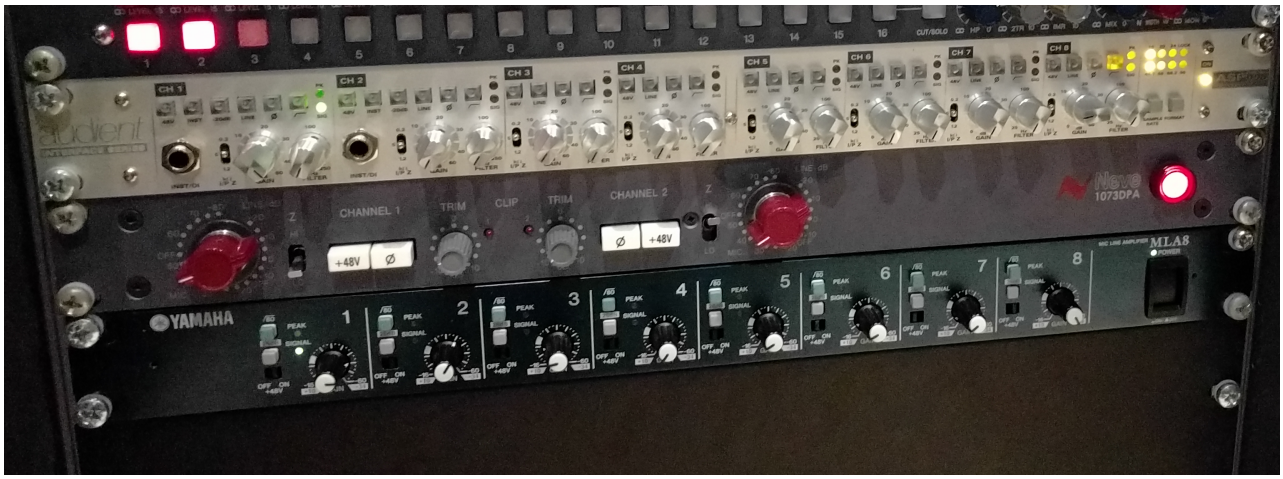
Log #1 - Using Parallels #1

Using parallels in Studio 1 seems simple but if done wrong can cause problems or even damage equipment. In this Log I will discuss a possible scenario where parallels could be used, the potential problems and how to avoid them.

Microphone into multiple pre-amps

A sound engineer may want to record the same vocal from the same microphone but through different pre-amps to get multiple flavours to the sound. For example and Neve pre amp may sound warmer and more pleasant, however it may be beneficial to record a 'clean' vocal too.

Step one for accomplishing was plugging in the mic, for this log, I used an AKG C414. So that I didn't have to go through the desk yet, I patched into the 'Live Room Patch Bay Mic Channel 1', then patched that into a parallel. Before patching to any pre-amps, I made sure that all gains are down on the pre-amps and phantom power is switched off[1]. There are conflicting reports regarding wether phantom power damages patch bays[2] however as I was using a condenser mic, there was no alternative. Once ready, decide which pre-amps you want to use and then patch to them. For the purposes of this Log, I patched to all three, the Yamaha MLA8, Neve 1073DPA and the Audient ASP008.



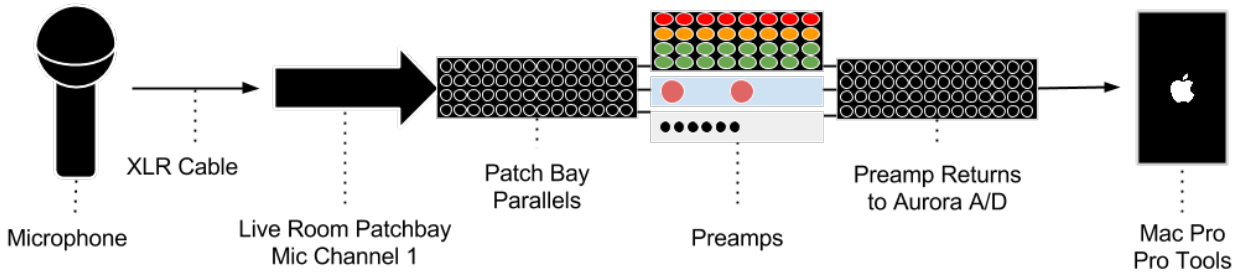
As the parallel is effectively connecting all the cables together, you only need to feed phantom power from ONE of the pre-amps. Applying phantom power to unbalanced

[1] ciletti, eddie (no date) How much phantom power. Available at: http://www.tangible-technology.com/power/phantom_aug02.htm (Accessed: 1 February 2016).

[2] Webb (no date) Yay or nay...phantom power through patchbay?. Available at: https://www.gearslutz.com/board/so-much-gear-so-little-time/387146-yay-nay-phantom-power-through-patchbay.html (Accessed: 1 February 2016).

ports can be dangerous[3][4] so I first looked up the manuals for all three pre-amps[5][6][7] and found that they all have balanced outputs. Once routed through the parallels, you can then patch from the outputs of the pre-amps into separate channels on your device of choice, eg the desk or sound card.

Below is a diagram of how it was finally patched:



One benefit of this method is that you are getting the exact same signal from the microphone with zero latency to each of the pre-amps. It is also quite simple to set up once you have made sure it is safe to do so. As this is all done in the analogue realm, there are no extra analogue to digital conversions or digital duplication of signals.

[3] Such thing as too much phantom power? (no date) Available at: https://www.gearslutz.com/board/so-much-gear-so-little-time/169902-such-thing-too-much-phantom-power.html (Accessed: 1 February 2016).

[4] The danger of applying phantom power to unbalanced outputs (2014) Available at: http://www.sounddevices.com/tech-notes/the-danger-of-applying-phantom-power-to-unbalanced-outputs (Accessed: 1 February 2016).

[5] MIC LINE AMPLIFIER an eight-channel head amplifier inheriting the head-amp technology of the acclaimed DM2000 for high-quality sound reproduction (no date) Available at: http://download.yamaha.com/api/asset/file/?language=en&site=ae.yamaha.com&asset_id=46700 (Accessed: 1 February 2016).

[6] AMS Neve Ltd (2005) Issuee3 1073DPAA&&1073DPDDMiccPre-Amplifier UserrGuide 1073DPA and 1073DPD Mic Pre_Amplifier user guide. Available at: http://ams-neve.com/sites/amsneve/files/products/productsupport/manual/1073dpadpdusermanual-1.pdf (Accessed: 1 February 2016).

[7] Asp008 smux (2008) Available at: https://audient.com/sites/default/files/asp008_smux.pdf (Accessed: 1 February 2016).