

# W3C TV Control Working Group Update

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WG Chair

Web and TV IG Meeting, 19 Sep 2016

# Purpose

- An API for sourcing audio and video media, such as TV and radio from broadcast, IPTV, or other sources, with associated channel and program metadata
- Allow presentation of the media using the <video> and <audio> HTML elements
- The API is agnostic of any underlying audio or video sourcing technologies

# Background

- Web and TV Interest Group Media APIs Task Force (2013-14)
  - Use Case Six: “Tuner Control thru Web Application”
  - (also Use Case Nine: “Watch and Record”)
- Community Group (2014-2016)
  - Requirements gathering
  - Comparison of existing APIs (OIPF DAE, Webinos, Samsung Web API, LG Connect SDK, etc.) and gap analysis
  - Draft TV Control API specification
- Working Group (April 2016 to present)
- First Public Working Draft in September 2016

# TV Control API Features

- Enumeration of tuners and sources, channel scanning
- Channel selection
- Playback using <video> or <audio>
- Multiple simultaneous streams
- Enumeration of Conditional Access Modules
- Timeshifted playback
- Recording by schedule or programme, playback of recordings
- Timed cues based on TextTrackCue
- Emergency alerts

# API: Selecting and playing a channel

```
var videoElement = document.getElementById("video");

navigator.tv.getTuners().then(function(tuners) {
    var tuner = tuners[0];

    tuner.setCurrentSource("dvb-t2").then(function() {
        tuner.currentSource.setCurrentChannel("101").then(function() {
            videoElement.srcObject = tuner.stream;
        })
    })
});
```

# API: Scheduling a recording

```
tuner.currentSource.getChannels().then(function(channels) {  
    var channel = selectChannel(channels);  
  
    channel.getPrograms().then(function(programs) {  
        var program = selectProgram(programs);  
  
        navigator.tv.addRecording({  
            description: program.title  
            channel: channel  
            program: program  
        });  
    });  
});  
});
```

# Current work and next steps

- Support for both TV and radio
  - Mobile devices with DAB / DAB+ receivers
  - Dynamic Label
  - Slideshow
  - Collaboration with the Automotive BG and WG



# Current work and next steps

- User privacy
  - Channel, recorded programmes lists increase browser fingerprinting footprint
- Access control to media and metadata
  - What are the Broadcaster / content provider requirements?
- Architecture
  - Which features should be made available to public web pages?
  - Which features require a more privileged / device specific context?



# Issues for the group

Wider industry involvement would help progress the spec work

- Interest from other TV industry groups, eg, the ATSC liaison

Open position for editor(s)

Join us!

# Meeting

Tomorrow, Tuesday 20th September

Starts at 9am in room 1.10

Agenda: [https://www.w3.org/wiki/TV\\_Control/Meetings/2016-09](https://www.w3.org/wiki/TV_Control/Meetings/2016-09)

# Links

Editor's Draft: <https://w3c.github.io/tvcontrol-api/>

GitHub: <https://github.com/w3c/tvcontrol-api/>

Working Group Homepage: <https://www.w3.org/2016/tvcontrol/>

Wiki: [www.w3.org/wiki/TV\\_Control](http://www.w3.org/wiki/TV_Control)