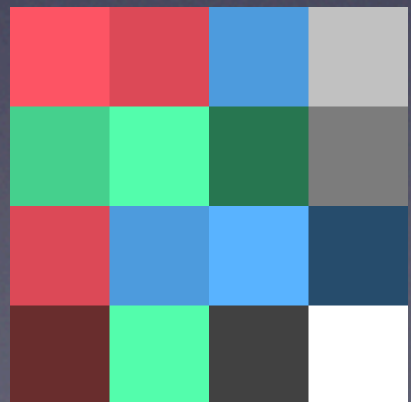


# Project Baird

What, why and how?



[projectbaird.com](https://projectbaird.com)

[@projectbaird](https://twitter.com/projectbaird)



# What is Project Baird?

The one (long) liner:

*A project to pull together specifications, prototypes and documentation for next-generation hybrid TV (and radio) applications.*



# What is Project Baird?

- Open to all interested parties

No direct affiliations.

- A collaborative effort

Code, specifications, and even the website itself are on GitHub — anybody can fork and submit patches.

- An effort to collate, not reinvent the wheel

We use and build upon existing specifications wherever possible.



# Why?

- Hybrid devices are exciting
- There's a whole world of potential applications
- “Next-generation” isn't very far away!



# How?

Identifying areas of technology:

- ...which are shared between the broadcasting and Internet communities
- ...which exist in one world but can benefit the other



# Questions we're answering

- How can a second screen device find out what's playing currently?
- What's the canonical URL for this programme?
- What are the subjects of this programme?
- How can applications be *automatically* presented for a given programme?



# What's happening now?

- Hybrid devices today are supporting interactive applications built with Web technologies (HTML, CSS, JavaScript)
- This means Web applications (and “widgets”) are being built which need to work with broadcast technologies
- W3C is launching the “Web and TV” working group to explore applications



# Where does DVB fit into all of this?

- DVB provides a rich infrastructure for broadcast environments
- History of providing support for iTV applications
- Lots of useful information is broadcast over-the-air, and can be relayed to apps and other devices on a LAN



# The DVB URI scheme

- Provides means to identify platforms, networks, multiplexes, events, and resources with a well-defined syntax, defined by DVB



# The DVB URI scheme

- Traditionally only used within “the broadcasting world”, such as interactive TV applications



# The DVB URI scheme

- Hybrid devices and second-screen applications are changing that



# The DVB URI scheme

- Provisionally registered at IANA
  - Current registration is by Project Baird, by way of an Internet Draft citing the DVB specification document published by ETSI.
  - <http://tools.ietf.org/html/draft-mcroberts-uri-dvb-04>
  - Exploring ways to move forward so that everybody wins.
  - Aim is for a permanent registration in the not-too-distant future, as collaboration between DVB and the Internet community.



# Why register?

Just as with any other registration-based system (for example, DVB `original_network_id`), URI schemes used in the real world are meant to be registered with IANA.

- To prevent competing registrations
- So that other specifications (e.g., W3C, IETF) can cite it in confidence
- If it's not registered at IANA, technically it doesn't exist



# The good news

- Registration is straightforward
- It only costs some time & effort
- A well-written draft will make DVB (particularly in a hybrid setting) more accessible to Internet-focussed developers



# The bad news

- Somebody needs to do it!
- It should probably be coordinated by DVB, as it's a DVB specification
- Historical decisions and technical architecture will probably need explaining to those unfamiliar with DVB



# Some examples

- Ask a hybrid receiver what it's playing:
  - <http://toys.projectbaird.com/now-playing/>
- Perform service discovery (using RadioDNS) to find a resolver service
  - <http://toys.projectbaird.com/lookup/>
- Find a canonical URL for the programme
  - For example: <http://www.bbc.co.uk/programmes/b00ty6b0>



# Some examples (continued)

- Fetch RDF/XML from that URL, and summarise it
  - <http://toys.projectbaird.com/summarise/>
- Discover subject URIs
  - <http://toys.projectbaird.com/delve/>
- Match subject URIs to applications & present
  - <http://toys.projectbaird.com/tablet/>
  - (needs WebKit, uses live experimental endpoints — YMMV)




# What does it look like?

Living room TV	BBC Four	
On now		
Programme guide		
Favourites		
Recommendations		
Would you like to know more?		
Rufous Elephant Shrew		
Weddell Seal		
Zambla		
African elephant		
Meerkat		
Humpback Whale		
Antarctica		
Aye-aye		
Reindeer		

## Life: Mammals

David Attenborough looks at how mammals dominate the planet through having warm blood and caring for their young, including Weddell seals, caribou and humpback whales.

[Find out more](#)



### More like this

Some recommendations


### Coming up

I live for the future. Tell me what's on next.

Living room TV	African elephant
On now	
Programme guide	
Favourites	
Recommendations	
Would you like to know more?	
Rufous Elephant Shrew	
Weddell Seal	
Zambla	
African elephant	
Meerkat	
Humpback Whale	
Antarctica	
Aye-aye	
Reindeer	

## African elephant


African elephants are the species of elephants in the genus *Loxodonta* (Greek for 'oblique-sided tooth'), one of the two existing genera in Elephantidae. Although it is commonly believed that the genus was named by Georges Cuvier in 1825, Cuvier spelled it *Loxodonte*. An anonymous author romanized the spelling to *Loxodonta* and the ICZN recognizes this as the proper authority. Fossil *Loxodonta* have only been found in Africa, where they developed in the middle Pliocene.



Living room TV	Meerkat
On now	
Programme guide	
Favourites	
Recommendations	
Would you like to know more?	
Rufous Elephant Shrew	
Weddell Seal	
Zambla	
African elephant	
Meerkat	
Humpback Whale	
Antarctica	
Aye-aye	
Reindeer	

## Meerkat


The meerkat or suricate *Suricata suricatta*, a small mammal, is a member of the mongoose family. Meerkats live in all parts of the Kalahari Desert in Botswana and in South Africa. A group of meerkats is called a "mob", "gang" or "clan". A meerkat clan often contains about 20 meerkats, but some superfamilies have 50 or more members. Meerkats have an average life span of 12-14 years.



Living room TV	Weddell Seal
On now	
Programme guide	
Favourites	
Recommendations	
Would you like to know more?	
Rufous Elephant Shrew	
Weddell Seal	
Zambla	
African elephant	
Meerkat	
Humpback Whale	
Antarctica	
Aye-aye	
Reindeer	

## Weddell Seal

The Weddell Seal (*Leptonychotes weddellii*), is a true seal that occurs in large numbers and inhabits the circumpolar region of the southern hemisphere, including Antarctica. It is estimated that there are approximately 800,000 individuals today. These seals are said to live further south than any other animal. This pinniped is not thought to migrate, and any local movements are usually the result of changes in ice conditions.





# Of course...

...this is just the start.

There are lots of ideas and applications in development and on the drawing-board.



# None of this would be possible without some help

- NoTube — <http://www.notube.tv>  
An EU-funded project exploring social and semantic television applications, with collaborators including the BBC, IRT, VU Amsterdam, and Ontotext.
- RadioDNS — <http://radiodns.org>  
An independent project providing a means to map a set of broadcast identifiers/parameters to a DNS domain name, supported by a number of (predominantly UK-based) broadcasters.
- DVB  
...for creating the environment upon which these kinds of applications can be built.





# This is Project Baird.

If you'd like to find out more, please don't hesitate to  
get in touch.

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