OData JSON Format Version 4.02

Committee Specification Draft 01

14 July 2023

This stage:

https://docs.oasis-open.org/odata/odata-json-format/v4.02/csd01/odata-json-format-v4.02-csd01.md (Authoritative)
https://docs.oasis-open.org/odata/odata-json-format/v4.02/csd01/odata-json-format-v4.02-csd01.html
https://docs.oasis-open.org/odata/odata-json-format/v4.02/csd01/odata-json-format-v4.02-csd01.pdf

Previous stage:

N/A

Latest stage:

https://docs.oasis-open.org/odata/odata-json-format/v4.02/odata-json-format-v4.02.md (Authoritative)
https://docs.oasis-open.org/odata/odata-json-format/v4.02/odata-json-format-v4.02.html
https://docs.oasis-open.org/odata/odata-json-format/v4.02/odata-json-format-v4.02.pdf

Technical Committee:

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Related work:

This specification replaces or supersedes:

- OData JSON Format Version 4.01. Edited by Michael Pizzo, Ralf Handl, and Mark Biamonte. OASIS Standard. Latest stage: https://docs.oasis-open.org/odata/odata-json-format/v4.01/odata-json-format-v4.01.html.

- OData JSON Format Version 4.0. Edited by Ralf Handl, Michael Pizzo, and Mark Biamonte. OASIS Standard. Latest stage: http://docs.oasis-open.org/odata/odata-json-format/v4.0/odata-json-format-v4.0.html.

This specification is related to:

- *OData Version 4.02*. Edited by Michael Pizzo, Ralf Handl, and Heiko Theißen. A multi-part Work Product that includes:
  - *OData Version 4.02 Part 1: Protocol*. Latest stage. https://docs.oasis-open.org/odata/odata/v4.02/odata-v4.02-part1-protocol.html
  - *OData Version 4.02 Part 2: URL Conventions*. Latest stage. https://docs.oasis-open.org/odata/odata/v4.02/odata-v4.02-part2-url-conventions.html
  - *ABNF components: OData ABNF Construction Rules Version 4.02 and OData ABNF Test Cases*. https://docs.oasis-open.org/odata/odata/v4.02/csd01/abnf/
- *OData Vocabularies Version 4.0*. Edited by Michael Pizzo, Ralf Handl, and Ram Jeyaraman. Latest stage: https://docs.oasis-open.org/odata/odata-vocabularies/v4.0/odata-vocabularies-v4.0.html
- *OData Common Schema Definition Language (CSDL) JSON Representation Version 4.02*. Edited by Michael Pizzo, Ralf Handl, and Heiko Theißen. Latest stage: https://docs.oasis-open.org/odata/odata-csdl-json/v4.02/odata-csdl-json-v4.02.html
- *OData Common Schema Definition Language (CSDL) XML Representation Version 4.02*. Edited by Michael Pizzo, Ralf Handl, and Heiko Theißen. Latest stage: https://docs.oasis-open.org/odata/odata-csdl-xml/v4.02/odata-csdl-xml-v4.02.html

Abstract:

The Open Data Protocol (OData) for representing and interacting with structured content is comprised of a set of specifications. The core specification for the protocol is in OData Version 4.02 Part 1: Protocol. This document extends the core specification by defining representations for OData requests and responses using a JSON format.

Status:

This document was last revised or approved by the OASIS Open Data Protocol (OData) TC on the above date. The level of approval is also listed above. Check the "Latest stage" location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Technical Committee (TC) are listed at https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=odata#technical.

TC members should send comments on this specification to the TC's email list. Others should send comments to the TC's public comment list, after subscribing to it by following the instructions at the "Send A Comment" button on the TC's web page at https://www.oasis-open.org/committees/odata/.

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Note that any machine-readable content (Computer Language Definitions) declared Normative for this Work Product is provided in separate plain text files. In the event of a discrepancy between any such plain text file and display content in the Work Product's prose narrative document(s), the content in the separate plain text file prevails.

Key words:

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] and [RFC8174] when, and only when, they appear in all capitals, as shown here.

Citation format:

When referencing this specification the following citation format should be used:

[OData-JSON-Format-v4.02]

OData JSON Format Version 4.02. Edited by Ralf Handl, Michael Pizzo, and Heiko Theißen. 14 July 2023. OASIS Committee Specification Draft 01. https://docs.oasis-open.org/odata/odata-json-format/v4.02/csd01/odata-json-format-v4.02-csd01.html. Latest stage: https://docs.oasis-open.org/odata/odata-json-format/v4.02/odata-json-format-v4.02.html.

Notices

Table of Contents

1 Introduction

The content in this section is non-normative, except where it is marked normative.

Here is a customized command line which will generate HTML from this markdown file (named odata-json-format-v4.02-csd01.md):

pandoc -f gfm -t html odata-json-format-v4.02-csd01.md -c styles/markdown-styles-v1.7.3b.css --toc --toc-depth=5 -s -o odata-json-format-v4.02-csd01.html --metadata title="OData JSON Format Version 4.02"

OASIS staff are currently using pandoc 3.0 from https://github.com/jgm/pandoc/releases/tag/3.0.

Generating HTML in OASIS style requires a reference to a .css file containing the HTML styles. The .css file may be either included with the markdown file (like styles/markdown-styles-v1.7.3b.css) or a reference to one of the online stylesheets:

- https://docs.oasis-open.org/templates/css/markdown-styles-v1.7.3.css
- https://docs.oasis-open.org/templates/css/markdown-styles-v1.7.3a.css (this one produces HTML that resembles the github display more closely, especially for blocks of code)

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1.1 Changes from earlier Versions

1.2 Glossary

1.2.1 Definitions of terms

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- Naming conventions
- Font colors and styles
- Typographic conventions

2 Section Heading

text.

2.1 Level 2 Heading

text.

2.1.1 Level 3 Heading

text.

2.1.1.1 Level 4 Heading

text.

2.1.1.1.1 Level 5 Heading

This is the deepest level, because six # gets transformed into a Reference tag.

2.2 Next Heading

text.

3 Conformance

(Note: The [OASIS TC Process](https://www.oasis-open.org/policies-guidelines/tc-process-2017-05-26/#wpComponentsConfClause) requires that a specification approved by the TC at the Committee Specification Public Review Draft, Committee Specification or OASIS Standard level must include a separate section, listing a set of numbered conformance clauses, to which any implementation of the specification must adhere in order to claim conformance to the specification (or any optional portion thereof). This is done by listing the conformance clauses here. For the definition of "conformance clause," see [OASIS Defined Terms](https://www.oasis-open.org/policies-guidelines/oasis-defined-terms-2018-05-22/#dConformanceClause).

See "Guidelines to Writing Conformance Clauses": https://docs.oasis-open.org/templates/TCHandbook/ConformanceGuidelines.html.

Remove this note before submitting for publication.)

Appendix A. References

This appendix contains the normative and informative references that are used in this document.

While any hyperlinks included in this appendix were valid at the time of publication, OASIS cannot guarantee their long-term validity.

A.1 Normative References

The following documents are referenced in such a way that some or all of their content constitutes requirements of this document.

[OData-ABNF]

ABNF components: OData ABNF Construction Rules Version 4.01 and OData ABNF Test Cases.
See link in "Related work" section on cover page.

[OData-CSDL]

OData Common Schema Definition Language (CSDL) JSON Representation Version 4.01.
See link in "Related work" section on cover page.

OData Common Schema Definition Language (CSDL) XML Representation Version 4.01.
See link in "Related work" section on cover page.

[OData-JSON]

OData JSON Format Version 4.01.
See link in "Related work" section on cover page.

[OData-Protocol]

OData Version 4.01. Part 1: Protocol.
See link in "Related work" section on cover page.

[OData-URL]

OData Version 4.01. Part 2: URL Conventions.
See link in "Related work" section on cover page.

[OData-VocCore]

OData Core Vocabulary.
See link in "Related work" section on cover page.

[RFC2119]

Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997
https://www.rfc-editor.org/info/rfc2119.

[RFC8174]

Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017
https://www.rfc-editor.org/info/rfc8174.

A.2 Informative References

[RFC3552]

Rescorla, E. and B. Korver, "Guidelines for Writing RFC Text on Security Considerations", BCP 72, RFC 3552, DOI 10.17487/RFC3552, July 2003, https://www.rfc-editor.org/info/rfc3552.

Appendix B. Safety, Security and Privacy Considerations

(Note: OASIS strongly recommends that Technical Committees consider issues that might affect safety, security, privacy, and/or data protection in implementations of their specification and document them for implementers and adopters. For some purposes, you may find it required, e.g. if you apply for IANA registration.

While it may not be immediately obvious how your specification might make systems vulnerable to attack, most specifications, because they involve communications between systems, message formats, or system settings, open potential channels for exploit. For example, IETF [[RFC3552](#rfc3552)] lists “eavesdropping, replay, message insertion, deletion, modification, and man-in-the-middle” as well as potential denial of service attacks as threats that must be considered and, if appropriate, addressed in IETF RFCs.

In addition to considering and describing foreseeable risks, this section should include guidance on how implementers and adopters can protect against these risks.

We encourage editors and TC members concerned with this subject to read _Guidelines for Writing RFC Text on Security Considerations_, IETF [[RFC3552](#rfc3552)], for more information.

Remove this note before submitting for publication.)

Appendix C. Acknowledgments

Note: A Work Product approved by the TC must include a list of people who participated in the development of the Work Product. This is generally done by collecting the list of names in this appendix. This list shall be initially compiled by the Chair, and any Member of the TC may add or remove their names from the list by request. Remove this note before submitting for publication.

C.1 Special Thanks

Substantial contributions to this document from the following individuals are gratefully acknowledged:

Participant Name, Affiliation or "Individual Member"

C.2 Participants

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

OpenC2 TC Members:

First Name	Last Name	Company
Philippe	Alman	Something Networks
Alex	Amirnovman	Company B
Kris	Anderman	Mini Micro
Darren	Anstman	Big Networks

Appendix D. Revision History

Revision	Date	Editor	Changes Made
specname-v1.0-wd01	yyyy-mm-dd	Editor Name	Initial working draft

Appendix E. Example Appendix with subsections

E.1 Subsection title

E.1.1 Sub-subsection

Appendix F. Notices

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