

Oxygen JSON Editor

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PHP

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Agenda

- New product: Oxygen JSON Editor
- Editing JSON and YAML documents
- **Design** mode for JSON Schema development
- Validating JSON and YAML documents
- Tools for JSON, JSON Schema, YAML, and OpenAPI documents
- **OpenAPI/AsyncAPI** Support
- HTML, CSS, and more





Oxygen JSON Editor

 A specialized tool designed for editing JSON documents





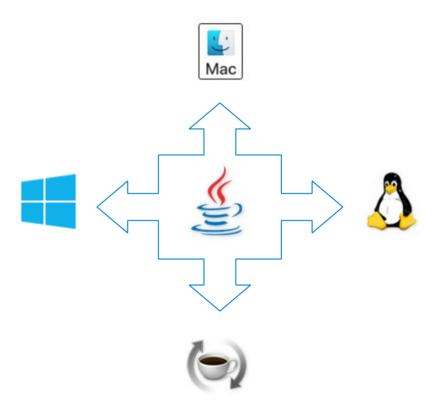
Oxygen JSON Editor - Features

- JSON editing, validation, conversion
- JSON Schema editing, validation, design, refactoring, documentation
- YAML editing, validation, conversion
- **OpenAPI/AsyncAPI** editing, validation, documentation, testing
- **HTML/CSS** editing, validation, query, minification/compression
- **Compare Tools** file and folder comparisons
- **Git/Subversion Client** for collaboration
- and more ...



Availability on Multiple Platforms

- Is a cross-platform application
- Ideal for organizations that need to manage large projects
- Can be run on:
 - OS X
 - Windows
 - Linux
 - All (Windows, Linux/Unix, etc)





Batch Process a List of Files

- Conversion between XML, JSON, and YAML
- Validate and check well-formedness
- Find and replace in files
- XPath in files
- Format and indent
- Check spelling in files





Subscription License

- 12 Months Subscription
- 6 Months Subscription
- 30-day trial license



https://www.oxygenxml.com/json_editor/buy.html



Why Oxygen JSON Editor?

- User-friendly interface
- Great support for JSON
- Auto-complete
- Search and replace
- Batch Processing
- Affordable pricing





Question: Do you use Oxygen for JSON editing?

- Yes. I use Oxygen
- Yes. I intend to use Oxygen
- No. I use other tools





Editing JSON

- JSON Text, Grid, Author Editing Mode
- JSON Outline View
- Validation and Content Completion Assistant based on JSON Schema







Text Editing Mode

- Syntax Highlights
- Structure Folding
- Format and Indent
- New Document Templates

| • perse | onal.json X | ٥ | Þ | Ξ |
|---------|--|---|---|---|
| 1 🗸 { | | | ^ | |
| 2 | "\$schema": "personal-schema.json", | | | |
| 3 🗸 | "personnel": { | | | |
| 4 🗸 | "person": [| | | |
| 5 🗸 | { | | | |
| 6 | "id": "Big.Boss", | | | |
| 7 🗸 | "name": { | | | |
| 8 | "family": "Boss", | | | |
| 9 | "given": "Big" | | | |
| 10 | }, | | | |
| 11 | <pre>"email": "chief@oxygenxml.com",</pre> | | | |
| 12 🔽 | "link": { | | | |
| 13 🔽 | "subordinates": [| | | |
| 14 | "one.worker", | | | |
| 15 | "two.worker", | | | |
| 16 | "three.worker", | | | |
| 17 | "four.worker", | | | |
| 18 | "five.worker" | | ~ | × |
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JSON Outline View

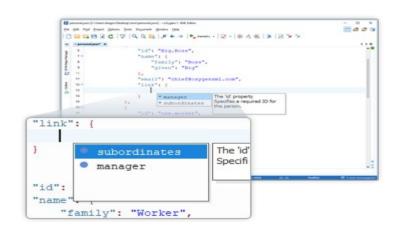
- Document Overview
- Synchronization with Editor
- Filtering
- Error Markers

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| email chief@oxygenxml.c | com |
| ▷ ● link {} | |
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Content Completion

- Context-Sensitive
- Valid Proposals
- Documentation from Schema
- Code Templates





Grid Editing Mode

- JSON content is represented in Grid mode
- JSON data and structure can be easily manipulated
- Table-specific operations or drag-anddrop operations

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|-----|--------|----------|------------|-----|---------------|--------|----------|-----------------|-------------------|----------------------|--|--|-------|--|
| - | person | - | | | 10.30011 | | | | | | | | | |
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| | | (6 rows) | | , | , | | | | name | | | | email | |
| | | | - 1 | 1 | "Big.Boss" | 4 | name | | | "chief@oxygenxml.com | | | | |
| | | | | | | | | family | "Boss" | | | | | |
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| | | | | _ | | | | | | | | | | |
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| | | | | | | < | | family given | "Worker" "One" | | | | | |
| | | | | | "two.worker" | < > | name | given | "One" | "two@oxygenxml.com" | | | | |
| | | | | | | - | name | - | | "two@oxygenxml.com" | | | | |

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JSON Visual Author Editing Mode

- JSON document is opened in Author mode
- Create your own JSON framework
- Customize using CSS

| Application to Replace | Permanent Resident Card | |
|--|---|------|
| Part 1. Information About You | | |
| 1. Gender | Male Female | |
| 2. Class of Admission | T1 - 1ST PREF SELECTED ALIEN V | |
| Date of Birth (mm/dd/yyyy) | 01/11/1984 | |
| Date of Admission (mm/dd/yyyy) | 01/02/2012 | |
| 5. City/Town/Village of Birth | Prague | |
| 6. U.S. Social Security number (if any) | | |
| 7. Country of Birth | Czech Republic 🗸 🗸 | |
| Part 2. Application Type | | |
| NOTE: If your conditional status is expiring | within the next 90 days, then do not file this applicat | ion. |
| My status is (Select only one box): | | |
| 1.a. Permanent Resident | | |
| 1.b. 🗌 Permanent Resident - In Commuter Status | | |
| 1.c. Conditional Permanent Resident | | |



JSON Lines

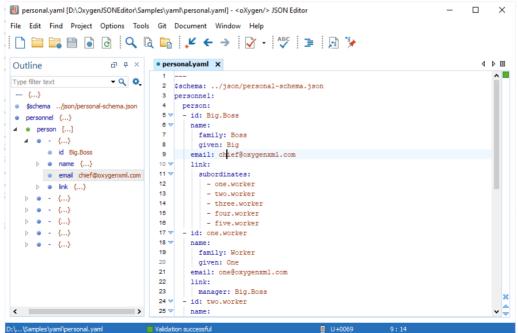
- Editing JSON Lines Documents
- Validation
- Content Completion

| igitalocean/nyc1\n","stream ,"time":"2018-12-20T08:53:5 err in |
|---|
| err |
| in (21.04.1 |
| GDD 1+++ (/01 04 1 |
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| t=3128\n","stream |
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YAML

- Editor syntax highlight, outline view, content completion
- Validation well-formedness checks, validate YAML against JSON Schema
- Tools YAML to JSON and JSON to YAML, batch conversions

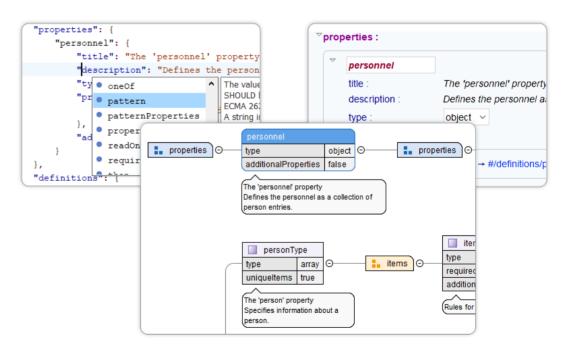




JSON Schema Editor

Design, develop, and edit JSON Schemas in:

- Text Editing Mode
- Author Editing Mode
- Schema Design Mode





Text Editing Mode

Text editing mode is packed full of editing helpers

- JSON Outline View
- JSON-specific Syntax Highlighting
- Search and Find/Replace
- Drag and Drop
- Validation
- Format and Indent (Pretty Print)

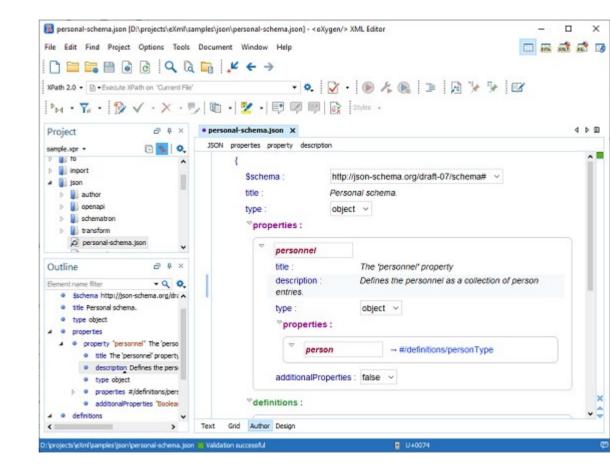
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|--|---|---|----------|---|
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| Type filter text • Q Q • () • Sschema http://son-schema.org/draft • title Personal schema. • type object • • g p () • • definitions () | <pre>15 }, 16 v "definitions": { 17 v "personType": { 18 "title": "The "person" property", 19 "description": "Specifies information about a person.", 20 "type": "array", 21 "itens": { 22 "description": "Rules for properties defining the items 23 "type": "object", 24 v "properties": { 25 "id=: ("cref": "#/definitions/idType"), 26 "name": {"Cref": "#/definitions/nameType"}, 27 v "email": { 27 "</pre> | that constit | tute | , |
| C > Dr/projects/eXml/samples/json/personal-schema.jsp | Not a JSON Schema keyword. This property is ignored by validation engine: "p" Text Grid Author Design Validation successful. Warrings: 1. E U+0022 5:7 | Modified | | |



Author Editing Mode

Visual editing mode for JSON Schema documents:

- JSON Schema framework
- Content completion support
- Validation
- Specific CSS for rendering
- Create your own custom JSON framework

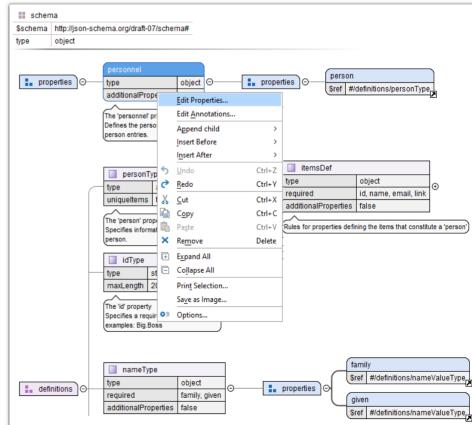


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Schema Design Mode

Visualize, edit, and understand JSON Schemas

- In-Place Component Editing
- Edit Properties
- Edit Annotations
- Schema Editing Actions
- Move Component Up/Down Actions
- Print/Save as Image

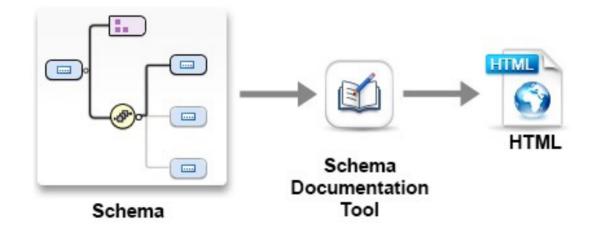






Generate JSON Schema Documentation

 Tool for generating detailed documentation for a JSON Schema file in HTML format



Oxygen JSON Editor



JSON Tools

- Convert between JSON and XML
- Convert between JSON and YAML
- Generate sample JSON files from JSON Schema
- Generate JSON Schema from a JSON instance
- XSD to JSON Schema converter
- Convert JSON Schema to latest versions (2020-12, 2019-09)





OpenAPI/AsyncAPI Documents

- Can be written in JSON or YAML
- Describe the inputs and outputs of an API
- Include information such as:
 - where the API is hosted
 - what authorization is required to access it
 - details for consumers and producers







OpenAPI/AsyncAPI Editor

- Syntax highlights
- Validation conforms with the schema
- Content completion based on the schema
- Outline view
- Search and replace

| 1 🗸 { | A |
|----------|--|
| 2 | "openapi": "3.0.0", |
| 3 🗸 | "info": { |
| 4 | "version": "1.0.0", |
| 5 | "title": "Petstore", |
| 6 7 | "description": "A sample API that uses a petstore as an example to de "termsOfService": "http://swagger.io/terms/", |
| 8 🗢 | "contact": { |
| 9 | "name": "Swagger API Team", |
| 10 | <pre>"email": "apiteam@swagger.io",</pre> |
| 11 | "url": "http://swagger.io" |
| 12 | }, |
| 13 🔽 | "license": { |
| 14 | "name": "Apache 2.0", |
| 15 | "url": "https://www.apache.org/licenses/LICENSE-2.0.html" |
| 16 | }, |
| 17 | "\$comment": "This sample file's original source is available at OpenA |
| 18 | \mathbf{h}_{i} |
| 19 🔽 | "server": [|
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| 24 🗸 | |
| 25 | "description": "Returns all pets from the system that the use |
| 26 | "operationId": "findPets", |
| 27 🗢 | "parameters": [|
| 28 🗸 | |
| 29 | "name": "tags", |
| 30 | "in": "query", |
| 31 32 | "description": "tags to filter by", |
| | "required": false, 🗸 🗸 |
| < | extraneous key [server] is not permitted |



OpenAPI/AsyncAPI Visual Editor

- Edit documentation
- Form controls to change values
- Collapsible sections
- Customize interface with CSS

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| waç | iger API Team |
| pac | he 2.0 |
| ER\ | 'ERS |
| ⊽[] | url : http://petstore.openapi.io/api |
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| ⊽/p | ets : ' get : Returns all pets from the system that the user has access to |
| - | ets : ' get : Returns all pets from the system that the user has access to ' post : Creates a new pet in the store. Duplicates are allowed |
| ~/p | ets : ' get : Returns all pets from the system that the user has access to ' post : Creates a new pet in the store. Duplicates are allowed ets/{id} : |



OpenAPI Documentation

 Tool for generating detailed documentation for OpenAPI documents in HTML/DITA format





OpenAPI Tester Tool

- GUI interface testing tool for OpenAPI files
- Execute API requests and validate responses on the fly
- OpenAPI files in JSON or YAML format
- Run a test scenario

| OpenAPI | es/json/openapi/petstore.json 🗎 C | | | | |
|-------------|---|--------|--|--|--|
| Server | http://petstore.swagger.io/api | ~ | | | |
| Path | /pets | | | | |
| Operation | GET | \sim | | | |
| tags (arra) | Authorization Request Body () tags to filter by er) maximum number of results to retuined | | | | |
| Send | | | | | |
| Response | | | | | |

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Other Frameworks

- JSON-LD is a lightweight Linked Data format
- OpenAPI Test Scenario test suite for an OpenAPI
- Travel Guide sample
- Application Form sample
- Personal sample
- framework for any JSON

| Enabled | Document type | Storage | Priority |
|--------------|---|----------|----------|
| | AsyncAPI 1.x [extension of: AsyncAPI] | External | Normal |
| \checkmark | AsyncAPI 2.x [extension of: AsyncAPI] | External | Normal |
| \checkmark | OpenAPI 2.0 (Swagger) [extension of: OpenAPI] | External | Normal |
| \checkmark | OpenAPI 3.0 [extension of: OpenAPI] | External | Normal |
| \checkmark | OpenAPI 3.1 [extension of: OpenAPI] | External | Normal |
| \checkmark | Application Form (Sample-JSON) | External | Low |
| \checkmark | AsyncAPI | External | Low |
| \checkmark | JSON Schema [extension of: JSON] | External | Low |
| \checkmark | JSON-LD | External | Low |
| \checkmark | OpenAPI | External | Low |
| \checkmark | OpenAPI Test Scenario | External | Low |
| \checkmark | Personal (Sample-JSON) | External | Low |
| \checkmark | Travel Guide (Sample-JSON) | External | Low |
| \checkmark | XHTML | External | Low |
| \checkmark | HTML [extension of: XHTML] | External | Lowest |
| \checkmark | JSON | External | Lowest |
| | | | |



Question: What features do you consider more important?

- JSON
- YAML
- JSON Schema
- OpenAPI/AsyncAPI
- Other (use the questions panel)





HTML/CSS

- HTML5/CSS editing support
- Validation of HTML5/CSS using W3C "Nu Html Checker"
- Query using XPath
- Compress HTML5 and CSS
- Emmet snippets

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XML Documents Supported

- Editor syntax highlight, content completion, outline view
- Validation with schema associated in the editor
- Tools conversion between XML and JSON





Other File Types Supported

- JavaScript documents
- Markdown documents
- Python documents
- Text, Java, SQL, Properties, Batch, Shell, Power Shell, Dockerfile, and PHP.



Compare

- Compare and merge files (2-way and 3-way)
- Compare and merge directories (2-way and 3-way)
- Generate comparison report

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Versioning Systems

- Git Client add-on that contributes a built-in Git client directly in Oxygen JSON Editor
- Subversion (SVN) Client







Conclusion

Oxygen JSON Editor

- Tool specialized for JSON
- Great features
- Cross-platform application
- Affordable pricing





Future Plans

- JSON Transformation with XSLT/XQuery
- Improve OpenAPI/AsyncAPI support
- JSON5 support
- Support for ChatGPT fine-tune files
- feedback is welcome





Question: What future developments would you like to see?

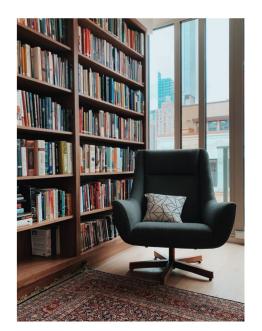
- JSON Transformation with XSLT/XQuery
- Improve OpenAPI/AsyncAPI support
- JSON5 support
- Support for ChatGPT fine-tune files
- Other (use the question panel)





Resources

- oxygenxml.com/oxygen_json_editor.html
- oxygenxml.com/json_editor/whats_new.html
- oxygenxml.com/doc/ug-json/
- oxygenxml.com/json_editor/videos.html
- oxygenxml.com/json_editor/buy.html





Video Demos

- oxygenxml.com/demo/json_schema_palette.html
- oxygenxml.com/demo/introducing_the_json_schema_design.html
- oxygenxml.com/demo/json_author.html
- oxygenxml.com/demo/json_tools.html
- oxygenxml.com/demo/json_validation.html
- oxygenxml.com/demo/json_editing.html
- oxygenxml.com/demo/json_query.html

Questions?

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