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[TOC](#)

Link Relations for Simple Version Navigation draft-brown-versioning-link-relations-00

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Abstract

This specification defines Atom link relations for navigation between a resource and its versions.

Editorial Note (To be removed by RFC Editor before publication)

Please send comments to the Atom Syntax mailing list (<http://www.imc.org/atom-syntax/>).

Table of Contents

- [1.](#) Introduction
- [2.](#) Terminology
- [3.](#) Link Relations
- [4.](#) Examples
- [5.](#) Security Considerations
- [6.](#) IANA Considerations
- [7.](#) References
 - [7.1.](#) Normative References
 - [7.2.](#) Informative References
- [Appendix A.](#) Relationship to JCR and WebDAV
- [Appendix B.](#) Contributors
- [§](#) Authors' Addresses

1. Introduction

[TOC](#)

This specification defines link relations that may be used on a resource that exists in a system that supports versioning to navigate among the different resources available, such as past versions.

2. Terminology

[TOC](#)

The terms below are borrowed from the Versioning Extensions to WebDAV (Web Distributed Authoring and Versioning) ([\[RFC3253\]](#) (Clemm, G., Amsden, J., Ellison, T., Kaler, C., and J. Whitehead, "Versioning Extensions to WebDAV (Web Distributed Authoring and Versioning)," March 2002.)).

Version-Controlled Resource, Checked-Out

When a versionable resource is put under version control, it becomes a "version-controlled resource". A version-controlled resource can be "checked out" to allow modification.

Checked-Out Resource

A "checked-out resource" is a resource under version control that is in the checked-out state.

Version Resource

A "version resource", or simply "version", is a resource that contains a copy of a particular state of a version-controlled resource. A version is created by "checking in" a checked-out

resource. The server allocates a distinct new URL for each new version.

Version History Resource

A "version history resource", or simply "version history", is a resource that contains all the versions of a particular version-controlled resource.

Predecessor, Successor, Ancestor, Descendant

When a version-controlled resource is checked out and then subsequently checked in, the version that was checked out becomes a "predecessor" of the version created by the checkin. A client can specify multiple predecessors for a new version if the new version is logically a merge of those predecessors. When a version is connected to another version by traversing one or more predecessor relations, it is called an "ancestor" of that version. The inverse of the predecessor and ancestor relations are the "successor" and "descendant" relations. Therefore, if X is a predecessor of Y, then Y is a successor of X, and if X is an ancestor of Y, then Y is a descendant of X.

Root Version Resource

The "root version resource", or simply "root version", is the version in a version history that is an ancestor of every other version in that version history.

Working Resource

A "working resource" is a checked-out resource created by the server at a server-defined URL when a version (instead of a version-controlled resource) is checked out.
[\[issue.working.resource\] \(jre: Is this true for JCR and CMIS as well? Maybe we need to relax the definition?\)](#)

3. Link Relations

[TOC](#)

The following link relations are defined:

all-versions When included on a version controlled resource, this link points to a resource containing the version history for this resource.

latest-version When included on a version controlled resource, this link points to a resource containing the latest (e.g., current) version. [\[issue.latest.version\] \(jre: I think "latest" is misleading, as it may not be the "latest" when different branches are involved. JCR 1.0 has "base version", defined as "The base version of a particular node N is the one that will serve as the default immediate predecessor of the next version of N that is created." -- can we adopt that? \(see](#)

http://www.day.com/specs/jcr/1.0/8.2.3_The_Base_Version.html>).)

working-copy When included on a Checked-Out resource, this link points to a Working Resource. [\[issue.working.resource.2\] \(jre: I think the working resource *is* checked out, and the link lives on either a version or version controlled resource \(which stays checked in\).\)](#)

predecessor-version When included on a version resource, this link points to a resource containing the predecessor version in the version history.

successor-version When included on a version resource, this link points to a resource containing the successor version in the version history.

4. Examples

[TOC](#)

[\[anchor2\] \(To Be Done\)](#)

5. Security Considerations

[TOC](#)

Automated agents should take care when these relation crosses administrative domains (e.g., the URI has a different authority than the current document).

6. IANA Considerations

[TOC](#)

The link relations defined in [Section 3 \(Link Relations\)](#) are to be registered by IANA per [\[RFC4287\] \(Nottingham, M. and R. Sayre, "The Atom Syndication Format," December 2005.\)](#).

All link relations defined in this document will have the following expected display characteristics:

Undefined; this relation can be used for background processing or to provide extended functionality without displaying its value.

7. References

[TOC](#)

7.1. Normative References

[TOC](#)

[RFC4287]	Nottingham, M. and R. Sayre, " The Atom Syndication Format ," RFC 4287, December 2005.
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7.2. Informative References

[TOC](#)

[RFC3253]	Clemm, G., Amsden, J., Ellison, T., Kaler, C., and J. Whitehead, " Versioning Extensions to WebDAV (Web Distributed Authoring and Versioning) ," RFC 3253, March 2002.
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Appendix A. Relationship to JCR and WebDAV

[TOC](#)

[\[anchor6\]](#) (To Be Done: describe how versioning properties in JCR and in WebDAV/DeltaV map to the newly defined link relations.)

Appendix B. Contributors

[TOC](#)

The content and concepts within are a product of the Content Management Interoperability Services (CMIS) Technical Committee (TC) at OASIS.

All members of the TC have contributed.

Authors' Addresses

[TOC](#)

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