Abstract

This document specifies an Extension to BCP 47 which provides subtags that specify language direction.

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1. Introduction

[RFC5646] permits the definition and registration of language tag extensions "that contain a language component and are compatible with applications that understand language tags". This document defines an extension for identifying text direction using language tags. The "singleton" identifier for this extension is ‘d’.

1.1. 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.

2. RFC5646 Required Information

Language tags, as defined by [RFC5646], are useful for identifying the language of content. Some operating environments also use the language tag to determine text direction, which can be problematic. This extension provides a mechanism for explicitly stating the direction of a specific language-tagged string.

2.1. Summary

The subtags available for use in the ‘d’ extension consist of the values ‘ltr’, ‘rtl’, and ‘auto’ for expressing text direction that is "left-to-right", "right-to-left", and "automatically detected", respectively.

For example, the language tag "ar-d-rtl" consists of:

- The base language tag "ar" (Arabic), exactly as defined by [RFC5646].
The singleton ‘d’, identifying this extension.

The attribute ‘rtl’, which specifies a direction of "right to left".

Only the first occurrence of an attribute or key conveys meaning in a language tag. When interpreting tags containing the direction extension, duplicate attributes or keywords are ignored in the following way: ignore any attribute that has already appeared in the tag and ignore any keyword whose key has already occurred in the tag.

2.1.1. Canonicalization

As required by [RFC5646], the use of uppercase or lowercase letters is not significant in the subtags used in this extension. The canonical form for all subtags in the extension is lowercase. The canonical order of attributes is in [US-ASCII] order (that is, numbers before letters, with letters sorted as lowercase US-ASCII code points). The canonical order of keywords is in [US-ASCII] order by key. The order of subtags within a keyword is significant; the meaning of this extension is altered if those subtags are rearranged. Thus, the canonical form of the extension never reorders the subtags within a keyword.

2.2. Registration Form

Per RFC 5646, Section 3.7 [RFC5646]:

```%
Identifier: d
Description: Text Direction
Comments: Subtags for the identification of language direction. Used to influence input mechanisms and graphical rendering.
Added: 2019-05-25
RFC: [TBD]
Authority: Manu Sporny
Contact_Email: msporny@digitalbazaar.com
Mailing_List: public-credentials@w3.org
URL: https://www.w3.org/2017/vc/WG/
%
```

3. Acknowledgements

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4. IANA Considerations

This document will require IANA to insert the record in Section 2.2 into the Language Extensions Registry, according to Section 3.7. Extensions and the Extensions Registry of "Tags for Identifying Languages" in [RFC5646].

This document does not require IANA to create or maintain a new registry or otherwise impact IANA.

5. Security Considerations

The security considerations for this extension are the same as those for [RFC5646]. See RFC 5646, Section 6, Security Considerations [RFC5646].

6. Normative References


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