In-lining Extensions for Atom
draft-mehta-atom-inline-01

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Abstract

This specification defines mechanisms for in-lining representations of linked Atom resources.
Editorial Note

To provide feedback on this Internet-Draft, join the atom-syntax mailing list (http://www.imc.org/atom-syntax/) [1].

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1. Introduction

This document defines an extension for in-line representations of linked Atom resources within the Atom Syndication Format [RFC4287].

1.1. Namespace

The XML Namespaces URI for the XML data format described in this specification is:

http://purl.org/atom/ext/

This specification uses the prefix "ae:" for the namespace name. The prefix "atom:" is used for "http://www.w3.org/2005/Atom", the namespace name of the Atom Syndication Format [RFC4287]. These namespace prefixes are not semantically significant.

1.2. Notational Conventions

Some sections of this specification are illustrated with fragments of a non-normative RELAX NG Compact schema [RELAXNG]. In those sections, this specification uses the atomEntry, atomFeed, and atomCommonAttributes, defined in [RFC4287].

However, the text of this specification provides the definition of conformance.

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 [RFC2119].

1.3. Terminology

This specification uses Atom link relations to identify different types of links; see the Atom specification [RFC4287] for information about their syntax, and the IANA link relation registry for more information about specific values.

2. In-line Representation of Atom Resources

Some applications require the ability to pre-fetch resources linked from an Atom document using the atom:link element [RFC4287]. Such in-line representations are similar to the in-line content model of Atom.

An Atom document MAY include the in-line representation of a linked Atom resource by using the ae:inline element inside the corresponding
atom:link element. The in-lined representation is only a hint and MAY differ from the representation obtained from the URI referenced in the link. Atom Processors SHOULD use the link URI to obtain the complete representation of the linked resource.

2.1. The "ae:inline" Extension Element

The "ae:inline" element contains an approximate representation of the linked resource.

extensionInline =
  element ae:inline {
    atomCommonAttributes,
    atomFeed | atomEntry | empty
  }

2.1.1. The "type" Attribute

The type attribute on a link element is a hint about the type of representation that is expected to be returned when the value of the href attribute is dereferenced. A processor must be prepared to deal with either Atom document type regardless of the value of the type attribute in the link element.

2.1.2. Empty "ae:inline" Element

The ae:inline element may be empty if the producer of the Atom document a linked resource cannot be in-lined, e.g., due to inadequate authorization or if the resource does not yet exist.

3. Examples

3.1. Feed with empty in-line replies feed link

The following example demonstrates use of an empty in-lined feed within an atom:link element. The type attribute of link is interpreted as an Atom feed document due to the requirements of the replies link relation.
<feed xmlns="http://www.w3.org/2005/Atom"
     xmlns:thr="http://purl.org/syndication/thread/1.0">
  <id>http://www.example.org/entries</id>
  <title>My posts</title>
  <updated>2006-03-01T12:12:12Z</updated>
  <link rel="replies"
       href="http://www.example.org/replies">
    <ae:inline xmlns:ae="http://purl.org/atom/ext/">
    
    
    </ae:inline>
  </link>
  <link rel="self"
       href="http://www.example.org/entries" />
  ...
</feed>

3.2. Entry with in-line via feed link

The following example demonstrates use of an in-lined feed within an
atom:link element. The type attribute of link is general enough to
allow either Atom feed or entry document to be in-lined.

<entry xmlns="http://www.w3.org/2005/Atom"
       xmlns:thr="http://purl.org/syndication/thread/1.0">
  <id>http://www.example.org/entry/1</id>
  <title>My posts</title>
  <updated>2006-03-01T12:12:12Z</updated>
  <link rel="via" type="application/atom+xml"
       href="http://www.example.org/entry/1/via">
    <ae:inline xmlns:ae="http://purl.org/atom/ext/"
               xmlns:thr="http://purl.org/syndication/thread/1.0">
      <feed>... ...
      </feed>
    </ae:inline>
  </link>
  <link rel="self"
       href="http://www.example.org/entry/1" />
  ...
</entry>

3.3. Entry with in-line up link

The following example demonstrates use of an in-lined entry within an
atom:link element. The type attribute of link is specifically
limiting the in-lined content to use an Atom entry document.
<entry xmlns="http://www.w3.org/2005/Atom">
  <link rel="up" type="application/atom+xml;type=entry"
    href="/finance/feeds/default/portfolios/1">
    <ae:inline>
      <entry>
        ...
      </entry>
    </ae:inline>
  </link>
  <link rel="edit"
    href="/finance/feeds/default/portfolios/1/positions/NASDAQ:ORCL"/>
      ...
</entry>

4. Security Considerations

In-line Extensions for Atom are subject to the security considerations found in Section 8 of [RFC4287].

In-line representations can overwhelm Atom processors. For this reason, consumers of Atom representations should take adequate precautions to limit resource consumption when processing ae:inline elements.

5. References

5.1. Normative References


5.2. Informative References


URIs


Appendix A. Acknowledgements

On the atom-syntax mailing list, Hadrien Gardeur, Al Brown, Julian Reschke, Mark Nottingham, Pablo Castro, Kyle Marvin, and James Snell provided very valuable feedback to solidify this draft.

Appendix B. Revision History

00 - Initial Revision, split from draft-divilley-atom-hierarchy-01.

01 - Limited scope of in-lining to Atom.
   Removed type attribute from ae:inline as well as support for non-Atom in-lining.
   Specified the interpretation of type attribute and the value of ae:inline
   Added example for empty inline element
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