AudioNomad



AudioNomad is a collaborative research and development project exploring applications in location-based media delivery. It fuses together the concepts of mobility, GPS / location awareness and media delivery. Imagine a handheld device that plays audio or video content based on where you are standing and what you are looking at. We are researching and developing the technologies that will turn this concept into a reality.

AudioNomad Mobile Devices

Media can be delivered to people using a several different devices. A custom developed player for a GPS-enabled Windows Pocket PC provides the state of the art exemplar of current AudioNomad research outcomes. Media can be delivered in a format suitable for non-GPS devices such as iPod technologies and MPEG-4/3GPP mobile phones. Prototypes have been developed for capturing location-based media in the field for inclusion in geospatial database applications.

The Pocket PC device been recently deployed on the Elvina Aboriginal site in Kuringai National Park, NSW and is being developed as an example platform for the Green



Trails at the University of New South Wales.

AudioNomad mobile technologies are being designed for the mobile walking tour applications.

Syren

Syren for Port Jackson, a boat-based demonstration of the AudioNomad multispeaker technology was presented on Sydney Harbour in March 2006. Listeners were immersed in a unique 12-channel, location-aware sound experience. Listeners experience the location of content based on the direction from which the sound is heard in the speaker array. As the boat passed the place of interest the sounds faded away. This provides a very emotive, dynamic, sonic experience.



Syren on the Baltic Sea was the first ship-based demonstrator of AudioNomad location-aware

technology. It was presented in August 2004 over a 3-day journey between Helsinki, Stockholm and Tallin on the upper deck of the cruise liner, Silja Opera.

Authoring Tools

At the centre of AudioNomad research is the tool suite that allows media authors to create content for location-aware media experiences. Our vision for authoring is to enable playback on a range of media devices, all created from a single authoring environment.



Principals



Dr. Daniel Woo (B.Sc, B.E. (Electrical), Ph.D.) is responsible for Human Computer Interaction and Usability research in the School of Computer Science. He is

both a designer and developer of software and hardware technologies that are founded on user centred design principles. He has worked with a range of technologies including user interfaces, telephony, speech recognition and synthesis and handheld systems. He has consulted to a variety of industries including usability, educational IT infrastructure and mobile applications in the building industry.

AudioNomad evolves from a three-year Australian Research Council (ARC) and Australia Council New Media board Linkage grant (LP0348394). It was originally funded as part of the inaugural Synapse initiative: encouraging collaboration between art and science.





Dr. Nigel Helyer (a.k.a. Dr Sonique) is an Australian-based Sculptor and Sound Artist with an international reputation for his large-scale sonic installations,

environmental sound sculpture works and new media projects. He maintains a strong interest in collaborative research projects and is currently Visiting Professor at the University of New South Wales (Computer Science and Engineering), an honorary associate in Architectural Acoustics at the University of Sydney. Nigel is a co-founder and commissioner of the "SoundCulture" organisation; a fellow of the Australia Council for 2002/3 and the curator of "Sonic-Differences" as part of the Biennale of Electronic Arts Perth 2004. Nigel has been the recipient of various awards and fellowships, and has undertaken many international Artist Residencies.

The team works closely with Prof. Chris Rizos' Satellite Navigation and Positioning group (SNAP) at University of New South Wales who provide expertise in the area of positioning technologies.