

## What is the difference between a Partylines (PL) and a Fixed Groups (FG)? And what is a Sort Group?

There are several types of ways we communicate in the intercom world. It used to be we all used Partylines to communicate. We'd all talk on one big conference and choose when to be heard by engaging our talk button and when to listen by turning our volume knob up or down... *or by simply taking off our headset!*

Now that we use more sophisticated matrix based systems, we can enhance the ways we communicate with several other ways to interact.

So, let's look at the three basic forms of communications:

- 1) **Point to point.** This is when we talk privately from one device to another. Think of it as you would when talking to a friend on your telephone. I push a button with your name on it and, as long only you hear me. When I program these labels on a panel or belt pack, I only need to program the TALK Label, as the matrix or base station will automatically open a listen path from me to you for the duration of my holding down the TALK button.
- 2) **Partyline.** A PL is a conference where more than one user can communicate (in a full duplex fashion) with other users. The partyline allows a user to choose when they talk to the PL and when they listen. One engages the TALK circuit to the PL and all listening will hear that. One can un-engage the listen to the PL or at least turn down the volume, to not hear the PL when they choose. Party lines are the most common form of intercom and have been around since the beginning of these production intercoms since the 1960's. Everyone talks when they choose (by pushing the TALK button) and listens when they choose (either by engaging the LISTEN lever or button, in the case of the panel or by turning up or down on the volume knob in the case of the BP). The PLs are broken down into channels, or separate paths, as needed for separation of conversations according to the required workflow in the system.
- 3) **Fixed Groups, or Groups.** A GROUP is also a conference where more than one user can communicate. However, the structure is a bit different from the PL. We put devices (panels or belt packs) into groups as "members". When one pushes the "audio group" (for example) button, every "member" device will automatically hear the talker for the duration of the time that caller keeps the group button engaged. The panels/BPs do not need a listen from that group, as the matrix or base will automatically open a listen pathway to all members of that group from the caller. Think of it like a point to point, but this is a "point to many". Even though the other devices might not have that group programmed onto their panel/BP, they hear the caller since their device is a member of that group. If you hold up your hand with your thumb (caller) and your pinky (member) sticking out, that would be a POINT TO POINT. Now point all your fingers up. Your thumb is calling all the fingers. That's a GROUP.
- 4) **Sort Groups** are groups of items such as controls, fixed groups, IFBs, interfaces, panels and Partylines that can be treated as a single item programmed to a panel or FSII BP button (or label). A feature of newer versions of the EHX software and firmware allow for a panel or FSII belt pack label to act as a selectable list of ports or conferences that may be chosen by the user. We make the SG with just the choices needed by that operator, so as not to make the list too long and keep it manageable. Once the operator chooses that item for the button, it remains there until the next time the operator wants to change it.

- **End-points** – are user interfaces such as matrix panels, beltpacks, and interfaces
- **Fixed Groups** – allows matrix panels or beltpacks to talk to multiple panels, beltpacks, interfaces, and IFB's by grouping them together under a single label. When the talk button for the Fixed Groups is activated, the destinations are forced to listen to the source audio.
  - *Example: Panel A activates Fixed Group "All Call" audio from panel A's mic will be routed to Panels B, C, D, E, and F speakers.*

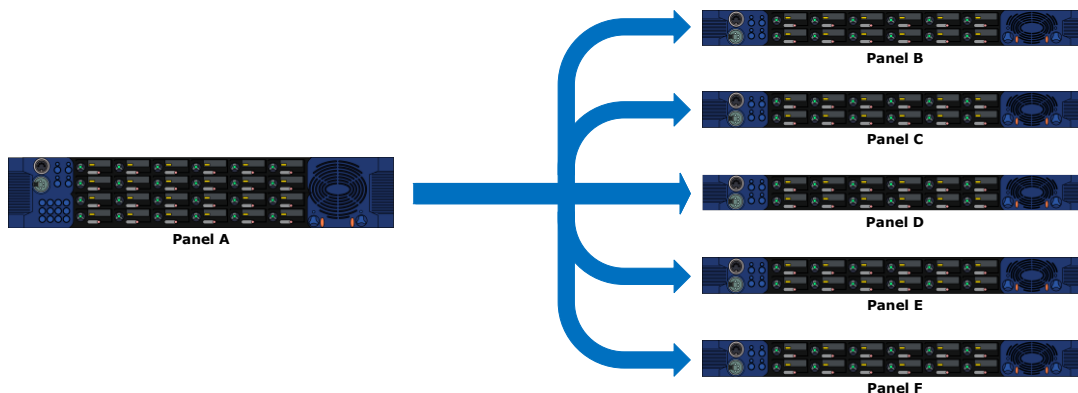


Figure 1

- **Partyline (PL)** - are the most common form of intercom and have been around since the beginning of production intercom in the 1960's. A PL is a conference where multiple matrix panels, beltpacks, and interface devices can in communicate full duplex with each other. A matrix PL allows users to choose when they talk and/or listen the PL.
- **Point to point** - is a direct audio connection between one end-point to another. When one end-point activates a talk button for another end-point, the destination is forced to listen to the source audio.
  - *Example: Panel A activates a button to talk button for panel B, audio would then be routed from Panel A's mic to panel B's speaker (see figure 2). If panel B activates a talk key for panel A then audio from panel B mic would be routed to panel A's speaker then they would be talking in full duplex (see Figure 3).*



Figure 2

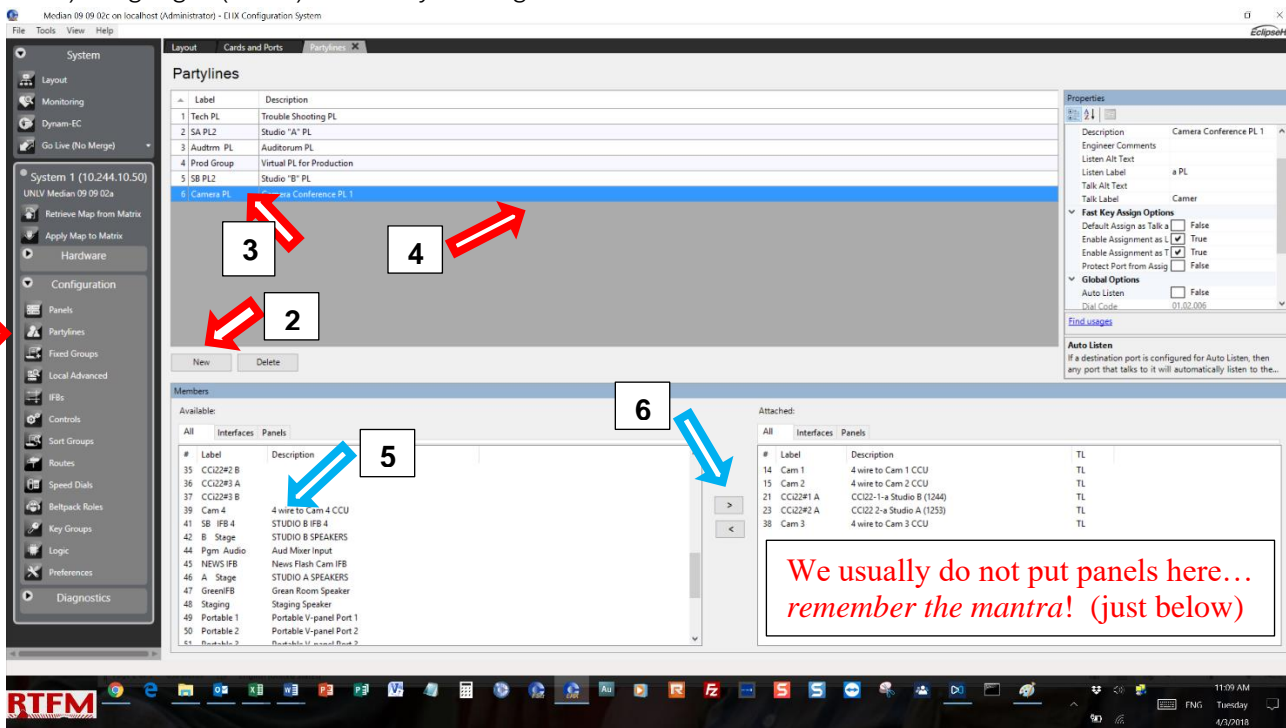


Figure 3

- **Sort Groups** are groups of items such as controls, fixed groups, IFBs, interfaces, panels and partylines that can be treated as a single item programmed to a panel or FSII BP button (or label).

## CREATING A PARTYLINE IN EHX

- 1) In the CONFIGURATION area of the left-hand menu column, click on **Partylines** to choose this page
- 2) Click on the **NEW** button to create a new partyline
- 3) Name the partyline (we've called this one Camera PL) by double clicking on the Label Name and renaming it
- 4) Highlight (select) that PL by clicking on the row so it turns blue. That is now the active PL



- 5) In the AVAILABLE area on the lower left of the page, click on the port you wish to attach to the PL
- 6) Scoot it over the right-hand ATTACHED box.

### Remember this mantra:

*“You don’t put a panel (or belt-pack) into a partyline, you program a partyline on to a panel (or BP).”*

We only put interfaces (direct 4wire ports, TEL-14, FOR-22, CCI-22s, etc.) into the PL as an attached member. That way the interface is always getting and giving signal to/from the PL. If we attach a panel in to a PL, anything that panel’s operator said, to ANYONE, would be heard by everyone listening to the PL, even when they are not intending to talk to that PL. And, anything anyone on the PL said would be uncontrollably heard by that attached panel, regardless of if the PL LISTEN was on or off. The fact that it is a permanent member of the partyline requires it to talk and hear constantly to/from the PL. That’s why we only program the PL on to the panel or BP. That way, the operator can choose when to talk and/or listen with the PL, as they see fit.

## CREATING A FIXED GROUP (FG) IN EHX

- 1) In the CONFIGURATION area of the left-hand menu column, click on Fixed Groups to choose this page
- 2) Click on the NEW button to create a new Fixed Group
- 3) Name the Fixed Group (we've called this one *Production*) by double clicking on the Label Name and enter name
- 4) Highlight that FG by clicking on the row so it turns blue. It is now the active FG

The screenshot shows the EHX Configuration System interface. On the left, a navigation menu has 'Fixed Groups' highlighted with a red arrow and a box labeled '1'. The main window is divided into 'Fixed Groups' and 'Members' sections. In the 'Fixed Groups' section, a table lists groups, with 'Production' selected (highlighted in blue) and a red arrow and box labeled '4' pointing to it. A red arrow and box labeled '2' points to the 'New' button. A red arrow and box labeled '3' points to the 'Production' label in the table. In the 'Members' section, there are two tables: 'Available' and 'Attached'. A blue arrow and box labeled '5' points to a port in the 'Available' table. A blue arrow and box labeled '6' points to the right arrow button between the two tables. A text box on the right contains the text: *With FGs, we do put panels here...as well as any other port needed in that group.*

- 5) In the AVAILABLE area on the lower left of the page, click on the port you wish to attach to the FG
- 6) Scoot it over the right-hand ATTACHED box.

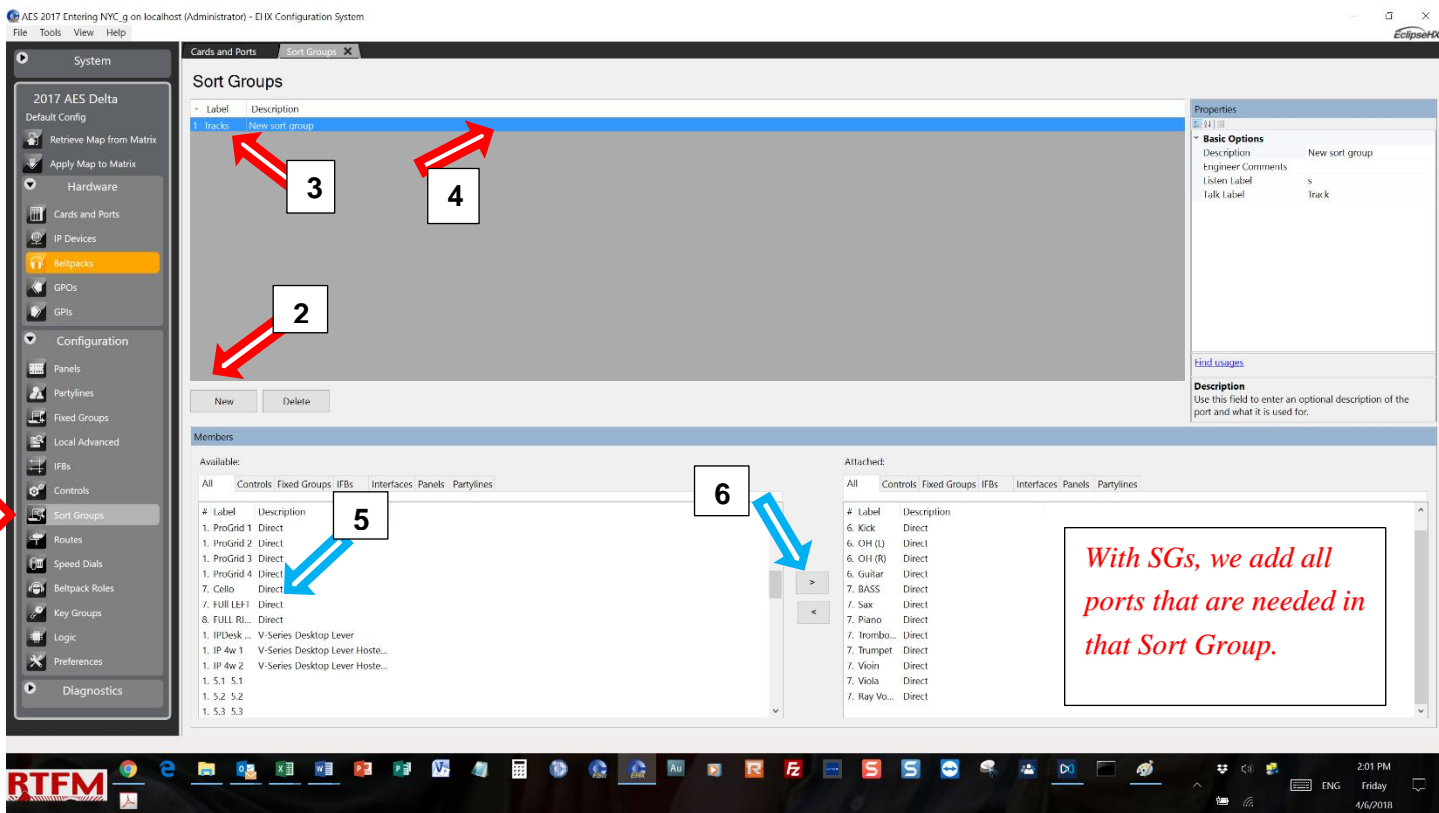
Fixed Groups are “point to many” conferences. When we program a FG on to a panel’s label, we only use the TALK activation. The matrix (or base station) will open a listen pathway from the calling panel /BP to all the members of the FG. There is no need to have any LISTENS programmed on any of the panels.

## What is a SORT GROUP and what can we do with it?

Sort Groups are available for V-Series Panels and FreeSpeak II beltpack roles. Sort Groups are groups of items such as controls, fixed groups, IFBs, interfaces, panels and partylines that can be treated as a single item programmed to a panel or FSII BP button (or label) and accessed in Key Assign mode to assign a member of that sort group to that key on that panel/BP. Selecting Sort Groups in the EHX Setup menu displays the sort group editor.

## CREATING A SORT GROUP (SG) IN EHX

- 1) In the CONFIGURATION area of the left-hand menu column, click on Sort Groups to choose this page
- 2) Click on the NEW button to create a new Sort Group
- 3) Name the Sort Group (we've called this one *Tracks*) by double clicking on the Label Name and enter name
- 4) Highlight that SG by clicking on the row so it turns blue



- 5) In the AVAILABLE area on the lower left of the page, click on all the port you wish to attach to the SG
- 6) Move the desired port, and all needed ports over to the right-hand ATTACHED box.



## HOW TO PROGRAM A PARTYLINE (PL) ON TO ALL TYPES OF PANELS

On the PANELS page (found at the top of the CONFIGURATION category), click on the PL you want programmed on to the panel. There are some short cuts we'll address later, but the basics are the same for all panels. Keep in mind that there are three forms of panels. Button-panels, Rotary panels and Lever-panels. With the button variety (ICS-1008/1016, I-Station, and V-Panel Push Button models), any single button can have the following choices for their "activation":

- 1) TALK
- 2) LISTEN
- 3) TALK & LISTEN
- 4) DUA TALK & LISTEN
- 5) FORCED LISTEN

### A Brief Explanation of the Various TALK/LISTEN Button Options

**Talk** When you push the button, you talk to the system, but there is no "listen" function.

**Listen** When you push the button, you can hear the port, but not "talk" to it.

**Talk & Listen** When you push the button, you can both TALK and LISTEN to that port, but when you unlatch or take your finger off the button, both TALK and LISTEN go away.

**Dual Talk & Listen** By tapping the button, you latch the "listen" on. To "talk" to the port, you press and hold the button in, then let go to stop "talking". You can't latch both the "talk" and "listen" in this mode...only the "listen"

**Talk & a Forced Listen** The "listen" is always on. (To turn it down or off, rotate the knob counterclockwise.) You can either latch or push-to-talk (momentary) your "talk" function. This is the most common scheme used for Party Lines, as it emulates the two-wire environment.

*Of course, one needs to also note the two ways to "engage" a button (or lever):*

**MOMENTARY:** By pressing and holding the button or lever for the duration of time it is engaged, you "open" the port pathway. When you let go, you "close" the port pathway.

**LATCHING:** By tapping the button, you "open" the port pathway; and to close, tap the button/lever again.

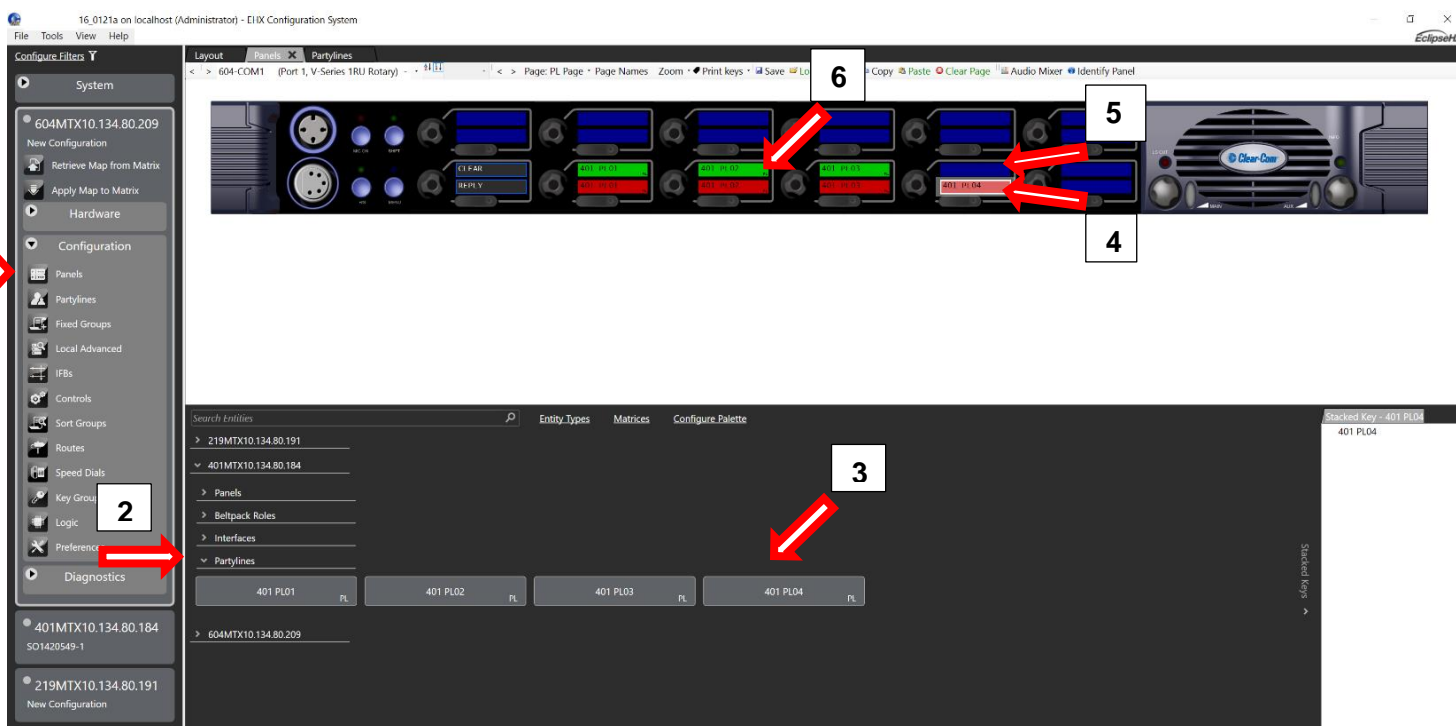
## PROGRAMING PLs ONTO A V-Rotary or V-Lever PANEL

### Remember the mantra:

*“You don’t put a panel (or beltpack) into a partyline, you program a partyline on to a panel (or BP).”*

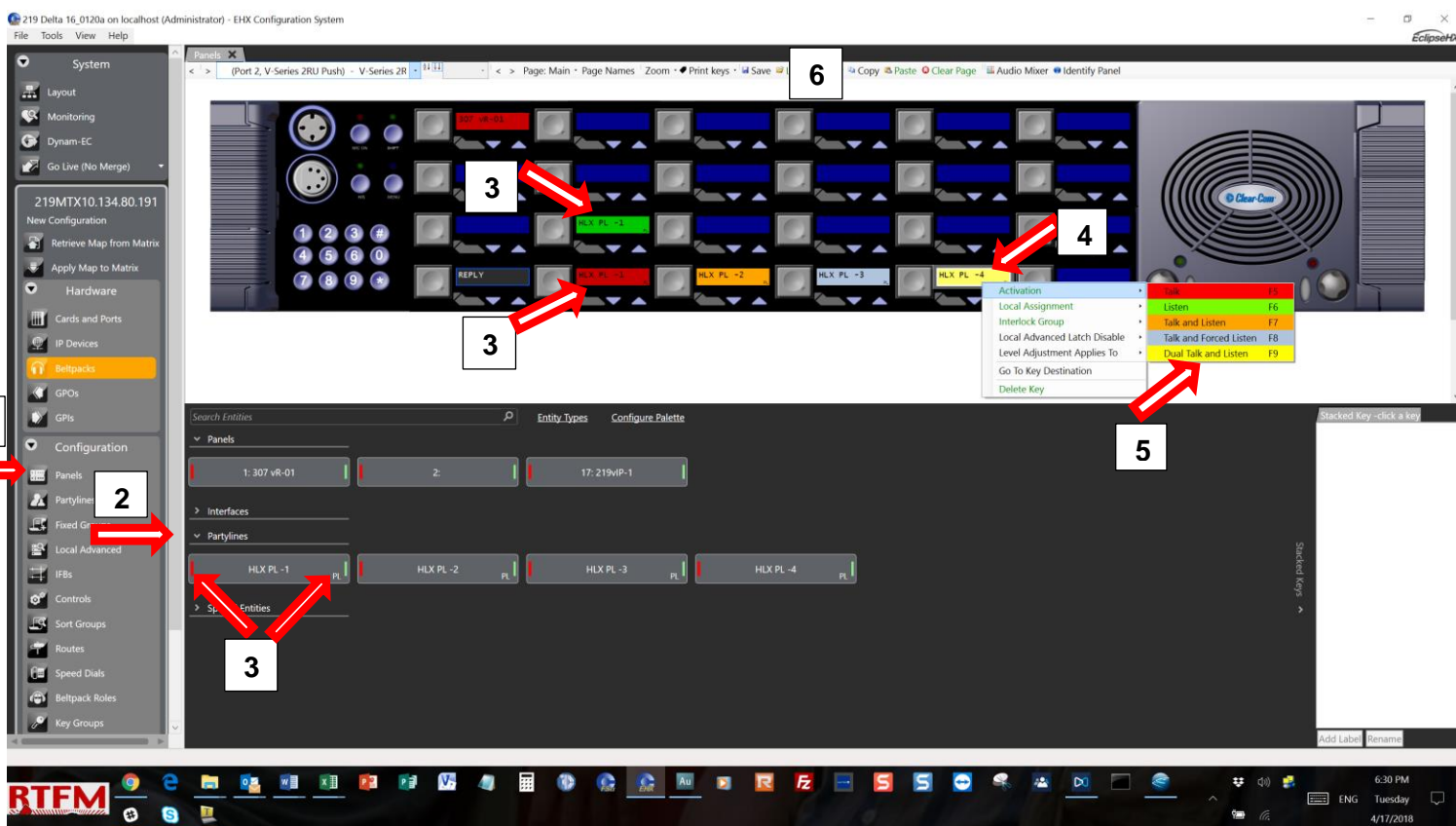
- 1) In the Configuration area of the tab selection are on the left-hand side of the EHX window, select PANELS
- 2) In the bottom window, expand the PARTYLINES category
- 3) To program the TALK of partyline 401 PL04, click on that PL
- 4) and then click on the bottom blue rectangle for the label you want to program it to.
- 5) Then, do step #3 again, but place it on the top blue rectangle, to achieve both TALK and LISTEN to/from the 401 PL04 partyline on that panel.
- 6) **TIP:** If you hold the CTRL key on your keyboard while you click on the PL you want (401 PL04), it will select bot the TALK and the LISTEN, so you only need the one click

## Programing in EHX of a Rotary or Lever panel



## Programming a PL on a Push Button Panel in EHX

- 1) In the Configuration area of the tab selection are on the left-hand side of the EHX window, select PANELS
- 2) In the bottom window, expand the PARTYLINES category
- 3) To program the TALK of partyline “HLX PL-1”, click on that PL on the left (red) side of the PL name, and for LISTEN, the right side (green). Or, after programming the label on the button, right click and hover over the ACTIVATION area and select the activation you want.
- 4) To change the “activation” of the button, right click on the label, and...
- 5) ...and then select the activation you wish to change it to; or use the function “F” keys as shown in the activation drop down menu (on the right hand side).

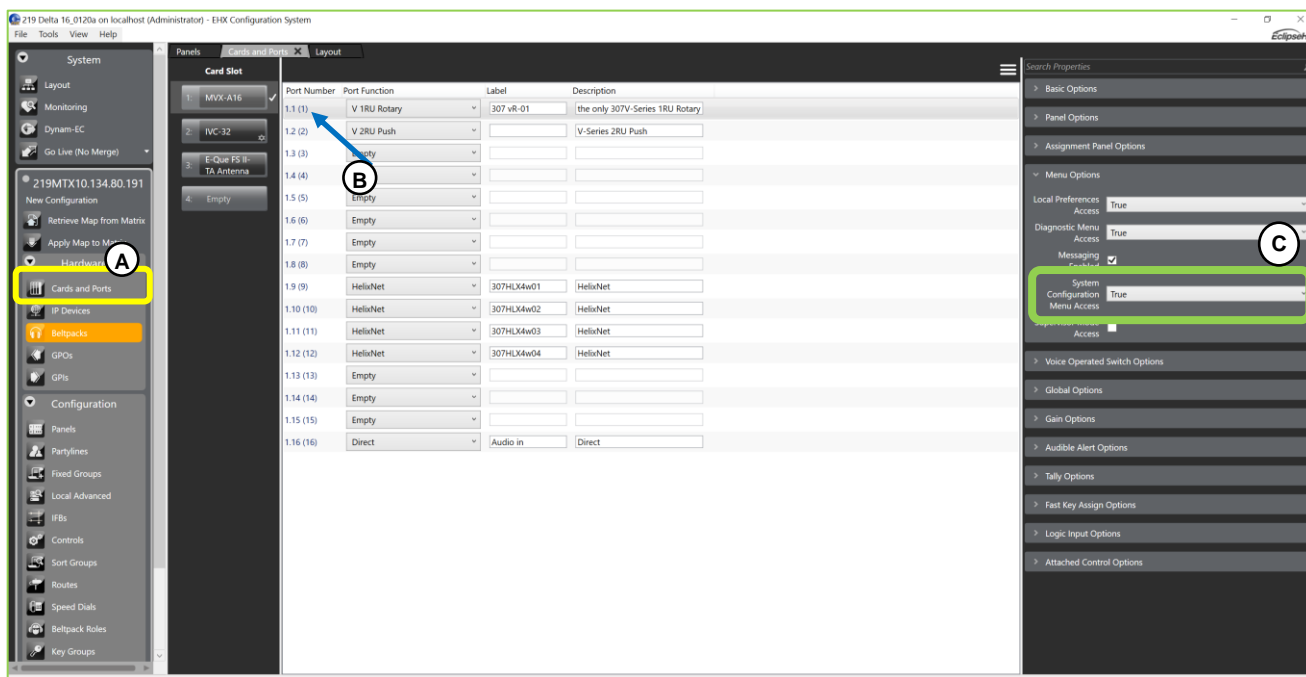




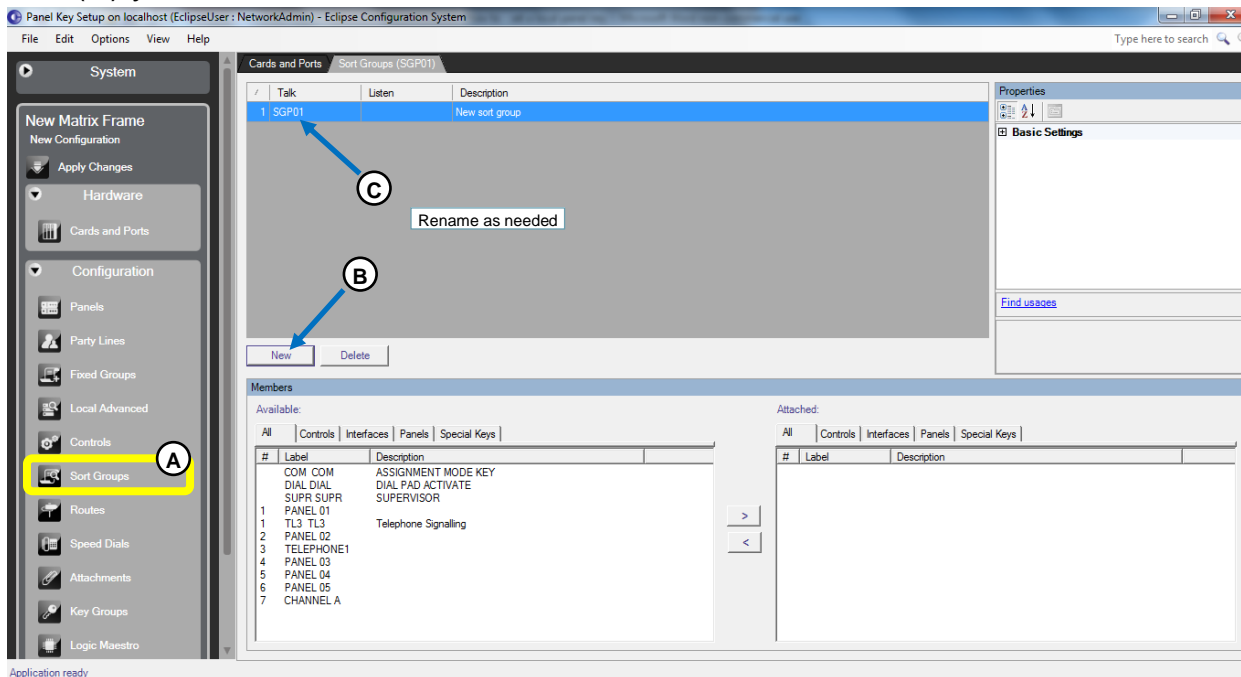
## Setting a Local Key from A Sort Group onto a Panel

Step 01: Open EHX (Eclipse Configuration System) Software

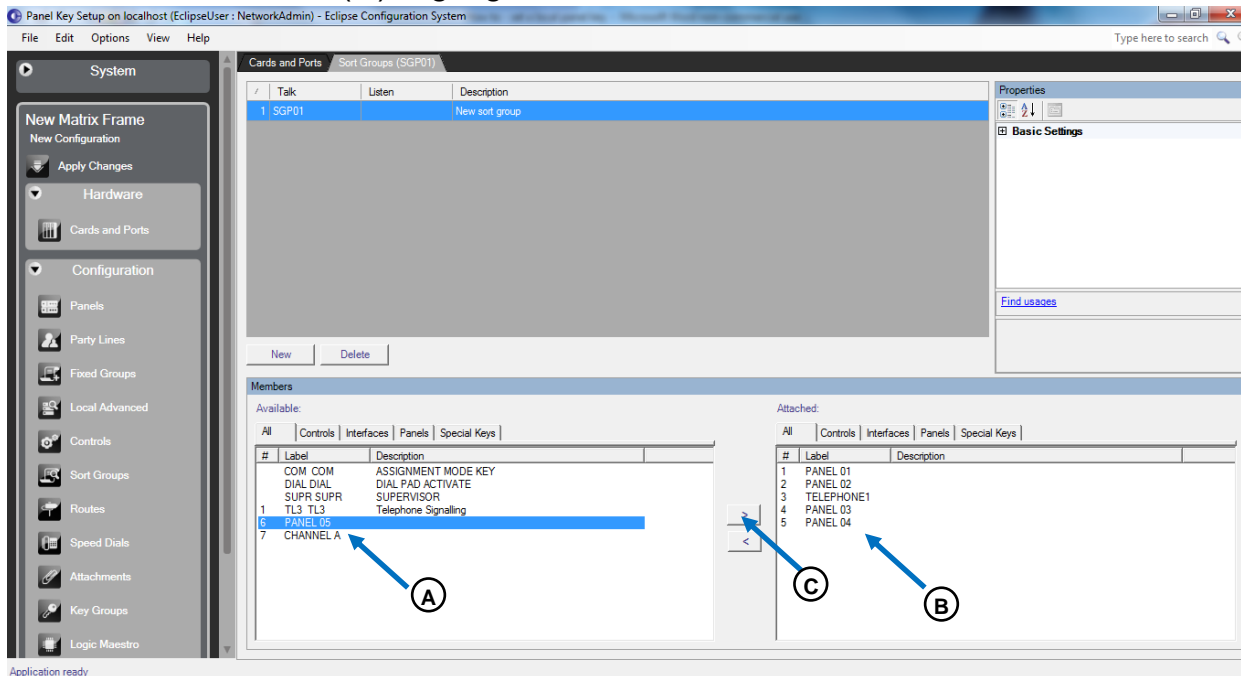
Step 02: (A), Go to “Cards and Ports” under “Hardware”. (B) Highlight the Panel’s port that you want to set and (C) tick True “Sys Config Access” in Advanced Settings



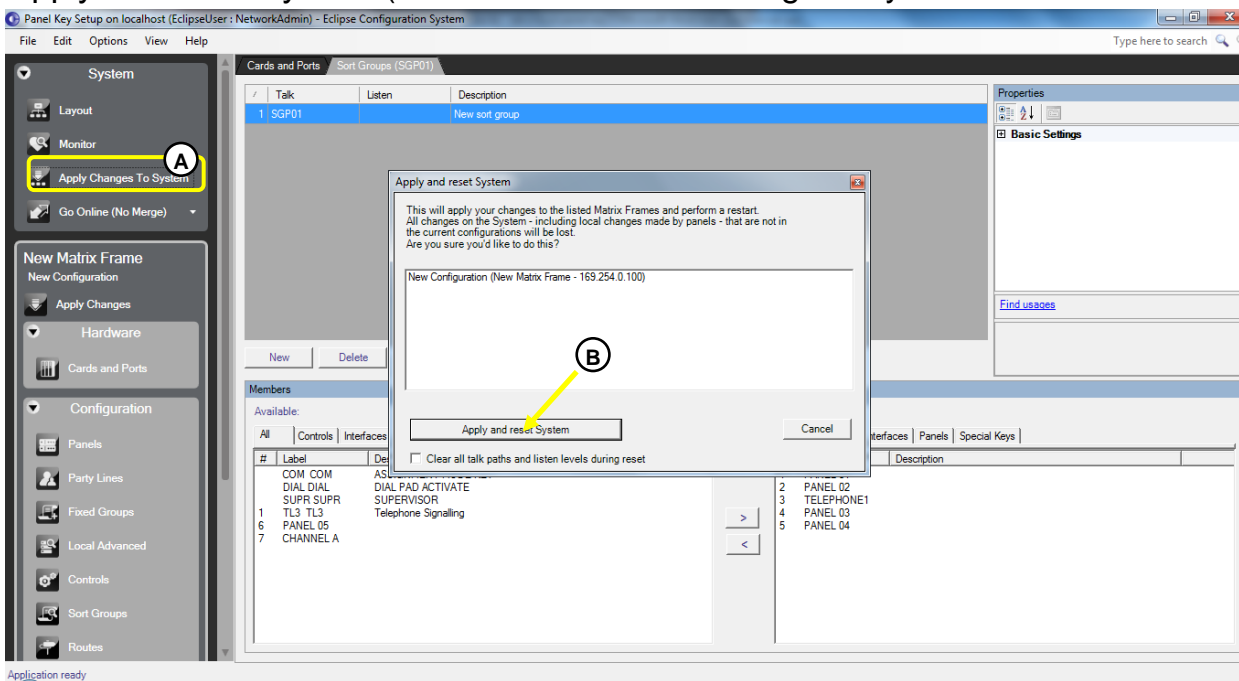
Step 03: (A) Select “Sort Groups” under “Configuration” and (B) create a “New” Sort Group that (C) you can rename as needed



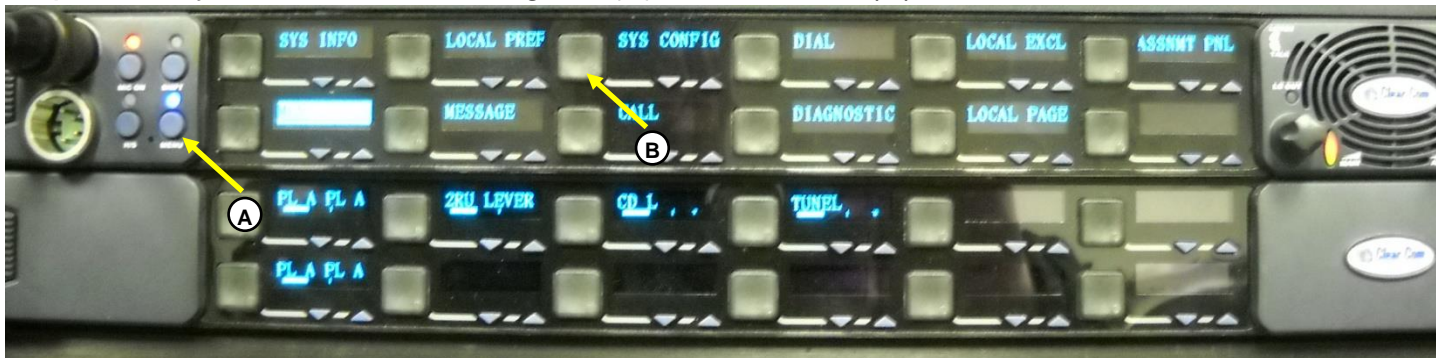
Step 04: (A) Populate the New Sort Group with “Available” Members you want to make (B) “Attached” Members. (C) Highlight a Member and use the arrows to move it across



Step 05: (A) Select “Apply Changes to System” under “System” to update your Frame. (B) “Apply and reset System (make sure no one is using the system before do a RESET)”



Step 06: On your V-Series Panel, go to (A) “MENU” and (B) select “SYS CONFIG”



Step 07: (A) Go to "LOCAL PNL"



Step 08: (A) Go to "LOCAL KEYS"



Step 09: (A) Select an unused Key Location on your Panel



Step 10: (A) Go to "GET LABEL"



Step 11: (A) Select your Sort Group



Step 12: (A) Select the Label you need (use START, MIDDLE and END if your Sort Group is extensive. (B) Use arrows buttons to see all Panels and (C) click "OK"



Step 13: (A) Click “OK” again to confirm



Step 14: Your selected Label will show at the desired location (A)



Step 15: (A) Press the “MENU” button to get back to normal operation

