

Image exchange QSO experience using Client Peanut

Client Peanut is Ham's internet
communication software

ABOUT

I understand Client Peanut is customized from Peanut of David PA7LIM by Fernando LW6EMN.

Since the basic functions are the same as the original Peanut, image communication is also possible.

Below is a summary of the experience of image communication using Client Peanut on a Windows PC.

JA3GQJ

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Software and modes used with Client Peanut

Client Peanut is an Internet conversation software such as CQ-100, and enthusiasts who have experience operating MSSTV demonstrate their amateur spirit and they find that it can use image exchange in the mode shown in Table 1.

Software	Mode
Vari Image Front	rtty-L, msfk-U, bpsk, GMSK
EZ Pix	GMSK (FSK-W)
MMSSTV・YONIQ	MMSSTV・YONIQ
JTDX/WSJTX	FT8 / msfk-144, Q65
JS8CALL	JS8CALL
Image controller Easy Simple	Control Vari Image Front, MMSSTV/YONIQ, JTDX/WSJTX and JS8CALL

Table 1

Image controller Easy Simple is the key to image communication

Image controller Easy Simple is software developed by Yamato JQ1HDR , and as shown in Table 1, it is important to carefully read the explanation on Yamato's homepage, as it is the key to image communication that controls multiple image communication software.

<http://jq1hdr.world.coocan.jp/Instruction3/index.html>



Setting screen



Received image display screen

**Software used for image communication in combination with
"Image Controller Easy Simple"**



EZ Pix and MMSSTV/YONIQ can be operated independently in combination with Client Peanut.

FTP server also required → Use a free rental server

Also use DigiSites → See Richard W3WVG's web page

Rooms and operation modes

As of May 2023, Client Peanut has the same 212 rooms as the original Peanut, which corresponds to the channel frequency in radio. There is history that Yamato JQ1HDR and other image communication enthusiasts have asked the original Peanut developer, David PA7LIM, to add three rooms as shown in Table 2. These three rooms dedicated to image exchange, where conversation is also possible, have been taken over by Client Peanut as they are. Table 2 summarizes each room and available modes. Client Peanut also has the appeal of being able to have a conversation while sending image signals, just like the original Peanut.

Room	Available modes
IMG-QSO1	FT8, JS8CALL, msfk-144, Q65, Voice
IMG-QSO2	rtty-L, msfk-U, bpsk, GMSK (FSK-W) , Voice
IMG-QSO3	MMSSTV/MMSSTV · YUNIG , Voice

Table 2

1. Software download, installation and setting

Refer to APPENDIX 1 at the end of this report to complete the download, installation, and settings.

2. Operation panel

The operation panel has six types of tags: "Main", "Monitor", "Logbook", "Alarm", "Setting", and "About" (Fig. 2-1). The "Main" tag is selected (opened) when the software is launched.

Main tag

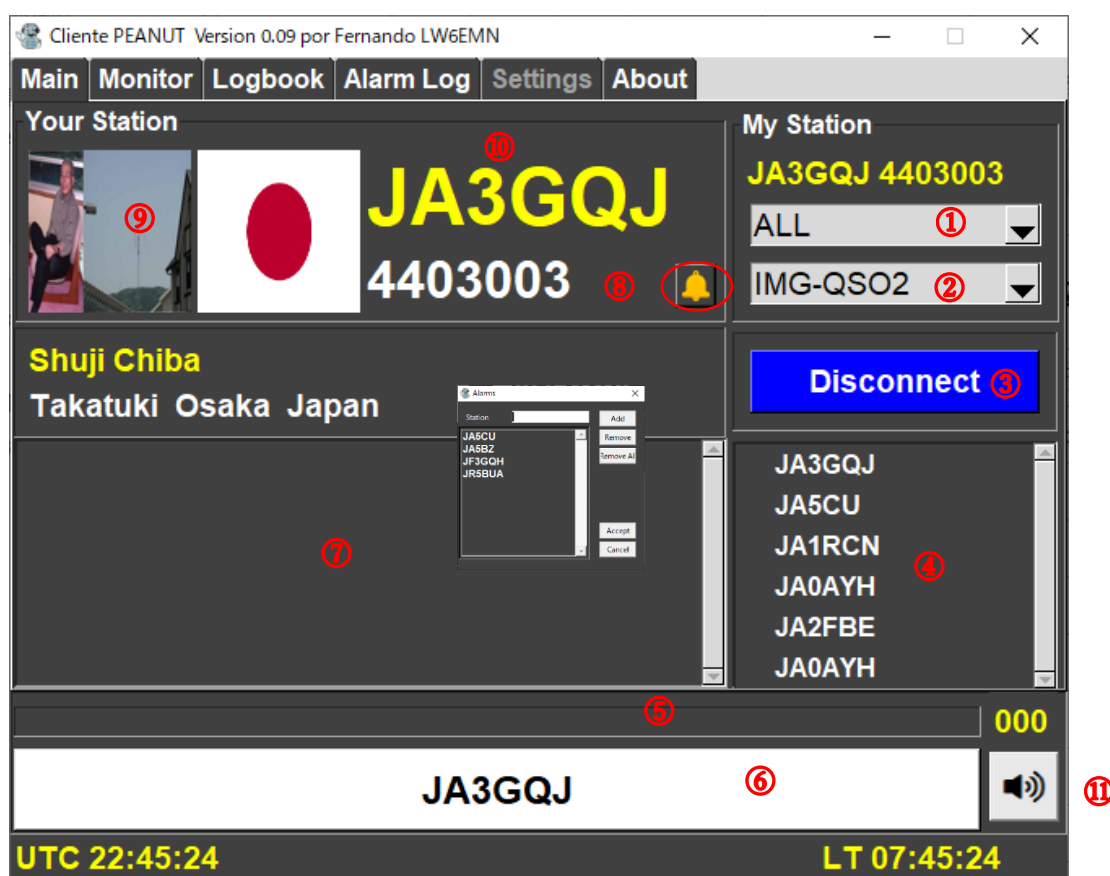


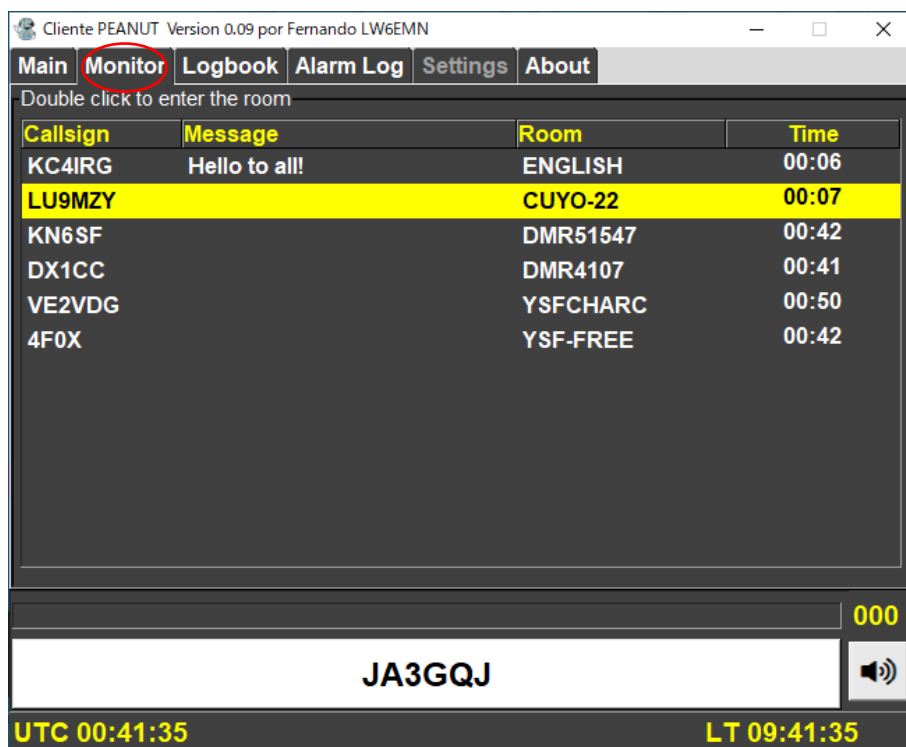
図 2-1

- ① Region (country) selection pull-down menu_(select ALL)
- ② Room selection pull-down menu (There are IMG-QSO1, IMG-QSO2, and IMG-QSO3 rooms here)
- ③ Connect/Disconnect button (When connected = Blue with text "Disconnect", when disconnected = White with text "Connect")
- ④ List of connected stations (watch stations) (displayed in order of connection start time)

- ⑤ Transmission/reception level meter (a green bar is displayed during transmission/reception)
- ⑥ PTT switch operated with the left mouse button (color changes to white when waiting, red when sending, blue when receiving a signal)
- ⑦ Transmitting station list (UTC, call sign, name, call duration are displayed)
- ⑧ By clicking this icon and registering fellow stations, etc., a connection tone will sound when the corresponding station connects.
- ⑨ If you click here, the QRZ.COM page you registered will open.
- ⑩ Display of the call sign (when the software is running and when sending = the call sign of the own station, when receiving = the call sign of the other station, while waiting after sending to the other station = the call sign of the other station)
- ⑪ Speaker on/off with push-push

Monitor tag

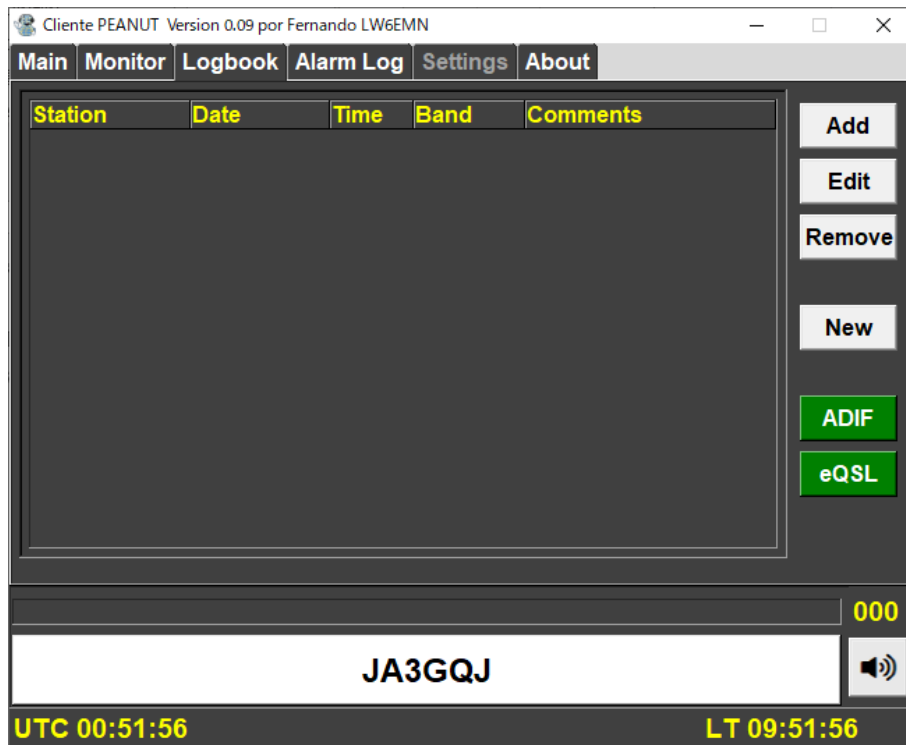
A list of stations in QSO is displayed. Click on the call sign (yellow band) to hear the station's conversation (QSO).



☒ 2-2

Logbook tag

Create a QSO log. When you click the call sign of the other station displayed large in the Main tag and enter Band, Frequency, and Message in the small screen that pops up, the QSO data of the station will be recorded here. See Figure 4-3 on page 12.



☒ 2-3

Add = Data input by keyboard

Edit = Edit data

Remove = Remove data

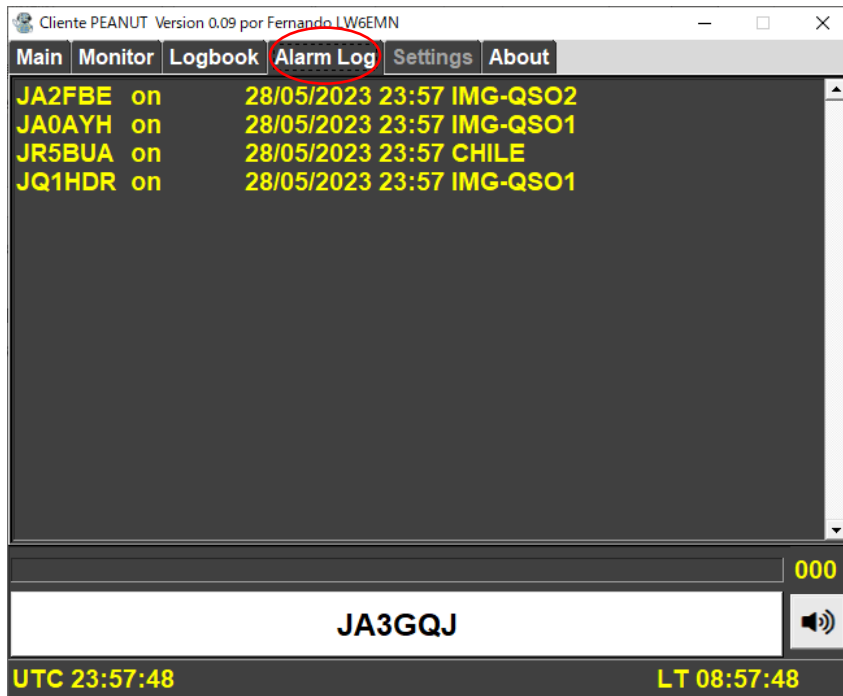
New = ?

ADIF = An abbreviation of Amateur Data Interchange Format file, it seems to be a unified data format file used when exchanging communication record data of amateur radio between different software.

eQSL = It seems that QSL cards can be issued by sending Logbook data to eQSL.

Alarm log tag

Display connection/disconnection of registered stations



☒ 2-4

Setting tag See APPENDX1 at the end of the book.



☒ 2-5

About tag The screen in Fig.2-6 opens



Fig.2-6

Sound card adjustment

Attach a PC microphone costing around 1,000 yen to the PC's microphone terminal → Then click the Client Peanut icon 🐿️ on the desktop → The software will start up and automatically connect to the "ECHOECHO" room (Fig. 3-1) → Then you turn PTT on → Then speak into the microphone → ※1



Fig.3-1

While referring to APPENDIX 2 "Checking Windows 10 Sound Devices" at the end of this report, I adjust the sound card device's microphone gain so that the movement of the green level meter bar is about 80% of the total (Figure 3-2). Then turn off PTT.



Fig.3-2

After that, sound (echo) is returned from Client Peanut (Fig. 3-3) → Check the movement of the green level meter bar, and I adjust the speaker volume of the sound device appropriately by referring to APPENDIX 2 "Checking Windows 10 Sound Devices".



Fig.3-3

Fig.3-4 is the screen when the echo disappears



Fig.3-4

3. Receiving voice

Click the "Monitor" tag → Then click the call sign of the station you want to receive → Then you can hear the conversation → Then the color of the PTT switch changes to blue and the call sign of the transmitting station and room name are displayed (Fig. 4-1) → ※1

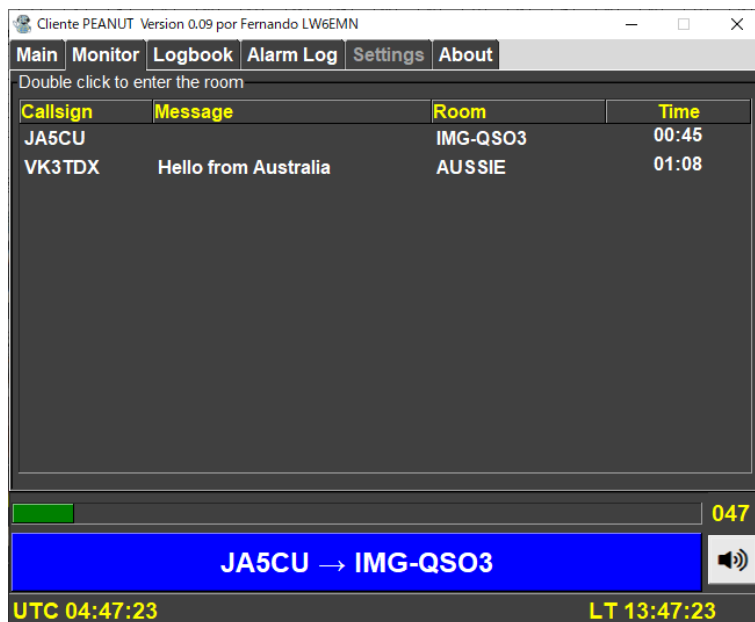


Fig.4-1

※1 → Click the "Main" tag → Then the call sign (yellow large letter) of the transmitting station is displayed on the screen (Fig. 4-2) → ※2



Fig.4-2

※2 → Click on the call sign → Then the "Add to Logbook" screen (Fig. 4-3) pops up → Then enter "Band", "Frequency" and "Comment" → Then click the "Accept" button → Comment screen "Do you confirm to save the data" pops up → Then click the "Yes" button → ※3



Fig.4-3

※3 → Then select Logbook tag (Fig. 4-4) → Then you can see the data is recorded

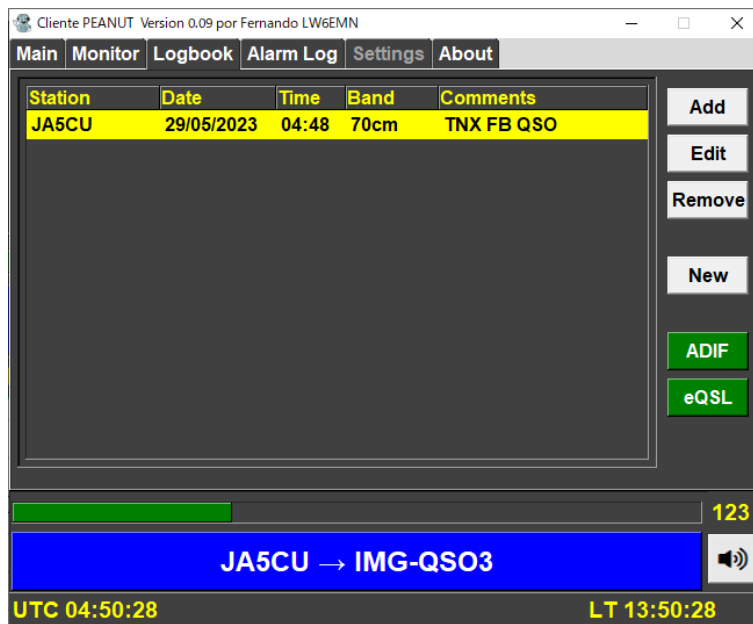


Fig.4- 4

Add = Data input by keyboard

Edit = Edit data

Remove = Remove data

New = ?

ADIF = An abbreviation of Amateur Data Interchange Format file, it seems to be a unified data format file used when exchanging communication record data of amateur radio between different software.

eQSL = It seems that QSL cards can be issued by sending Logbook data to eQSL.

4. TX Voice

· TX using PPT

Decide on a room → Then use the mouse to turn on the PPT switch (white bar with the call sign) in Figure 3-2 or press the Ctrl key to turn on the PPT switch → Then speak into the microphone. (Since Key Ctrl PTT is checked in the settings, the Ctrl key becomes a PTT switch.)

· TX using VOX

The VOX function of the original Peanut was born at the request of image communication enthusiasts, but it seems that Client Peanut also follows the VOX function (however, the setting method is different).

Settings for VOX

Select the "Setting" tag → Furthermore select the "RX Ctrl" tag below left the "Setting" tag → Select VOX to RX Ctrl → Adjust Threshold, Delay, Return values to find the optimum

EZ Pix, MMSSTV and YONIQ can be operated independently in combination with Client Peanut, but other software must be operated in combination with "Image Controller Easy Simple".

Sound card input/output processing of image signals

Image exchange by Client Peanut is different from on-air by transceiver, and Client Peanut and communication software operate by sharing the sound card of the personal computer. Also, even if signals for image and signals for audio are sent at the same time, the image exchange will not be affected I think.

Fig. 6-2 is an imagination diagram of the sound card input/output processing circuit of signals for image. Depending on the mode of the signal for image, it may be possible to send and receive images by bringing the microphone close to the speaker without a hardware switch. However, better results were obtained by directly connecting the circuits of speaker and microphone electrically.

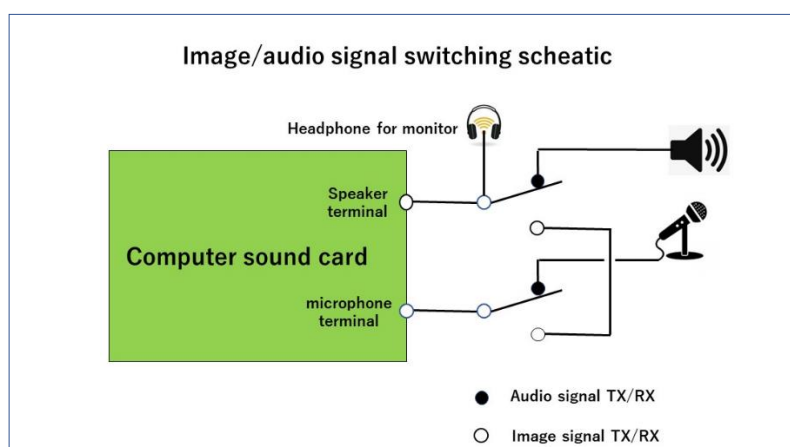


Fig.6-2

Receiving images in combination with "Image Controller Easy Simple"

Determine the Client Peanut room corresponding to the software to be used → Then activate the software → Waiting signals for images instead of audio signals → Then displayed on the RX tag screen of "Image Controller Easy Simple" when image is received, also uploaded to DigiSites.

Receiving images with EZPix alone

Select Client Peanut's room IMG-QSO2 → Then activate EZPix → Wait for GMSK signal → When received image it is displayed on the "Receive" tag screen and also uploaded to DigiSites. EZPix is software for exchanging images using specified characters in GMSK mode developed by Richard W3WVG.

Receiving images with MMSSTV · YONIQ alone

Select Client Peanut's room IMG-QSO3 → Then activate MMSSTV/YONIQ → Wait for signals → If receive signal then start scanning of the received image on the RX tag screen → The full picture of the received image is displayed on the RX tag screen → Reception ends. For details on MMSSTV and YONIQ, refer to articles such as the Internet.

7. TX images

7-1 TX images in combination with "Image Controller Easy Simple"

The following items 7-1-1 to 7-1-4 are all sent using PTT of Client Peanut. It is also assumed that the adjustment of the transmission level has been completed on page 5, item 3, "Adjusting the sound card."

7-1-1 Combination with Vari image Front (Mode is GMSK or msfk-U)

In this mode, it is better to directly connect the microphone circuit and the speaker circuit. I select a room corresponding to Vari image Front mode. → Then activate Image Controller Easy Simple and Vari image Front. → Then Select Image Controller Easy Simple's "TX" tag. → Then click the "Load image" button. → Then double-click on the image to be sent in the opened image storage folder. → Then the image will be pasted on the screen of the "TX" tag. → Then use the macro to add text to the image. → Then click the "Transfer image" button. → Then the sent image will be displayed enlarged Indicates, this means the image has been transferred to the server. → Then you push ClientPeanut's PTT on → Then click the function key corresponding to "Vari image Front" mode. → Then transmission starts. → After while transmission ends automatically. → Then a list of receiving stations is displayed in Image Controller Easy Simple's "On Air & Rx List". → Then you push Client Peanut's PTT off. → Then standby for reception.

7-1-2 TX images in combination with JTDX (Mode FT8)

This mode does not require a direct connection between the microphone circuit and the speaker circuit.

Select Client Peanut's room IMG-QSO1 → Then activate Controller Easy Simple and JTDX → Then select Controller Easy Simple 「TX」 tag → Then click the "Load image" button → Then image storage folder is opened → Then double-click on the image you want to send → Then the image will be pasted on the screen with the "TX" tag → Then use the macro to add text to the image → Then click the "Transfer image" button → Then the sent image will be displayed enlarged Indicates that the image has been transferred to the server → Then you push Client Peanut's PTT on → Then click the "Enable Tx" button on JTDX → Then start transmission → End

transmission automatically after while → Then the call sign of the receiving station is displayed in "On Air & Rx List" of Controller Easy Simple → Then you push Client Peanut's PTT off → Then stand by for reception.

7-1-3 TX images in combination with MMSSTV · YONIQ

In this mode, it is better to directly connect the microphone circuit and the speaker circuit. Select Client Peanut's room IMG-QSO3 → Then activate Image Controller Easy Simple and MMSSTV/TONIQ → Then select Controller Easy Simple's "Yoniq Tx" tag → Then click the "Load image" button → Then image storage folder is opened → Then double-click on the image you want to send → Then the image will stick to the "Yoniq Tx" tag screen → Then use the macro to add text to the image → Then click the "Create image" button → Then click the "to Yoniq" button → Then the image will stick to the TX tag screen of MMSSTV/YONIQ → Then you push Client Peanut's PTT on → Then MMSSTV/YONIQ Click the "TX" button → Then start transmission → Then end transmission at the time according to the mode → Then you push Client Peanut's PTT off → Then stand by for reception.

7-1-4 TX images with EZPix (Mode GMSK) alone

This mode does not require a direct connection between the microphone circuit and the speaker circuit.

Select Client Peanut room IMG-QSO2 → Then activate EZPix → Then click EZ Pix's "Load image" button → Then the image storage folder will open → Then double-click the image you want to send → Then the image will be attached to EZ Pix's "Send" tag → Then you push Client Peanut's PTT on → Then click the "Send" button on EZ Pix → Then start sending → Then finish sending in about 6 seconds → Then you push Client Peanut's PTT off . A list of receiving station callsigns is displayed in the "Rx OK" frame of EZPix.

8. TX Image using the VOX function

If you have completed adjusting the VOX of Client Peanut, you can send it by simply clicking the send button of each software.

APPENDIX 1

Install the Client Peanut software by opening the following URL page. Since the file is in zip format, I installed the decompression software "Lhasa.exe" in advance. Search the Internet to download Lhasa.exe. https://lw6emn.ar/software/version_international/

When the page (Fig. 1) opens, click "Instalador-V.09-WIN7-WIN10-WIN11.zip" → Then a small screen (Fig. 2) will be displayed on the upper right. → ※1

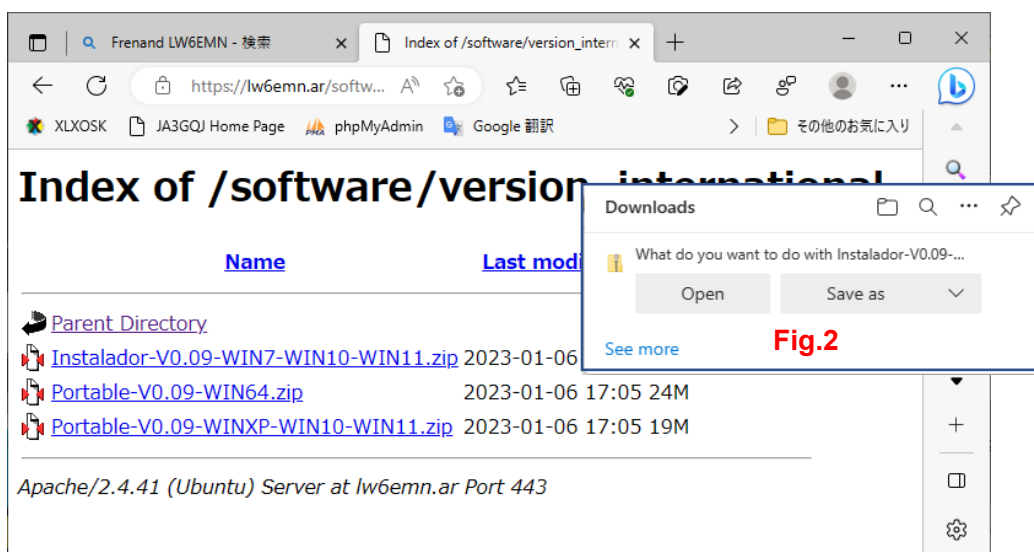


Fig.1

※1 → Click the "Open" button → Then the progress bar (Fig. 3) moves to the right end → Then the screen changes (Fig. 4) → ※2

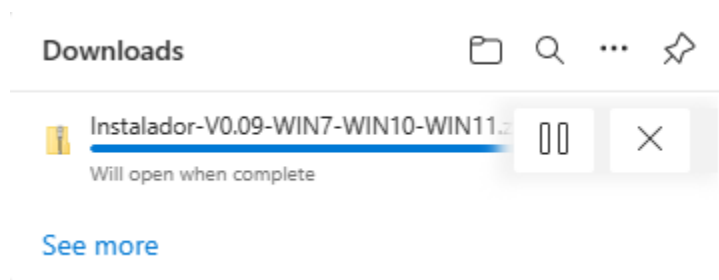


Fig. 3

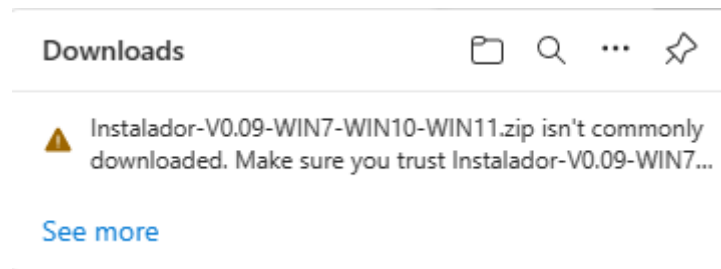


Fig. 4

※2 → Then place the mouse pointer over the characters in Fig. 4 → Then a trash can and "..." icon will be displayed to the right of the characters (Fig. 5) → ※3

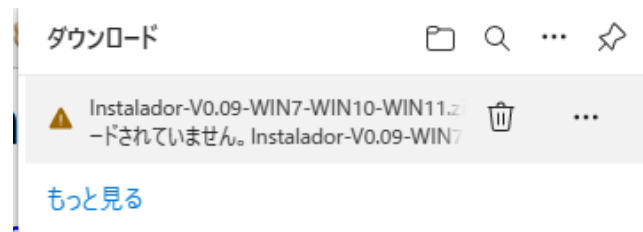


Fig. 5

※3 → Then click "..." → The a new screen will appear below it (Fig. 6) → Then click "Keep" → ※4

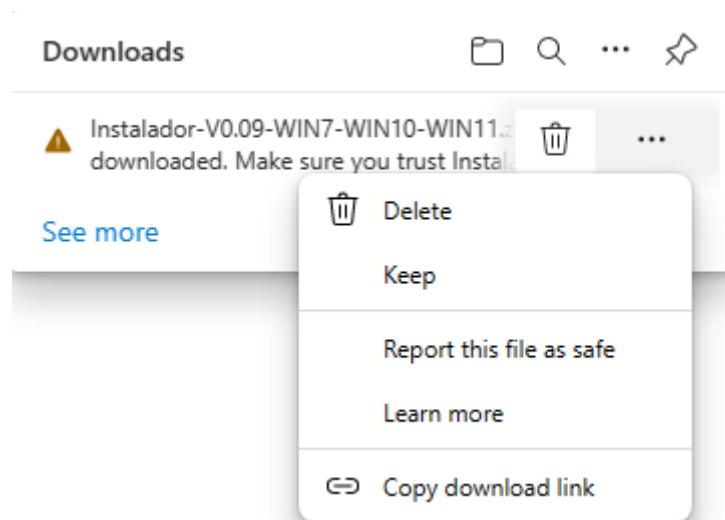


Fig. 6

※4 → Then the screen changes (Fig. 7) → Then click "Show more" → ※5

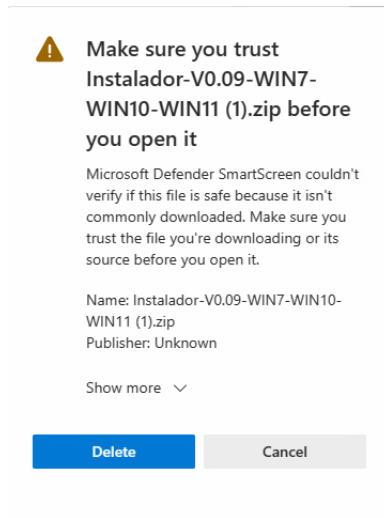


Fig. 7

※5 → Then the screen changes (Fig. 8) → Then click "Keep anyway" → ※6

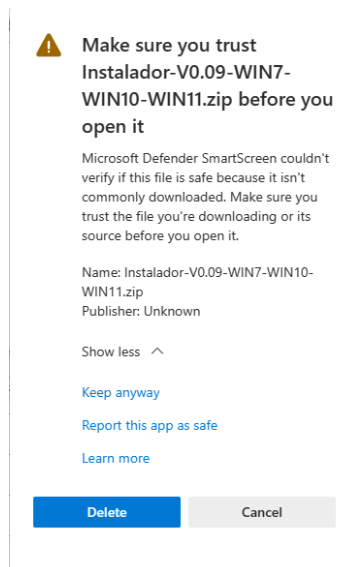


Fig. 8

※6 → Then the screen changes (Fig. 9) → ※7

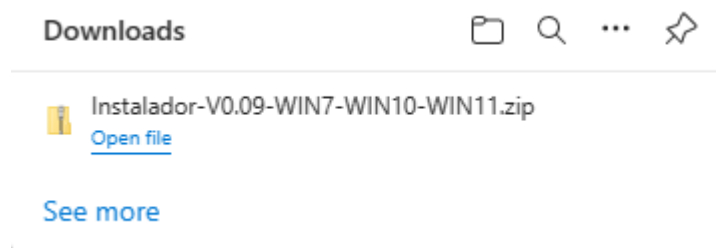


Fig. 9

※7 → Then the folder containing the downloaded "Instalador-V0.09-WIN7-WIN10-WIN11.exe" (Fig. 10) is open → ※8

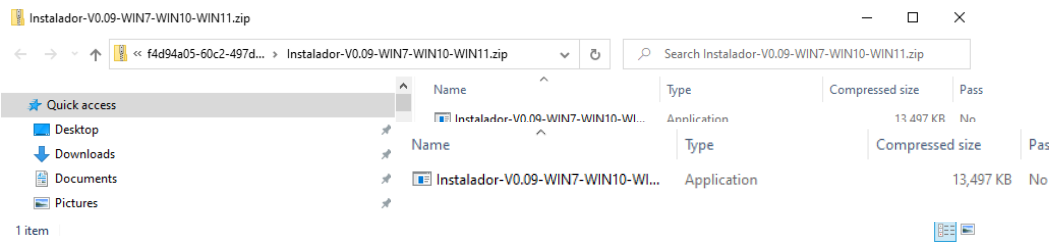


Fig. 10

※8 → Then execute "Instalador-V0.09-WIN7-WIN10-WIN11.exe" → Then the screen in Fig. 11 is displayed → Then click "More info" → Then change to the screen in Fig. 12 → Then click "Run anyway" → ※9

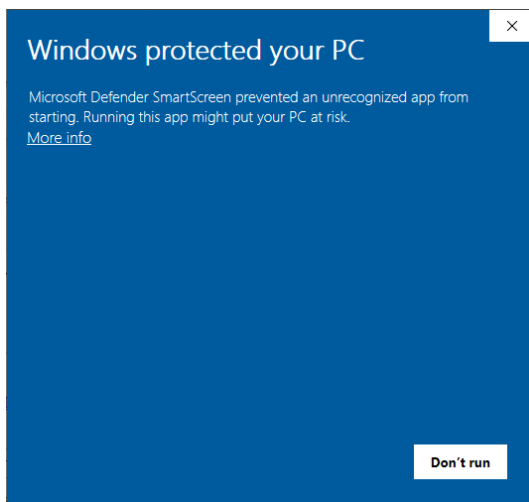


Fig. 11

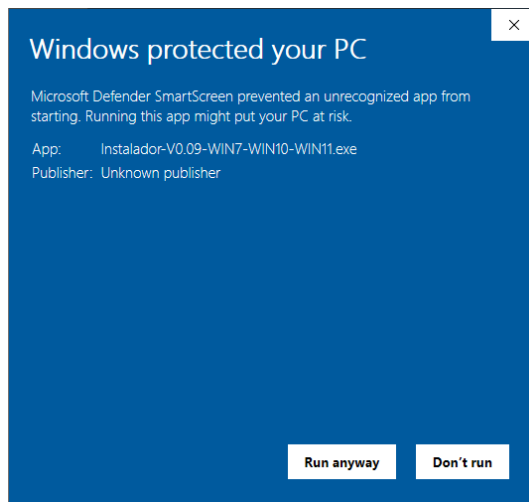


Fig. 12

※9 → Then the "User Account Control" screen, Fig. 13 will be displayed → Then click "Yes" → ※10

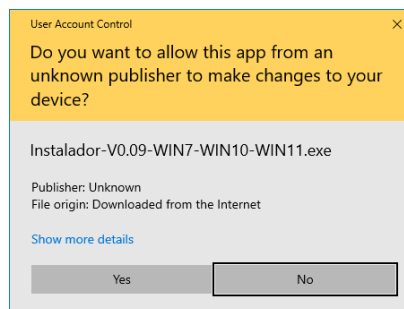


Fig. 13

※10 → Then Fig. 14 will be displayed → Then click "OK" → ※11

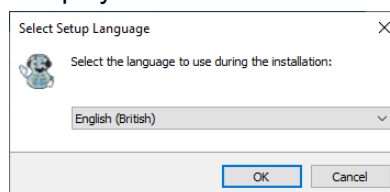


Fig. 14

※11 → "C:\clientpeanut" is the installation destination of the software (Fig. 16) → Then Click "Next" → Then follow the steps from Fig. 16 to Fig. 31 to complete the installation and settings → ※12

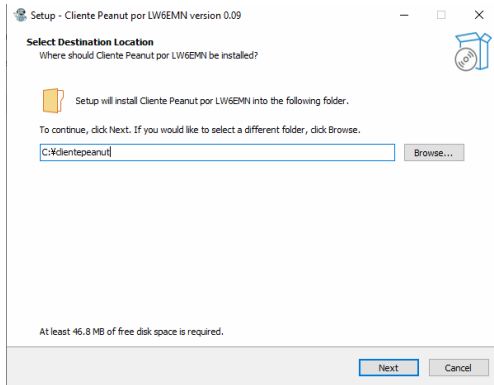


Fig. 15

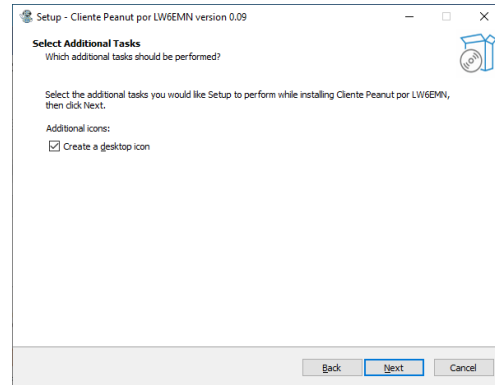


Fig. 16

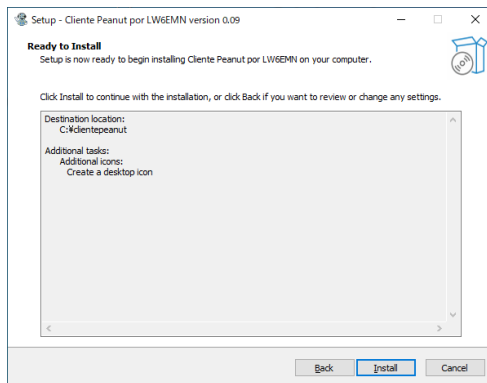


Fig. 17

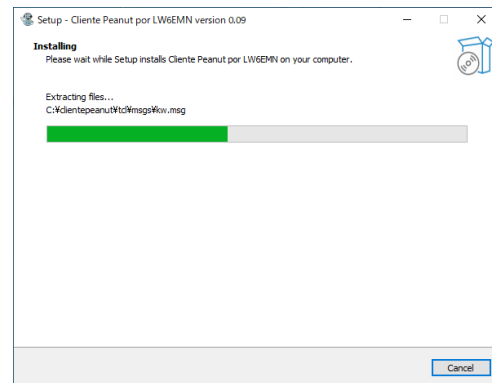


Fig. 18

※12 → Then check mark for Launch Client Peanut por LW6EMN in Fig. 19 → Then click "Finish" → Then Installation complete → Then Client Peanut's initial screen (Fig. 20) will pop up → ※13

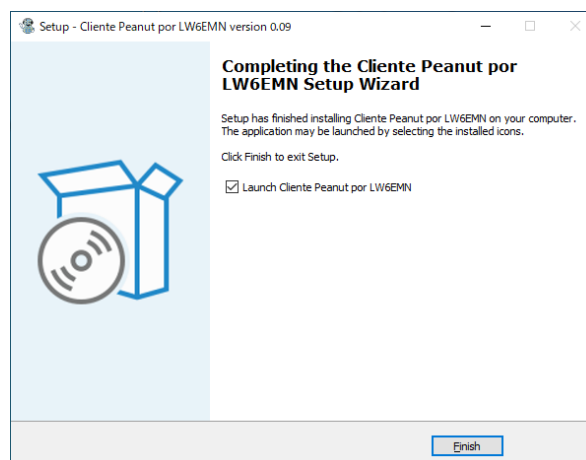


Fig. 19

※13 → Then select the "Configuración" tag (Fig. 20) → ※14



Fig. 20

※14 → Then enter data in the "General" tag (Fig. 21) → Then click "Grabar" and save once → ※15

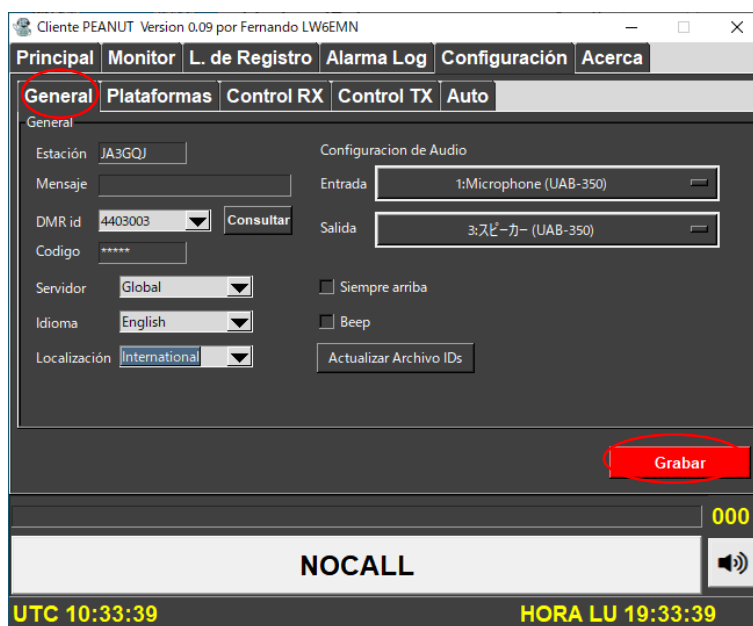


Fig. 21

General frame

The data I entered as followings

Station = Input callsign

Message = I think I can skip

DMR id = Refer to the Internet for obtaining the DMR id. Client Peanut can be used without

an ID

Code = Enter the 5-digit code obtained by referring to "Getting a Code". Client Peanut is not available without code.

Getting a Code

Open the <https://register.peanut.network/> page (Fig. 22) → Fill in the required information → Attach a copy of the license → Click the submit button → You will receive a code assignment email later

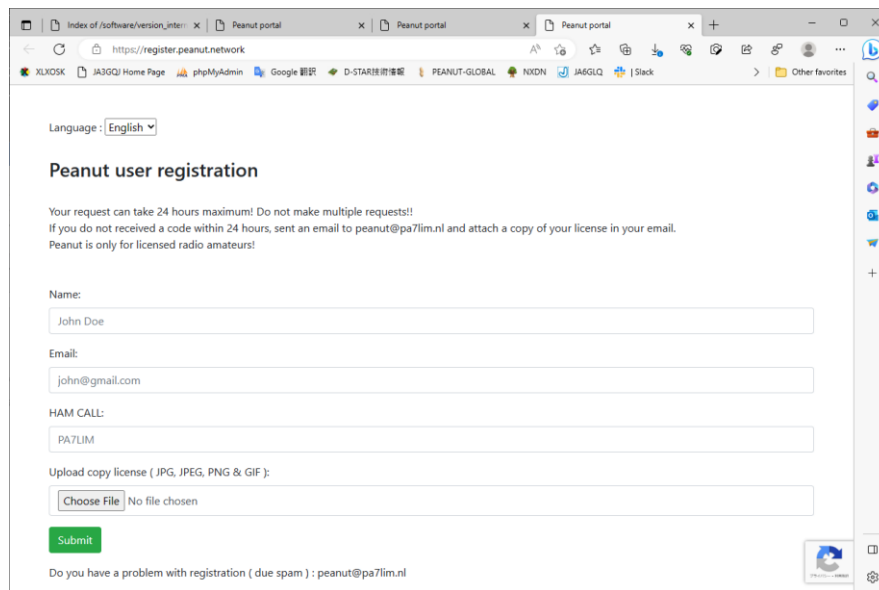


Fig. 22

Server = Global

Language = English

Location = International

Audio setting frame

The data I entered as followings

Input = Select the microphone of the sound card device use on the computer

Output = Select the speaker of the sound card device use on the computer

※15 → A red comment (Fig. 23) with the meaning of "Please restart the program" appears and disappears → ※16



Fig. 23

※16 → On the screen where the comment has disappeared and the call sign of your station is displayed (Fig. 24), click X to temporarily close it. → ※17



Fig. 24


※16 → Then click the desktop icon  to reboot. The text has changed from Spanish to English, and the call sign is also displayed on the PTT switch bar (Fig. 25). → ※17



Fig.25

※17 → Then click the "Setting" tag → The "General" tag is selected, and the data I just entered is displayed (Fig.26) → ※18

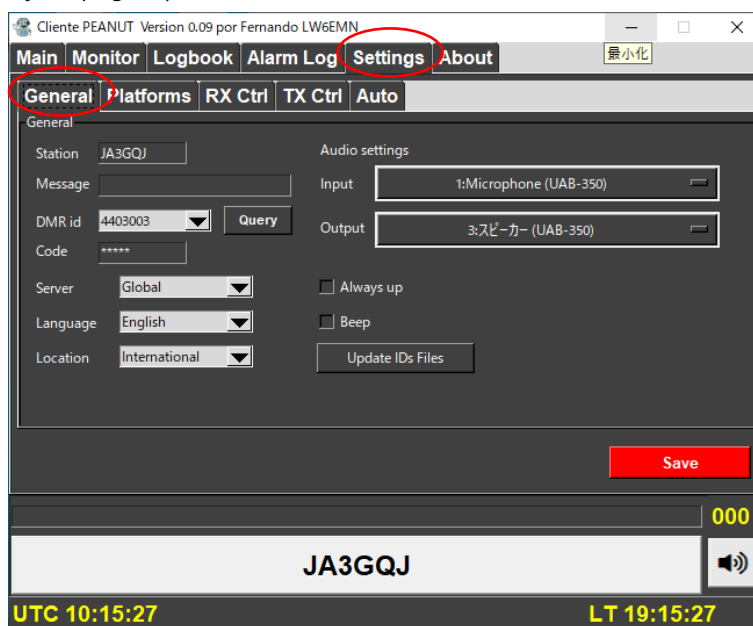


Fig.26

※18 → Then click the "Platforms" tag → A screen for entering eQSL-related data opens (Fig. 27) → I skipped here as I don't use it → ※19

Originally, enter data related to eQSL account such as User, Password, QTH name.

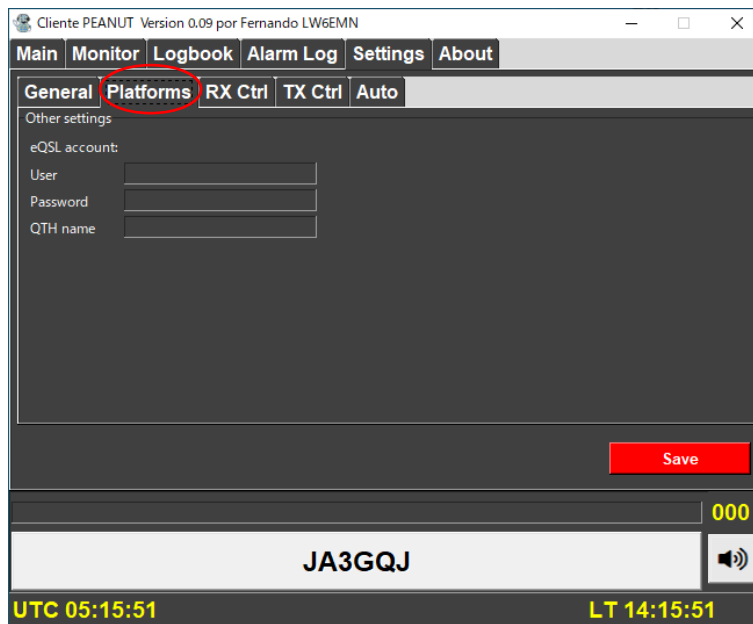


Fig.27

※19 → Then click the "RX Ctrl" tag → Then screen opens (Fig. 28) → I skipped here →
 ※20

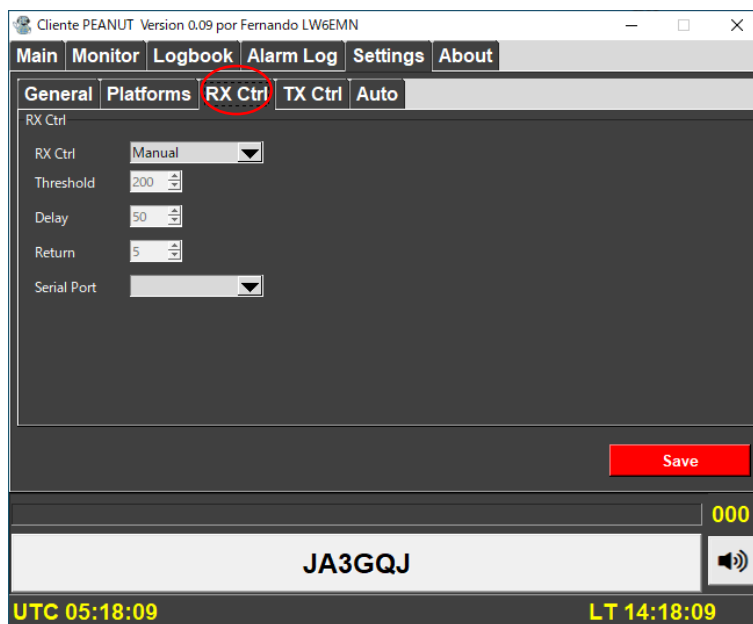


Fig.28

I skipped here however, you can use the VOX function with the following settings.

RX Ctrl = Select VOX

Threshold = Choose the optimum value by cut-and-try method

Delay = Choose the optimum value by cut-and-try method

Return = Choose the optimum value by cut-and-try method

Serial Port = Skipped

※20 → Then click the "TX Ctrl" tag → Then the screen opens (Fig. 29) → ※21

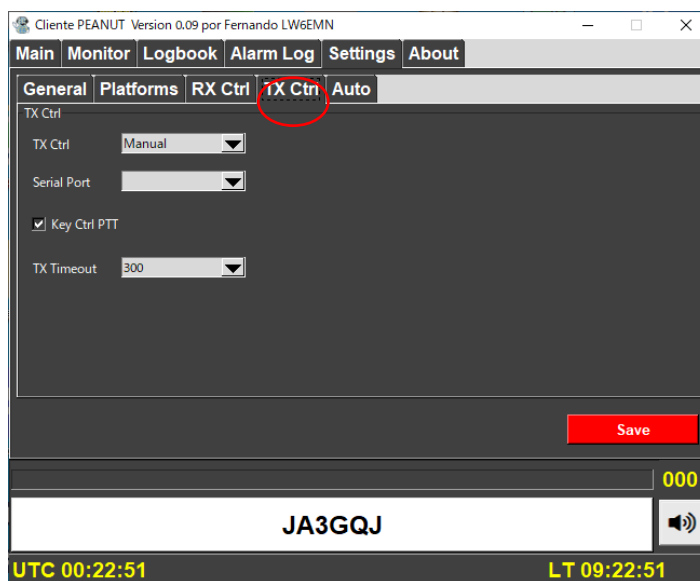


Fig.29

The data I entered as followings

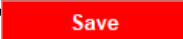
TX Ctrl = Manual

Serial port = Skipped

Key Ctrl PTT = I put a check mark to make the control key a PTT switch.

TX Timeout = 300 (5 minutes) (good time for image communication)

※21 → Then click the "Auto" tag → Then screen opens (Fig. 30) → Then input data

Click the "Save"  button → ※22

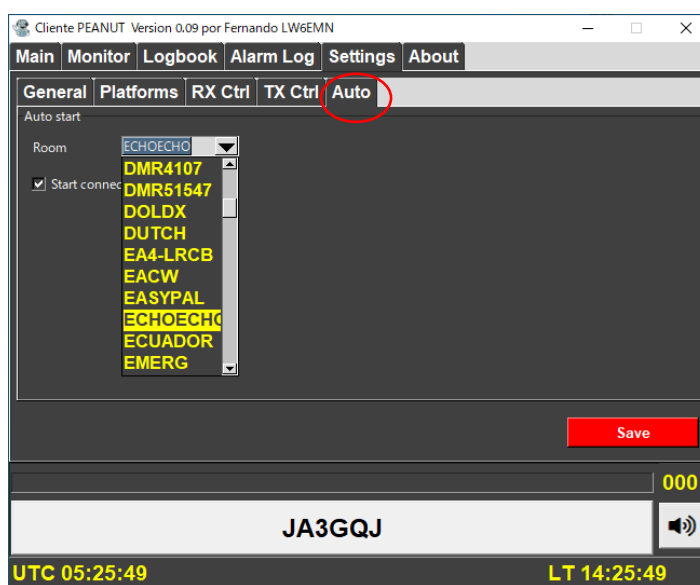


Fig.30

The data I entered as followings

Room = Select "ECHOECO" from the pull-down menu

Start connected = Put a check mark

※22 → Settings completed → After a while, it will automatically connect to "ECHOECO" and Client Peanut is operating already. (Fig.31))



Fig.31

Downloading, installing, and initializing Client Peanut are all completed.

Refer to the text for further operations. If you want to take a break, click X to close the screen.

APPENDIX2

Check the Windows 10 sound device

Right-click the speaker icon (Fig.S-1) in the lower right corner of the desktop → ※1

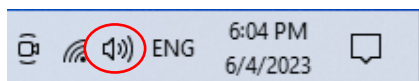


Fig.S-1

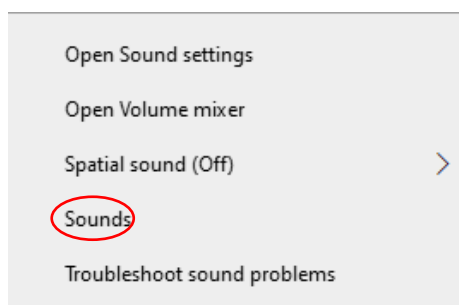


Fig. S-2

※1 → Click "Sound " on the pop-up screen (Fig. S-2) → Then the screen Fig. S-3 will be displayed → Then select the "Playback" tag → Then microphone device will be displayed (Fig. S-4) (The microphone icon with a check mark is the device currently in use) → Then right-click on the icon → Then select "Properties" on the pop-up screen (Fig. S-5) → Then the microphone properties screen (Fig. S-6) is pop up→Then select the "Level" tag on the speaker properties screen (Fig. S-7) → Then adjust the volume with the slide bar → Then "OK" button to go back to → ※2

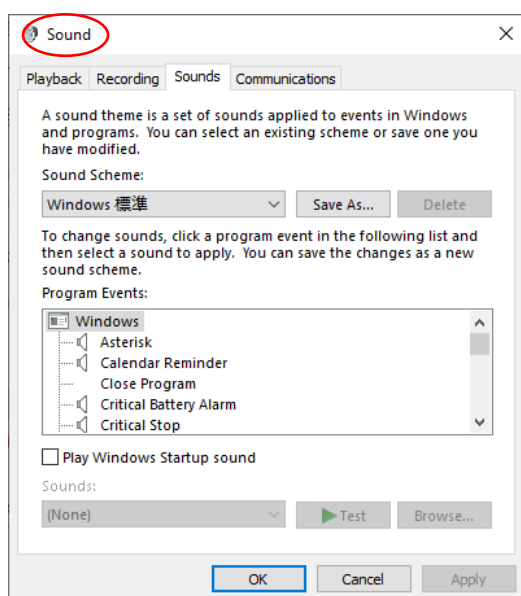


Fig. S-3

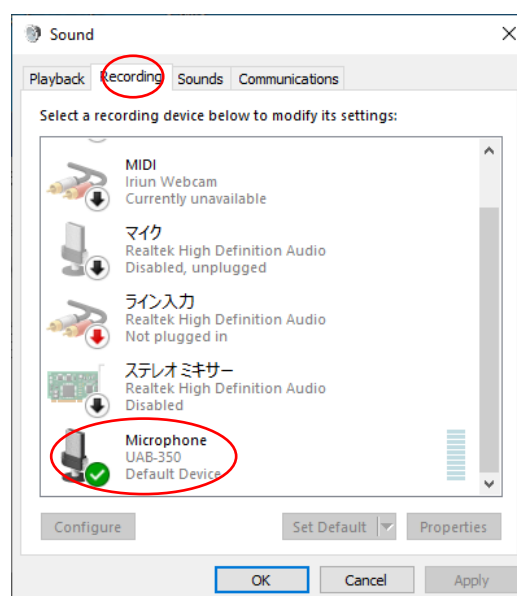


Fig. S-4

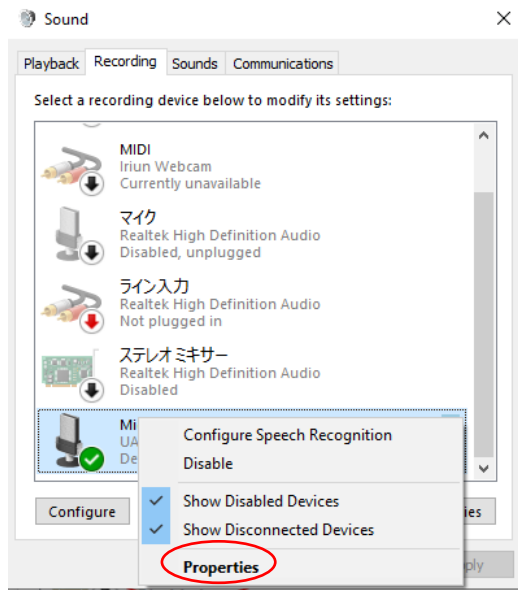


Fig.S-5

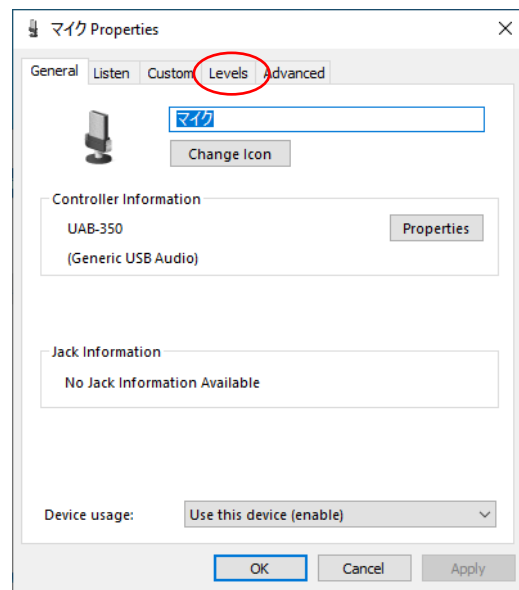


Fig.S-6

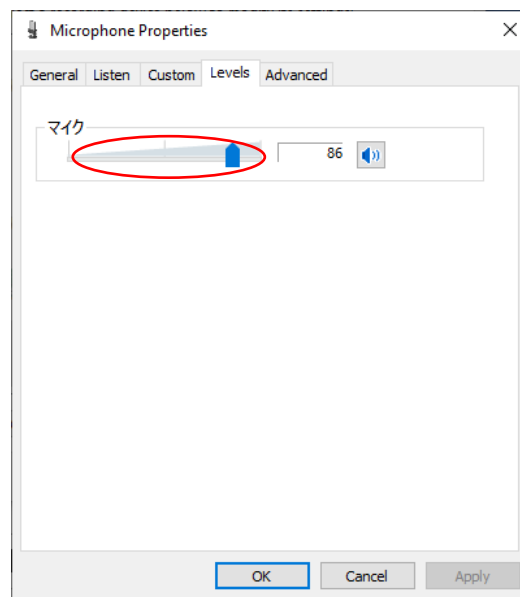


Fig.S-7

※2 → Then select the "Play back" tag → Then the speaker device is displayed (Fig. S-8)(The microphone icon with a check mark is the device currently in use) → Then right-click the icon → Then "Properties" screen is popup (Figure S-9) →Then select "Properties" on the popup screen (Figure S-10) → ※3

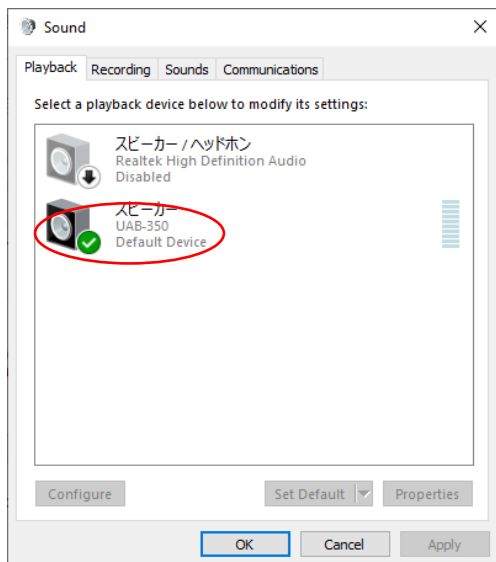


Fig.S-8

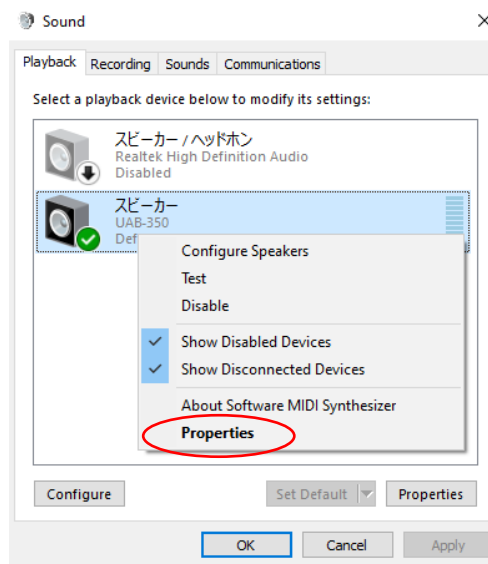


Fig.S-9

※3 → Then select the "Level" tag on the "Microphone properties" screen → Then "Fig. S-11" opens → Then adjust the gain with the slide bar → Then click on the "OK" button to return the screen in Fig. S-7 → Then click on the "OK" button to finish checking the sound device

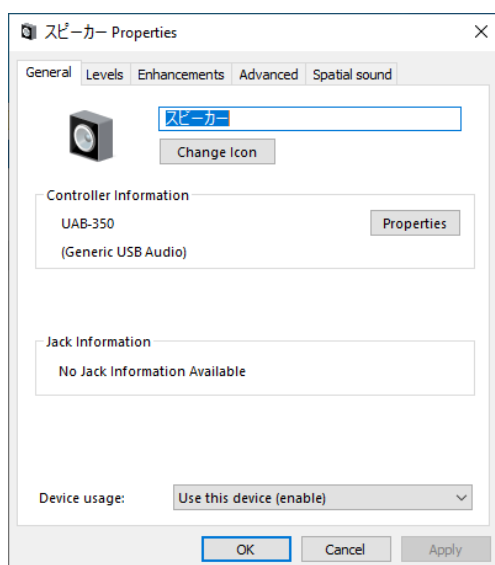


Fig.S-10

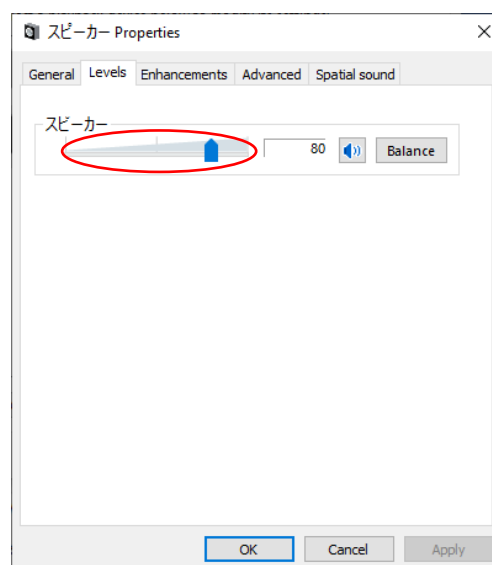


Fig.S-11

In addition, if it is only the volume of the speaker, you can adjust it with the slide bar that pops up by left-clicking the speaker icon at the bottom right of the desktop.