Audio Watermarking

Copyright protection, real-time audience participation, 2nd screen applications and audience monitoring are just some of the applications utilising the Intrasonics audio watermarking technology.

What is audio watermarking? Audio watermarking is a system to embed data into audio streams that can then be decoded via a listening device such as a smartphone.

Who produces it? It has been developed by Intrasonics; a Cambridge based Technology Company who holds more than 20 patents on this development alone.

Where is it used? The Intrasonics audio watermarking system is being deployed around the world for uses such as audience monitoring (with Ipsos Mori), play along (Fonejacker/Facejacker – Channel 4, Antiques Roadshow – BBC) and many more.

Antiques roadshow watched by over 3.5M viewers each week

How does it work? Every moment of every day our ears are bombarded by extraneous sounds, for instance naturally occurring echoes caused by sound bouncing off various surfaces around us. Our brains naturally filter out those unwanted sounds; however, these echoes are picked up by listening devices such as microphones. Intrasonics has developed a system where data is added to audio stream and the ear is fooled into believing the 'sound' of that data is just another naturally occurring echo, hence the added data is filtered out. However, the data still exists and is therefore available to be decoded by a listening device, for instance a smartphone via its built in microphone.

How does the data get on the audio stream? Microvideo has, for over 25 years, been one of the world's leading specialists in encoding and decoding data to and from audio and video streams. Intrasonics chose Microvideo to be their hardware partner and it is a Series 300 hardware product, with dedicated firmware and software, that inserts the Intrasonics watermarking data silently into an analogue or digital audio stream or into the audio portion of a video stream.

Have there been any large scale deployments? Yes, Over 100 radio channels across Italy use the Intrasonics system with Microvideo hardware to provide up to the minute audience monitoring figures, over 3.5 million people watch the BBC's Antiques Roadshow each week and each week sees an increase in the number of people downloading the play-along app and more than 1 million tune in to both Facejacker and Fonejacker on the UK's Channel 4.

Facejacker, popular with teenagers in the UK

The Microvideo inserter, inserts the Intrasonics data which is then decoded by the smartphone, making the smartphone a completely interactive 2nd screen