

Power of the Preset Overlay: Limiting user Access to Parameters

Before You Begin

The Storage (offline) configurations for all of the examples discussed in this article are available from Rane's website (<http://www.rane.com>). Download or copy these files to your computer, and add them to a new or existing Project.

NOTE: Drag Net 3.0 or higher is required to view these device configurations. The latest version of Drag Net can be downloaded from <http://www.rane.com/dragnet.html>

To add Storage configurations to a Project:

- 1) Right-click anywhere within the Project window and choose **Add File(s)**.

- or -

Click on the **File** menu, choose **Project**, then select **Add File(s)**.
- 2) Browse to the location of the Application Example files (.rx file extension, where xx is the device type - .r88 for RPM 88, as an example) on your hard drive.
- 3) Select one or more of the files from the list, then choose **Open**. The configurations then appear as entries under the Storage folder of the Project window.

Drag Net Files Required

- PresetOverlay_1.r88
- PresetOverlay_1.r88.mem
- PresetOverlay_1.r88.Ink.xml

Concepts Presented in this Example

- Use of the hardware DEFAULT button to recall Preset 1.
- Preset overlay of parameters.
- Use of contact closure switches for Preset recall.
- Allocation of VIP pins for Preset recall.



Problem

Here's a typical scenario that demonstrates the use and benefits of the Preset overlay feature implemented in Drag Net devices.

It is often desired to give users the ability to change certain system parameters – mute/unmute outputs, for example – using some form of control device (remote, switch, pot-on-a-wall, etc.). The user's actions should NOT, however, affect critical system parameters – house EQ, gain structure, limiter settings, and so on.


Basic concept: the action of recalling a Preset overlays the Preset's contents onto working memory (the current state of the device), affecting only the items (block parameters, Remote Map groupings) contained in the Preset. Thus it is a relatively simple matter to give users access to only those parameters you want them to change. This application describes a church or small theatre system in which the user has the ability to turn the balcony zones on or off as desired, using two switches.

Solution

Drag Net and a solid understanding of Presets are all that's needed. Three Presets are used: Preset 1 is a "system snapshot" containing *all* blocks on the Processing Map. Presets 2 and 3 contain only the Analog Outputs feeding the Balcony zones, and toggle the Mute state of these outputs on and off respectively.


Why store all blocks to Preset 1? Once the system is installed and optimized, it is useful to save this known, good state to a Preset. Then, anytime this Preset is recalled, *all* parameters are recalled. Preset 1 is chosen for a specific reason: pressing the **DEFAULT** button on the rear of the unit automatically recalls Preset 1.

Picture this: weeks after the install the customer calls and says "I don't know what happened, but the system doesn't sound the way it did when you left." Calmly tell the customer to unlock the equipment rack, pull out their handy ball point pen and press the **DEFAULT** button. The system then returns to the exact state you left it in (provided the last step in your installation was to store everything to Preset 1 as previously described).

To add all blocks to Preset 1 use the handy **Add All Blocks** button  in the Preset window and choose **Store Preset 1**.

Presets 2 and 3 contain only those blocks we want to change – the Balcony and Under Balcony output blocks, in this case. Recalling these Presets overlays their contents onto the current working memory, and *only the blocks stored in the Preset will be affected – the rest of the system remains unchanged*.

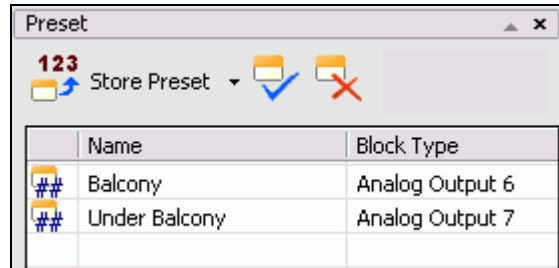
Let's clear the Preset Block list and start from scratch building Presets 2 and 3, just to emphasize the point.

- Select all entries in the Preset block list by holding down the Shift key while selecting the first and last entry in the list. Hit the Delete key or use the **Remove Selected Block(s)** button  to clear the list.



Now add *only the blocks we want to change* to the Preset block list.

- Drag and drop the Balcony (Analog Output 6) and Under Balcony (Analog Output 7) blocks from the Processing Map on to the Preset window. The Preset block list now looks like this:



■ Figure 1 Preset Block List.

Note that the only items in the list are the two Balcony outputs.

The icon beside each entry indicates the Preset contains the block's parameter values, as compared to its Remote Map links (associations), as designated by the icon.

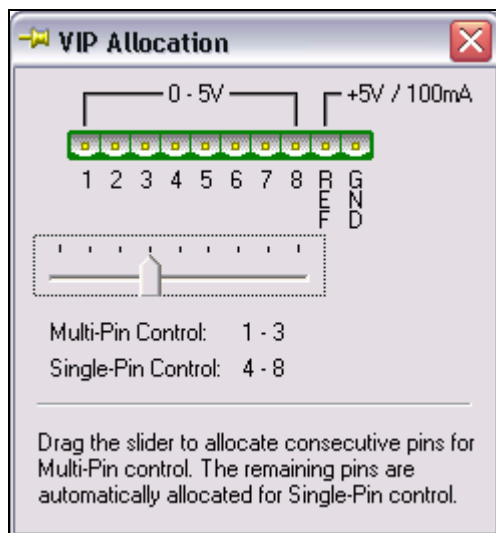
Make sure these output blocks are unmuted, then choose **Store Preset 2**. Preset 2 is thus our Balcony ON state. Now double click each of the Balcony zone output blocks and check the Mute box to turn them off. Choose **Store Preset 3**. Preset 3 is thus our Balcony zone OFF state. Note that it was not necessary to clear the Preset Block List before storing this new Preset.

Important concept: block settings are saved the moment you store a Preset, NOT when the blocks are added to the list.

Contact closure switches (a Rane MRS 4, for example) are wired directly to VIP pins 2 and 3. VIP Pin 1 is left unconnected - we want the system snapshot stored in Preset 1 to be accessible from the rear panel DEFAULT button only. The switch wired to pin 2 recalls Preset 2 (Balcony zones ON), the switch wired to pin 3 recalls Preset 3 (Balcony zones OFF).

VIP Multi-pin control mode is used for Preset Recall. The **VIP allocation** dialog (Figure 2), is accessed by double-clicking the **Edit VIP Properties** entry within the VIP section of the Parameter Window. Adjust the slider so Pins 1 through 3 are allocated to Multi-pin control.





■ Figure 2 PR Assignment Dialog

Recalling Presets 2 or 3 only affects the Balcony zone ON/OFF state. It does not change any other system parameters. The EQ curves, gain settings, compressor settings, et cetera you worked so hard to establish are not affected, nor is there any need to track changes to these system settings across multiple Presets (e.g., if you make a slight adjustment to the EQ curve it is automatically stored in working memory, and will not be inadvertently affected by recalling subsequent Presets). Just remember to always store that perfect system snapshot to Preset 1 in case of emergency!

Prove this overlay concept to yourself:

1. Recall Preset 1 (your "known good" system snapshot).
2. Open a PEQ block and make an adjustment.
3. Recall Preset 2. The PEQ curve does not change.
4. Recall Preset 3. The PEQ curves does not change.
5. Press the **DEFAULT** button on the rear of the unit. Preset 1 is now recalled, and the PEQ curve restores itself to your original setting (because the PEQ block was stored as part of Preset 1).

