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IANA Registry for RTCWeb Constrainable Properties
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Abstract

Specifications in W3C's Media Capture Task Force and WebRTC Working Group have need of a registry in which to maintain a list of constrainable properties for HTML media and other constrainable objects. This document defines this registry.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on January 5, 2015.

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1. Introduction

There is currently one W3C specification (Media Capture and Streams [W3C.WD-mediacapture-streams-20130903]) that has need of a registry in which to represent constrainable properties, and it is expected that others will as well. The specification makes use of a data structure representing a list of constraints on the HTML media or media connection to be established. Additionally, the specification defines methods that are used to query the web browser about its capabilities. The returned data structure specifies the browser's capabilities in terms of constraints that it can satisfy. The data structures and their use are defined as the Constrainable Pattern in the aforementioned specification. This document specifies the registry used to define individual constrainable property names, their allowed values, and their meanings.

2. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

3. IANA Considerations

This document defines a registry "RTCWeb Constrainable Properties" for use by W3C specifications needing to indicate constrainable properties on HTML Media and other constrainable objects, both as used by web application authors to indicate preferences and as used by web browsers to indicate constrainable properties they can satisfy.

3.1. RTCWeb Constrainable Properties

IANA SHALL create a new name space of "RTCWeb Constrainable Properties". All maintenance within and additions to the contents of this name space MUST be according to the "Specification Required with Expert Review" registration policy as defined in RFC5226 [RFC5226]. The registry is initially empty. The registry is defined in the remainder of this section.

Each registry entry consists of a Name and a Reference (or list of references).

An RTCWeb Constrainable Property Name MUST satisfy the following ABNF [RFC5234] specification:

```
rtcweb-constrainable-property = constrainable-property-name
constrainable-property-name   = %x41-5A 0*constraint-char
constraint-char               = ALPHA / DIGIT
```

RTCWeb Constrainable Property Names are case-sensitive.

A registration request MUST include the following information:

- The RTCWeb Constrainable Property Name to be registered
- Name and Email address of a contact person for the registration
- Organization or individuals having the change control
- Reference(s) to the specification(s) defining the property

3.1.1. Designated Expert Instructions

RTCWeb Constrainable Property Names are of unlimited length according to the syntax. However, it is RECOMMENDED that they be no longer than 80 characters in total. This is to keep them reasonable for humans to read and use. It is RECOMMENDED that Names use camel case, i.e., when a Name consists of multiple words, the first character of each word SHOULD be an uppercase character, with all others being lowercase.

The references MUST define the following for each RTCWeb Constrainable Property:

allowed values

The references MUST define the allowed values for the property, for example an enumerated list of values or a range of integers.

object(s)
The references MUST define the object or objects for which the properties apply, for example a MediaStreamTrack.

The RTCWeb Constrainable Property MUST be well enough defined in the given references that it is understandable by implementors and application developers that will use the constraint. The property SHOULD NOT duplicate a condition that can be achieved using properties already defined in the registry. The property name SHOULD be appropriate and specific enough for the property.

4. Security Considerations

Since the constrainable properties envisioned for this registry are fairly generic in nature, it is not expected that the mere existence of this registry will introduce any particular security issues. Any specification defining one or more new properties SHOULD address any specific security issues that might be introduced by the properties or their constrainable values.

5. References

5.1. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[RFC5234] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008.

[RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 5226, May 2008.

5.2. Informative References

[W3C.WD-mediacapture-streams-20130903]
Burnett, D., Bergkvist, A., Jennings, C., and A. Narayanan, "Media Capture and Streams", World Wide Web Consortium WD WD-mediacapture-streams-20130903, September 2013, <http://www.w3.org/TR/2013/WD-mediacapture-streams-20130903/>.

Appendix A. Acknowledgements

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