



TEKVOX Install Training

The objective of this training is to provide hands on training and techniques used during the installation of a TEKVOX Drop-In system. After completing this course, you should have the following knowledge:

- How a Standard Classroom Drop-In works
- Installing the Ceiling Box
- Installing the Occupancy Sensor and proper location
- Wiring techniques and standards
- Testing the HDBaseT receiver
- Testing the network drops and checking for the correct LSCS VLAN
- Getting IP address and passcode information from a TEK 2
- Using TekManager to connect to a TEK 2 for testing the display and TEK 1201 connections
- Using the TekTouchPad utility program to retrieve and load projects into the TekTouchPad.
- Modifying the TekTouchPad project

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- Laptop
- USB to Serial Port Adaptor
- Female to Female Null RS232 Cable
- USB A-Male to Mini-B Cable
- 30' Cat 5e
- RJ45 coupler straight
- Wireless Router
- TekManager software
www.tekvox.com/software/TekManager.exe
- TekTouchPad software
www.tekvox.com/software/TekTouchPad.exe
- RJ45 Cable Tester
Very low cost one from Monoprice (Works Great).
www.monoprice.com/Product?c_id=105&cp_id=10524&cs_id=1052401&p_id=8138&seq=1&format=2





TEKVOX Drop In Worksheet

Before installing the system you must complete the TEKVOX Drop-In Worksheet and send to TEKVOX. This worksheet provides all of the information about the room to properly configure the TekTouchPad and TEK 2. It is best to fill out this worksheet before equipment is shipped from TEKVOX. This will ensure the equipment is fully configured before you receive it. Please send to orders@tekvox.com

Information required in the worksheet includes the Dealer information, Location, TekTouchPad configuration and Asset information.

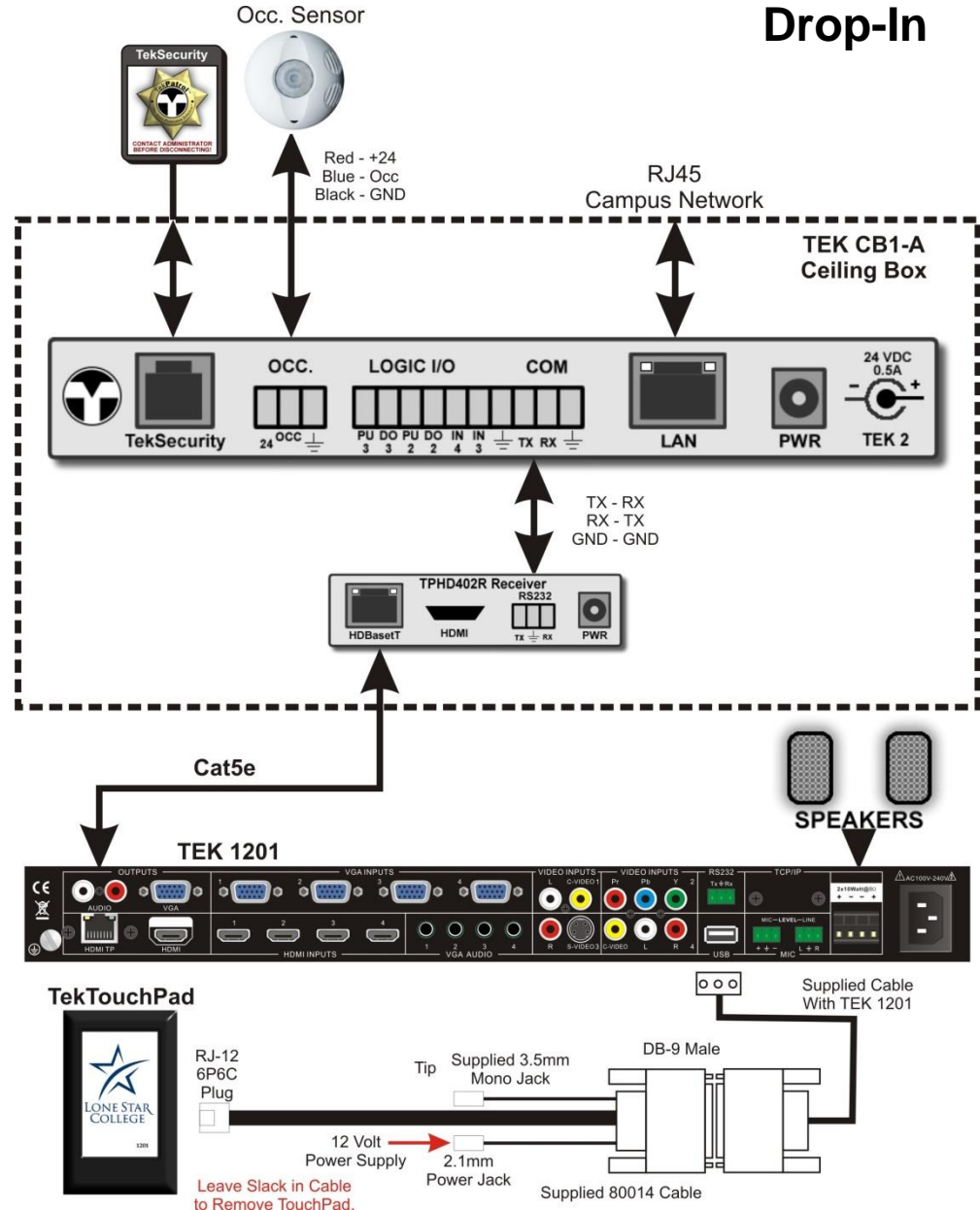
Use this location to get the latest worksheet:

www.tekvox.com/downloads/TEKVOX_DropInWorksheet.xlsx

After we configure the TEK 2s, we will return the worksheet to you to finish during the install.

The Standard Classroom Drop-In is a single cable solution making adding multimedia to a classroom very easy.

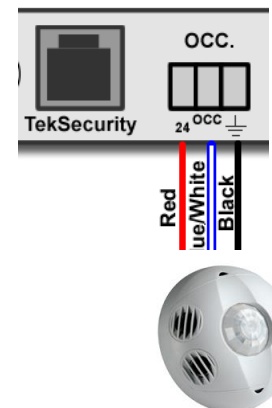
A Drop-In is fully configured by TEKVOX and requires the integration company to send all room information before it is shipped.





When installing the Ceiling box make certain the cables are not going to go across the cover. Using a cable tray to route the cables through against the ceiling makes for a clean install.

When installing the occupancy sensor you must make certain air is not blowing across it and it is picking up both the instructor and students. Best to place the sensor behind the instructor and point the vents towards the students. TEKVOX now includes a 15' West Penn 25231B 3 conductor plenum cable with the occupancy sensor along with three wire nuts.



Please keep your wiring neat and not so tight that it is difficult to service. It is best to use Velcro and not wire ties to secure wires. Never use electrical tape. With Velcro it is easy to work on the system. Wire ties can damage a cable, if pulled too tight. Wire ties can also cut your arm when reaching into the rack.

The LSCS color standard for the Cat 5e HDBaseT cable is Yellow.

Before connecting HDBaseT Cat5e cables to the TEK 1201 and receiver, you must test the cable with an RJ45 cable tester. There is low voltage power on the cable.



Once the Cat 5e HDBaseT cable has been tested, connect to the back of the TEK 1201 and the receiver in the ceiling box. The right green link LED on the RJ45 connector on the 1201 and the link light on the receiver should light. If the projector is on, the video should light. The on LED flashes.


If you are not getting video or link light, test the Cat connection to the receiver. Try the 30' Cat 5 cable directly between the TEK 1201 and receiver.



The operation of the Standard Classroom Drop-In is fairly simple. The TekTouchPad mostly just sends special macro commands to the TEK 1201, which then sends the commands to the TEK 2 via the HDBaseT receiver. Basically most all of the control of the TEK 1201 comes from the TEK 2 and not the TekTouchPad. Only the volume commands come from the TekTouchPad. The reason for this is to allow inputs to be reprogrammed without having to change the configuration of the TekTouchPad which cannot be changed remotely.

If the TEK 1201 is not switching inputs, first check to see if the volume control is working. If volume is working, then the problem is from the TEK 2 or the HDBaseT connection. If volume is not working, then the problem is the connection from the TekTouchPad.

Most of the issues with getting a system up and running is the IP address at the TEK 2. Although this connection is not needed for the system to operate, it is not possible to make remote changes or for LSCS to monitor the room until the TEK 2 is on the network.

To test this connection all we are going to do is see if the laptop will get an IP address and it is on the correct VLAN. Disconnect the network cable from the TEK 2 and connect it to the RJ45 coupler and 30' Cat 5 cable to connect to your laptop. One method to see what IP address you get is to type **cmd** into the start search window. Then type ipconfig into the DOS command window. Another method is to select the network connection in the tray  and then click on Open Network and Sharing Center and select Local Area Connection. From the Local Area Connection Status select Details and this will display the current IP info.

The IP address you receive should be 10.xx.32 or 33.xx (the xx numbers can be anything). If not, please contact the IT administrator for LSCS. Enter this IP address in the worksheet and return to TEKVOX.

To get the actual IP address of the TEK 2 you need to connect to the USB port on the TEK 2. On the back of the TEK 2 there is a USB connection for debug and IP configuration of the TEK 2. Use a USB A-Male to Mini-B Cable for this connection. Run TekManager and select USB Debug Port Access from the tools menu. If the screen displays TekMonitor found, press the Enter key. Just close the screen to exit.

The IP address you receive should be 10.xx.32 or 33.xx (the xx numbers can be anything). If not, please contact the IT administrator for LSCS. Enter this IP address in the worksheet and return to TEKVOX.

```
IP Address: 192.168.10.12
Subnet Mask: 255.255.255.0
Gateway: 192.168.10.1
DHCP Enabled
Protocol: 1
HW Version: 0
SW Version: 5.3
Passcode: 6373
Primary Driver: TekUox Phantom Projecto
Secondary Driver: Unknown

15:42:58 12/13/14

1 Print Log
2 Clear Log
3 Pass Thru
4 Network Config
5 Set DHCP Mode
6 Factory Defaults
7 Save and Exit
8 Reset
9 Debug
q Quit
```

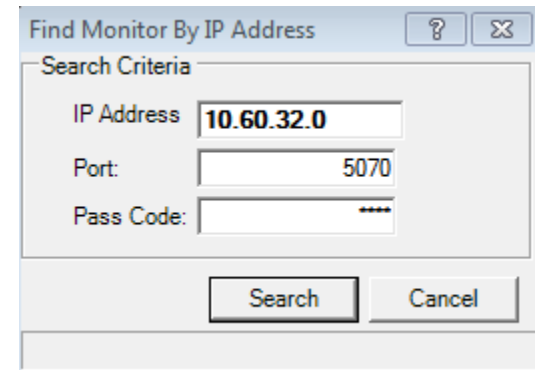
Note the passcode number on in the debug information. You need this number to connect TekManager to the TEK 2.

If you were able to get a valid IP address from the TEK 2, you can use TekManager to connect to the TEK 2 using the LSCS network. To do this you will need to find an active network connection. Another way to do this is just use a wireless router and connect it directly to the TEK 2.

If you are using the LSCS network, run TekManager and select Single IP Address in the Search menu.

If you are using the LSCS network, run TekManager and select Single IP Address in the Search menu. Enter the IP address and passcode that you got from the USB connection and press Search. It should display TekMonitor found.

The Default passcode is 6373 and you only need to enter the passcode if it is different.



Find Monitor By IP Address

Search Criteria

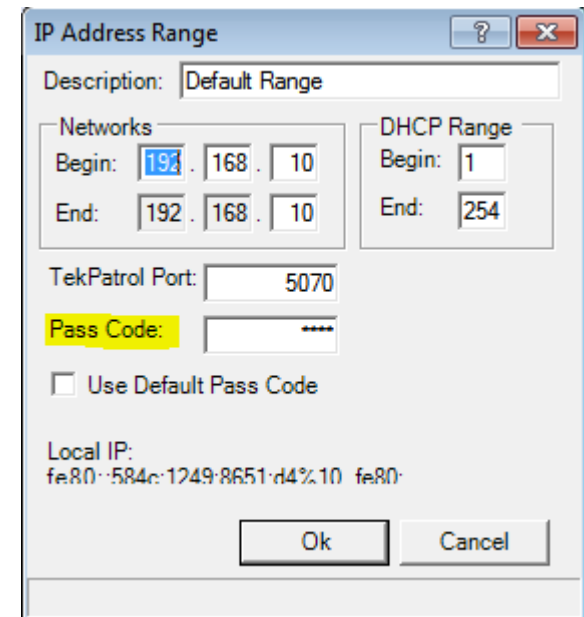
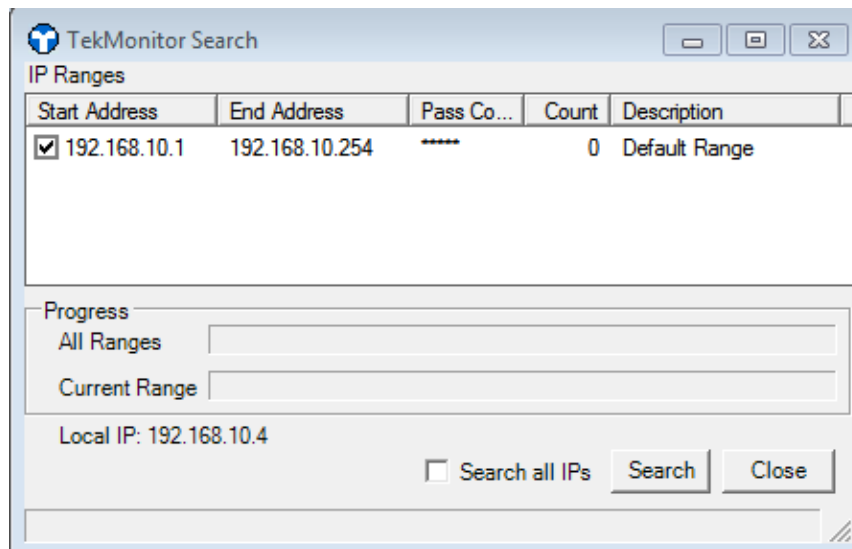
IP Address: 10.60.32.0

Port: 5070

Pass Code: ****

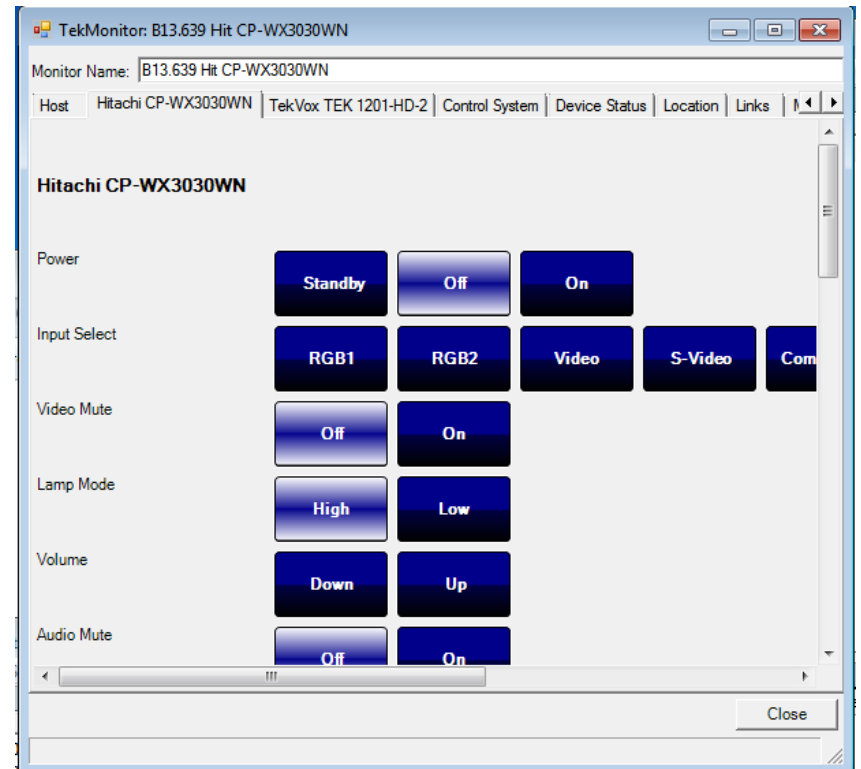
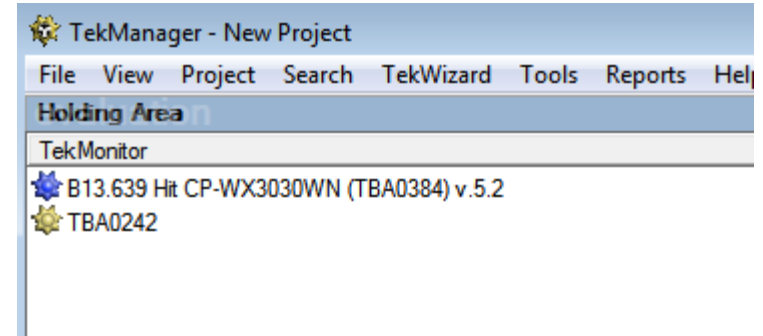
Search Cancel

If you are using the wireless router, you can search by IP Address Range in the Search menu. If the passcode you got from the USB connection is 6373, then you can just do a search. Otherwise you will need to enter the passcode. Right-click over the range and select Edit Range. This will then display the IP Address Range where you can enter the Pass Code and click OK. Now select Search and TekManager will start the auto discovery search. When TekManager finds the TEK 2 it places it in the Holding area and you can stop the search.

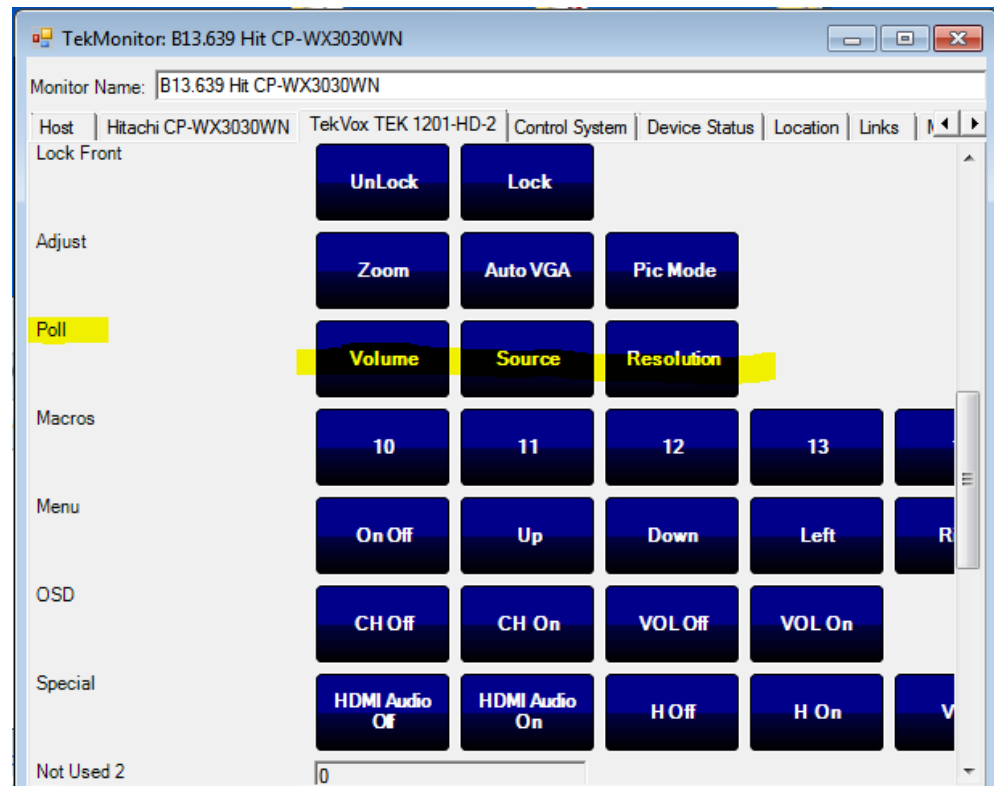


The TEK 2 that is in the holding area should show up as blue star. If it is a yellow star, this it has not been configured.

To control a TEK 2 double-click on the blue star TekMonitor and this will display the control screen. First select the Hitachi tab and it should display Off or On for Power. If it shows display Standby, the TEK 2 is not communicating to the projector. You can also scroll down and view the status information like Device Connected. This should display Yes.



To Test the connection of the TEK 1201 select the 1201 tab and scroll down until you find Poll and Click on each one a few seconds apart. You can then check to see if you get feedback for the Volume, Source and Resolution. If the feedback is displayed, then everything is working. If not, then you need to check the HDBaseT Cat 5 connection or recycle power on the 1201 and receiver.



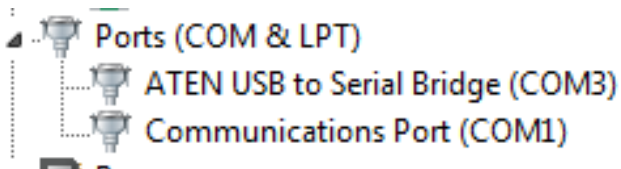
- 8x4 Programmable buttons
- Programmable up to 4 Pages of buttons
- RS-232 and logic out control
- Easy to program
- Easy to install



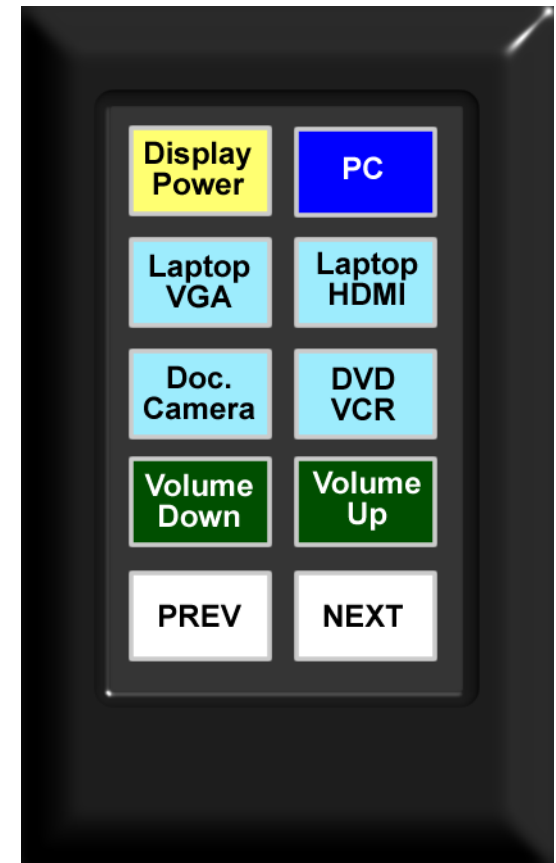
To configure the TekTouchPad you need the configuration utility and an RS-232 null female to female cable. The program for the TekTouchPad is located on TekDataLocker and can also be downloaded from here:

<http://www.tekvox.com/software/TekTouchPad.exe>

To connect to the TekTouchPad disconnect the cable from the TEK 1201 and connect to your laptop. Check the port number for your serial to USB cable in Device Manager. This port number will need to be set in the utility program under Options/Host Com Settings.



Device Manager



TekTouchPad Configuration Utility

File Resources Options Help C:\TekVox\TekTouchPad\Projects\Lone Star\LSCS Standard\LSCS_Standard_V1.tkp

Page 1

Page Title

1 Display Power	2 PC
3 Laptop VGA	4 Laptop HDMI
5 Doc. Camera	6 DVD
7 Volume Down	8 Volume Up

Page 1 Scheme
default.sch

Page 2

Page Title

1 Display Mute	2 Freeze
3 VCR	4 Undefined
5 Mic Down	6 Mic Up
7 Volume Down	8 Volume Up

Page 2 Scheme
default.sch

Page 3

Page Title

1 Undefined	2 Undefined
3 Undefined	4 Undefined
5 Undefined	6 Undefined
7 Undefined	8 Undefined

Page 3 Scheme
default.sch

Page 4

Page Title

1 Undefined	2 Undefined
3 Undefined	4 Undefined
5 Undefined	6 Undefined
7 Undefined	8 Undefined

Page 4 Scheme
default.sch

Version Informaton

Get Version Capture ROMUpdate GetConfig SendConfig Save

Features

- Create buttons
- Copy and Clear buttons (Right Mouse Click)
- Setup color schemes for buttons
- Download configurations to TekTouchPad
- Upload configurations from a TekTouchPad
- Exporting and importing projects

Configuration Components

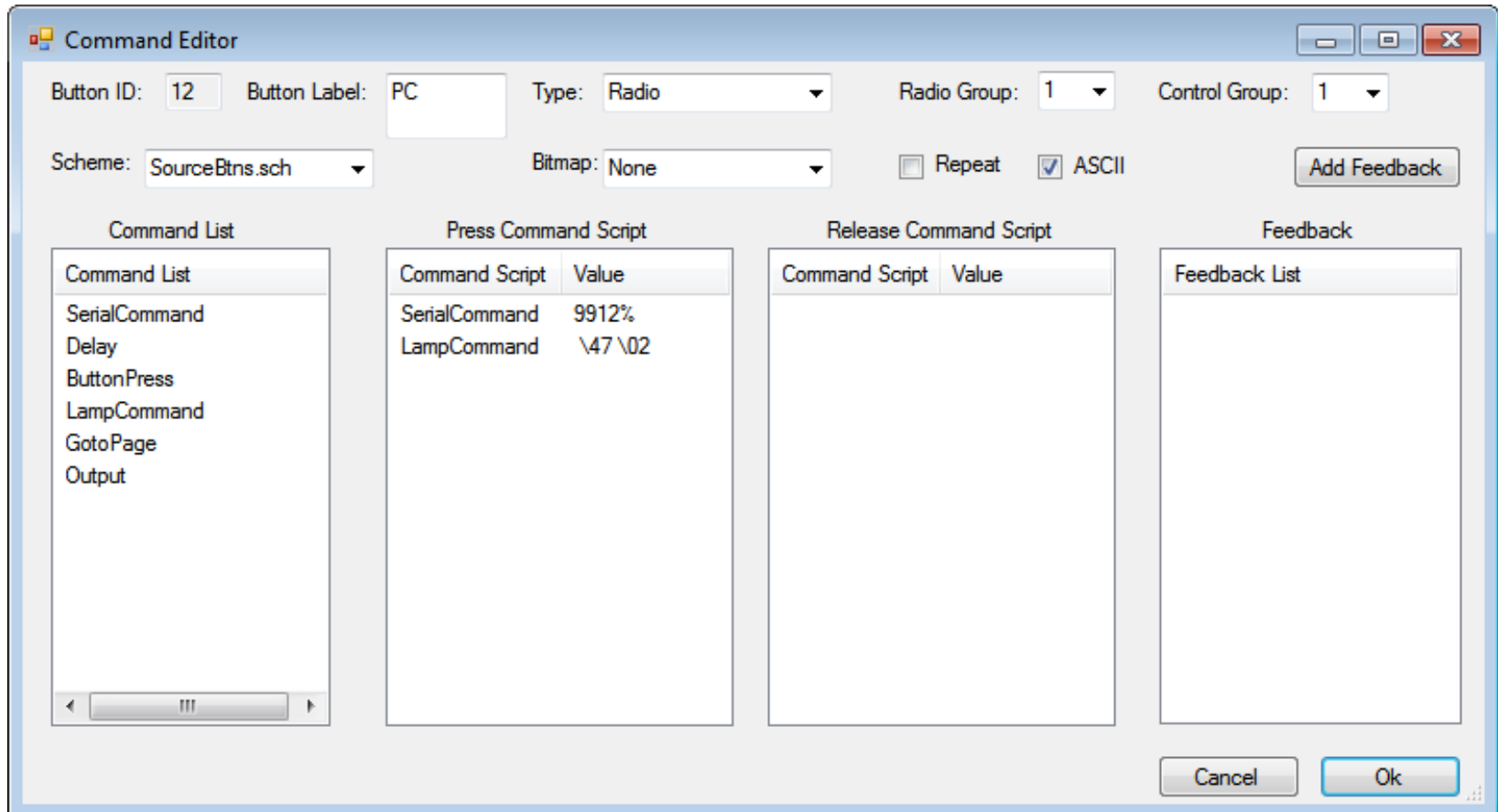
- Menus – Select File, Resources, Options and Help
- Page Title – Places a title at the top of the page
- Version Information – Displays the hardware and firmware version of TekTouchPad
- Get Version button – Gets the version from the TekTouchPad
- ROM Update button – Updates the TekTouchPad ROM
- Get Config button – Gets configuration data from a TekTouchPad
- Send Config button – Sends a configuration to a TekTouchPad
- Save button – Saves project data to currently opened project

Connecting to a TekTouchPad

1. First select Get Updates from the Options menu.
2. Before connecting make certain you have the correct port number setting in Options/Host Com Settings. Then select Get Version. This should return the current firmware version, if you have the Com settings and cable correct.
3. Perform a ROM update unless you know the ROM version is correct.
4. You may need to first import an archived project file from the File menu Import Project.
5. From the File menu Open Project get the configuration you wish to load.
6. If no changes are necessary, press the Send Config button.

Modifying Buttons

To Edit a button just click on the button.



Modifying Buttons

- Button Label
 - If a button label is entered, the button will be displayed.
 - Use Control Enter to add a second line to the button.
- Type
 - Toggle – Creates an on and off state for a button and is not part of a Radio Group. Can be part of a Control Group.
 - Radio - Creates a mutually exclusive set of buttons and is assigned into a Radio Group.
 - Momentary – Stand alone button.
- Scheme
 - Sets the color scheme for the button.
- Repeat
 - Sets the repeat rate for a serial command to be sent. Use for volume and channel controls.

Modifying Buttons

- Feedback
 - Enter a matching string value to create button feedback.
- Command List
 - Double-click or drag into script.
 - SerialCommand – Displays the SerialCommand window with the command list from Driver Template in the file menu.
 - Delay – Sets a delay between commands.
 - ButtonPress – Used to Press or Release a selected button.
 - LampControl – Used to set a button or group on or off.
 - GotoPage – Used to jump to a page.
 - Output – Can be used to control the output logic connector on the breakout cable.



For more information the TekTouchPad Configuration Utility is available from the program or here:

<http://tekvox.com/downloads/UM-TekTouchPadConfigurationUtility.pdf>