dataphonic audio solutions

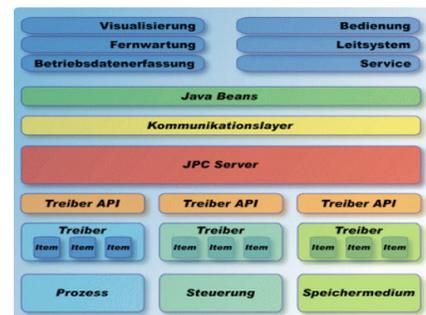|	
Project	**RAVE Audio-Engine**
Customer	dataphonic
Format	Architecture and implementation of the audio engine RAVE – Realtime Audio Virtual Environment
Status	Realized 2002 – 2003
Info	www.web-of-life.de
	www.dataphonic.de/wolf.htm

Concept

The RAVE engine is laid out in a twofold manner. One layer is constructed as a network of sound streams that interlock with each other in musically meaningful ways. They form a relationship to the content structures of the video streams. The second layer projects these streams into the installation room as sound vectors.

Each individual audio stream is oscillating at various speeds between two speakers across the installation space. Its initial coordinates are determined by the visitors' scanned handlines, thus forming a vector in the listener's perception. Each sound vector's start and end points are then beginning to evolve, making the vector gradually tilt and move within the room's three dimensions, eventually filling up the entire installation space. Up to four vectors are rendered in parallel, forming a net of movement around the visitor.

The RAVE system has been developed for the art project Web of Life. It is employed to map sound vectors to a matrix of 72 discrete loudspeakers distributed in an even grid across the installation space: please note the green boxes in the image above.

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Project	**XRAI Audio-Framework**
Customer	dataphonic
Format	Architecture and implementation of the software framework XRAI – Extendable Realtime Audio Infrastructure
Status	Realized and extended 1999 – 2005.
Display	The audio engine in these works is based on XRAI:
	Room With A View, Sensorband, Place-Urbanity, Si Poteris Narrare, Perm, Web of Life, Maestro, SonoMorphis, Luce, Eavesdrop
Info	www.web-of-life.de

Concept

The XRAI software framework has been devised to facilitate the development of interactive audiovisual installations

It is composed of basic building blocks which can be combined and matched. The functionality covers standard as well as more advanced tasks found in interactive art piece structures. Configurable building blocks for serial and network data IO, audio IO, control data / dsp processing and others are provided.

The framework is message driven. Its elements can be script-configured and inherited to extended objects to meet the requirements at hand.