A stratified approach for sound spatialization

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ABSTRACT

We propose a multi-layer structure to mediate essential components in sound spatialization. This approach will facilitate artistic work with spatialization systems, a process which currently lacks structure, flexibility, and interoperability.

2 NEED FOR INTEROPERABILITY

There are great individual and context-related differences in the compositional use of spatialization. There is no one spatialization system that could satisfy every artist.

Different spatialisation applications should be readily combined.

Guaranteeing efficient workflow for sound spatialization requires structure, flexibility, and interoperability across all involved components.

A STRATIFIED APPROACH

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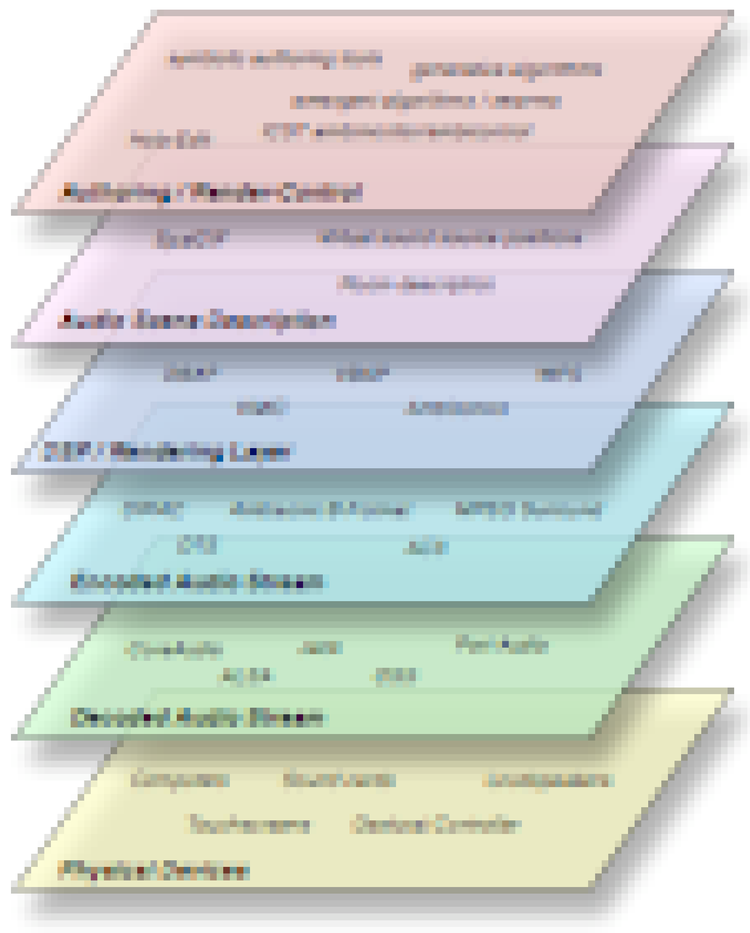
THE CURRENT PARADIGM

DAWs mainly work with common consumer channel configurations; mono, stereo and 5.1. Beyond this multichannel and spatialization capabilities are limited, and adequate spatialization tools for working in DAWs are missing, but strongly desired.

Media programming environments (e.g. SuperCollider, Pd and Max) are capable of spatial sound synthesis . Each tool, however, may only provide solutions for a subset of compositional viewpoints.

A variety of **stand-alone** spatialization systems are in development.

3 STRATIFIED APPROACH



4 DESIGN