



OData Common Schema Definition Language (CSDL) JSON Representation Version 4.02

Committee Specification Draft 01

14 July 2023

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(Authoritative)

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<https://docs.oasis-open.org/odata/odata-csdl-json/v4.02/csd01/odata-csdl-json-v4.02-csd01.pdf>

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N/A

Latest stage:

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<https://docs.oasis-open.org/odata/odata-csdl-json/v4.02/odata-csdl-json-v4.02.html>

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Additional artifacts:

This prose specification is one component of a Work Product that also includes:

- XML schemas: (list file names or directory name)
- Other parts (list titles and/or file names)
- (Note: Any normative computer language definitions that are part of the Work Product, such as XML instances, schemas and Java(TM) code, including fragments of such, must be (a) well formed and valid, (b) provided in separate plain text files, (c) referenced from the Work Product; and (d) where any definition in these separate files disagrees with the definition found in the specification, the definition in the separate file prevails. Remove this note before submitting for publication.)

Related work:

This specification replaces or supersedes:

- *OData Common Schema Definition Language (CSDL) JSON Representation Version 4.01*. Edited by Michael Pizzo, Ralf Handl, and Martin Zurmuehl. OASIS Standard. Latest stage: <https://docs.oasis-open.org/odata/odata-csdl-json/v4.01/odata-csdl-json-v4.01.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>

Abstract:

OData services are described by an Entity Model (EDM). The Common Schema Definition Language (CSDL) defines specific representations of the entity data model exposed by an OData service, using XML, JSON, and other formats. This document (OData CSDL JSON Representation) specifically defines the JSON representation of CSDL.

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.

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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-CSDL-JSON-v4.02]

OData Common Schema Definition Language (CSDL) JSON Representation 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-csdl-json/v4.02/csd01/odata-csdl-json-v4.02-csd01.html>. Latest stage: <https://docs.oasis-open.org/odata/odata-csdl-json/v4.02/odata-csdl-json-v4.02.html>.

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1 Introduction

1.1 Changes from earlier Versions

1.2 Glossary

1.2.1 Definitions of terms

TODO: find out why we need a *dummy* formula to get monospace look as we want it.

1.2.2 Acronyms and abbreviations

1.2.3 Document conventions

Keywords defined by this specification use `this monospaced font`.

Some sections of this specification are illustrated with non-normative examples.

Example 1: text describing an example uses this paragraph style

Non-normative examples use this paragraph style.

All examples in this document are non-normative and informative only. Examples labeled with \triangle contain advanced concepts or make use of keywords that are defined only later in the text, they can be skipped at first reading.

All other text is normative unless otherwise labeled.

Here is a customized command line which will generate HTML from this markdown file (named odata-csdl-json-v4.02-csd01.md). Line breaks are added for readability only:

```
pandoc -f gfm+tex_math_dollars+fenced_divs
        -t html
        -o odata-csdl-json-v4.02-csd01.html
        -c styles/markdown-styles-v1.7.3b.css
        -c styles/odata.css
        -s
        --mathjax
        --eol=lf
        --wrap=none
        --metadata pagetitle="OData Common Schema Definition Language (CSDL) JSON
Representation Version 4.02"
        odata-csdl-json-v4.02-csd01.md
```

This uses pandoc 3.1.2 from <https://github.com/jgm/pandoc/releases/tag/3.1.2>.

2 CSDL JSON Document

Document Object

A CSDL JSON document consists of a single JSON object. This document object **MUST** contain the member `$Version`.

The document object **MAY** contain the member `$Reference` to reference other CSDL documents.

It also **MAY** contain members for schemas.

If the CSDL JSON document is the metadata document of an OData service, the document object **MUST** contain the member `$EntityContainer`.

\$Version

The value of `$Version` is a string containing either 4.0 or 4.01.

\$EntityContainer

The value of `$EntityContainer` is value is the namespace-qualified name of the entity container of that service. This is the only place where a model element **MUST** be referenced with its namespace-qualified name and use of the alias-qualified name is not allowed.

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.

(Reference sources: For references to IETF RFCs, use the approved citation formats at: <https://docs.oasis-open.org/templates/ietf-rfc-list/ietf-rfc-list.html>. For references to W3C Recommendations, use the approved citation formats at: <https://docs.oasis-open.org/templates/w3c-recommendations-list/w3c-recommendations-list.html>. Remove this note before submitting for publication.)

[OData-v4.02]

- *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>

[RFC2119]

Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997 <http://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 <http://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>.

B. Table of JSON Objects and Members

Document Object

\$Version

\$EntityContainer

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

D. Revision History

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

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