

**Atom Syndication Format Revision Tracking  
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Abstract

This specification defines metadata extensions for use with the Atom Syndication Format to track revisions of entries.

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## 1. Introduction

This specification defines metadata extensions for use with the Atom Syndication Format [[RFC4287](#)] to track revisions of entries. The extensions include versioning of entries, links to change summaries and histories, and indicators as to the relative importance, or significance of the revision.

## 2. Notational Conventions

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 [BCP 14](#), [[RFC2119](#)]

This specification uses XML Namespaces [[W3C.REC-xml-names-19990114](#)] to uniquely identify XML element names. It uses the following namespace prefix for the indicated namespace URI;

{Ed. Note: this namespace MUST be changed to a proper IETF namespace scheme prior to publication}

```
"ar": "http://purl.org/atompub/revision/1.0"
```

## 3. The 'revision' element

The 'revision' element MAY appear as a child of an atom:entry element to identify a "revision number" for the entry.

```
revision = element ar:revision {
  atomCommonAttributes,
  attribute number { text },
  attribute scheme { atomIRI }?,
  attribute label { text }?,
  attribute when { date-time }?,
  attribute initial { 'yes' | 'no' }?,
  attribute final { 'yes' | 'no' }?,
  attribute significant { 'yes' | 'no' }?,
  ( atomTextConstruct )
}
```

The 'revision' element is an extension of the Atom Text Construct that is used to identify a "revision number" for an entry. The revision element MUST contain a 'number' attribute whose value identifies the revision number of the entry. The text value of the element MAY be used to provide a summary of the revision. Within the number attribute, escaped versions of characters such as "&" and ">"

represent those characters, not markup.

The 'scheme' attribute MAY be used to provide an IRI identifying the scheme used to produce the revision number specified by the 'number' attribute. If the scheme attribute is not specified, the value of the 'number' attribute MUST be a non-negative numeric value.

The 'label' attribute MAY be used to associate a simple human readable text label with the revision. Within the value, escaped versions of characters such as "&" and ">" represent those characters, not markup.

The 'when' attribute MAY be used to provide an [RFC3339](#) date-time specifying the date and time that the revision was performed. An uppercase "T" character MUST be used to separate date and time, and an uppercase "Z" character MUST be present in the absence of a numeric time zone offset.

The 'initial' attribute indicates whether or not this revision represents the initial version of an entry. The value is either "yes" or "no". When missing, the value is considered to be "no".

The 'final' attribute indicates whether or not this revision represents the final version of an entry. The value is either "yes" or "no". Feed publishers SHOULD NOT continue to update atom:entry's that have been marked as "final" revisions. Atom processors MAY ignore atom:entry elements with revision element values and atom:updated values greater than those specified in a "final" revision. When missing, the value is considered to be "no".

The 'significant' attribute indicates whether or not the revision should be considered to be "significant" or not. The value is either "yes" or "no". Atom processors MAY choose to process or present significant revisions differently than non-significant revisions. When missing, the value is considered to be "no".

For example,

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision
      number="0.1"
      when="2006-02-21T00:00:00Z"
      initial="yes"
      final="no"
      significant="yes"
      type="text">
      Fixed typographical and factual errors
    </ar:revision>
    ...
  </entry>
</feed>
```

An Atom entry is a revision of a prior entry only if the two entries share the same atom:id value and the revision number attribute and atom:updated element values are both greater than the previous version of the entry.

#### **4. The 'host' Element**

Atom Person Constructs contained within an atom entry MAY contain a 'host' element whose value is either the IP Address or Domain host name from which the person created or modified the entry.

Within value of the 'host' element, the escaped versions of characters such as "&" and ">" represent those characters, not markup.

```
host = element ar:host { text }
```

For example,

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <author>
      <name>James</name>
      <ar:host>192.168.1.106</ar:host>
    </author>
    ...
  </entry>
</feed>
```

## 5. The 'comment' Element

Atom entry and feed elements MAY contain zero or more 'comment' elements that provide the equivalent to editorial notes.

```
comment = element ar:comment {
  atomCommonAttributes,
  (atomAuthor?,
  atomUpdated,
  atomSummary,
  undefinedContent)
}
```

The 'comment' element SHOULD contain an atom:author element identifying the person or entity that created the comment.

The 'comment' element MUST contain one atom:updated element that specifies the date and time that the comment was created and added to the entry or feed.

The 'comment' element MUST contain one atom:summary element that contains containing the text of the comment.

For example,

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:comment>
      <author><name>James</name></author>
      <updated>2006-02-21T00:00:00Z</updated>
      <summary>
        We still need to fix the factual errors in this entry
      </summary>
    </ar:comment>
    ...
  </entry>
</feed>
```

## 6. The 'deleted-entry' element

The 'deleted-entry' element MAY appear as a child of atom:feed to represent an Atom Entry that has been removed from the feed.

```
deletedEntry = element at:deleted-entry {
  atomCommonAttributes,
  ( & atomID,
    & revision?,
    & when,
    & by?,
    & undefinedContent )
}

when = element at:when { atomDateConstruct }
by = element at:by { atomPersonConstruct }
```

The 'deleted-entry' element MUST contain one 'atom:id' element whose value specifies the atom:id of the deleted entry.

The 'deleted-entry' MAY contain one revision element.

One 'when' element MUST be provided specifying the instant the entry was deleted. The 'when' element is an Atom Date Construct as defined by [\[RFC4287\]](#).

One 'by' element MAY be provided to identify the person or entity that removed the entry from the feed. The 'by' element is an Atom Person Construct as defined by [\[RFC4287\]](#).

Atom Feed Documents MAY contain any number of 'deleted-entry' elements.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <ar:deleted-entry>
    <id>tag:example.org,2005:/entries/1</id>
    <ar:revision
      number="3">Removed comment spam</ar:revision>
    <ar:when>2005-11-29T12:12:12Z</ar:when>
    <ar:by>
      <name>John Doe</name>
      <email>jdoe@example.org</email>
      <ar:host>192.168.1.106</ar:host>
    </ar:by>
  </ar:deleted-entry>
  ...
</feed>
```

An Atom feed MAY contain atom:entry elements and 'deleted-entry' elements sharing the same atom:id value. Atom processors MUST ignore any 'deleted-entry' elements sharing an atom:id value with an atom:entry whose 'updated' element specifies a date and time more recent than the 'deleted-entry' element's 'when' value.

## **7. The 'history' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'history' whose href attribute identifies a resource describing the revision history of the entry. If the history link points to an Atom Feed Document, the referenced feed MUST contain one or more atom:entry or 'deleted-entry' elements, each of which represents one revision of the entry. The entry and deleted-entry elements MUST have the same atom:id value and MUST have different 'revision', atom:updated or when values.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <link rel="history" type="application/atom+xml"
      href="http://example.org/entry/1/history" />
    ...
  </entry>
</feed>
```



An example History Feed

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <ar:deleted-entry>
    <id>tag:example.org,2006:entries/1</id>
    <ar:revision
      number="3"
      final="yes"
      significant="yes" />
    <ar:when>2006-02-27T00:00:00Z</ar:when>
  </ar:deleted-entry>
  <entry>
    <id>tag:example.org,2006:entries/1</id>
    <updated>2006-02-26T00:00:00Z</updated>
    <ar:revision
      number="2"
      significant="no">Fixed typos</ar:revision>
    ...
  </entry>
  <entry>
    <id>tag:example.org,2006:entries/1</id>
    <updated>2006-02-25T00:00:00Z</updated>
    <ar:revision
      number="1"
      initial="yes"
      significant="yes" />
    ...
  </entry>
</feed>
```

## **8. The 'diff' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'diff' whose href attribute identifies a resource describing the deltas between this revision of the entry and the previous revision.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <link rel="diff"
      href="http://example.org/entry/1/diff" />
    ...
  </entry>
</feed>
```

## **9. The 'initial-revision' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'initial-revision' whose href attribute specifies the URI of an Atom Entry Document representing the initial version of the entry.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision number="0.2" />
    <link rel="initial-revision" type="application/atom+xml"
      href="http://example.org/entry/1?revision=0.1" />
    ...
  </entry>
</feed>
```

## **10. The 'current-revision' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'current-revision' whose href attribute specifies the URI of an Atom Entry Document representing the current version of the entry.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision number="0.2" />
    <link rel="current-revision" type="application/atom+xml"
      href="http://example.org/entry/1" />
    ...
  </entry>
</feed>
```

## **11. The 'this-revision' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'this-revision' whose href attribute specifies the URI of an Atom Entry Document representing the this version of the entry.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision number="0.2" />
    <link rel="this-revision" type="application/atom+xml"
      href="http://example.org/entry/1?revision=0.2" />
    ...
  </entry>
</feed>
```

## **12. The 'prior-revision' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'prior-revision' whose href attribute specifies the URI of an Atom Entry Document representing the previous version of the entry.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision number="0.2" />
    <link rel="prior-revision" type="application/atom+xml"
      href="http://example.org/entry/1?revision=0.1" />
    ...
  </entry>
</feed>
```

## **13. The 'next-revision' Link Relation**

Atom entry elements MAY contain an atom:link element with a rel attribute value of 'next-revision' whose href attribute specifies the URI of an Atom Entry Document representing the subsequent version of the entry.

```
<feed xmlns="http://www.w3.org/2005/Atom">
  ...
  <entry>
    ...
    <ar:revision number="0.2" />
    <link rel="next-revision" type="application/atom+xml"
      href="http://example.org/entry/1?revision=0.3" />
    ...
  </entry>
</feed>
```

#### **14. Security Considerations**

The extensions defined in this specification are subject to the same security considerations as discussed in [[RFC4287](#)].

#### **15. IANA Considerations**

This specification defines seven new link relations for the IANA Registry of Link Relations as defined by [[RFC4287](#)].

Attribute Value: history

Description: identifies a resource describing the revision history of an atom:entry

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: diff

Description: identifies a resource describing the deltas between the current revision of an atom:entry and its prior version.

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: initial-revision

Description: identifies an Atom Entry Document describing the initial version of a resource

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: current-revision

Description: identifies an Atom Entry Document describing the current version of a resource

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: this-revision

Description: identifies an Atom Entry Document describing the version of the resource containing the this-revision link.

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: prior-revision

Description: identifies an Atom Entry Document describing the previous version of a resource

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

Attribute Value: next-revision

Description: identifies an Atom Entry Document describing the next version of a resource

Display characteristics: None

Security considerations: Same as <xref target="[RFC4287](#)" />

## **16. Acknowledgements**

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the Atom Publishing Format and Protocol working group during the development of this specification. Some of the language included in this draft has been adapted directly from the Atom Syndication Format [[RFC4287](#)] in order to maintain a stylistic and technical alignment to that specification.

## **17. References**

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [RFC3339] Klyne, G. and C. Newman, "Date and Time on the Internet: Timestamps", [RFC 3339](#), July 2002.
- [RFC4287] Nottingham, M. and R. Sayre, "The Atom Syndication Format", [RFC 4287](#), December 2005.
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Hollander, D., Bray, T., and A. Layman, "Namespaces in XML", W3C REC REC-xml-names-19990114, January 1999.

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