

## How to set up ColorVox for Zello

Requisites:

-Disable sleep mode at the PC.

For Win7 at Control Panel > Hardware and Sound > Power Options Power Saver > Change Plan Settings

### Change settings for the plan: Power saver

Choose the sleep and display settings that you want your computer to use.

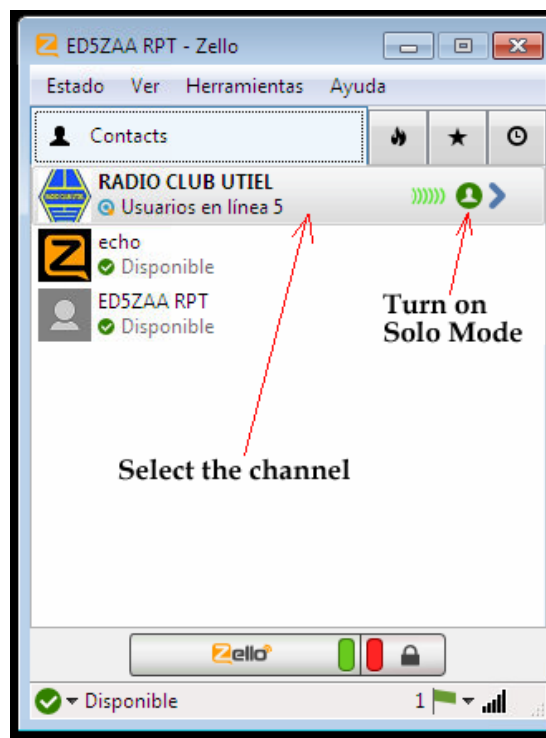
Turn off the display: Never

Put the computer to sleep: Never

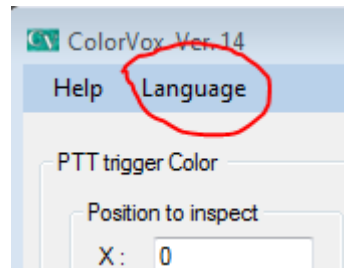
Set everything to “Never”. The monitor must be working all the time.

You can power off the monitor if you want (when using external monitor) but it must be connected to the computer.

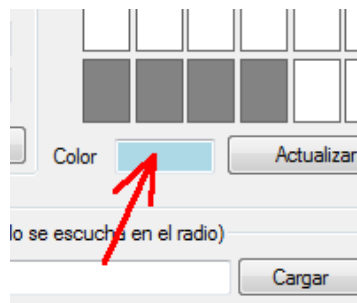
1. Run Zello.
2. Select the channel where you want the link to operate (Channel has to be selected all the time).
3. Turn the channel to “Solo Mode” (With mouse pointer at the channel click right and select “Turn on Solo Mode”)



4. Run ColorVox
5. Select the language of your preference and restart the program for the change to take place.



6. Click inside the color field



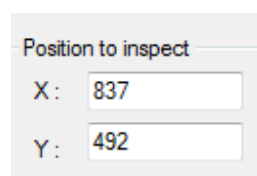
7. Make sure someone is transmitting at Zello channel (so you can see the green RX lines)



8. Move the mouse pointer (having selected the Color field at ColorVox) to the middle of the green RX lines at Zello and then press **F4** at the computer.

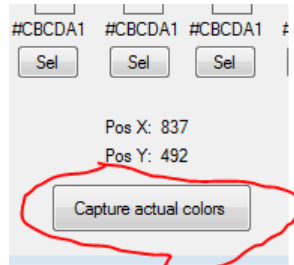


9. Notice when you do this the triggering color selector start up and the mouse X,Y positions are displayed at X,Y positions to inspect.

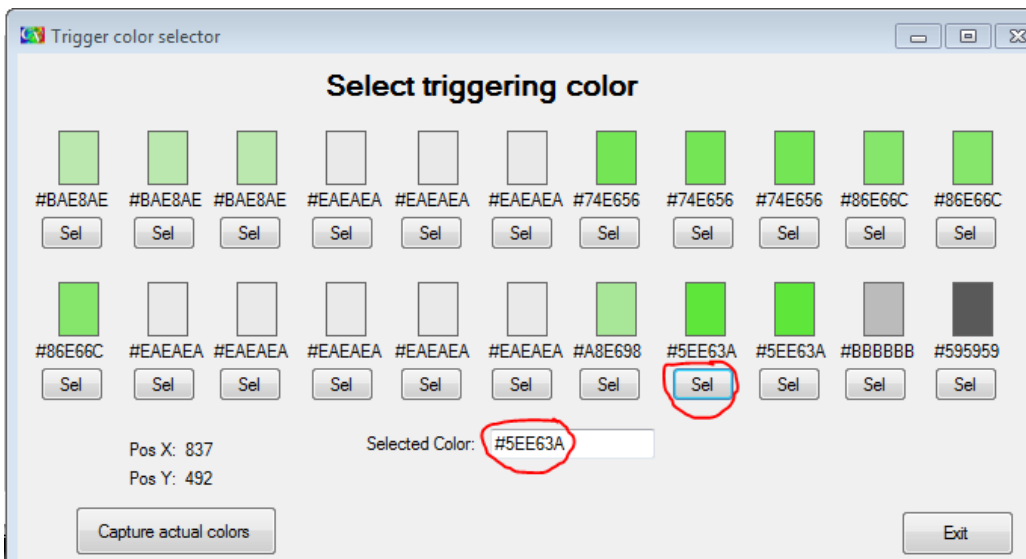


This is how you teach the center point from where 22 pixels are going to be scan each second searching for the presence of triggering color.

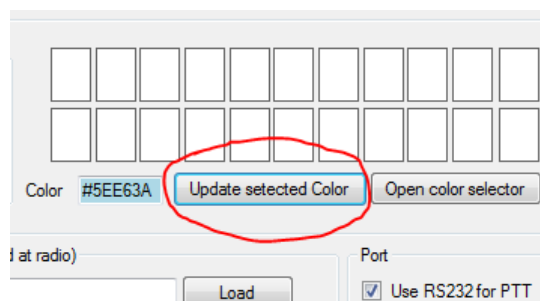
10. Go to the trigger color selector (that opened when you pressed F4 in previous step) and while a signal is received at Zello from another station at internet, click "Capture actual colors"



11. The 22 pixel colors will be displayed.
12. Choose the color that is more frequent and select "Sel" at that color. The color code will be displayed at "Selected Color" box.

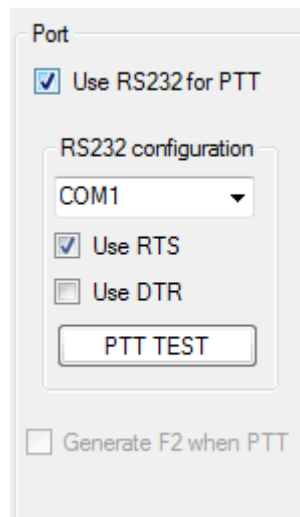


13. Then go to ColorVox main window and click "Update Selected Color". That will populate the field "color" and will store in memory that color code for next time ColorVox start up.



At this point each time the selected color shows up at the screen the PTT will be activated.

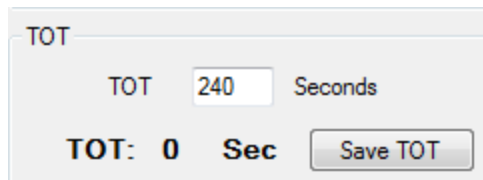
14. Select the correct reaction to activate the PTT. For now, there is only one option active and that is the RS232 COM port.
15. Configure according to your radio-interface needs the RTS and DTR signals.



The screenshot shows a dialog box titled "Port" with the following settings:

- Use RS232 for PTT
- RS232 configuration:
  - COM1 (selected in a dropdown menu)
  - Use RTS
  - Use DTR
- PTT TEST (button)
- Generate F2 when PTT

16. Set the TOT timer at your convenience. When this time is reached (when radio is in TX) the transmission will be stopped for security reasons for the radio.

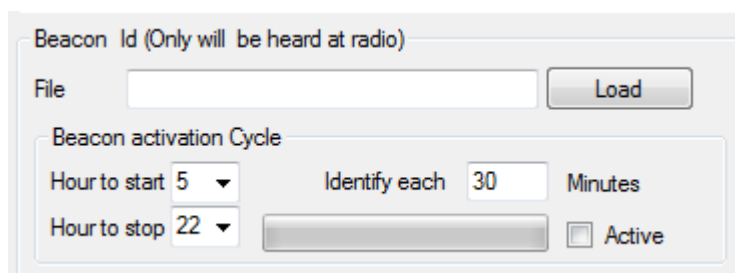


The screenshot shows a dialog box titled "TOT" with the following settings:

- TOT: 240 Seconds
- TOT: 0 Sec (displayed)
- Save TOT (button)

When you change this timer setting, click "Save TOT" to store in memory the new number.

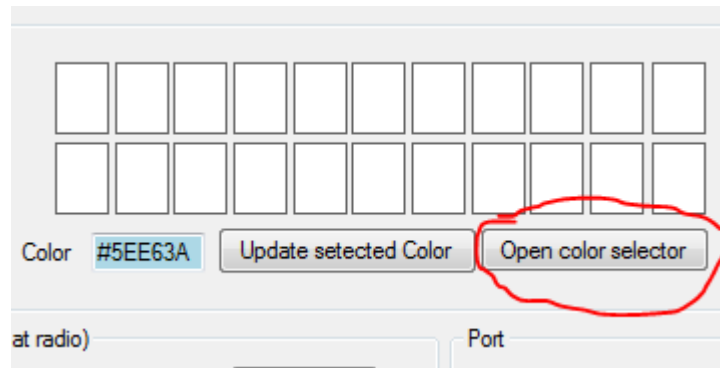
17. If your local regulations require that the link identify each amount of time. Then enable the "Active" check at "Beacon ID". You need to select the audio file that you want to play each number of minutes you set at "Identify each".  
Note this beacon will not be heard at Zello, but only at the radio.  
The format can be any type supported by Windows Media Player.  
Note also that the beacon will work only from "Hour to start" to "Hour to Stop" each day.



The screenshot shows a dialog box titled "Beacon Id (Only will be heard at radio)" with the following settings:

- File: (empty text box) Load (button)
- Beacon activation Cycle:
  - Hour to start: 5 (dropdown)
  - Identify each: 30 (text box) Minutes
  - Hour to stop: 22 (dropdown)
  - Active:

18. If the color you selected is not the best and the transmission stops suddenly or randomly sometimes, you can call the color selector without changing the x,y positions by clicking at “open color selector”



This way you can fine tune the selected color at any time. Until you find the best color.

### Do you have more questions, or do you have a recommendation?

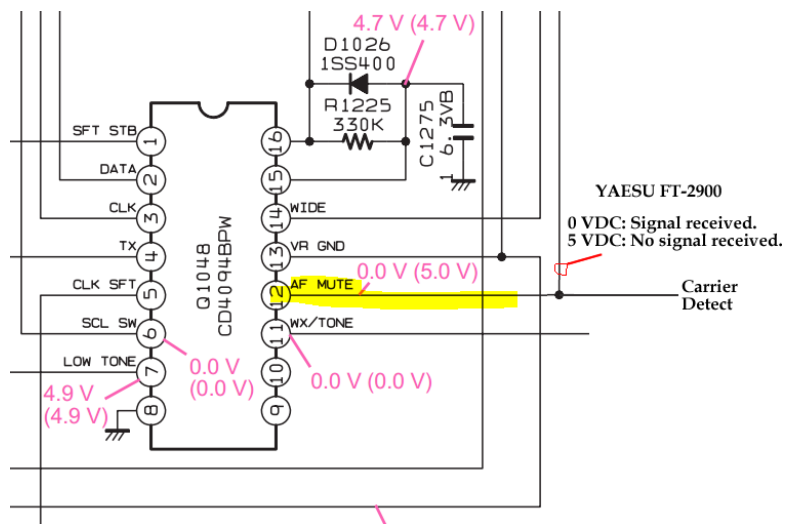
Not a problem just writes to [colorvox@revistagso.com](mailto:colorvox@revistagso.com) we will do our best effort to answer asap.

### Ok, ColorVox solves “Zello to Radio” but how do I configure “Radio to Zello” side?

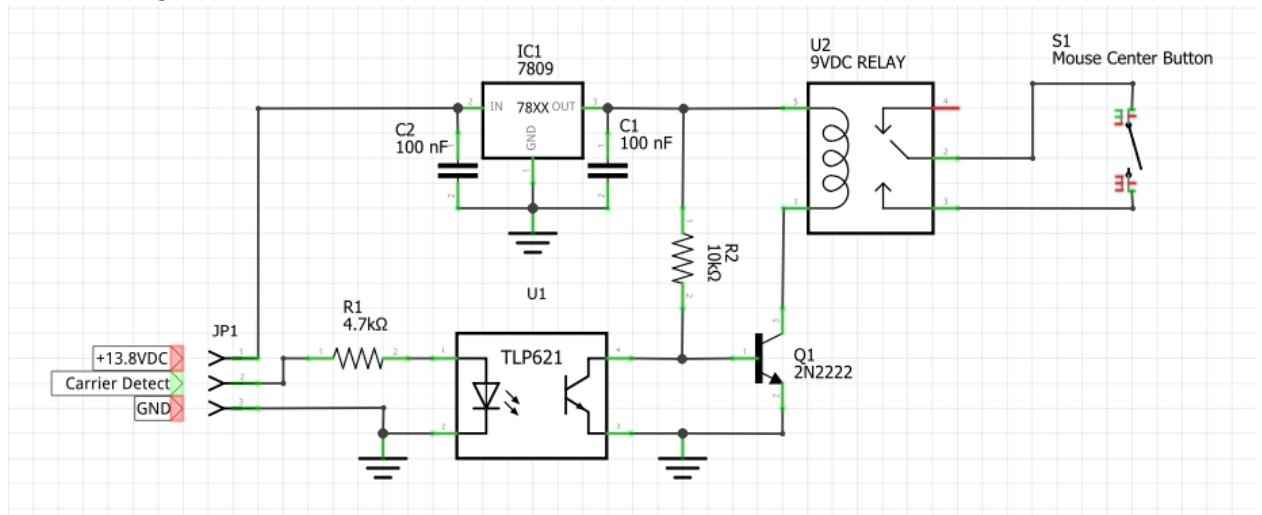
The reason ColorVox is a perfect solution for Zello is because Zello doesn’t have a PTT control. But the audio going from the radio to Zello can be easily handled by Zello’s VOX feature.

However, some folks have reported issues to set up Zello’s vox. So Thomas, EA7IQH proposed a great solution: to use the radio data port (if available) to control an optocoupler that trigger a transistor that operates a relay. This relay will control a center mouse button. Then Zello can be configured to operate the PTT with a key (the center mouse button in example).

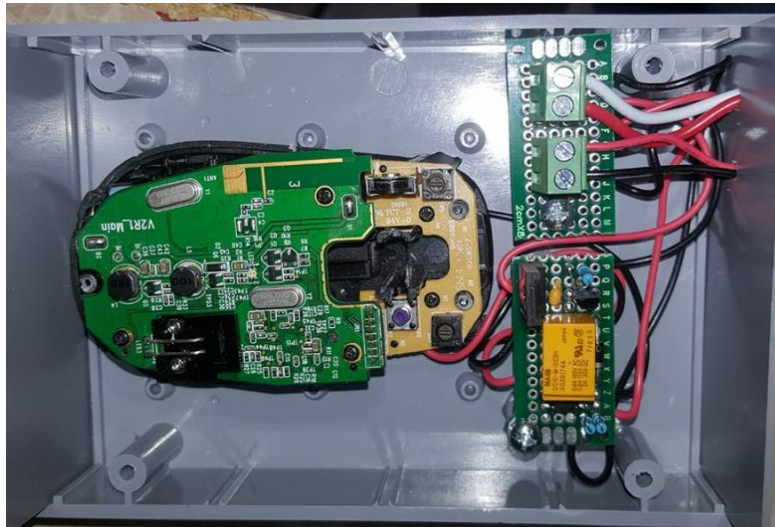
In our case I have a link implemented with a Yaesu FT-2900, and the data port is not available. So, we decided (you shouldn’t try this unless you have electronics acknowledge) to interface the logic at the radio and get the squelch signal to trigger the mouse button. We called this signal “Carrier Detect” and we got it from the AF MUTE signal.



The following is the basic circuit we used:



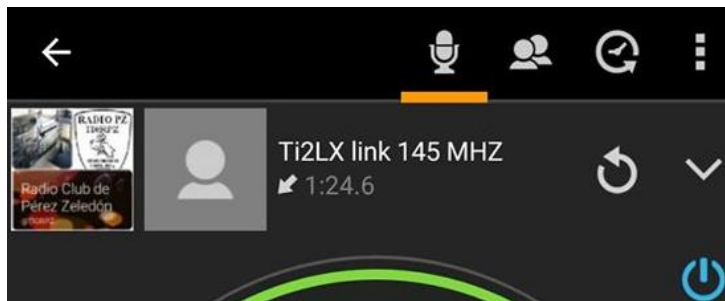
Note we used a 9VDC relay because we had it on hand. But it could be a 12 VDC relay, so you don't need the 7809 Regulator. R1 should be selected in a way to use the smallest amount of current required to turn on the optocoupler LED.



Carrier Detect test circuit implemented with an old mouse.



Carrier Detect signal port at the Yaesu FT-2900



Final link operating (channel: TIORPZ)

73 and good DX's

Ti2LX, Francisco