**C Media Type Registration**

*This appendix is normative.*

This appendix registers a new MIME media type, "application/ttml+xml" in conformance with

[BCP 13](http://www.ietf.org/rfc/rfc4288.txt) and[W3CRegMedia](http://www.w3.org/2002/06/registering-mediatype.html). The information in this appendix is being submitted to the Internet Engineering Steering Group (IESG) for review, approval, and registration with the Internet Assigned Numbers Authority (IANA).

**Type name:**

application

**Subtype name:**

ttml+xml

**Required parameters:**

None.

**Optional parameters:**

**charset**

If supplied, the charset parameter must match the XML encoding declaration, or if absent, the actual encoding.

**profile**

The document profile of a TTML document may be specified using an optional profile parameter, which, if specified, the value of which must adhere to the syntax and semantics ofttp:profile parameter defined by Section[**6.2.8 ttp:profile**](http://dvcs.w3.org/hg/ttml/raw-file/tip/ttml10/spec/ttaf1-dfxp.html#parameter-attribute-profile)of the published specification. See <http://www.w3.org/TR/ttaf1-dfxp/#parameter-attribute-profile>

**Encoding considerations:**

Same for application/xml, except constrained to either UTF-8 or UTF-16. See [[XML Media]](http://dvcs.w3.org/hg/ttml/raw-file/tip/ttml10/spec/ttaf1-dfxp.html#xml-media), Section 3.2.

**Security considerations:**

As with other XML types and as noted in [[XML Media]](http://dvcs.w3.org/hg/ttml/raw-file/tip/ttml10/spec/ttaf1-dfxp.html#xml-media)Section 10, repeated expansion of maliciously constructed XML entities can be used to consume large amounts of memory, which may cause XML processors in constrained environments to fail.

In addition, because of the extensibility features for TTML and of XML in general, it is possible that "application/ttml+xml" may describe content that has security implications beyond those described here. However, TTML does not provide for any sort of active or executable content, and if the processor follows only the normative semantics of the published specification, this content will be outside TTML namespaces and may be ignored. Only in the case where the processor recognizes and processes the additional content, or where further processing of that content is dispatched to other processors, would security issues potentially arise. And in that case, they would fall outside the domain of this registration document.

Although not prohibited, there are not expectations that XML signatures or encryption would normally be employed.

**Interoperability considerations:**

The published specification describes processing semantics that dictate behavior that must be followed when dealing with, among other things, unrecognized elements and attributes, both in TTML namespaces and in other namespaces.

Because TTML is extensible, conformant "application/ttml+xml" processors must expect that content received is well-formed XML, but it cannot be guaranteed that the content is valid to a particular DTD or Schema or that the processor will recognize all of the elements and attributes in the document.

**Published specification:**

This media type registration is extracted from Appendix C Media Type Registration of the Timed Text Markup Language (TTML) 1.0 specification: [Timed Text Markup Language (TTML) 1.0](http://www.w3.org/TR/ttaf1-dfxp/).

**Applications that use this media type:**

TTML is used in the television industry for the purpose of authoring, transcoding and exchanging timed text information and for delivering captions for television material repurposed for the internet.

There is partial and full support of TTML in components used by several Web browsers plugins, and in a number of caption authoring tools.

**Additional information:**

**Magic number(s):**

**File extension(s):**

.ttml

**Macintosh file type code(s):**

"TTML"

**Fragment identifiers:**

For documents labeled as application/ttml+xml, the fragment identifier notation is intended to be used with xml:id attributes, as described in section 7.2.1 of the [Timed Text Markup Language (TTML) 1.0](http://www.w3.org/TR/ttaf1-dfxp/) specification.

**Person & email address to contact for further information:**

Timed Text Working Group (public-tt@w3.org)

**Intended usage:**

COMMON

**Restrictions on usage:**

None

**Author:**

The published specification is a work product of the World Wide Web Consortium's Timed Text (TT) Working Group.

**Change controller:**

The W3C has change control over this specification.