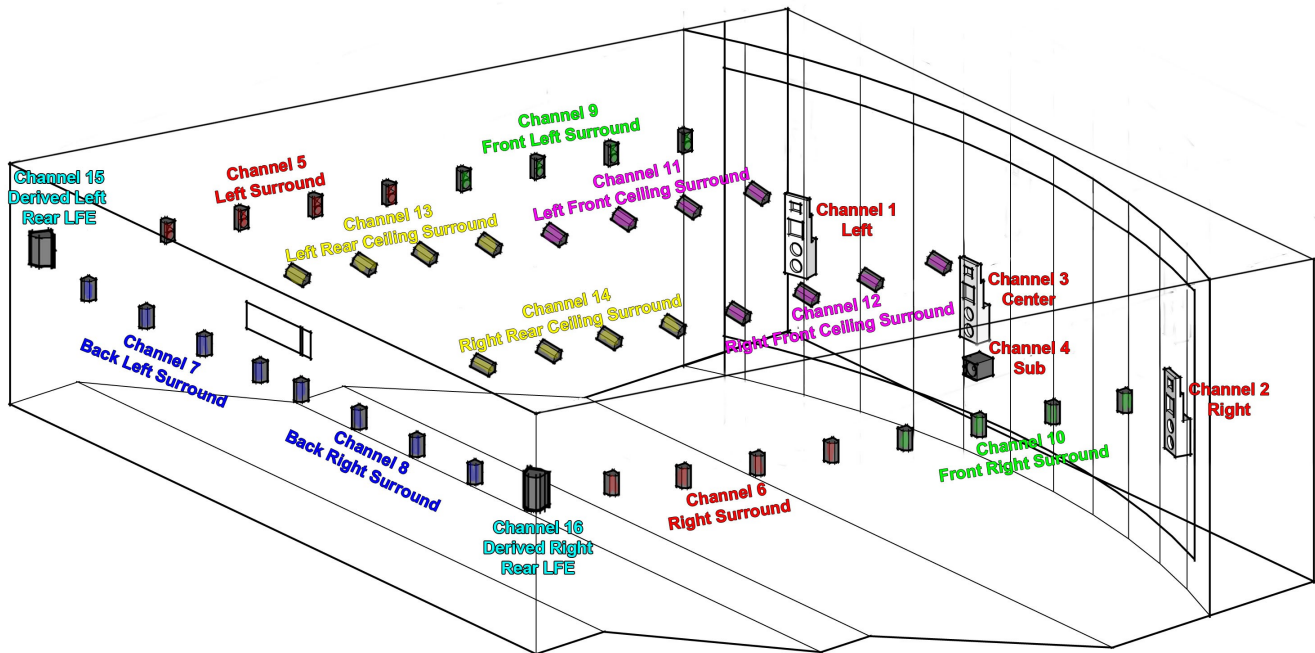


USL 13.1 Soundfield Configuration

USL 13.1 expands upon the existing 7.1DS soundfield configuration (as defined in SMPTE ST428-12 2013) through the addition of speaker arrays. These additional speakers “fill in the gaps” in the existing 7.1DS soundfield configuration and add “height” speakers to allow the smooth panning of sound in three dimensions.

PROPOSED DCI STANDARD FORMAT 13.1



Channel Based System

The system uses the existing 16 channels of AES/EBU output on DCI compliant digital cinema systems. Six channels (and speaker positions) are added to the standard 7.1 soundfield configuration. The additional channels are

- Left Surround Front
- Right Surround Front
- Left Ceiling Front
- Right Ceiling Front
- Left Ceiling Rear
- Right Ceiling Rear

These additional speaker arrays fill in the gaps in the hemisphere above the listener, allowing smooth panning in three dimensions.

The 13.1 system fits within the standard 16 channel DCP while leaving room for HI and VI-N channels.

This speaker configuration is the natural extension of the existing 7.1DS soundfield configuration. Use of this configuration provides “immersive sound” without the expense and complexity of object-based sound systems.

Object-based System

This speaker configuration can also be used for object-based content. With object-based content, however, the individual speakers would generally be driven with separate amplifiers for maximum flexibility. The speaker positions, again, allow for smooth panning throughout the hemisphere above the listener.