

# **v-VSCS User Guide**

**version 2**

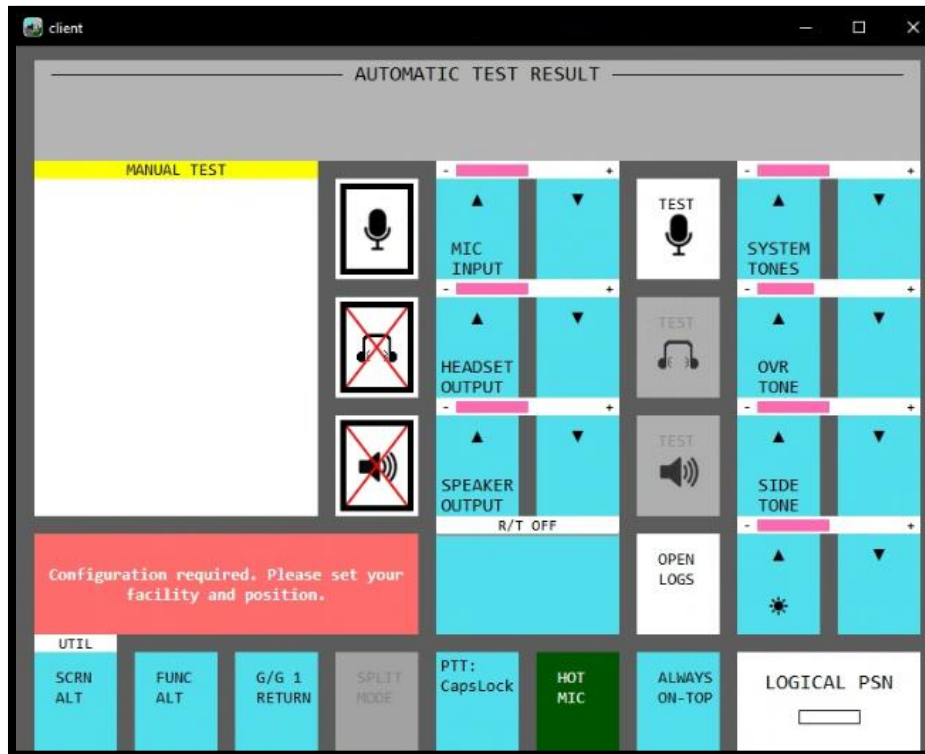
**By Tim Mak**

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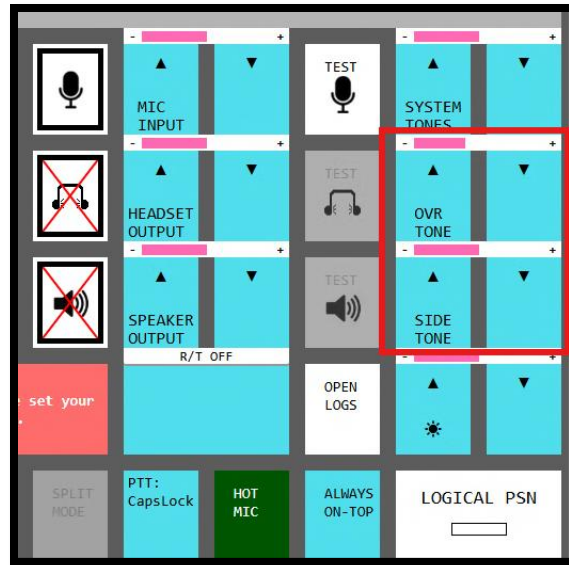
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# Quick Setup Guide

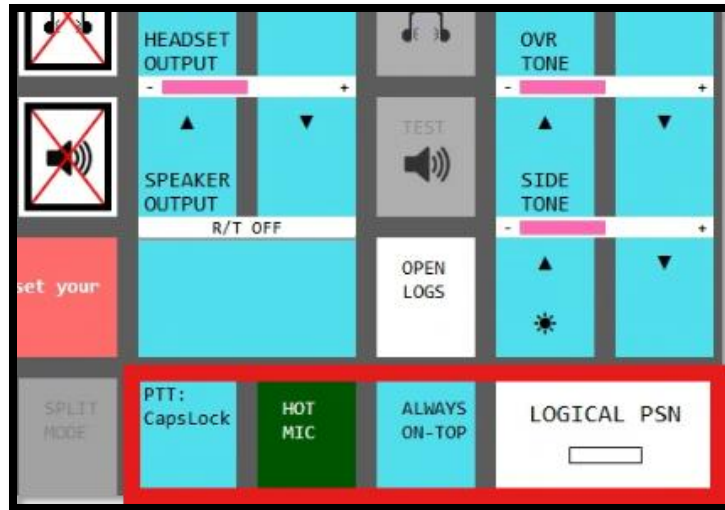
- Every time v-VSCS is opened, this is the page that will be seen



- Click on the microphone, headset, and speaker to set your associated audio devices
  - A red “X” denotes that audio feature has not yet been assigned to an audio device
- You may test and set the volume level of the headset and speaker device. An audible tone should play over the associated device if it is working properly
  - Please note that the microphone test may not work sometimes, and that adjusting microphone volume does not affect microphone volume

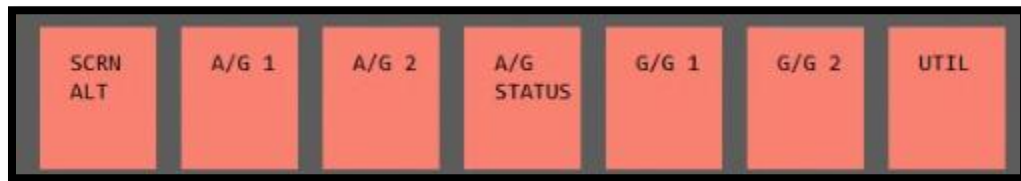


- Set override tone volume (sound played when someone overrides you)
- Set side tone volume (faint sound that plays as a reminder when you are actively coordinating)
- “SYSTEM TONES” and brightness are not yet simulated
- Please note that override tone and side tone volume adjustments are independent of headphone/speaker volume adjustments

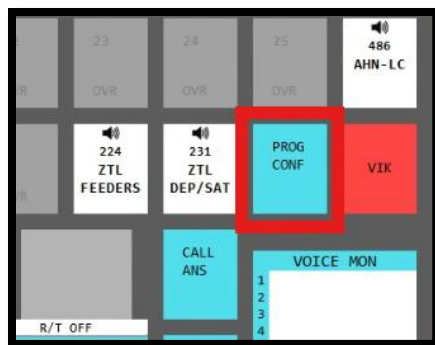


- Set your push to talk by pressing “PTT:”
  - Once button turns green, click keyboard key that you want to be PTT
  - To test if your PTT is working, press your PTT AFTER setting it. The PTT button should turn red
- If you want a hotmic when being overridden, the “HOT MIC” button should be green. If you do not want hotmic, the button should be blue
- If you want the v-VSCS window to stay on top of other windows, “ALWAYS ON-TOP” should be in green
- To sign into a v-VSCS position, click on “LOGICAL PSN”
  - Enter your facility ID (i.e. A80, ZTL, CLT)
  - Enter your position (i.e. N, R43, K)
  - Enter any v-VSCS positions you are assuming in YOUR SAME facility, separated by commas (i.e D43, R10, D10)

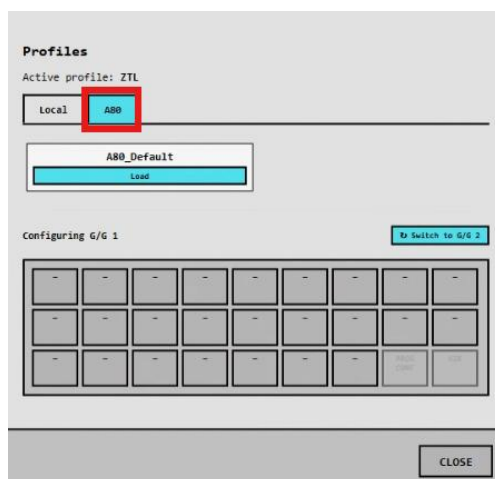
- After configuring your position, press “SCRN ALT” on the bottom left



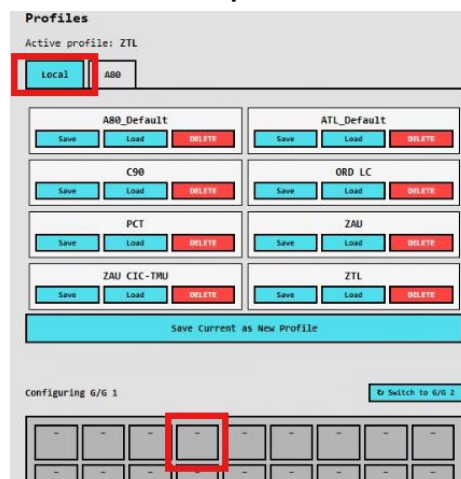
- This will open the selection of different pages. The only buttons that function are:
  - SCRN ALT – Opens/closes page selection
  - G/G 1 – Ground to ground coordination page 1
  - G/G 2 – Ground to ground coordination page 2
  - UTIL – Audio device and facility config



- After entering either G/G page, configure your coordination buttons by pressing “PROG CONF”
  - If a cloud profile for your facility has been uploaded, you may load it by pressing your facility name at the top
  - If no cloud profile has been uploaded, you will have to manually make shout lines and overrides. See “Coordination Setup” section



*Pressing on “A80” opens cloud profiles made for the facility “A80”*



*Pressing on “Local” allows a user to load/save their own custom profiles*

- If ARTCC staff wish to cloud their profiles, please message a v-VSCS team member

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# What is Real World VSCS?

VSCS is...

- Voice Switching and Control System
- Explicitly used in the enroute (center) environment
- Used for managing radio transmitters/receivers
- Used for coordination in cases of **INTRAFacility** and **INTERfacility** settings
  - **INTRAFacility** – The SAME facility
  - **INTERfacility** – Two DIFFERENT facilities
  - A ZTL (center) controller calling another ZTL (center) controller will use an **INTRAFacility** method of coordination
  - A ZTL (center) controller calling CLT approach will use an **INTERfacility** method of coordination

## What Differs With v-VSCS?

A limitation to v-VSCS is...

- In order to coordinate with the enroute environment, a terminal controller must use VSCS. This is unrealistic because, in real life, terminal controllers use a different program for coordination.
- It is a standalone program
  - v-VSCS does not have the ability to automatically reroute CRC audio to/from speakers/headphones
  - v-VSCS does not have the ability to display CRC transceiver information on the A/G pages
  - v-VSCS does not have the ability to temporarily un-TX your frequency in order to use your CRC PTT as a coordination PTT. Because of this, a separate PTT key bind that differs from the CRC key bind needs to be assigned

## Defining the Forms of Coordination

There are two main forms of coordination:

**Overrides** and **Shoutlines**

## Overrides

Are used for **INTRAFacility** coordination

*i.e. ZTL → ZTL*

- Overrides most of the time, if not always, **are routed through the headphones of the initiator and receiving controller**
  - The “receiving” controller is the one whom coordination is being started from the “initiating” controller
- The initiating controller can hear the controller speaking AND the pilots\* on the receiving controller’s frequency.
  - The receiving controller’s mic is “hot” (active without using PTT). The receiver does not have to use the PTT\*\*
  - **The initiator must use the PTT in order to communicate with the receiver**
- Only the initiating controller can end the override by either:
  - Clicking on the line to close it or
  - Clicking the **RLS** button on the bottom right

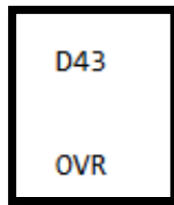
*\*this feature is not yet implemented*

*\*\*this feature is toggleable in the UTIL page*

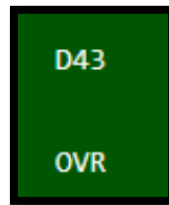
- Here are what the overrides look like in v-VSCS



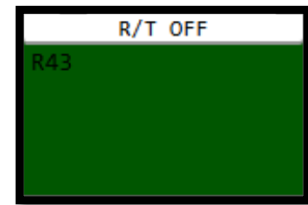
*Position  
offline*



*Position  
online*



*Overriding a  
position  
(as initiator)*



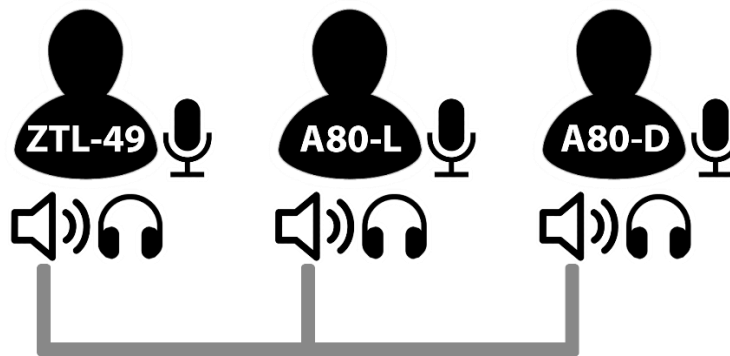
*Being overridden  
by another  
position and their  
position ID*

## Shoutlines

Are used for **INTERfacility** coordination

*i.e. ZTL → A80 TRACON*

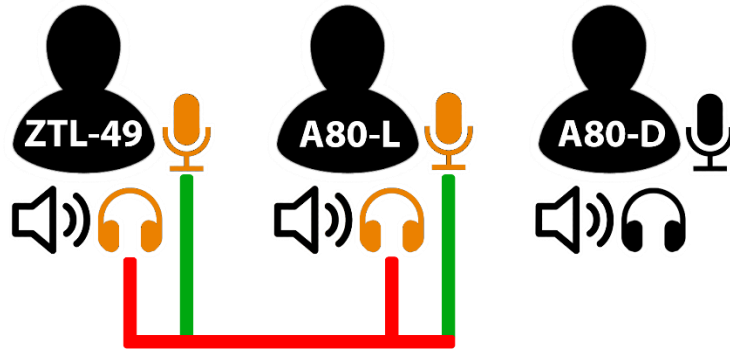
- At all times, every user is listening to a line



- The INITATING controller makes a call on the line that can be heard by every user that has that line enabled. Note that PTT must be used.
  - If another ZTL user was on this line, they would NOT hear ZTL-49 over the speakers since they are both in the same facility



- Once another user joins the line, then all coordination is routed through the headphones. Again, PTT must be used.



- Even if a line is in use, it can still be joined
- To close the shout line, all users must leave it by either:
  - Clicking on the line to close it or
  - Clicking the **RLS** button on the bottom right
- Here are what the shoutlines look like in v-VSCS



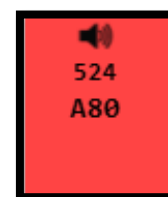
*Inactive*



*In use*

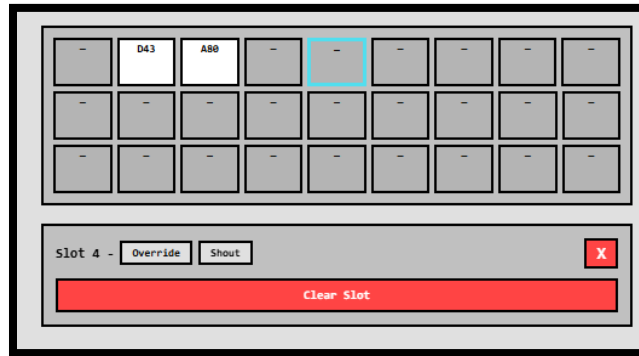


*In line  
(in headphones)*



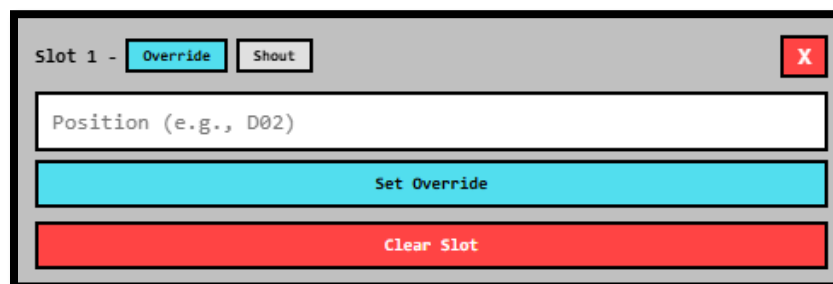
*Line call  
(over speakers)*

## Coordination Setup (PROG CONF)



- Click on an empty slot and choose “Override” or “Shout”

### For Override:



- Remember overrides are only for **INTRAFacility** coordination
- Input a position in the same facility to override
- Click “Set Override”



### For Shoutline:

The screenshot shows a window titled 'Slot 4' with a grey header bar. In the header, there are two buttons: 'Override' (white with black text) and 'Shout' (cyan with black text). A red 'X' button is in the top right corner. Below the header, there are three text input fields: 'Line ID (e.g., 15)', 'Label (e.g., ZHU/HI)', and 'Remote Facility (e.g., ZHU)'. At the bottom of the window, there are two large buttons: a cyan button labeled 'Set Shout Line' and a red button labeled 'Clear Slot'.

- Remember that Shoutlines are only for **INTERfacility** coordination
- **Line ID** – Must be the same number that the other facility is using
- **Label** – Custom to you; Label it to your desire
- **Remote Facility** – The other facility you are setting up the line to coordinate with. This has to be the same facility that the other controller(s) set in the previous steps
- Please note that there should only be two facilities on a line. But yes, there can be multiple controllers sharing that line

## Bug Reports/Feedback/Feature Requests

We appreciate your support, and you can help us out even more by clicking [this link](#) and joining the Discord.