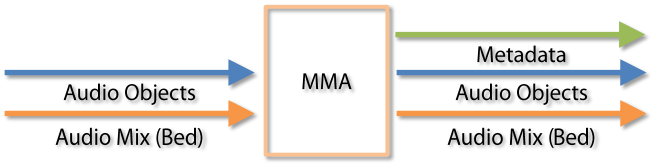
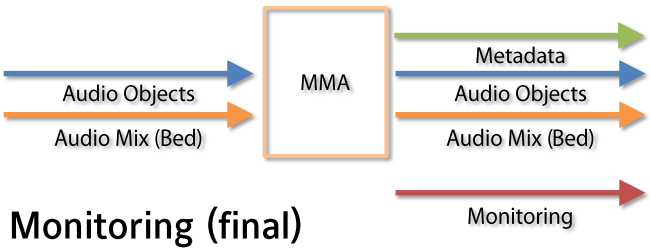
MMA – Multichannel Monitoring & Authoring Unit

The next generation immersive audio formats will require changes in the audio production workflow. Monitoring the audio along with authoring and verifying of dynamic metadata will become a new challenge.

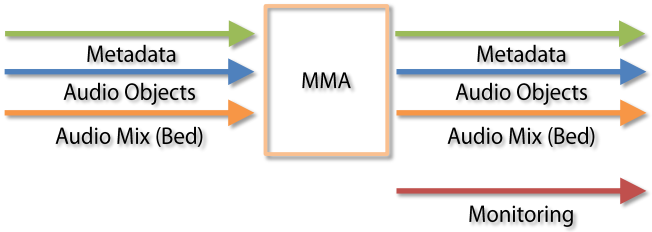
Authoring



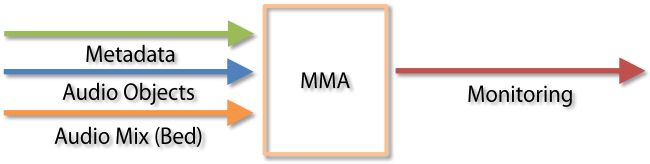
Authoring & Monitoring



Monitoring (upstream)



Monitoring (final)



Key Features

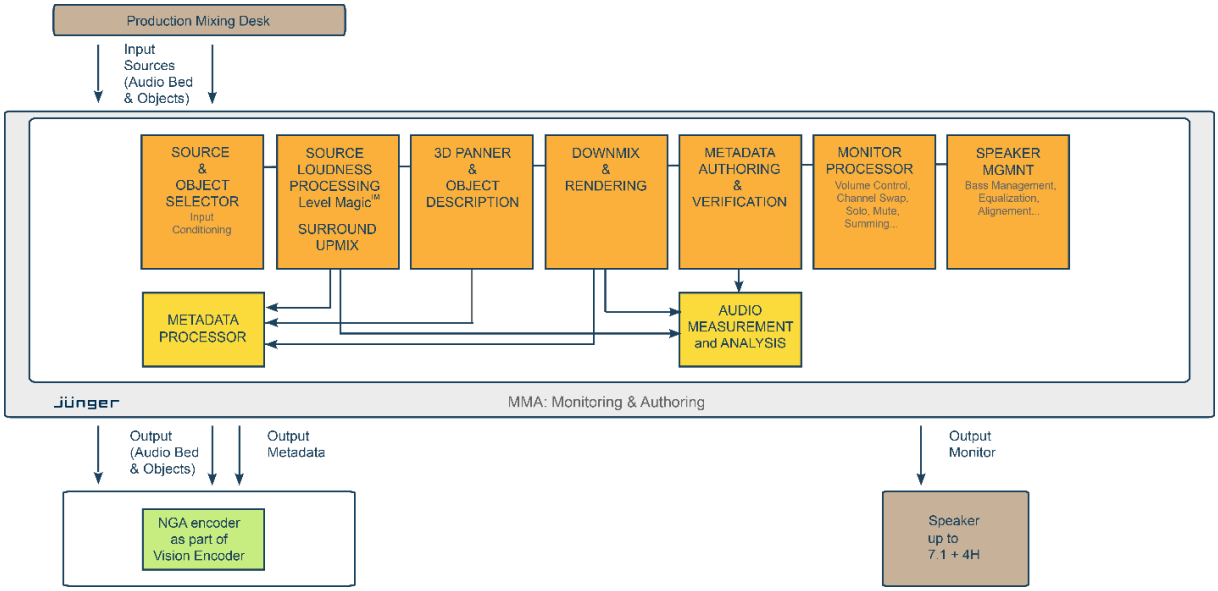
- Monitoring Audio + Metadata
- Rendering & Downmix: for different output formats
- Monitor Control Processor
- Metadata Authoring: 3D Panning, Dynamic Object Metadata Generation, DRC profiles, Program Levels, Descriptive metadata, Position metadata
- Loudness Monitoring / Metering
- Source Loudness Control & Format Loudness Control & Surround Upmix
- Generation of encoder control data
- Hybrid Concept (Server Based & HW I/O) with Scalable Audio Interfacing
- Network Remote Control by Ember+
- X*AP RM1 remote control panel (control & measurement)

Overview

The next generation immersive audio formats will require changes in the audio production workflow. Monitoring the audio along with authoring and verifying of dynamic metadata will become a new challenge. New procedures for managing object based encoded content the same way as for personalization of services through the selection of alternative audio objects (such as commentator languages) needs to be established. A Multichannel Monitoring & Authoring Unit (MMA) must be compatible with upcoming immersive multichannel 3D audio formats and should offer a platform to host all the emerging immersive 3D audio encoding formats from different vendors.

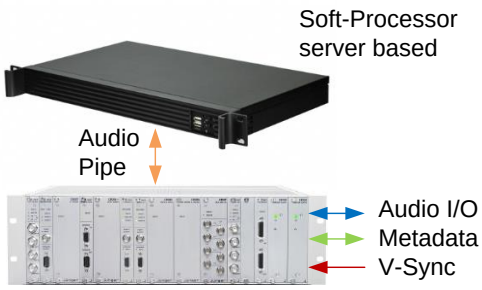
Authoring and Monitoring for the emerging 3D immersive Broadcast Audio formats

A key requirement for broadcasters adopting these new formats will be to author the appropriate metadata and monitor complex audio mixes to ensure a predictable end-user experience, and to maintain compliance with relevant loudness regulations. The MMA will make it easy to incorporate the new formats to production workflows in existing facilities and infrastructures.



Technical Platform

A hybrid solution is using a server for audio computing. Scalable I/O range from AES3 to 3G SDI including video delay, MADI, Dante™ audio over IP and analog will be supported.



Web Based User Control Interface

Screenshot 3D Panner