

## RadioHack 2012

13-14 February, Geneva

The RadioHack workshop will be run by experts from BBC R&D, CRC, Global Labs, IDAG and EBU TECHNICAL. You can find below the proposed sessions that are planned for this event. Upon registration, each participant will be asked to indicate their particular areas of interest to allow us to create a more detailed schedule.

In any case, RadioHack will start on Monday 13 February at 13:00 with an introductory session and will end on Tuesday 14 February at 12:00.

## Proposed Sessions

### Introduction

What are we trying to achieve? What's the big picture for (digital) radio development, and the need to write code to deliver user experiences? The views of different stakeholders (broadcasters, manufacturers, network operators, end users, customers) will be explored and there will be a short introduction of the separate workshops.

### Tutorial: How to enable RadioDNS and RadioVIS for your station using the EBU platform

This session is a tutorial where participants will learn how the RadioDNS system works and how they can set up a basic service for their FM, DAB, DAB+ radio station.

EBU has created tools for EBU broadcasters who want to start testing and experimenting with RadioDNS without having to deploy the necessary infrastructure themselves. It offers the possibility of defining static visualisation using RadioVIS and a programme guide with RadioEPG. Dynamic visualisation from your studio facility is possible using the EBU Content Manager or EBU production platform. The RadioDNS manager is designed as an experimental service and is free of charge.

### RadioTAG for programmers

A practical session that allows coders to work in the RadioTAG environment, learning from existing implementations and code examples. The session will include a demonstration of tagging using the Revo Axis, how to signal and write the API to register and handle incoming tags from devices, how to cross-reference Tags to events and display them to users, and how to create exploration opportunities based on tags (e.g. linking on to Wikipedia, news sites, music information, Flickr etc.)

### RadioTAG for users

How will users experience tagging, and what's their motivation for using the service? What concepts do we need to explain, and how do we do that? Should we have standard ways of referring to and displaying tags? What kind of results do users expect to get from tagging? What kinds of commercial model are possible?

### RadioVIS

How to implement RadioVIS using existing tools, or how to work with a system integrator. Graduated approaches from simple static to dynamic. Integration of RadioVIS alongside DAB Slideshow. Thoughts on how to configure ActiveMQ to work reliably with large numbers of unreliable clients attached to it. How can VIS be more tightly synchronised to broadcast?

## RadioEPG

How to implement the Service Following (Broadcast<>IP) functionality in EPG. What it means for receiver behaviour. What broadcasters have to code to support it. Challenges of aligning different transport latencies.

## CRC tools

CRC mmbTools is a set of software tools, many of which are open source, for DAB/DAB+ and other broadcast systems encompassing the main building blocks of an end-to-end broadcast chain. This session will briefly introduce all the components available and provide a hands-on approach to the participants covering topics such as:

- How to use CRC mmbTools to produce your own live DAB signal
- Creating complex DAB multiplex
- The Openmokast receiver platform for GNU/Linux and Android
- CRC FM TwoO Android App: testing tool for RadioDNS/RadioVIS services

Note: Don't hesitate to bring your own laptop and USRP to configure your own system during the workshop.

## Other activities...

- IDAG will be present with an Enspert DAB+/DMB Android tablet. This will be an opportunity for developers to learn more about development of applications on this platform.
- EBU TECHNICAL will run a high power DAB+ transmission based on mmbTools from the roof of the EBU buildings. This will demonstrate that such a setup can be used for real local DAB+ broadcasts. Participants will have the opportunity to learn how such a setup was assembled.