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L. Romary  
TEI Consortium and INRIA  
S. Lundberg  
The Royal Library, Copenhagen  
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## The 'application/tei+xml' Media Type

### Abstract

This document defines the 'application/tei+xml' media type for markup languages defined in accordance with the Text Encoding and Interchange guidelines.

### Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

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## 1. Introduction

Text Encoding and Interchange (TEI) is an international and interdisciplinary standard that is widely used by libraries, museums, publishers, and individual scholars to represent all kinds of textual material for online research and teaching [TEI].

This document defines the 'application/tei+xml' media type in accordance with [RFC3023] in order to enable generic processing of such documents on the Internet using eXtensible Markup Language (XML) [W3C.REC-xml-20081126] technologies.

## 2. Recognizing TEI Files

TEI files are XML documents or fragments having the root element (as defined in [W3C.REC-xml-20081126]) in a TEI namespace. TEI namespace names are defined as a Universal Resource Identifier (URI) [RFC3986] in accordance with [W3C.REC-xml-names-20091208] and begins with `http://www.tei-c.org/ns/` followed by the version number of the namespace. The current namespace is `http://www.tei-c.org/ns/1.0`

The most common root element names for TEI documents are

```
<TEI>
```

```
<teiCorpus>
```

The teiCorpus documents provide the ability to bundle multiple documents into a single file.

Examples:

A document having <TEI> root element

```
<?xml version="1.0" encoding="UTF-8" ?>
<TEI xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    ...
  </teiHeader>
  <text>
    ...
  </text>
</TEI>
```

A document having <teiCorpus> root element

```
<?xml version="1.0" encoding="UTF-8" ?>
<teiCorpus xmlns="http://www.tei-c.org/ns/1.0">
  <teiHeader>
    ...
  </teiHeader>
  <TEI>
    <teiHeader>
      ...
    </teiHeader>
    <text>
      ...
    </text>
  </TEI>
  <TEI>
    ... second document ...
  </TEI>
  <TEI>
    ... third document ...
  </TEI>
</teiCorpus>
```

TEI and teiCorpus files are often given the extensions .tei and .teiCorpus, respectively. There is a third type of file, which often is given the suffix .odd. ODD ("One Document Does it All") is a TEI XML document that includes schema fragments, prose documentation, and reference documentation. It is used for the definition and documentation of XML-based languages, and primarily for the TEI Guidelines [ODD]. In other words, ODD files do not differ from other TEI files in syntax, only in function.

### 3. Fragment Identifier

Documents having the media type 'application/tei+xml' use the fragment identifier notation as specified in [RFC3023] for the media type 'application/xml'.

### 4. Security Considerations

An XML resource does not in itself compromise data security. When being available on a network simply through the dereferencing of an Internationalized Resource Identifier (IRI) [RFC3987] or a URI, care must be taken to properly interpret the data to prevent unintended access. Hence the security issues of [RFC3986], Section 7, apply. In addition, as this media type uses the "+xml" convention, it shares the same security considerations as described in RFC 3023 [RFC3023], Section 10. In general, security issues related to the use of XML in IETF protocols are treated in RFC 3470 [RFC3470], Section 7. We will not try to duplicate this material, but review some aspects that are important for document-centric XML as applied to text encoding.

#### 4.1. Harmful Content

Any application accepting submitted or retrieving TEI XML for processing has to be aware of risks connected with injection of harmful scripts and executable XML. XML inclusion [W3C.REC-xinclude-20061115] and the use of external entities are vulnerable to various forms of spoofing, and can also reveal aspects of a service in a way that may compromise its security. Any vulnerability of these kinds are, however, application specific. The TEI namespaces do not contain such elements.

#### 4.2. Intellectual Property Rights

TEI documents often arise in digitization of cultural heritage materials. Texts made accessible in TEI format may be unrestricted in the sense that their distribution may be unlimited by Digital Rights Management [DRM] or Intellectual Property Rights [IPR] constraints. However, TEI documents are heterogeneous. Some parts of a document may be unrestricted, whereas others, such as editorial text and annotations, may be subject to DRM restrictions.

The TEI format provides means for highly granular attribution, down to the content of individual XML elements. Software agents participating in the exchange or processing TEI may be required to honour markup of this kind. Even when there are no IPR constraints, intellectual property attribution alone requires that document users be able to tell the difference between content from different sources.

#### 4.3. Authenticity and confidentiality

Historical archival records are often encoded in TEI and legal document may be binding centuries after they were written. Digitization and encoding of legal texts may require technologies for assuring authenticity, such as cryptographic checksums and electronic signatures.

Similarly, historical documents may in part or in their entirety be confidential. This may be required by law or by the terms and conditions, such as in the case of donated or deposited text from private sources. A text archive may need content filtering or cryptographic technologies to meet such requirements.

### 5. IANA Considerations

#### 5.1. Registration of MIME Type 'application/tei+xml'

MIME media type name: application

MIME subtype name: tei+xml

Required parameters: None

Optional parameters: charset

the parameter has identical semantics to the charset parameter of the "application/xml" media type as specified in RFC 3023 [RFC3023].

Encoding considerations:

Identical to those for 'application/xml'. See RFC 3023 [RFC3023], Section 3.2.

Security considerations:

See Security Considerations (Section 4) in this specification.

Interoperability considerations:

TEI documents are often given the extension '.xml', which is not uncommon for other XML document formats.

Published specification:

This media type registration is for TEI documents [TEI] as described here. TEI syntax is defined in a schema [TEISchema].

Applications which use this media type:

There are currently no known applications using the media type 'application/tei+xml'.

Additional information:

Magic number(s):

There is no single initial octet sequence that is always present in TEI documents.

file extension(s):

Common extensions are '.tei', '.teiCorpus' and '.odd'. See Recognizing TEI files (Section 2) in this specification.

Macintosh File Type Code(s)

TEXT

Object Identifier(s) or OID(s)

Not applicable

## 6. References

### 6.1. Normative References

- [RFC3023] Murata, M., St. Laurent, S., and D. Kohn, "XML Media Types", RFC 3023, January 2001.
- [RFC3470] Hollenbeck, S., Rose, M., and L. Masinter, "Guidelines for the Use of Extensible Markup Language (XML) within IETF Protocols", BCP 70, RFC 3470, January 2003.
- [RFC3986] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform Resource Identifier (URI): Generic Syntax", STD 66, RFC 3986, January 2005.
- [RFC3987] Duerst, M. and M. Suignard, "Internationalized Resource Identifiers (IRIs)", RFC 3987, January 2005.
- [TEI] "TEI Guidelines", <<http://www.tei-c.org/Vault/P5/1.8.0/doc/tei-p5-doc/en/html/>>.

## [TEISchema]

"Schema generated from ODD source", <[http://www.tei-c.org/release/xml/tei/custom/schema/relaxng/tei\\_all.rng](http://www.tei-c.org/release/xml/tei/custom/schema/relaxng/tei_all.rng)>.

## [W3C.REC-xml-20081126]

Paoli, J., Yergeau, F., Sperberg-McQueen, C., Maler, E., and T. Bray, "Extensible Markup Language (XML) 1.0 (Fifth Edition)", World Wide Web Consortium Recommendation REC-xml-20081126, November 2008, <<http://www.w3.org/TR/2008/REC-xml-20081126>>.

## [W3C.REC-xml-names-20091208]

Bray, T., Hollander, D., Layman, A., Tobin, R., and H. Thompson, "Namespaces in XML 1.0 (Third Edition)", World Wide Web Consortium Recommendation REC-xml-names-20091208, December 2009, <<http://www.w3.org/TR/2009/REC-xml-names-20091208>>.

## 6.2. Informative References

## [DRM]

"Digital rights management", <[http://en.wikipedia.org/w/index.php?title=Digital\\_rights\\_management&oldid=412653591](http://en.wikipedia.org/w/index.php?title=Digital_rights_management&oldid=412653591)>.

## [IPR]

"Intellectual property", <[http://en.wikipedia.org/w/index.php?title=Intellectual\\_property&oldid=411690322](http://en.wikipedia.org/w/index.php?title=Intellectual_property&oldid=411690322)>.

## [ODD]

"Getting Started with P5 ODDs", <<http://www.tei-c.org/Guidelines/Customization/odds.xml>>.

## [W3C.REC-xinclude-20061115]

Marsh, J., Orchard, D., and D. Veillard, "XML Inclusions (XInclude) Version 1.0 (Second Edition)", World Wide Web Consortium Recommendation REC-xinclude-20061115, November 2006, <<http://www.w3.org/TR/2006/REC-xinclude-20061115>>.

## Authors' Addresses

Laurent Romary  
TEI Consortium and INRIA

EEmail: [laurent.romary@inria.fr](mailto:laurent.romary@inria.fr)  
URI: <http://www.tei-c.org/>

Sigfrid Lundberg  
The Royal Library, Copenhagen  
Postbox 2149  
1016 Koebenhavn K  
Denmark

EEmail: [slu@kb.dk](mailto:slu@kb.dk)  
URI: <http://sigfrid-lundberg.se/>