

# Support for Multiple Audio Outputs Active Simultaneously in a Zone

## Application Note

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Document Supports:	da Vinci 5.2.3 and higher

## Introduction

Support for multiple audio outputs active simultaneously in a zone is possible for any audio switching device which allows multiple physical outputs to be assigned to a single logical output, (referred to within RacePoint Blueprint as **Assigned I/Os**). Assigning the outputs to a single logical group results in the audio switcher treating them as one output. They will become active and inactive together, and always pass the same audio signal. Control commands targeting one grouped output will always affect the others in the group the same way.

Using this feature, audio outputs feeding 2 or more sets of speakers in a single zone can be grouped together to function as a unit. All grouped speakers can be activated simultaneously in the zone to play the same audio stream. One of the service paths to a main speaker group is then chosen to represent the whole group in RacePoint Blueprint, and the others are disabled to prevent excess service variant options from making the user experience confusing.

### Notes:

- This feature requires the use of an audio switcher with the ability to group outputs.
- This feature supports audio only; it **does not** support video.
- This feature is not supported on the SSA-3220-xx. It is available with all other Savant Audio switches.

For further information on Assigned I/Os, refer to: [Assigning Inputs and Outputs \(I/Os\) on Savant Controllers: Application Note](#)

## Technical Description

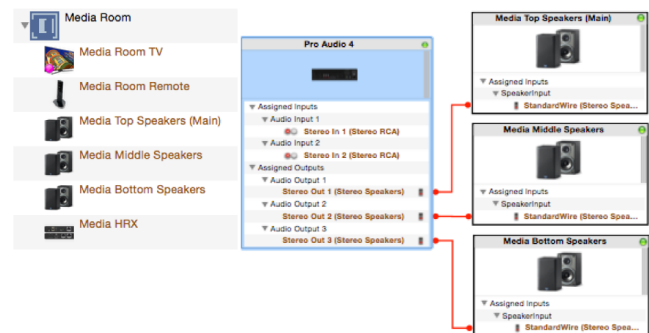
The following section describes configuration of multi-speaker audio in a single zone within RacePoint Blueprint. It is assumed that other aspects of basic configuration have been completed.

### Helpful Information

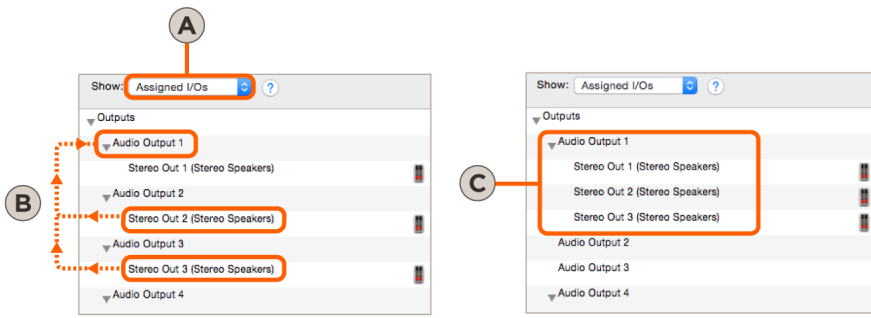
The audio sink resources can also be disabled on any other endpoints within the configuration which will never be used, for example on a TV in a zone where audio will always be output from speakers, further preventing unneeded services from generating and causing potential confusion.

Using an audio switching device which allows the grouping of outputs (Assigned I/Os,) group the physical outputs which will be active simultaneously in one zone under the same logical output.

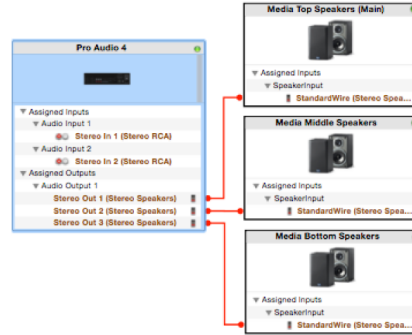
- Within RacePoint Blueprint, add all speaker sets in the zone which will be grouped, and make the connections to their Physical Outputs on the switcher.
- Decide on one of the speaker sets to be the **Main**speakers. Any of the speakers in the group will do, there will be no difference in functionality. The Main speakers will simply represent the group logically within Blueprint.



- Open the audio switcher in Inspector.
- Select **Assigned I/Os** from the **Show** dropdown menu.
- Scroll down to the **Outputs** section. Physical Outputs (Stereo Output 1) are listed under the corresponding Logical Output (Audio Output 1).
- Drag and drop the Physical Outputs to be grouped from their current Logical Output to the one which connects to the speakers selected as the **Main** output.

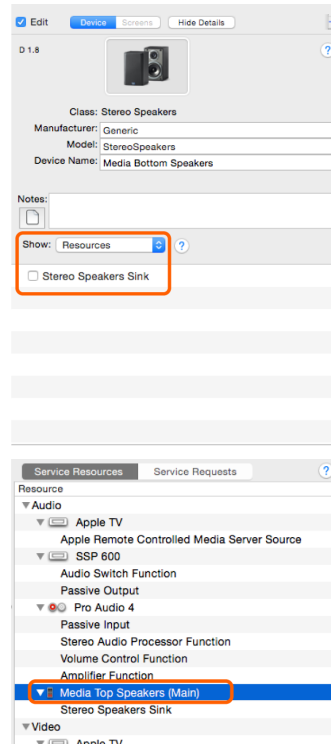


- All grouped outputs should now appear under the same logical output within the configuration, as shown:



Once all selected outputs are grouped within RacePoint Blueprint, the excess services generated by the extra audio endpoints will need to be disabled to avoid cluttering the user interface with unnecessary options. There are several different ways this can be done, but the most efficient method for grouped outputs is to disable resources and prevent the services from generating in the first place, as described below:

- Open Inspector for one of the grouped endpoints which is *not* the one chosen as Main.
- Select the **Resources** option from the **Show** Dropdown.
- Disable any of the following resources which are listed by clicking the checkbox to uncheck:
  - Stereo Speakers Sink
  - Surround Speakers Sink
- Repeat the above for all other audio endpoints in the logical output group except for the one chosen as Main.



- **Generate Services** for the configuration.
- Within the Service Selector window, (**View Services**,) choose the relevant Zone from the dropdown, and confirm that *of the grouped endpoints*, only the one selected as Main appears listed in the Audio section of the **Service Resources**, (in top right frame,) for any service path.

RacePoint Blueprint configuration should now be complete, and the configuration file can be saved and uploaded to the Host to test the functionality of the grouped audio endpoints.

**Important Notes:**

- The above configuration assumes that there are no other downstream devices between the audio switcher where the outputs are grouped and the endpoints.
- If there are other devices between the switcher and the endpoints, all necessary control commands will need to be sent using some method other than with standard service requests, as the service paths have been disabled for all endpoints but one main one, and secondary outputs are managed at the **Switch Level** rather than the **Service Level**. For example, power or switching commands could be handled by using State Triggers, setting the downstream devices to "always on," and/or using available Audio Sense modes.
- When using a Savant audio switcher, assigning inputs and outputs within Blueprint is all that is needed, however with many third-party switching devices, Assigned I/Os must be configured to match both within the component's own programming and in RacePoint Blueprint for successful grouping.