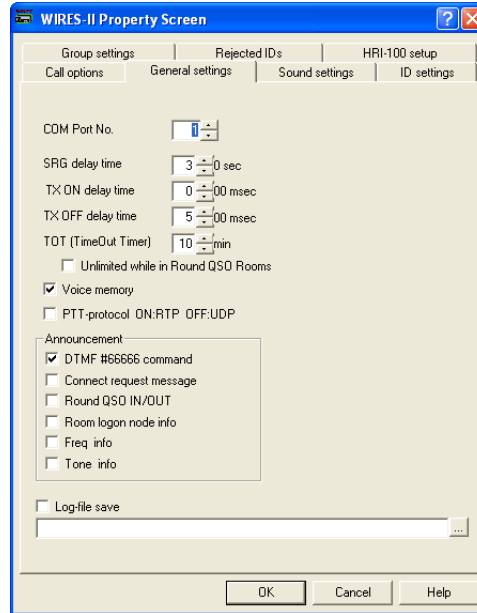
If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings retained.

WiRES™-II PROPERTY SCREEN

General settings

[File]-[Property]-[General settings]

Settings for making general settings and parameters are found here ;

[COM Port No.] (parameters:1-256 / default = 1)

To select "COM Port" of your PC to control the WiRES "HRI-100" Control Box.

*Note: If you get the "** Invalid COM port" dialogue message when accepting the OK button :*
Your selection is not valid and you will not be able to connect.
You need to check your COM Port number in the Device Manager function of your operating Windows OS to match with the correct COM Port number that the HRI-100 is using.

If you should get the dialogue message "COM ### Invalid Port No or Port was already open" (### = COM Port Number) on the log screen immediately after the WiRES-II software (WiRES-II.exe) begins, you could possibly have the wrong COM port selected. Make sure that you have the correct COM port enabled.
If the display of the "HRI-100" indicator appears in red, the communication between your PC and the HRI-100 is lost.
Please check whether properly connected or not ;
      * Power supply connection to the HRI-100
      * Connection between the HRI-100 and your PC

[SRG delay time] (parameters:10-300[sec] / default = 30[sec])

Configures the time to sustain the connection with other repeater stations on the internet after your repeater is unkeyed and while the WiRES software is under "NET (NET)" status .
The internet connection line is disconnected if the unkeyed status exceeds the configured time.
Then it changes to "IDLE (IDLE)" status .

WiRES™-II PROPERTY SCREEN

[TX ON delay time] (parameters:0-3000[msec] / default = 0[msec])
This parameter sets the delay time, if desired, for the passage of (intact) audio delivered to your node radio/repeater from the Internet.
In some systems, this may prevent the loss of an initial syllable or word due to a collision with system signaling or control delays.

[TX OFF delay time] (parameters:100-3000[msec] / default = 500[msec])
This parameter sets the delay time, after your transceiver's PTT is released at the end of a transmission, until the Internet link's "TX" command is also released.
If the end of our transmission seems to be getting cut off, this parameter may need to be extended.
Available values are from 100 ms (0.1 second) to 3000 ms (3 seconds), and the default value is 500 ms (1/2 second).

[TOT] (parameters:5-60[min] / default = 10[min])
This parameter sets the maximum connection time for the Internet link.
After this time period is expired, the Internet link will automatically be shut off, even in the SRG "LOCK" operation, FRG operation or the "ROUND QSO" mode.
Available values for the Time Out Timer are from 5 minutes to 60 minutes.
Note: This function is only available when the "Unlimited while in Round QSO Rooms" is OFF (limited).
Your arrangement will be disregarded and this function will not work if the "Return to resident Round QSO Room" function is engaged.
Please refer to the paragraph of "Conditions of Resident Room connection" for details.

[Unlimited while in Round QSO Rooms] (default = off [limited])
With respect to the Time-Out timer (TOT) setting, you may stipulate "No limit" while operating in a Round QSO Room via this option.
ON (unlimited): There is no time limit during Round QSO Room operation.
OFF (Limited): The time limit corresponds to the TOT timer setting.
Note: Your arrangement will be disregarded and this function will not work if the "Return to resident Round QSO Room" function is engaged.
Please refer to the paragraph of "Conditions of Resident Room connection" for details.

[Voice memory] (default = on)
When enabled by placing a check in this box, the computer's voice memory capability will be engaged.
If you are in the midst of a local QSO (not linked) when a linked call comes in, the Voice Memory will store the contents of the incoming call temporarily, then play it back when your local QSO is finished.
It is basically recommended to activate this function.
If you do not, however, want to receive messages that arrive while you are in a local QSO, do not check this option.

[PTT-protocol ON:RTP OFF:UDP] (default = off(UDP))
This check box controls the protocol for the "PTT" command.
It is recommended to leave this box open and unchecked as the UDP ("User Datagram Protocol") condition.
If you regularly experience heavy traffic that causes PTT response to be slow, try placing a check here by clicking on the box; this switches to RTP ("Realtime Transport Protocol").
In the RTP mode, however, you may experience signal breakups, in which case the UDP setting (no check in the box) may be recommended.

WiRES™-II PROPERTY SCREEN

[Announcement]

Settings related to Announcements are found here.

[DTMF #66666 command (ON:Enable)] (default = on)

This command enables the DTMF [#66666] command for forwarding an ID Announcement from your node. If this command has been successfully executed once, it may not be executed again for 20 seconds, as a safeguard against nuisance announcements.

[Connect request message (ON:Enable)] (default = off)

This command enables receipt of a command-request announcement (such as "Connect request from ****") when this function is ON.

[Round QSO IN/OUT (ON:Enable)] (default = off)

This command enables/disables announcement of entry and departure to/from a Round Table QSO Room (e.g. "****IN/****OUT").

[Room logon node info (ON:Enable)] (default = off)

This area controls the format of the announcement transmitted when entering a Round Table QSO Room.

OFF: there is no difference in the format when connecting to another node and when connecting to a Round Table QSO Room (e.g. "This is W6DXC. WiRES. Connected to xxxx.").

ON: Both the regular announcement, and the total number of nodes now connected to the Round Table QSO Room will be announced (e.g. "This is W6DXC. WiRES. Connected to xxxx. Three nodes.") (if your sign-on constitutes the third node signed in).

This setting affects the following announcement aspects of WiRES-II operation:

* At the time of connection, where a Voice announcement is enabled via Sound settings.
* At the time of a response issued because of a DTMF #66666 command.
* At the time of a Voice ID announcement set up via ID settings.

[Freq info(ON:Enable)] (default = off)

When an identification announcement is transmitted during an Internet connection, this selection enables/disables the inclusion of frequency information for your node in the announcement.

This parameter also affects the Sound settings "Voice" area, the #66666 command, and the ID settings "Voice ID" areas of this software, as well.

<u>Examples:</u>

OFF : Frequency information will not be included.   (e.g. "This is W6DXC. WiRES. Connected to xxxx.")

ON : Frequency information will be included.   (e.g. "This is W6DXC. WiRES. Connected to xxxx. 446.000 MHz.")

[Tone info(ON:Enable)] (default = off)

When an ID announcement is transmitted during an Internet connection, this selection enables/disables the inclusion of tone access information for your node in the announcement.

This parameter also affects the Sound settings "Voice" area, the #66666 command, and the ID settings "Voice ID" areas of this software, as well.

<u>Examples:</u>

OFF : Tone information will not be included.(e.g. "This is W6DXC. WiRES. Connected to xxxx.")

ON : Tone information will be included.(e.g. "This is W6DXC. WiRES. Connected to xxxx. 88.5 Hertz.")

Note: Announcements are only possible if you have Microsoft(R) Speech installed.

Adjustment of the Announcement level may be accomplished via the Sound settings folder under Voice-Volume.

[Log-file save]

When a check is inserted in this box, a "Log" file will be retained, including a picture and "Chat" comments.

You can input a file name into the Text Box to define the name under which the Log File will be saved.

WiRES™-II PROPERTY SCREEN

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.
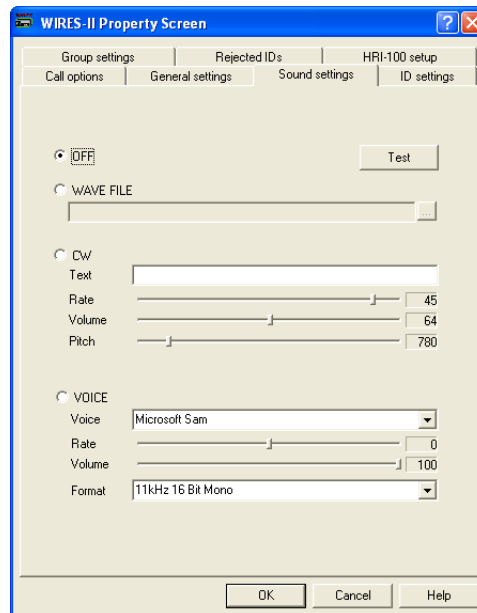If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings retained.

WiRES™-II PROPERTY SCREEN

Sound settings

[File]-[Property]-[Sound settings]

Details regarding various alert and announcement sounds are set here, including variations like CW pitch, level, etc.

[Test] button

You may test the sound and level of WAV, CW, and VOICE announcements without actually doing them "live" on the air.

This option is only available when your node is in the "IDLE (IDLE)" state, so as not to cause interference to other nodes while you are adjusting levels, etc.

[OFF] (default)

It is possible to turn all connection sounds (ID, VOICE, etc.) off.

However, it is not possible to turn off the sound in the following instances:

* When disconnecting (four beeps)
* During a connect-request confirmation (five beeps) (when the other node is busy, the other node is not connected to the Internet, etc.)

Click on "OK" to confirm this command.

[WAVE FILE]

In WiRES, it is possible to set up a connection WAV file to confirm (on your node only) that an Internet connection has been successfully completed.

The "Connection Verification Sound" is a WAV file (perhaps including your node callsign) selected and registered in your node's PC.

When you press the button on the right edge, it will open a window and will prompt you to choose the directory where the WAV file is being maintained, so it may be selected.

WiRES™-II PROPERTY SCREEN

[CW]

It is possible to have a CW (Morse Code) connection text transmitted.

The characters possible are as shown below (of course there is no upper or lower case):

Text : [space] " $ ' ( ) + , - . / : = ? @ numbers (0 - 9), and the alphabet

Rate : The sending speed is adjusted here.

Volume : The tone level is adjusted here.

Pitch : This adjusts the tone frequency of the CW message.

Note: Furthermore, the settings of CW Rate, Volume, and Pitch also affect the CW message under "ID settings".

[VOICE]

The connection announcement may be made using the computer's built-in voice annunciator (Microsoft(R) Speech must be installed in your computer).

For example, you may send out a message that says

   "This is W6DXC. WiRES. Connected to xxxx."

   "This is W6DXC. WiRES. Connected from xxxx."

or similar messages.

Several parameters are adjustable in this section:

Voice : This selects the voice source.

Rate : This selects the speed of the transmission.

Volume : This is the level at which the message is sent.

Format : This checks the bit rate of the transmission.

Note 1: Furthermore, the settings of Voice, Rate, Volume, and Format also affect the performance of the VOICE ID message under "ID settings".

Note 2: For Voice announcements, it is required that Microsoft(R) Speech be installed on your computer.

For operating systems prior to Windows 2000 you will also need to download and install Microsoft(R) Speech SDK 5.1.

Note 3: The number and types of voices that can be used with your WiRES program may be increased by installing Microsoft Speech SDK 5.1 in the Windows XP environment. (Only the speech function of OS standard can correspond to the announcement function.)

In the Windows Vista / Windows 7 environment, the announcement function is achieved by the speech function of OS standard. (Microsoft Speech SDK 5.1 cannot be installed.)

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.

If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings retained.
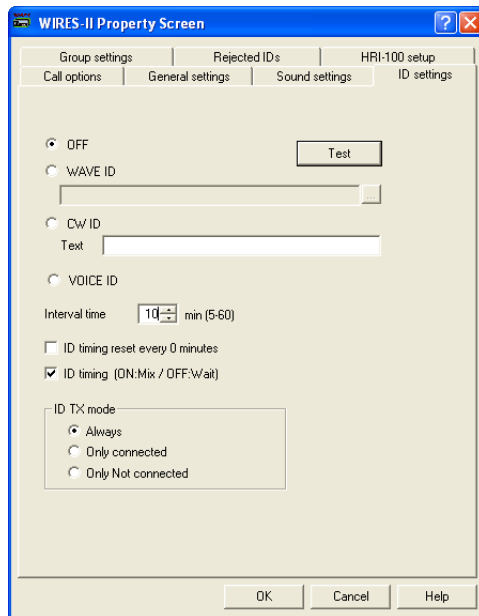
WiRES™-II PROPERTY SCREEN

ID settings

[File]-[Property]-[ID settings]

This area is used for setting up the ID messages.

Note: In instances where this function is used to test "live" on the air, it is possible to create interference to other stations, so please check the frequency before transmitting.

[Test] button

You may test the sound and level of WAVE, CW, and VOICE ID announcements without actually doing them "live" on the air.

This option is only available when your node is in the "IDLE (**IDLE**)" state, so as not to cause interference to other nodes while you are adjusting levels, etc.

[OFF] (default)

It is possible to turn off the ID command.

Click on "OK" to confirm this command.

[WAVE ID]

In WiRES-II, it is possible to set up your node to send a WAV file, containing an ID or similar message. The ID WAV file (perhaps including your node callsign) is found by pressing the button on the right side, after which the desired WAV file may be selected and registered in your node's PC.

[CW ID]

It is possible to have a CW (Morse Code) ID text transmitted.

The characters possible are shown below (of course there is no upper or lower case):

Text : [space] " $ ' ( ) + , - . / : = ? @ numbers (0 - 9), and the alphabet

Furthermore, the settings of CW Rate, Volume, and Pitch also affect the CW message under "Sound settings".

WiRES™-II PROPERTY SCREEN

[VOICE ID]
This selects the Voice ID that is periodically transmitted.
Adjustment of the Voice, Rate, Volume, and Format of the Voice message file may be performed in the Sound settings folder under "Voice".
The Voice ID message is the same one engaged by the #66666 DTMF command.
For example:
When Not Connected: "This is W6DXC. WiRES. Not connected."
When Connected: "This is W6DXC. WiRES. Connected to xxxx."
Note: *Announcements are only possible if you have Microsoft(R) Speech installed.*

[Interval time] (parameters:5-60[min] / default = 10[min])
This is the Interval Time setup for the periodic ID announcement.

[ID timing reset every 0 minutes] (default = off)
This setting relates to linking of the ID Timer to the PC's internal clock.
OFF: The timer is not linked to the internal PC clock.
ON: The timer is linked to the PC clock.
In the "OFF" setting, the timer is started when the setting is changed or when the WIRES-II software is started (WiRES-II.exe).
The ID will be transmitted at the programmed intervals.
In the "ON" setting, the timer will cause the ID to be sent at a particular time interval after the start of each hour.
Example: If Interval time = 10 min. and ID Timing Reset every 0 Minutes =ON, then the ID will be sent at the top of each hour, and at 10, 20, 30, 40, and 50 minutes past each hour.

[ID timing(ON:Mix/OFF:Wait)] (default = on(Mix))
This parameter defines whether the ID will be sent while your own node is transmitting, or if the ID will wait until the transmission is completed.
Wait (OFF) : The ID will not be sent until after the transmission is completed.
Mix (ON) : The ID will be superimposed onto the transmitted audio in the midst of the transmission. Furthermore, during the time that the node radio's Squelch has opened (the green LOCAL indication becomes illuminated), regardless of the selection made for this setting, the ID will be delayed until the Squelch closes.

[ID TX mode] (default = Always)
This parameter addresses the exact method of generating the ID signal once the timing count-down has expired.
When the count-down time expires, the ID transmission function operates according to the below settings and the engagement of the WiRES-II bureau.

Always:	The ID will be sent regardless of connection status.
Only connected:	The ID will only be sent when a connection is in progress (NET is illuminated). If IDLE is illuminated (no connection in progress), the ID will not be sent.
Only Not connected:	The ID will only be sent if there is no connection in progress (IDLE is illuminated). If NET is illuminated, no ID will be sent.

[OK][Cancel] button
When the [OK] button is pressed, all modifications made to the settings will be retained.
If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings retained.
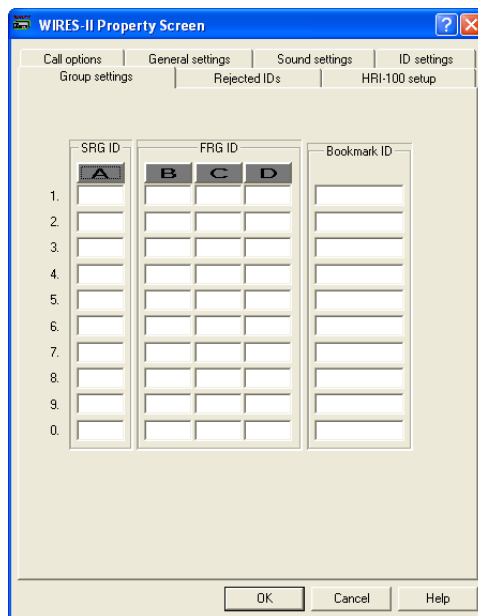
WiRES™-II Property Screen

Group settings

[File]-[Property]-[Group settings]

In this area, you may set up the SRG (Sister Radio Group) and FRG (Friends' Radio Group) ID lists, along with the Group window (Bookmark) ID List.

When you need to display the details of the "Group Settings" on the Group Window, you need to select "SRG/FRG/Bookmark list" accordingly.

[SRG ID]

This is the screen for setting up the SRG (Sister Radio Group) ID List. You may include up to ten/10 stations in your SRG list.

Each station that has agreed to participate in the SRG must configure their ID lists identically (both the Server ID Numbers and their positions in the ID List must agree at all node stations).

For example, if the SRG #1 is assigned (at your node) to the Server ID #12345, and the SRG #2 is assigned to the Server ID #67890, then all other node owners SRG list assign #12345 to SRG #1 and #67890 to SRG #2, etc.

Furthermore, the position in the SRG List also becomes the "Access Number" during SRG operation. that is, pressing the DTMF #2 in the above example will immediately place a call to the Node #67890. A Group Call, to all members in your SRG List, may be accomplished by pressing the DTMF [A] key instead of one of the numerical digits.

[FRG ID]

For FRG operation, you may configure three groups ("B", "C" and "D") of often-called stations for your FRG ID Lists. You may include up to ten/10 stations in your SRG list.

When setting up your FRG Groups, the order of the stations within the FRG Group is not critical at all. That is, Node #22333 may be assigned to any of the ten lines within Group B, if that is the FRG Group into which you want the station to be. The precise line does not matter.

A list of the FRG nodes is available on the WiRES-II Web site.

After keying in the desired I.D. number(s), be sure to click "OK" to lock in your new entry.

WiRES™-II PROPERTY SCREEN

[Bookmark ID]

You can "Bookmark" Node IDs of your preference and interest into the Group window.
Several options are available for entering the ID numbers to be bookmarked:
Example 1: Type "5109" : 5109 will be Bookmarked in Group window.
Example 2: Type "5109,6800,6900" : 5109, 6800, and 6900 will be Bookmarked.
Example 3: Type "6800-6999" : Nodes 6800 through 6999 will be Bookmarked.
Example 4: Type "10?0" : Nodes 1000,1010, ... ,1080,1090 will be Bookmarked.

button

Pressing one of these buttons will show the node stations in your corresponding SRG/FRG list to appear in the Group Window.

When one of these buttons is selected and pressed, a box appears in reversed green and the corresponding list of your SRG/FRG node stations appears in the Group Window. If any of these buttons are selected, no node stations/list appears on the screen.

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained and saved.
If the [Cancel] button is pressed, any changes and modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.
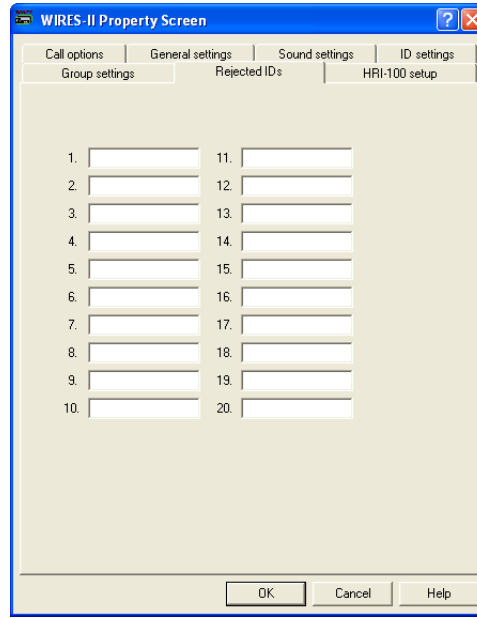
WiRES™-II PROPERTY SCREEN

Rejected IDs

[File]-[Property]-[Rejected IDs]

You may refuse to accept any irritating or nuisance nodes.

You may also find this function helpful if a node repeater or station has and/or is working on a temporary problem, causing unintended calls to be repeatedly forwarded to your node.

Several entry ways are available to activate this function:

Example 1: Type "5109" : 5109 will be rejected.

Example 2: Type "5109,6800,6900" : 5109, 6800, and 6900 will be rejected.

Example 3: Type "6800-6999" : Nodes 6800 through 6999 will be rejected.

Example 4: Type "10?0" : Nodes 1000 1010 ... 1080 1090 will be rejected.

You may also perform this function via the Round QSO Room Reject ID protocol if you are operating a Round QSO Room.

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained and saved.

If the [Cancel] button is pressed, any changes and modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

WiRES™-II Operation

When operating in the "Server Mode," three basic modes of operation are possible:

    (1) Non-Linked Communication;

    (2) SRG Communication; and

    (3) Three different modes of FRG Communication.

(1) Non-Linked Communication

If no DTMF tone is sent to engage an Internet link, normal two-way communication takes place to and from the transceiver, and to and from the repeater/node, there is no intervention by the **HRI-100** or other WiRES-II component. Internet linking will result, only when an SRG paging tone is sent, or "LOCK" mode operation is engaged.

(2) SRG ("Sister Repeater Group") Communication

An SRG group is one where all the parties in the group have registered, as a group, to create a closed network which cannot be accessed from the outside. Calling of another repeater/node within the SRG group is accomplished by the transmission of a single DTMF digit at the beginning of the transmission. Because of the single-tone calling technique, the maximum size for an SRG network is ten stations.

Individual calling techniques depend on whether the SRG network is configured for "LOCK" or "UN-LOCK" mode operation. In the "LOCK" mode, once communication is established by the initial calls bearing the single DTMF digit appropriate for the repeater/node being called, thereafter no further DTMF tone transmissions are necessary. In the "UNLOCK" mode, the single DTMF digit must appear at the beginning of each transmission, otherwise the link will not be brought up for that transmission. For more details regarding these modes.

For simultaneous calling of all stations on the SRG network, the calling station sends the [**A**] DTMF tone at the beginning of the transmission, Thereafter, however, a replying station may reply just to the repeater/node from which the "A" call originated, by sending "**#0000D**" or "**#00000**" at the beginning of the reply transmission. Thereafter, a "LOCK" mode within the "FRG" framework is established between the originating repeater/node and the replying repeater/node. Thereafter, just pressing PTT will keep the link active, and the connection will time-out as programmed by the repeater/node owners. Or, the link may be terminated by pressing "**#9999D**" or "**#99999**" at the end of the final transmission. This eliminates the need to wait for the connection to time out.

(3) FRG ("Friends' Repeater Group") Communication

The FRG mode is used to place calls to any repeater registered as an FRG repeater/node with the YAESU MUSEN WiRES™ Server.

Individual Calling

To call an individual repeater registered as an FRG repeater/node, a six-digit DTMF string needs to be sent at the beginning of the originating transmission (using the transceiver's DTMF Auto-Dial feature, if available). When calling the repeater/node registered as "1234D" for example, send "**#1234D**" DTMF tones to establish a link to that repeater/node. Thereafter, the "LOCK" mode will be established between the originating repeater/node and the replying repeater/node. Therefore, just pressing PTT will keep the link active, and the connection will time-out as programmed by the repeater/node owners. Or, the link may be terminated by pressing "**#9999D**" or "**#99999**" at the end of the final transmission. This eliminates the need to wait for the connection to time out.

WiRES™-II OPERATION

Group Calling

If you want to set up your repeater/node so that users on it can make Group Calls to up to ten other repeaters/nodes, you may load those ID numbers into the FRG Group Calling registers during setup. Then, pressing the [**B**], [**C**], or [**D**] DTMF keys will cause a group call to go out, much as if you were sending the [**A**] key within an SRG group. After the link is established to all these stations, the link will remain active until the Time-Out Timer expires, or until the "**#9999D**" or "**#99999**" command is sent from any station within the called group.

Round-Table QSO Room Calling

To call an individual repeater/node registered as an FRG Round-Table QSO Room repeater, a six-digit DTMF string needs to be sent at the beginning of the originating transmission (use the transceiver's DTMF Auto-Dial feature, if available). When calling the Round Table QSO Room repeater/node registered as "0100D" for example, send "**#0100D**" DTMF tones to establish a link to that repeater/node. This allows a number of nodes to join together in a round-table conversation among a number of users. Thereafter, the "LOCK" mode will be established between the originating repeater/node and the replying repeater/node. Therefore, just pressing PTT will keep the link active, and the connection will time-out as programmed by the repeater/node owners. Or, the link may be terminated by pressing "**#9999D**" or "**#99999**" at the end of the final transmission. This eliminates the need to wait for the connection to time out.

Try connecting to one of the following Test Rooms:
　　#0100D (International CQ Room)
　　#0110D (US CQ Room),
　　#0410D (Asia/Oceania CQ Room),
　　#0510D (Japan CQ Room),
　　#0710D (Europe/Africa CQ Room)

FRG/SRG Intercommunication

If you are in communication, from your repeater/node, with an FRG repeater/node, you can make an "All Call" transmission to the SRG Group of the other repeater/node, using the [**A**] command.

For example, let us say that your repeater's/node's Server ID Number is 2400D, and you are in contact with a repeater/node of Server ID Number 3200D (LOCK mode is engaged, of course, by virtue of being in the FRG mode). From the "2400D" repeater/node, if a user sends the [**A**] command, all stations in the SRG Group of the "3200D" repeater/node will be called. If you do not place a check in the **FRG receive** box in the screen of the **CALL options** Folder, this function will be disabled.
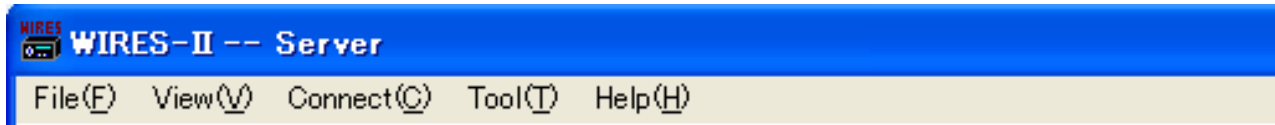
CLOSING THE WiRES™-II SOFTWARE

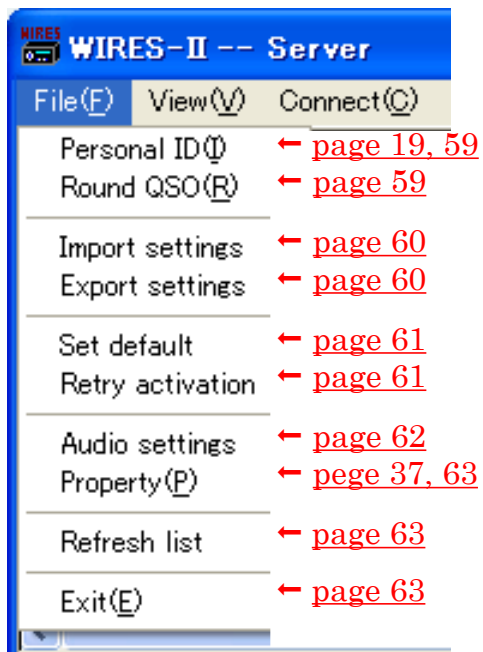To close (disable) the WiRES-II software:

Important note: Before closing the WiRES-II software, please conclude all Internet-link operation.

1.   Click the right mouse button on the [**VsDialUP**] icon (   ) or [**VsLAN**] icon (   ) in the Task bar to open the pop-up menu.
2.   Click the left mouse button on "Quit" in the pop-up menu. The [**VsDialUP**] icon (   ) or [**VsLAN**] icon (   ) will disappear from the Task bar.
3.   Click the left mouse button on the "close" button (   ) in the upper right corner of the WiRES-II main page.
4.   To activate the WiRES-II software again, double click the left mouse button on the [**VsDialUP**] icon or [**VsLAN**] icon on the Desktop.

EXPLANATION OF MENUBAR

WIRES-II -- Server

File(F) View(V) Connect(C) Tool(T) Help(H)

File menu

WIRES-II -- Server

File(F) View(V) Connect(C)

Personal ID(I)	← page 19, 59
Round QSO(R)	← page 59
Import settings	← page 60
Export settings	← page 60
Set default	← page 61
Retry activation	← page 61
Audio settings	← page 62
Property(P)	← pege 37, 63
Refresh list	← page 63
Exit(E)	← page 63

EXPLANATION OF MENUBAR

Personal settings

[File]-[Personal ID]

The following screen appears when the WiRES server is normally registered. "Serial No." and "ID No." become gray outs. Moreover, each item of "ICON select", "Freq", "SQL Type", "G.Loc", "Comment", "QSL exchange", "Message", and "Remote control" can be input. Please see the following for details. Please refer to page 19 for a detailed explanation.

Round QSO Room settings

[File]-[Round QSO]

This window is used for setting of parameters affecting Round Table QSO Room operation.

This window appears only when you have registered for, and established, a Round Table QSO room.

[ID No]

The ID number of the Round Table QSO room appears here.

[Room name]

You may input a name for the Round Table QSO Room here (maximum 20 characters).

[Maximum stations] (parameters:2-249 / default = 10)

The maximum number of stations permitted to enter the Round Table QSO Room may be entered here.

The actual total number of stations that can successfully join a Round Table QSO Room will vary according to your internet connection environment.

You may Check and find out your most desirable connection circumstances/conditions, by increasing 10 nodes, or so, at a time.

[Enable] [Disable] button

After the ID number is entered, clicking on [Enable] will engage operation of the Round Table QSO Room.

If the number you enter differs from the Round Table QSO Room number as registered, an error message will appear saying "Server or ID Not Found".

When [Disable] is clicked, "ID Release Complete" will appear, indicating that the Round Table QSO Room has been closed down.

EXPLANATION OF MENUBAR

When this function is selected, if you cannot call and obtain the "MyRoom Access List", please exit and restart the WiRES-II software ("WiRES-II.exe").

[Comment]

Any brief comment that you would like to appear in the Round Table QSO Room ID List may be entered here (maximum 80 characters).

[Confidential ID]

When you wish to have the current operation of your Round Table QSO Room secret, place a check in this box.

[QSL exchange]

When you check this box, you will be able to see electronic QSL cards from connected nodes, via the "View QSL window". Your electronic QSL card will also be displayed at the other end if the same function is available. The pictures for the QSL format will be acceptable in the Bitmap format and as big as QVGA 320 x 240. Please note that the higher resolution pictures will require longer downloading time depending on your Internet connection environment.

[Message]

When checking into a Round Table QSO Room, a simple greeting message can appear along with your Node's identification.

When someone clicks on "Get Info", the message will be displayed.

A simple greeting is recommended here (maximum 200 characters).

Import settings

[File]-[Import settings]

This area lists the file information (∗.wsv) that is sent to the Windows Registry area of your node's computer. With respect to the information below, if this information and the information stored in Windows Registry do not agree, it is not possible to read the information regarding the settings for that file.

∗ ID Number & Serial Number

Note:Furthermore, when initializing some data items into Windows Registry, you need to restart WiRES-II software(WiRES-II.exe).

Export settings

[File]-[Export settings]

The WiRES-II information stored in Windows Registry will be saved and stored as a "∗.wsv" file.

The information retained in the Import/Export settings is described as below.

Contents of the "Personal settings" Parameters

Contents of the "Round Table QSO Room settings" Parameters (Round Table QSO Room operation only)

Contents of the "Audio settings" Parameters

"Property" Screen (See Below for individual Settings)

    HRI-100 setup

    Group settings

    Rejected IDs

    Call options

    General settings

    Sound settings

    ID settings

Contents of the "Font" Parameters

Contents of the "MCU/Room-Info" Parameters(Round Table QSO Room operation only)

Contents of the "Group window" settings Parameters

EXPLANATION OF MENUBAR

Contents of the "Make list file" Parameters (excluding HEADER/FOOTER information)
Program module information associated with PLUGIN (setup information for the program module itself is not included)
The contents listed below will not be retained:
Sorting (ascending or descending) condition/order of following windows ;
    Group window
    Active ID window
    Round Table QSO Room window
Status bar "Check" status (at startup: always ON)
Log selection (Node log / Round QSO Room log) state (when starting: always Node log)
Make list file functional Header/Footer information (This part is retained separately.)

Set default
[File]-[Set default]
Your WiRES-II parameters will be returned to the originally installed default condition, with the following exceptions.
The following parameters will be retained:
Personal settings:
[Serial No.], [Callsign], [ID No.], [City], [State], [Country]
All parameters of the HRI-100 setup
Volume control:
[SP LEVEL], [WAVE LEVEL], [MIC LEVEL / LINE-IN LEVEL]
Header/Footer information of the Make list file function
(This information will be saved in a different file.)
Note1: If you operate a Round table QSO Room, all parameters (Round table QSO Room settings, MCU/ Room-Info, etc.) will also be deleted and initialized to the default.
If you want to open and operate your Round table QSO Room again, you will need to execute the software (ROUNDQSO.exe) to activate(ID Entry).
(Please refer to the WiRES Web site and/or the WiRES-II reference manual for details.)
Note2: You will be required to re-start the software for the new parameters to take effect.
(The WiRES-II software will automatically re-start, if you are using the VsLAN software or the VsDialup software.)

Retry activation
[File]-[Retry activation]
You may re-activate your WiRES-II ID when necessary. When this command is executed, the WiRES-II Activation dialogue appears when restarted, and you will be able to re-activate your WiRES-II ID.
When this command is executed, only the following parameters will be changed, but not others.
Personal settings:
[Serial No.], [Callsign], [ID No.], [City], [State], [Country]
Round QSO Room settings:
[Room ID No.]
Note1: If you operate a Round Table QSO Room, your room operation and the Round Table QSO Room ID number will be released (while Round Table QSO Room settings and other parameters such as MCU/ Room-Info, etc. will not be deleted).
If you want to open and operate your Round Table QSO Room again, you need to execute the software (ROUNDQSO.exe) to activate(ID Entry).
And you need to click "Enable" in the "Round Table QSO Room Settings".

EXPLANATION OF MENUBAR

(Please also refer to the WiRES Web site and/or the WiRES-II reference manual for details.)
Note2*: You will be required to re-start the software for the new parameters to take effect.*
(The software (WiRES-II) will automatically re-start if you are using the VsLAN software or the VsDialup software.)

Audio settings

[File]-[Audio settings]
For changing the audio parameters
Note1*: You will be required to re-start the software for the new parameters to take effect.*
Note2*: If you are using Windows Vista / Windows 7, you need to close the "Sound Property" of your Windows OS before the Audio settings are fixed. (Sound properties of the Windows OS can be called by clicking "OS Sound property" button.)*
(Changes will not be effective until you close the Sound Property of your Windows OS.)
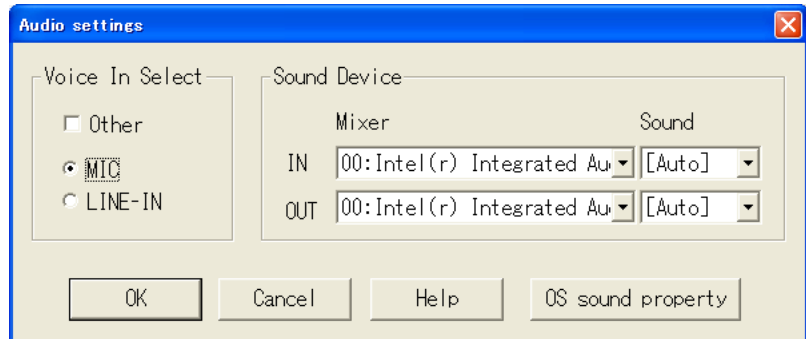
[Voice in select] (default = MIC (Other = off))
This selects the input path, to the Sound Card, for audio from the node radio or repeater/node. It concurrently defines the input device which will be controlled by the [MIC LEVEL / LINE-IN LEVEL] volume adjustment bar.
Other (default = off)
For controlling the sound devices.
Other = ON
Permits adjusting the sound Input/Output level by the Windows OS function.
When this function is on, [SP LEVEL], [WAVE LEVEL] and [MIC LEVEL / LINE-IN LEVEL] will not be controlled and adjusted by the WiRES-II software.
Please adjust them by the Windows OS audio adjusting functions.
Other = OFF (default)
Permits adjusting the sound Input/Output level by the WiRES-II software.
When this function is off, select the input source of the Audio with the Select function and the Sound device function.
Your audio will be controlled by the Volume control of the WiRES-II software (WiRES-II.exe).
MIC: Audio from the node radio/repeater will be passed to the MIC input terminal.
LINE-IN: Audio from the node radio/repeater will be passed to the LINE-IN terminal.
When multiple sound devices are used, confirm the appropriate sound device is selected for the HRI-100.

[Sound Device]
Select the sound device of your PC to be used for the HRI-100.
When multiple sound devices are used, confirm the appropriate sound device is selected for the HRI-100.
Mixer
Select the sound device of your PC, which you want to control volume of the audio used for the HRI-100.
IN : (To select the sound device for your audio input resource)
Select the recording input terminal of your PC (MIC, Line-In, etc. of your sound device/PC) to be used by the HRI-100 to input audio from your radio.
This will be set by the "Voice in select" function.
You need to select either the MIC or the LINE-IN input jack beforehand.
OUT : (To select the sound device for your audio output)
Selects the audio output terminal of your PC (i.e., SP, etc.) to feed into your radio.

EXPLANATION OF MENUBAR

Sound (default = Auto)

Selects the Audio Input and Output terminals.

You may not need to change the default parameter (Auto) as this will follow the Mixer selection.

Note: If you select "ON" for the "Other" function of the "Voice in Select", the Sound Device function will not work.

(You will see the [System Default] display on the Mixer screen.)

Please make all necessary adjustments with the appropriate Windows OS functions.

[OS sound property] button

Click this to call the Sound adjustment from Windows OS.

If you select "ON" in the "Other" function of the "Voice in Select", you will be able to make various adjustments of your audio from the Sound Control function of Windows OS.

Note: If you are using Windows Vista / Windows 7, you need to close the "Sound Property" of your Windows OS before the Audio settings are fixed.

(Changes will not be effective until you close the Sound Property of your Windows OS.)

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.

If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

Note: Close and restart the WiRES-II.exe software to reflect all your modifications.

(The software (WiRES-II) will automatically re-start if you are using the VsLAN software or the VsDialup software.)

Property

[File]-[Property]

In this screen various states of operation are set.

The screen appears when [File], in the toolbar of "WiRES-II MAIN Screen" display, is clicked, and then [Property] is clicked in the menu.

It is a holder, which sets the operation settings and connection condition etc. of the WiRES software.

Please refer to for a detailed explanation.

Refresh list

[File]-[Refresh list]

The I.D. List will be refreshed by the server periodically. You may also refresh the list manually. The WiRES-II Server, however, may block your repeated refresh request if requested often.
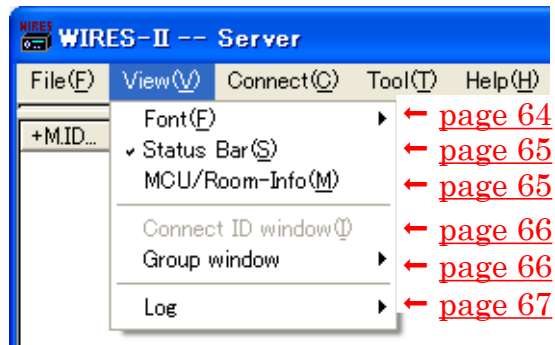
Exit

[File]-[Exit]

This command closes the WiRES-II software program.

WiRES-II REFERENCE MANUAL
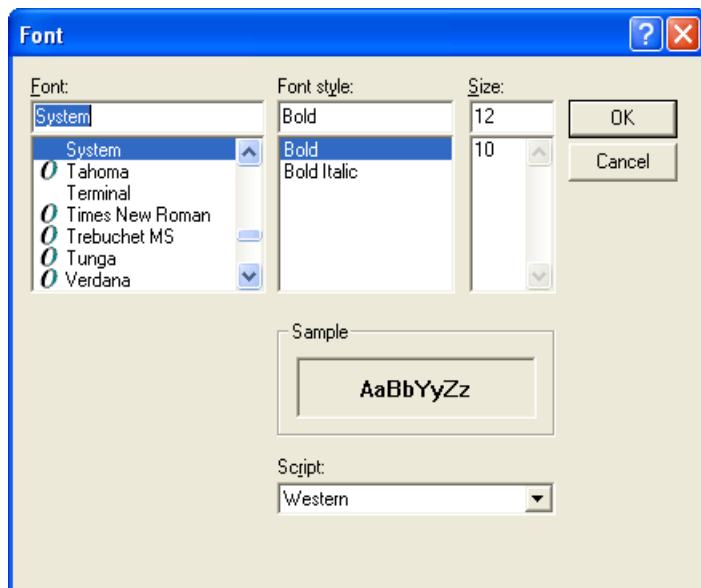
EXPLANATION OF MENUBAR

View menu
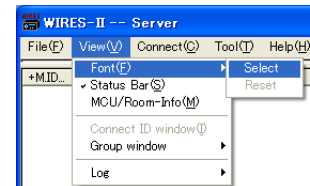
Font

[View]-[Font]

The font that is used in the ID lists (Group window, Active ID window, and Round table QSO Room window) may be set up here.

Moreover, you may set up the font for the Log, Chat History, chat input, and QSL Card windows here.
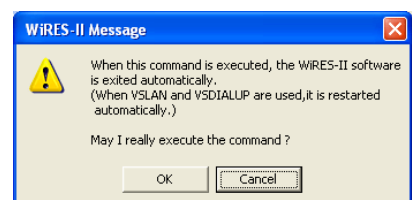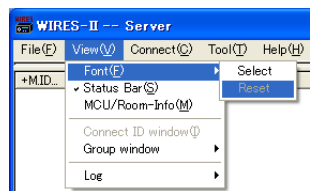

[View]-[Font]-[Select]

When this is selected, the Font selection window opens, allowing selection of the font to be used in the various windows.

[View]-[Font]-[Reset]

When this is selected, all fonts reset to their default settings.

Note: If you do this, you will need to restart the WiRES-II software before the default font settings will be applied.

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EXPLANATION OF MENUBAR

Status Bar

[View]-[Status bar]

If you click here, a Status Bar will appear at the bottom of the WiRES-II software window.

MCU/Round QSO Room Info

[View]-[MCU/Room-Info]

This display lists the WiRES-II node stations currently connected to the server.

If you have set up your system for Round Table QSO Room operation, information on operation of the Round Table QSO Room will be displayed.

[Round Table QSO Room status display]

The status of the Round QSO Room, including the connected node's ID numbers and "Mute" status, will be displayed here.

[Round Table QSO Room reject ID]

If a nuisance node presents an ongoing problem, you may set up your system to reject entry of that node or nodes from your Round Table QSO Room.

Several blocking setup techniques are available:

> **Example 1**: Type "5109" : 5109 will be rejected.
> **Example 2**: Type "5109,6800,6900" : 5109, 6800, and 6900 will be rejected.
> **Example 3**: Type "6800-6999" : Nodes 6800 through 6999 will be rejected.
> **Example 4**: Type "10?0" : Nodes 1010, 1020, 1030. . .1090 will be rejected.

[Round Table QSO Room reject remove ID list] (default=off)

If the above "Remove" operation is performed, this check box determines whether the stations "Removed" shall be automatically set to be "Rejected" in future connection attempts.

> **OFF**: Stations on the "Remove ID List" will not be rejected.
> **ON**: Stations on the "Remove ID List" will be rejected.

[Round Table QSO Room mute ID list]

Round Table QSO Rooms from which you do not want to accept audio may be listed here.

The input techniques for this text box are the same as the input techniques of the Round Table QSO Room reject ID list. When the ID number is selected with the Mute button, or Mute is operated from the Mute command on "MyRoom access list", it is automatically reflected on this list.

Note: When the Mute release operation (Mute command) is issued from "MyRoom access list" to a Node with the state of Mute by wild-card ("?") as the range specification, the following operations occur:

(a) The Mute release operation of the Node is effective only while connected to it. (When the connection with the Node is terminated (disconnected), the Mute operation from list becomes invalid.)

(b) The state of the Mute release is not reflected as a set value of "Round Table QSO Room mute ID list". (Only in this case, the operation is different from the Mute button.)

(c) When it is reconnected from the Node, the state of Mute is determined by a set value of "Round Table QSO Room mute ID list".

(d) When you click the Save button, and the Mute setting in the Room that you manage is refreshed, the set value here is reflected. (All the Mute release operations of (a) are canceled.)

[Remove] button
If you are the owner of a Round Table QSO Room, and a nuisance node is causing problems to your operations, you may input that node's ID number into the text box under the main window, then click on the [Remove] button, to disconnect that node from your Room immediately.

[Mute] button
If you wish to mute the audio from one of the nodes connected to the Round Table QSO Room, click on the [Mute] button while that node is transmitting.
That node's ID number will be added to the Round Table QSO Room Mute ID list.

[Log-file save(Round QSO Room)]
You may keep a Log File record of Round Table QSO Room operation.
A text box appears to input a file path for saving the Log File; click in the box on the right to save the file path.

[Save] button
Click here to save the configurations (Round Table QSO Room reject ID / Round Table QSO Room reject remove ID list / Round Table QSO Room mute ID list / Log-file save).

[Close] button
Click here to close this window.

Connect ID window

[View]-[Connect ID window]
During Round Table QSO Room operation, or a group call using the SRG/FRG **[A]**/**[B]**/**[C]**/**[D]** lists, this pop-up window will show the ID number list of the node(s) to whom you are connected. (Connect ID window)
The View menu may be used to open this Connect ID window, if it is currently closed for any of the reasons shown below.
* When the Connect ID window is closed via the "Close" command.
* When the WiRES-II software display window is minimized, but a connection command is executed, the Connect ID window may not be viewed.
Furthermore, if the Round Table QSO Room is not being used, or a Group SRG/FRG connection is not made, the menu here may not be used.

Group window change

[View]-[Group window]
The content of the display "Group window" can be switched by this function.

[View]-[Group window] [SRG/FRG/Bookmark list] (default)
In this setting, the list of WiRES-II active stations (Nodes and Round Table QSO Rooms) assigned by "Group settings" is displayed.

[View]-[Group window] [Connecting Node list]
In this setting, the list of WiRES-II Nodes that can be connected is displayed.
Please refer to the paragraph of [Group window] on , for details of the display contents.

[View]-[Group window] [MyRoom access list]
In this setting, the list of WiRES-II Nodes under the access to Round Table QSO Room that operates with your PC is displayed.
Please refer to the paragraph of Group window on for details of the content of the display.
(This list appears only when you have registered for, and established, a Round Table QSO Room.)

EXPLANATION OF MENUBAR

Log change

[View]-[Log]

If you establish a Round Table QSO Room at your node, the contents of the Log window will change. The selections below allow you to customize the way information is presented.

[View]-[Log]-[Node]

Information regarding usual Node operation, including WiRES-II server connection information, calling information, chat messages, etc. will be displayed. (Node log)

[View]-[Log]-[Round QSO]

This selection indicates operating conditions for your Round Table QSO Room. Included may be data on connections, rejected or removed nodes, etc. (this window is only available if you have a Round Table QSO Room established on your node). (Round Table QSO Room log)

Information is maintained on a first-in, first-out basis.

When the software is restarted, all data pertaining to events prior to the restart will be dumped.

WiRES-II REFERENCE MANUAL

EXPLANATION OF MENUBAR

Connect menu
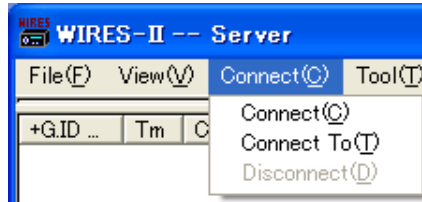
Connect

[Connect]

You can click on any of the station I.D. numbers listed in the window on your screen, to connect to that node.

This menu becomes disabled if the ON-AIR LOCK function is engaged.

[Connect]-[Connect]

You can click on any of the station I.D. numbers listed in the window on your screen, to connect to that node.

[Connect]-[Connect To]

If you click on this line, a pop-up window will appear. Input the four-digit I.D. number of the node to which you wish to connect, then click on "OK" to connect to that node. Click on "Cancel" if you decide not to connect at this time.
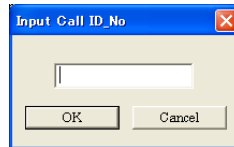
[Connect]-[Disconnect]

While connected to another node, clicking on the "Disconnect" line will terminate the connection.

E*XPLANATION* OF MENUBAR

Tool menu
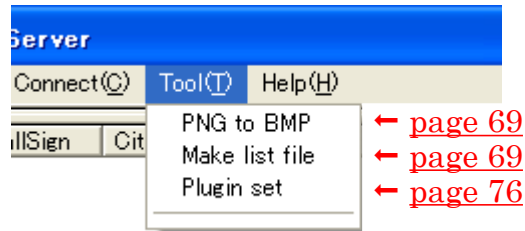
Tool

[Tool]-[PNG to BMP]

To exchange electronic QSL cards with other node owners, the QSL card is constructed using a PNG file format. It is possible to convert the PNG file to a bitmap (BMP) format.
The PNG File that you would like to convert is placed in the text box. The File Name that you would like to assign is placed in the File Text Box.
When everything is properly entered, click on the [OK] box to perform the conversion.
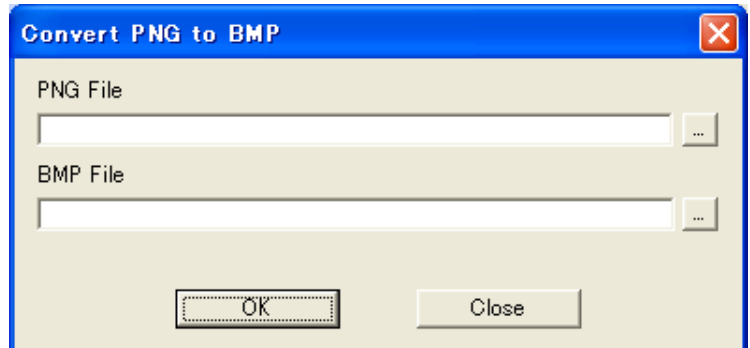
[Tool]-[Make list file]

You can get an HTML(HyperText Markup Language) or an XML(eXtensible Markup Language) format output of the Group window, Active ID window, or Round Table QSO Room window, including layout tabs, etc. for organizing the data.
Also, you can get a text file in Comma Separated Values format (csv), if desired.
Furthermore, the output data is organized and sorted according to the way the images appear on the screen of your PC.

[Tool]-[Make list file]-[Group ID]

The Group window contents are displayed.
(The affect of the "Group window change" setting is displayed.)
The data to be included will be:
"ID No.", "Tm", "Callsign / RoomName", "City", "State", "Country", "Freq(MHz)", "SQL", "GL", "Lat", "Lon", "Comment"

Moreover, because some data is common to each window, it is still possible to modify the contents in each window separately.
The contents become as follows:

  [Enable list out] (default=off)
  Checking this box enables the file output function.
  [XML Style] (default=off)
  Designates the output data style.
      OFF: HTML style output (tab punctuation style or table layout style)
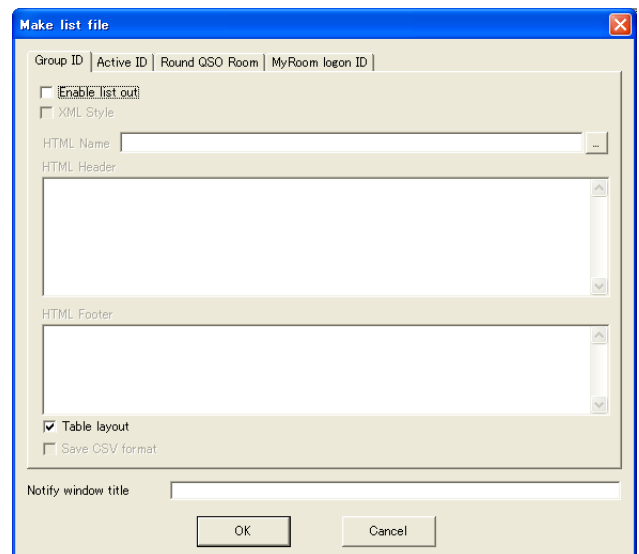   **ON** : XML style output
  [HTML/XML Name]
  The file name to be assigned to this window is defined here.
  You may not use the same name for multiple windows - each window must have its own name.
  It is recommended to use file extension [.html] when HTML is selected and [.xml] when XML is selected.

EXPLANATION OF MENUBAR

[HTML/XML Header]
Input the data (HTML tag, Style sheet when calling XML style, etc.) that is desired to be placed at the head of the data stored.
The information input here is stored as an independent file in the WiRES-II setup folder.

[HTML/XML Footer]
This is an HTML Tag which may be appended at the end of the HTML page.
The tag input data here is maintained in a separate file in the WiRES-II Setup folder.

[Table layout] (default=on)
If you place a check here, the output is in a "table layout" style.
If left unchecked, the output is in a tab delimited style.
This does not function when XML Style is assigned.

[Save CSV format] (default=off)
When a check is placed here, the file is saved not only in HTML/XML but also in Comma Separated Values (csv) format.
The file name will use separate extensions for each format.

[Notify window title]
It is possible to have a notification appear in the window when data output for the Make list file function is updated for use by other applications.
Normally, this is just left blank.

[OK][Cancel] button
When the [OK] button is pressed, all modifications made to the settings will be retained.
If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

[Tool]-[Make list file]-[Active ID]
The Active ID window contents are displayed.
The data to be included will be:
"ID No.", "Callsign", "City", "State", "Country", "Freq(MHz)", "SQL", "GL", "Lat", "Lon", "Comment"

Moreover, because some data is common to each window, it is still possible to modify the contents in each window separately.
The contents become as follows:

    [Enable list out] (default=off)
    Checking in this box enables the file output function.
    [XML Style] (default=off)
    Designate the output data style.
        OFF: HTML style output (tab punctuation style or table layout style)
        ON : XML style output

[HTML/XML Name]
The file name to be assigned to this window is defined here.
You may not use the same name for multiple windows - each window must have its own name.
It is recommended to use file extension [.html] when HTML is selected and [.xml] when XML is selected.
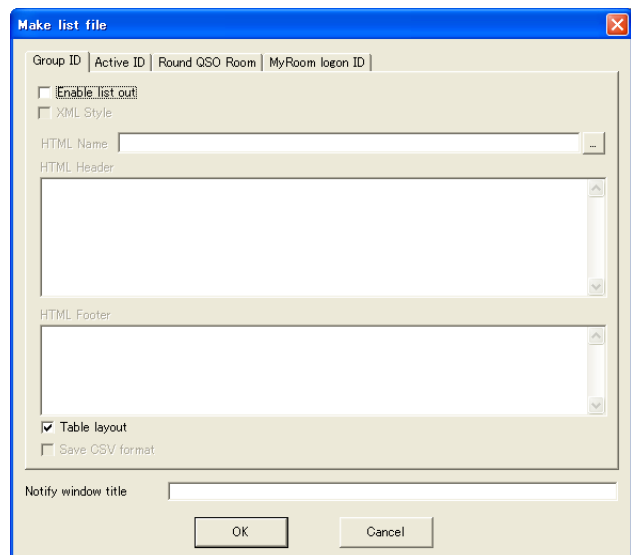
[HTML/XML Header]
Input the data (HTML tag, Style sheet when calling XML style, etc.) that is desired to be placed at the head of the data stored.
The information input here is stored as an independent file in the WiRES-II setup folder.

[HTML/XML Footer]
This is an HTML Tag which may be appended at the end of the HTML page.
The tag input data here is maintained in a separate file in the WiRES-II Setup folder.

EXPLANATION OF MENUBAR

[Table layout] (default=on)

If you place a check here, the output is in a "table layout" style.

If left unchecked, the output is in a tab delimited style.

This does not function when XML Style is assigned.

[Save CSV format] (default=off)

When a check is placed here, the file is saved not only in HTML/XML but also in Comma Separated Values (csv) format. The file name will use separate extensions for each format.

[Notify window title]

It is possible to have a notification appear in the window when data output of the Make list file function is updated for use by other applications.

Normally, this is just left blank.

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.

If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

[Tool]-[Make list file]-[Round QSO Room]

The Round Table QSO Room window contents are displayed.

The data to be included will be:

"ID No.", "Tm", "RoomName", "City", "State", "Country", "Comment"

Moreover, because some data is common to each window, it is still possible to modify the contents in each window separately.

The contents become as follows:

[Enable list out] (default=off)

Checking in this box enables the file output function.

[XML Style] (default=off)

Designate the output data style.

> **OFF**: HTML style output (tab punctuation style or table layout style)
>
> **ON** : XML style output

[HTML/XML Name]

The file name to be assigned to this window is defined here.

You may not use the same name for multiple windows - each window must have its own name.

It is recommended to use file extension [.html] when HTML is selected and [.xml] when XML is selected.

[HTML/XML Header]

Input the data (HTML tag, Style sheet when calling XML style, etc.) that is desired to be placed at the head of the data stored.

The information input here is stored as an independent file in the WiRES-II setup folder.

[HTML/XML Footer]

This is an HTML Tag which may be appended at the end of the HTML page.

The tag input data here is maintained in a separate file in the WiRES-II Setup folder.

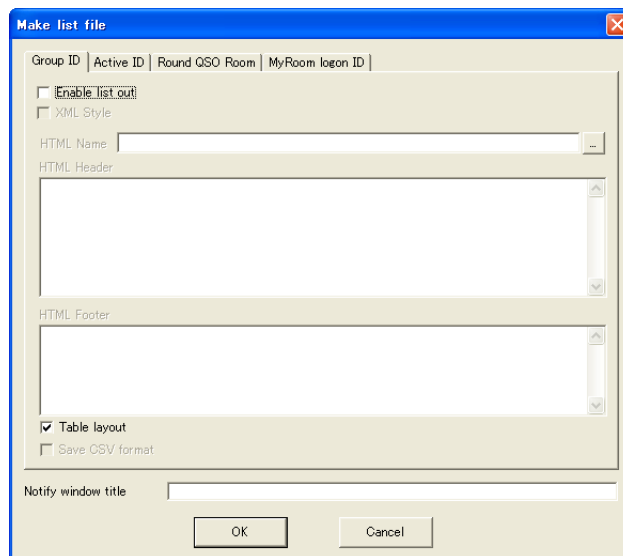**[Table layout]** (default=on)

If you place a check here, the output is in a "table layout" style.

If left unchecked, the output is in a tab delimited style.

This does not function when XML Style is assigned.

[Save CSV format] (default=off)

When a check is placed here, the file is saved not only in HTML/XML but also in Comma Separated Values (csv) format. The file name will use separate extensions for each format.

WiRES-II REFERENCE MANUAL

EXPLANATION OF MENUBAR

[Notify window title]
It is possible to have a notification appear in the window when data output of the Make list file function is updated for use by other applications.
Normally, this is just left blank.
[OK][Cancel] button
When the [OK] button is pressed, all modifications made to the settings will be retained.
If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

[Tool]-[Make list file]-[MyRoom logon ID]

(This setting appears only when you have registered for, and established, a Round Table QSO Room.)
The contents of WiRES-II Nodes accessible to your PC Round Table QSO Room is displayed.
The data to be included will be:

Tm :   The number of node stations connected to your Room will be displayed.When XML style is selected, the data is not output.

Node List : The ID numbers of the stations connected to your Room will be displayed.

Moreover, because some data is common to each window, it is still possible to modify the contents in each window separately.
The contents settings become as follows:

[Enable list out] (default=off)
Checking in this box enables the file output function.
[XML Style] (default=off)
Designates the output data style.
　　OFF:HTML style output (tab punctuation style or table layout style)
　　ON : XML style output
[HTML/XML Name]
The file name to be assigned to this window is defined here.
You may not use the same name for multiple windows - each window must have its own name.
It is recommended to use file extension [.html] when HTML is selected and [.xml] when XML is selected.
[HTML/XML Header]
Input the data (HTML tag, Style sheet when calling XML style, etc.) that is desired to be placed at the head of the data stored.
The information input here is stored as an independent file in the WiRES-II setup folder.
[HTML/XML Footer]
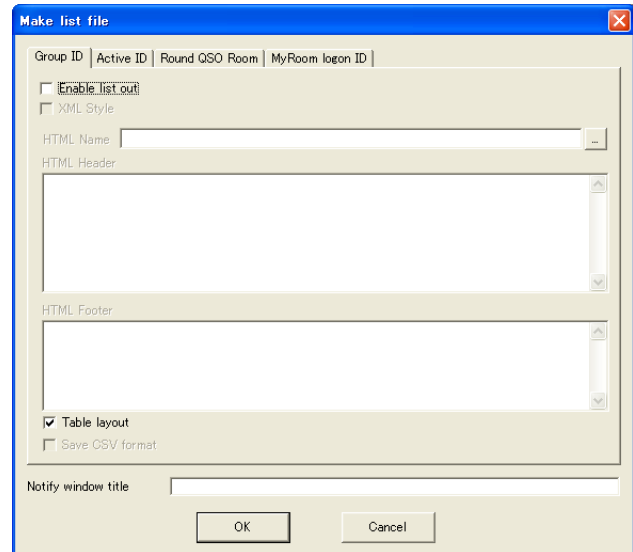This is an HTML Tag which may be appended at the end of the HTML page.
The tag input data here is maintained in a separate file in the WiRES-II Setup folder.
[Table layout] (default=on)
If you place a check here, the output is in a "table layout" style.
If left unchecked, the output is in a tab delimited style.
This does not function when XML Style is assigned.

EXPLANATION OF MENUBAR

[Save CSV format] (default=off)

When a check is placed here, the file is saved in both HTML/XML, and in Comma Separated Values (csv) format.

The file name will use separate extensions for each format.

[Notify window title]

It is possible to have a notification appear in the window when data output of the Make list file function is updated for use by other applications.

Normally, this is just left blank.

[OK][Cancel] button

When the [OK] button is pressed, all modifications made to the settings will be retained.

If the [Cancel] button is pressed, any modifications performed since the last "OK" command will be cancelled, and the original settings will be retained.

EXPLANATION OF MENUBAR

"Make List" is created with "Html"

Online bureau information on "Active ID List", "Round QSO Room List", and "Group List" can be made with html. This example explains the method of making an "Active ID List" with "Html".

1. The WiRES-II software is started.
2. When **[Tool]-[Make list file]** is opened, the screen in image to the right is displayed.
3. **[Active ID]** is selected.
4. Place a check (✔) in **[Enable list out]**.
5. After the file name is input to **[HTML Name]**, ▣ is clicked.
   Example: C:\WIRES-II\active.html is input.
6. The title of the Active ID List is input in the HTML Header, and the command tag of html is input.
   Example:
   <HTML>
   <HEAD>
   <TITLE>WIRES-II Active ID List
   </TITLE>
   <BODY>
   <CENTER>WIRES-II Active ID List
7. The command tag of html is input to the HTML Footer.
   Example:
   </BODY>
   </TITLE>
8. Confirm that a check (✔) is automatically entered in **[Table layout]** to automatically generate a list.
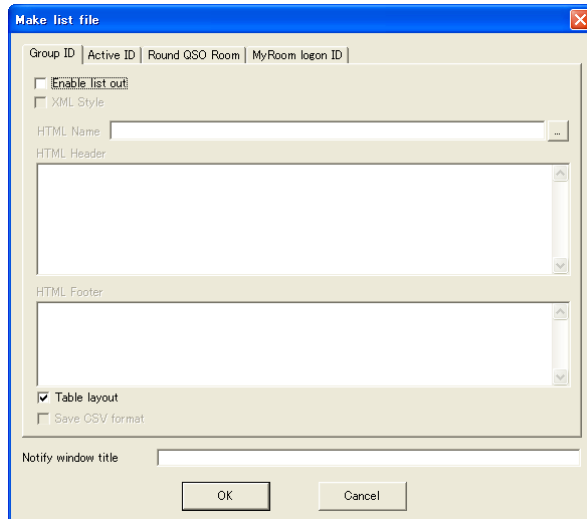   List is automatically generated.
9. When the **[OK] Button** is clicked, Make List is generated. The web browser software (such as Internet Explorer) is started when the file specified with **[HTML Name]** is double-clicked, an Active ID List is generated and opens in the display, and it is possible to confirm it.
   Example:
   Place a check (✔) in **[Save CSV format]**.
   A file of the (csv) format is output at the same time.

EXPLANATION OF MENUBAR

"Make List" is made by "XML"

Online bureau information on "Active ID List", "Round QSO Room List", and "Group List" can be made with xml. The following example explains the method used to generate an "Active ID List" using "XML".

1. The WiRES-II software is started.
2. When **[Tool]-[Make list file]** is opened, the screen in a the image at the right is displayed.
3. Select **[Active ID]**.
4. Place a check (✔) in **[Enable list out]**.
5. Please put a the check (✔) in **[XML Style]**.
6. After the file name is input to **[HTML Name]**, ▣ is clicked.
   Example: C:\WIRES-II\active.xml is input.
   Please change a red-letter part when you want to list different Data.
   Group ID List: Group
   Round Table QSO Room List: Room
   MyRoom logon ID list: MyRoom
7. Input the title of Active ID List in **[XML Header]** and the command tag of xml is input.
   Example:
   <?xml version= "1.0" encoding= "iso-8859-1" ? >
   <?xml-stylesheet type= "text/xsl" href= "Active.xsl"?>
   Please change a red-letter part when you want to list different data.
   Group ID List: Group
   Round Table QSO Room List: Room
   MyRoom logon ID list: MyRoom
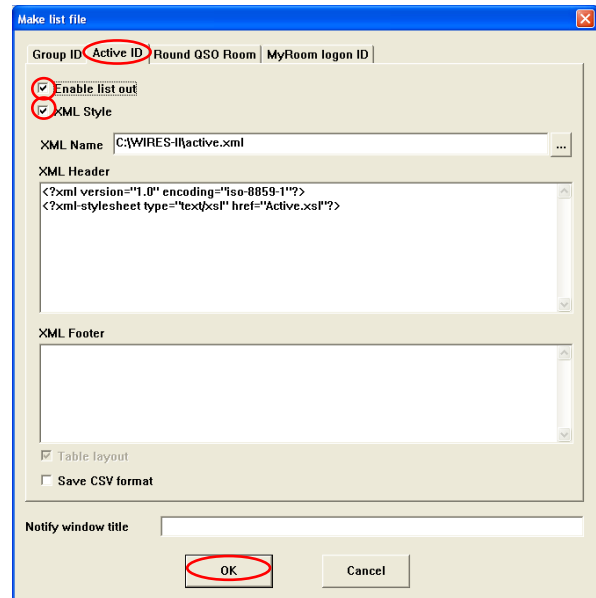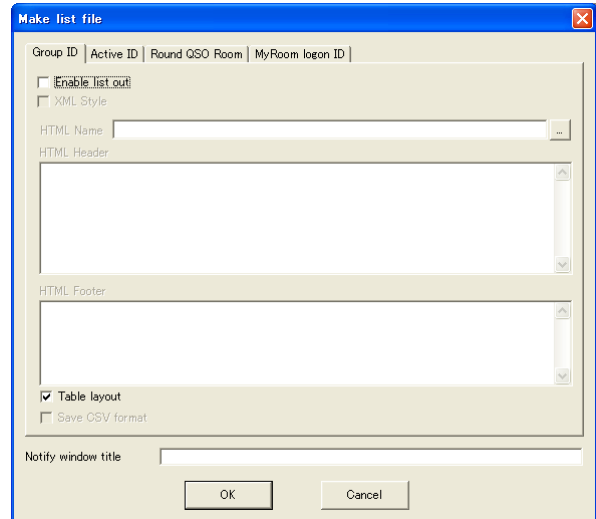8. Confirm that there is no check in the check box of **[XML Footer]**.
9. When the **[OK] Button** is clicked, Make List is generated. The web browser software such as Internet Explorer is started when the file specified with **[XML Name]** is double-clicked. An Active ID List is generated and opens on the display.
   Note:
   The display of the xml form might be different depending on the web browser software used.

WiRES-II REFERENCE MANUAL

EXPLANATION OF MENUBAR

[Tool]-[Plugin set]
From time to time, plug-in software for WiRES-II.exe may be made available.
Information is frequently updated on the WiRES Web site:
[Add Module] button
The plug-in software is appended to the main program, and a small window advising of the new module will appear on the main program screen.
[Delete Module] button
The plug-in software will be removed from the main program.
[Property] button
When a module is added to the main program, there may be some setup required in order to fully configure the new module.
When "Property" is selected, these parameters may be configured.
If no configuration options exist in the plug-in module, the "Property" folder does not function at all.
[Version Info] button
The plug-in module's update version is displayed here.
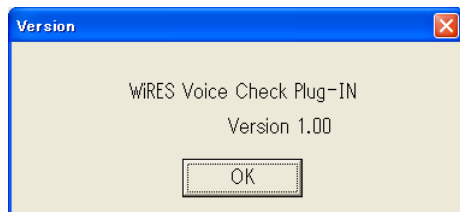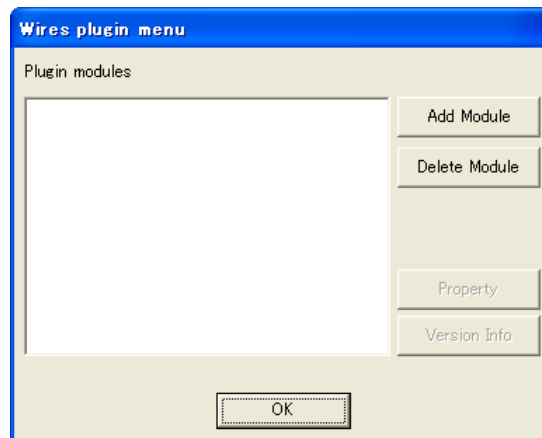
EXPLANATION OF MENUBAR

WiRES-II voice check software

The following example explains the use of the "WiRES-II voice check software".
The program software that enhances WiRES-II.exe is installed into the main body program.
The installation is done as follows.
Please refer to "http://www.vxstd.com/en/wiresinfo-en/" when you want to use WiRES-II voice check software.

1. Click the **[Add Module] button**.
2. "Look In:" is displayed. Click on the file "Voice_ck.dll" to highlight it and then click on the Open button.
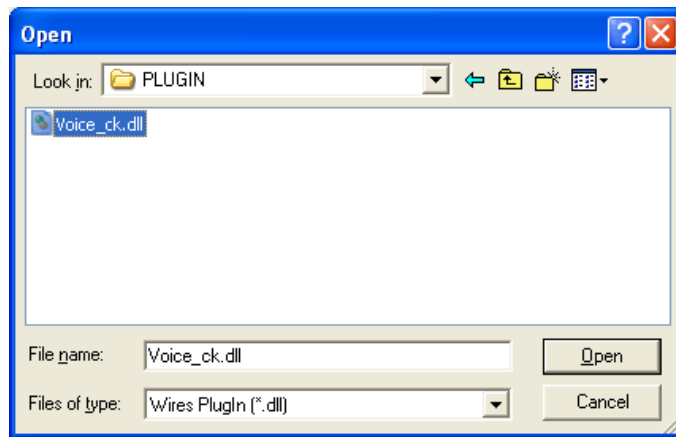
3. The program name of the Plug in module is displayed.
   Click the **[OK] button**.
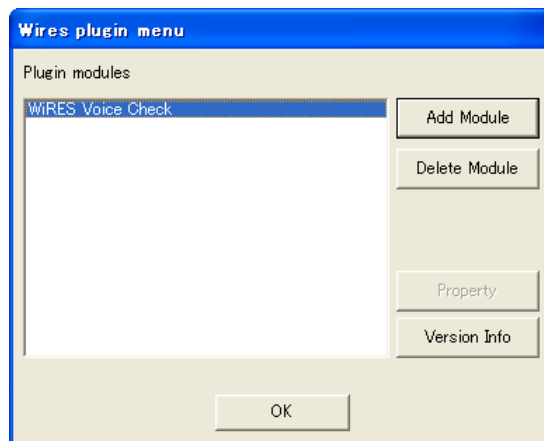
4. To run the program, click **[Tool]-[WiRES Voice Check]**.
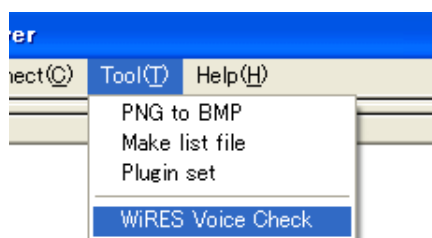
EXPLANATION OF MENUBAR

Help
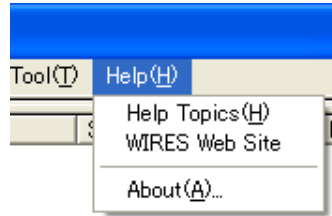
[Help]-[Help Topics]
The HELP Topics are displayed.

[Help]-[WiRES Web Site]
The browser software you use (such as Internet Explorer) will display the Web site for WiRES.

[Help]-[About]
This indicates the WiRES-II software and **HRI-100** firmware version numbers in use.

TECHNICAL TERMINOLOGY

Accept calls while in Round QSO Rooms

When this box is checked, you will be able to accept an individual call to your node while you are involved in a Round Table QSO Room; you will automatically be checked out from the Round Table QSO Room, and then connected automatically to the calling node.

Accept group calls

This parameter stipulates whether or not Group calls will be accepted from any other SRG or FRG node stations.
If ON is selected, Group calls will be accepted. And if OFF is selected, Group calls will be rejected.

Active ID

The Active ID window contents are displayed.
The data to be included will be:
"ID No.", "Callsign", "City", "State", "Country", "Freq(MHz)", "SQL" , "GL", "Lat", "Lon", "Comment".

Active ID window

WiRES-II active Node information is displayed in a window at the left center of the screen.
(The contents of the display is not in real time, however the display is updated regularly.)

Add Module

The plug-in software is appended to the main program, and a small window advising of the new module will appear on the main program screen.

ANNOUNCEMENT / ANNOUNCEMENT MUTE

When you click on this button, it is possible to temporarily mute the sending of announcements.

Audio settings

For changing the audio parameters.

Back to Round QSO after disconnect

If you have checked Accept calls while in Round Table QSO Rooms, this option provides the automatic reconnection function to the Round Table QSO Room from which you exited when the call to your node completed.

Bookmark ID

You can "Bookmark" Node IDs of your preference and interest into the Group window.

BUSY Ground

This sets the polarity of the BUSY terminal of your repeater ("Active Low" or "Active High" options).
If the Squelch is properly set (no noise is present, but the "BUSY" box on the "WiRES-II" Main Screen does not change to gray (in other words, if it stays as green), please change this parameter accordingly.

Call cancel

The receiving audio containing the DTMF tones (from the node receiver/repeater) may create some invalid commands to the WiRES-II software that would create improper WiRES-II operation.

TECHNICAL TERMINOLOGY

Call cancel delay time

This defines the minimum interval time between two sequential DTMF numbers that identifies them as two independent numbers.

Call options

This screen is used to set the calling and communication method to be used during your WiRES operation.

Chat input line

This is the text box into which you can type messages to other nodes. Click on SEND to transmit the message.

Chat window

The Chat window is capable of storing up to 3000 letters and numbers related to Chat operation. Information is retained on a first-in, first out basis. When the program is restarted, all information stored prior to the restart will be dumped.

COM Port No.

To select "COM Port" of your PC to control the WiRES "**HRI-100**" Control Box.

Confidential ID

When you wish to have the current operation of your Round Table QSO Room secret, place a check in this box.

Connect request message

This command enables receipt of a command-request announcement (such as "Connect request from ****") when this function is ON.

Delete Module

The plug-in software will be separated from the main program.

Export settings

The WiRES-II information stored in the Windows Registry will be saved and stored as a "*.wsv" file.

Firmware status indicator

These status indicators show the occurrence of data failure in the firmware of the **HRI-100**.
There are three indicators on the right of the "**HRI-100**" icon (Gray).

FRG group dispatch

This funciton enables (or disables, by leaving it un-checked) the making of Group calls pursuant to the "B/C/D" FRG Groups you may have already set up.
If you have entered node stations into one or more FRG Groups, pressing the single DTMF key corresponding to that group designator (such as the [C] key for FRG Group "C") is all you have to do to call all nodes in that group (in this case, Group "C").

TECHNICAL TERMINOLOGY

FRG ID

For FRG operation, you may configure three groups ("B","C" and "D") of often-called stations for your FRG ID Lists. You may include up to ten/10 stations in your SRG list.

When setting up your FRG Groups, the order of the stations within the FRG Group is not critical at all. That is, Node #22333 may be assigned to any of the ten lines within Group B, if that is the FRG Group into which you want the station to be. The precise line does not matter.

A list of the FRG nodes is available on the WiRES-II Web site.

After keying in the desired I.D. number(s), be sure to click "OK" to lock in your new entry.

FRG receive

This parameter allows you to enable or disable the acceptance of incoming calls from other FRG nodes.

FRG transmit

This function allows you to enable (or disable, by leaving the box un-checked) to call individual stations on the FRG I.D. List.

General settings

Settings for making general settings and parameters.

Group settings

In this area, you may set up the SRG (Sister Radio Group) and FRG (Friends' Radio Group) ID lists, along with the Group window (Bookmark) ID List.

Group window

WiRES-II active Node and Round Table QSO Room information, as specified, by "Group window change" Parameter settings are displayed in the window on the left of the screen.

Group window change

The content of the display of "Group window" can be switched by this function.

Lat

Latitude information for the WiRES nodes, displayed in the format [aa.bb.cc], where
aa: Degrees
bb: Minutes
cc: Seconds

Lon

Longititude information for the WiRES nodes, displayed in the format [aaa.bb.cc], where
aaa: Degrees
bb: Minutes
cc: Seconds

TECHNICAL TERMINOLOGY

Log change

If you establish a Round Table QSO Room at your node, the contents of the Log window will change. The selections below allow you to customize the way information is presented.

Log message

The content of various messages displayed on Log window is as follows.

Node log: Information regarding the status of communication involving your node, including chat information, is found in the Node log.

Round QSO Room log: If your home node hosts a Round Table QSO Room, you may switch to this window to view activity in the QSO Room for administrative purposes. If you do not have a QSO Room registered on your home node's PC, this function will not work.

Log window

The status of calls between the WiRES-II Server and various worldwide nodes is displayed on this page.

Make list file

You can get an HTML (HyperText Markup Language) or an XML (eXtensible Markup Language) format output of the Group window, Active ID window, or Round QSO Room window, including layout tabs, etc. for organizing the data. Also, you can get a text file in Comma Separated Values format (csv), if desired.

Maximum stations

The maximum number of stations permitted to enter the Round Table QSO Room may be entered here. The actual total number of stations that can successfully join a Round Table QSO Room will vary according to your internet connection environment. You may Check and find out your most desirable connection circumstances/conditions, by increasing 10 nodes, or so, at a time.

MCU/Round QSO Room Info

This display lists the WiRES-II node stations currently connected to the server.
If you have set up your system for Round Table QSO Room operation, the Round Table QSO Room information will be displayed.

Node

Information regarding usual Node operation, including WiRES-II server connection information, calling information, chat messages, etc. will be displayed.

Personal settings

This is the folder used for input of information regarding your individual node.

Rec & Play Indicator

This indicator at the left side of the Chat input line in the WiRES-II software displays the status of recording and replaying on voice signal data.

Refresh list

The I.D. List will be refreshed by the server periodically. You may also refresh the list manually. The WiRES-II Server, however, may block your repeated refresh request if requested often.

TECHNICAL TERMINOLOGY

Rejected IDs

You may refuse to accept any irritating or nuisance nodes.
You may also find this function helpful if a node repeater or station has and/or is working on a temporary problem, causing unintended calls to be repeatedly forwarded to your node.

Remote control

You may select "on", to permit your node to be operated remotely.
When this function is on, you may remotely control your node using the WiRES-II Remote Monitor Software (wiresmon.exe) from a separate remote PC. If you do not wish your node station to be controlled remotely, please set this function to OFF.

SRG ID

This is the screen for setting up the SRG (Sister Radio Group) ID List. You may include up to ten/10 stations in your SRG list. Each station that has agreed to participate in the SRG must configure their ID lists identically (both the Server ID Numbers and their positions in the ID List must agree at all node stations).

Status Bar

If you click here, a Status Bar will appear at the bottom of the WiRES-II software window.

Tm

This displays the number of nodes currently connected to the Round Table QSO Room.

TOT

This parameter sets the maximum connection time for the Internet link.
After this time period is expired, the Internet link will automatically be shut off, even in the SRG "LOCK" mode, FRG mode or the "ROUND QSO" mode. Available values for the Time Out Timer are from 5 minutes to 60 minutes.

TOT counter

Voice communication cannot be sent continuously from your Node to a connected destination Node for more than three minutes. Moreover, when a voice transmission that has been sent from a connected destination Node exceeds three minutes of continuous transmission, further transmission is prevented by the (hardware timer) function of the **HRI-100**.

Unlimited while in Round QSO Rooms

With respect to the Time-Out timer (TOT) setting, you may stipulate "No limit" while operating in a Round Table QSO Room via this option.

VOICE ID

This selects the Voice ID that is periodically transmitted.
Adjustment of the Voice, Rate, Volume, and Format of the Voice message file may be performed in the Sound settings folder under "Voice".

LOG MESSAGE (ERROR CODE ETC.)

Node log

The content of the Node log for your Node, as displayed on the log screen, is as follows.

Call Failed (code=xx)

The Error Message Codes(code = xx) for failed connection attempts are detailed below.

00: An invalid DTMF code was attempted.

Example: Attempting to initiate a Group Call by pressing the [B] DTMF key when "FRG Group Dispatch" was set to "Off".

01: Attempting to reconnect using the [#88888] command does not succeed, because the previous node ID number was not remembered.

02: A connection request was sent to a station on the "Reject" list.

("call to Rejected ID_No [XXXX]" appears in this case.)

03: The ID number you sent a connection request to, is for a node not currently communicating with the host server, or the ID you sent is not a valid ID on the WiRES system.

("No Entry ON ILS Server" appears in this case.)

04: Connection to a Round Table QSO Room was denied.

("DO NOT CONNECT ROUND QSO ROOM No.XXXX" appears in this case.)

05: A Group Call was placed to an undefined Group (A, B, C, or D).

06: Transmit Data Error.

07: Not Used.

08: The connection process could not be completed.

Example: When placing a call on an unused SRG list.

09: Could not connect to another node because it is busy.

("Socket Connection Canceled [   ] Code=0" appears in this case.)

10: Could not connect with the YAESU MUSEN WiRES-II server.

(This code will appear if you have not properly opened ports or otherwise correctly configured your PC's firewall or router, or if the YAESU MUSEN host server is down for maintenance).

11: The node that you sent a connection request to did not respond.

("No Answer from called PC" appears in this case.)

12: Sound recording could not be accomplished due to a sound card problem (probably a hardware problem).

13: No audio data response from the called node was received.

14: Transmission of image data could not be completed.

(A time-out occurred due to poor Internet communication quality, etc.)

15: Reception of image data could not be completed.

(A time-out occurred due to poor Internet communication quality, etc.)

No Entry On ILS Server. (Call Failed (code=03))

The ID number you sent a connection request to is for a node not currently communicating with the host server, or the ID you sent is not a valid ID on the WiRES system.

Socket Connection Canceled [ ] Code=0 (Call Failed (code=09))

The connection request to another node was denied.

(The other node may be attempting a connection to a different node, your node may be "Rejected," etc.

No Answer from called PC. (Call Failed (code=11))

There was no response from the node to which a connection attempt was sent.

Call Start No.XXXX

A "Connect" request has been sent to node ID: XXXX.

LOG MESSAGE (ERROR CODE ETC.)

Call Start No.XXXX (SRG:#)
An SRG "Connect" request has been sent to SRG node XXXX (SRG#), (where # is the numeral 0 - 9 according to your node's SRG list).

In-Call from No.XXXX
An incoming Connect request has been received from node ID: XXXX.

In-Call from No.XXXX (SRG:#)
An incoming SRG Connect request has been received from node ID: XXXX (SRG#), (where # is the numeral 0 - 9 according to your node's SRG list. If a call comes from a node not on your SRG list, the SRG ID number will be shown as an "X" here.)

Connected to XXXX.
A connection has been established with node ID: XXXX.

end-key detected .. Hangup
A disconnection request has been detected.

Socket Communication timeOut..Hangup
A time-out occurred while attempting to connect to another node. The connection attempt was aborted.

Conference End.
The disconnection process has been completed.

MCU Call-Type[#]
An SRG/FRG Group Call to Group "#" (# = A - D) was initiated from your node.

MCU-Call Type[#] from [XXXX]
An incoming SRG/FRG Group Call to Group "#" (# = A - D) was received from node XXXX.

Call Change Start(SRG:#)
During an SRG Group Call, an individual call to SRG node "#" was placed (# = 0 - 9).

DO NOT CONNECT TO ROUND QSO ROOM No.#### (Call Failed (code=04))
While "Round QSO Room connection" was set to "Off (Reject)", a connection request to the QSO Room was nonetheless sent (and the connection was therefore not executed).

Round QSO Room [####] Member ... xxxxxx(####),xxxxxx(####)
You are connected to Room XXXX, and nodes XXXXXX (####) and XXXXXX (####)... are signed in to that room.
If nobody else is currently signed in into this room besides your node, "Room is empty" will appear.

XXXXXX(####) IN.
Node XXXXXX (####) has just entered the Round Table QSO Room.

XXXXXX(####) OUT.
Node XXXXXX (####) has just left the Round Table QSO Room.

Outside Call In Round QSO from No.XXXX
During operation in a Round Table QSO Room, an outside call from FRG node XXXX was received.

Outside Call In Round QSO from No.XXXX(SRG:#)
During operation in a Round Table QSO Room, an outside call from SRG node XXXX (SRG #) was received (where # is the numeral 0 - 9 according to your node's SRG list. If a call comes from a node not on your SRG list, the SRG ID number will be shown as an "X" here.)

LOG MESSAGE (ERROR CODE ETC.)

Outside MCU Call In Round QSO from No.XXXX

During Round Table QSO Room operation, an incoming Group call was received from node ID: XXXX.

Connect Request From XXXX

A connection request came in from node ID: XXXX, but it could not be executed because your node is already connected to another node.

call to Rejected ID_No[XXXX] (Call Failed (code=02))

A connection request to a "Rejected ID" node ID: XXXX was attempted (the command was not executed).

call from Rejected ID_No[XXXX]

A connection request from a "Rejected ID" node ID:XXXX was received, and rejected.

Group Call From (XXXX). Reject

A Group Call connection request from a "Rejected ID" node ID:XXXX was received, and rejected.

return to room No.$ [XXXX] last ## count.

The automatic connection processing by "Return to resident Round QSO Room" function was done. (Connected demand was done to Set No.$ [ID number:XXXX]. (The connection destination is set by "Resident Room ID&Timer" function.) "last ## count" is a frequency with which the remainder can be connected. (The frequency connected by "Return counter" function can be set.))

return to room No.$ [XXXX] count over.

The automatic connection execution frequency by "Return to resident Round QSO Room" function exceeded a set value of Return counter. (The automatic connection setting ("Resident Room ID&Timer" function) of set No.$ was disabled.)

TX Timeout (over 3min).

Transmission in excess of three minutes was detected, and the TX Timeout was invoked. (After three minutes, audio from the offending node is automatically cut off.)

Monitor Connected (xxx.xxx.xxx.xxx)

A connection has been established to the remote PC running the Remote Monitor Software(wiresmon.exe), and remote control is being exercised.
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC connected to your node.)

Monitor Disconnected (xxx.xxx.xxx.xxx)

The remote PC has disconnected from your node. ((xxx.xxx.xxx.xxx) is the IP Address of the remote PC previously connected to your node.)

Browser connected from [xxxxx] IP:xxx.xxx.xxx.xxx

A Web Browser is accessing your node from the remote PC.
([xxxxx]: Information about the remote Browser)
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC connected to your node.)

Monitor Voice ON (xxx.xxx.xxx.xxx)

The remote PC is performing audio monitoring on your node via the wiresmon.exe software.
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC connected to your node.)

Monitor Voice OFF (xxx.xxx.xxx.xxx)

The remote PC has ended audio monitoring on your node via the wiresmon.exe software.
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC previously monitoring your node's audio.)

Log message (Error code etc.)

Monitor ON AIR LOCK (xxx.xxx.xxx.xxx)
The remote PC has engaged the ON AIR LOCK function to inhibit transmission.
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC controlling your node.)

Monitor ON AIR UNLOCK (xxx.xxx.xxx.xxx)
The remote PC has engaged the ON AIR UNLOCK command, to relinquish the inhibition of transmission.
((xxx.xxx.xxx.xxx) is the IP Address of the remote PC previously controlling your node.)

localhost ON AIR LOCK
The ON AIR LOCK command has been executed locally on your node's PC.

localhost ON AIR UNLOCK
The ON AIR UNLOCK command has been executed locally on your node's PC.

localhost ON AIR LOCK (Plugin)
The ON AIR LOCK function has been engaged locally on your node's PC via plug-in software.

localhost ON AIR UNLOCK (Plugin)
The ON AIR UNLOCK command has been executed locally on your PC via plug-in software.

COM:### Invalid Port No or Port was already open
A COM Port specification problem has been detected; either there is no communication because the wrong COM Port was selected, or that COM Port is already in use.
(When "WiRES-II.exe" is started or the COM Port setting is changed, it will appear in the log entry.)

There are no controls associated with the selected line.(Volume)
The Sound device that controls the volume could not be detected.
* In the environment in which this error goes out, WiRES-II software cannot control the volume. However, operating it might become possible by changing the "Other" setting of "Voice in select" function to on.

Number of sound devices
Number of detected Sound Devices.

Set Mixer Device
Mixer device information is set by the Sound device function.
Input: ID Number of Mixer device for input.
Output: ID Number of Mixer device for output.
Note: When the setting is an default value (the setting of Audio settings has not been changed by as much as one degree), WiRES-II software automatically looks for a Sound device, and controls the first detected Sound device.
When the automatic detection processing is completed, the value here becomes -1.
(When a Sound device is removed, or the Sound device that was set with Audio settings cannot be detected, the automatic detection processing is initiated.)
A PC where only one Sound device is mounted can be operated with the default value. However, a PC that mounts two or more sound devices, might not operate normally. In this case, Please confirm the setting of "Audio settings".
(ID Number of set Sound device is displayed when setting it by "Audio settings".)

Input Mixer No=#: $$$ (Type=%%%)
= ID Number of Mixer device for input actually selected.
$$$ = Mixer device function name.
%%% = Input mixer device type selected by "Voice in select" function.(Mic/Line)

Log message (Error code etc.)

Output Mixer No=#: $$$
= ID Number of the output Mixer device actually selected
$$$ = Mixer device function name.

Set Sound Device
Sound devices information is set by Sound device function.
Input : ID Number of Sound device for input.
Output: ID Number of Sound device for output.
(Auto=Auto setting / Set:# (# is ID Number that selected the manual operation.))

Input Sound = # : $$$
= ID Number of the input Sound device actually selected.
$$$ = device name

Output Sound = # : $$$
= ID Number of the output Sound device actually selected.
$$$ = device name

Input/Output Sound Device = System default
The Other setting of "Voice in select" function was set to on.
When this display appears, adjust the volume with the OS sound function.

Round QSO Room log
The content of your Round Table QSO Room log, as displayed on the management log screen is as follows:

XXXXXX(####) IN.
The listed node has entered (connected to) the Round Table QSO Room hosted on your node.

XXXXXX(####) OUT.
The listed node has left (disconnected from) the Round Table QSO Room hosted on your node.

XXXX>#### test
Record of a Chat message in the Round Table QSO Room hosted on your node.

Connect Request From XXXX Reject.
A request for connection to your QSO Room was rejected (after processing the rejection, a log entry regarding the rejection is made).

Connect Request From XXXX but connect MAX.
A connection request from the listed node was made, but your Round Table QSO Room is already filled to capacity (setting value of "Maximum stations" parameter).
(After rejecting the connection attempt, an entry of the rejection is made into the log).

XXXXXX(####) Node Remove.
Connection with the Node(####) was removed(disconnected).
(When the Remove button is operated or the Reject operation is executed from MyRoom access list(Group window), it will appear in the log entry.)

XXXXXX(####) Node Mute.
The voice delivery from Node(####) was stopped(muted).
(When the Mute button is operated or the Mute operation is executed from MyRoom access list(Group window), it will appear in the log entry.)

L*OG* MESSAGE (E*RROR* CODE ETC.)

XXXXXX(####) Node Mute released.

Voice delivery Mute setting of Node(####) was released.

(When the Mute setting is released by operating Mute from MyRoom access list(Group window), it will appear in the log entry.)

Mute ID list update [XXXX,####],[None]

The "Mute ID list" was updated.

(When the Mute/Save button is operated or the Mute operation is executed from My Room access list (Group window), it will appear in the log entry.)

(If no changes have been made to the status of any node, "None" will appear in the log entry.)

Reject remove ID list update [******: XXXX,####,...]

The "Reject remove ID list" was updated.

(When the Remove/Save button is operated or the Reject operation is executed from My Room access list (Group window), it will appear in the log entry.)

Depending on the setting of the check boxes for the "Reject remove ID list", a setting of "OFF" will cause "Permit:" to be displayed, while a setting of "ON" will cause "Reject:" to appear.

If no changes have been made to the status of any node, "None" will appear in the log entry.

XXXXXX(####) TX Timeout(relay stopped.)(over 3min).

Continuous transmission in excess of three minutes from a node has caused audio from that node to be muted automatically.

IN CASE OF TROUBLE ...

❒ **If You Cannot Connect via LAN (DSL, ISDN, etc.)**:
  ○ Consult your computer manufacturer's Home page.
  ○ Can you utilize a Router? Routers using NAT or Static IP Masquerade may be used. Set up using UDP settings open.
    In the case of a WAN, it must be a Global IP (a Fixed IP is not required).
    Consult your Router's Instruction Manual for further advice.
  ○ You can use WiRES-II via a cable TV connection, if a Global IP can be granted by your provider.
  ○ If you make a paging transmission, but the "IDLE" box does not change to "NET," there may be a problem with password verification.
  ○ If you are using a router, please check to be sure that the "40000 -50000" ports are "open" for the passing of the UDP traffic.

❒ **About the sound card of the computer**:
  ○ It may not be possible to connect with a monaural pin, which occasionally is found with respect to a sound card. Please use a conversion plug to emulate a stereo plug.
  ○ Please check the sampling rate of the sound card, to be sure it corresponds to the 8 kHz specification. See your sound card's Instruction Manual for assistance.

❒ **If Changes to the Property Screen are not Reflected**:
  ○ Be sure to click on the [**OK**] button after making changes; in the **HRI-100 SETUP** folder, click on the [**WRITE**] button.

❒ **If the "HRI-100" Indication on the WiRES-II Main Screen Lights Up in Red**:
  ○ Has power been applied to the **HRI-100** Interface Box?
  ○ Is data passing via the Serial Cable? Check connections on both sides.
  ○ Is the "COM Port No." in the "**General Setting**" folder properly set?
    If not, you will need to change it, and restart the WiRES-II program.

❒ **If One or More of the Three Vertical Indicator Dots (WiRES-II Main Screen) Light Up in Red**:
  ○ Go to the "**HRI-100 SETUP**" folder, and click on the [**WRITE**] button.

❒ **If the "LOCAL" Indication on the WiRES-II Main Screen is Continuously Illuminated, Regardless of the PTT Condition**:
  ○ Check to be sure that the Squelch is closed on the repeater or link radio.
  ○ Is the "**BUSY GROUND**" setting in the **HRI-100 SETUP** folder properly set with respect to the repeater or link radio being used?

❒ **If the Repeater (or link radio) is Continuously Transmitting, Regardless of the PTT Condition**:
  ○ Is the "**PTT GROUND**" setting in the **HRI-100 SETUP** folder properly set with respect to the repeater or link radio being used?

❒ **If the DTMF Signal is Not Being Received**:
  ○ Check to be sure the "ON" switch, in the "**CALL CANCEL**" area of the **HRI-100 SETUP** folder, has not accidentally been activated.

IN CASE OF TROUBLE ...

❐ **During SRG Operation, if you Cannot Connect to Another SRG Node**:
  ○ Confirm that the other repeater is properly registered into the "**Group settings**" area during setup. All SRG nodes must have the Server ID numbers in the same order (i.e. the DTMF tones must correspond in all SRG nodes).

❐ **If the End of the Incoming Transmission Cuts Off Frequently**:
  ○ Please try increasing the value of the "**TX OFF delay time**" in the "**General Setting**" folder. The initial value is 500 ms.

CUSTOMER SUPPORT INQUIRIES

If you have any questions or comments regarding of the WiRES™ network in general, please feel free to contact us.

North/South America

> **YAESU USA, INC.**
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In ASIA and Oceania

> **YAESU MUSEN CO., LTD.**
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> Fax: +813-6711-4277
> E-Mail: wires@yaesu.com

HRI-100 INTERFACE BOX SPECIFICATIONS

Supply Voltage: DC 12V ±10%, Negative Ground

SP Jack: 500 mVrms @ 600 Ohms

MIC Jack: 500 mVp-p @ 600 Ohms

RADIO Jack: TX AF IN: 500 mVrms @ 600 Ohms (Adjustable)

DISC OUT: 500 mVp-p @ 600 Ohms (Adjustable)

PTT: +5 V, negative ground

Case Size (W x H x D): 4.37 x 1 x 5.24 inches (111 x 25.4 x 133 mm) w/o connectors

Weight (Approx.):   10.6 oz (300 g)

ACCESSORIES & OPTIONS

Supplied Accessories

Power Cable 1

Connection Cable (RS-232C ↔RS-232C) 1

Connection Cable (Mini 8-pin DIN ↔Mini 6-pin DIN) P/N: T9101527 1

Connection Cable (3.5φ plug ↔3.5φ plug) 2

Warranty Card 1

WIRES™ END-USER LICENSE AGREEMENT 1

Option

❍ **NC-72B** AC Adapter

❍ Connection Cable (Mini 8-pin DIN) P/N: T9101523A

❍ Connection Cable (Mini 8-pin DIN ↔Mini 6-pin DIN) P/N: T9101527

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The radio