



OSCAL Tools

Supporting OSCAL Development

NIST is Providing OSCAL Tools



Supporting Innovation

Start developing quickly with OSCAL programming APIs.

Open Source



Content Conversion

Convert OSCAL content easily between XML, JSON, and YAML formats.

Flexibility



Content Editing

Browser based applications to support editing OSCAL content.

Minimal Footprint

libOSCAL-Java

<https://github.com/usnistgov/liboscal-java/>

1 Constraint Validation

Validates OSCAL content for well-formedness, checks cross-references, enforces value lists, etc.

2 Multi-Format Parser

Read and write OSCAL XML, JSON, and YAML to and from Java classes.

3 Builders for Common Objects

Provides builder classes for creating props, links, controls, etc.

4 Profile Resolver

Supports profile resolution based on the latest specification.

OSCAL Java-Based CLI

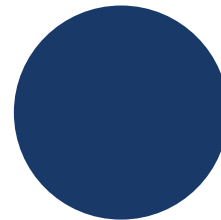
<https://github.com/usnistgov/oscal-cli>

OSCAL CLI Features

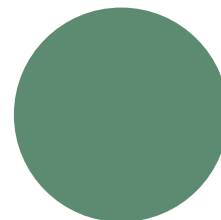
```
MINGW64:/c/Users/davidwal/ x + v
$ ./bin/oscal-cli catalog convert -to=YAML content/NIST_SP-800-53_rev5_c
atalog.xml converted/NIST_SP-800-53_rev5_catalog.yaml; head converted/NI
ST_SP-800-53_rev5_catalog.yaml -n 20
The provided destination 'C:\Users\davidwal\git\github\david-waltermire-
nist\demo\oscal-cli-0.2.0\converted\NIST_SP-800-53_rev5_catalog.yaml' al
ready exists and the --overwrite option was not provided.
---
catalog:
  uuid: fdac0321-959f-43ec-a91d-322da7d9761c
  metadata:
    title: Electronic Version of NIST SP 800-53 Rev 5 Controls and SP 80
0-53A Rev 5 Assessment Procedures
    last-modified: 2022-08-23T10:36:49.1330265-04:00
    version: 5.1.2
    oscal-version: 1.0.0
  props:
    - name: keywords
      value: "Assessment, assessment plan, assurance, availability, comp
uter security, confidentiality, control, control assessment, cybersecuri
ty, FISMA, information security, information system, integrity, personal
ly identifiable information, OSCAL, Open Security Controls Assessment La
nguage, Privacy Act, privacy controls, privacy functions, privacy requir
ements, Risk Management Framework, security controls, security functions
, security requirements, system, system security"
    links:
      - href: '#c3397cc9-83c6-4459-adb2-836739dc1b94'
        rel: alternate
      - href: '#f7cf488d-bc64-4a91-a994-810e153ee481'
        rel: canonical
    roles:
      - id: creator
        title: Document creator
```

Provides a command line interface (CLI) using libOSCAL-Java.

Easily convert between XML, JSON, and YAML formats for all OSCAL models.



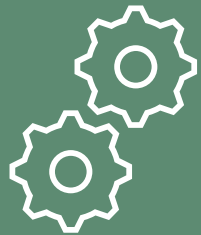
Write content in your favorite format.
Convert for use in other formats.



Quickly validate OSCAL content using OSCAL constraints (experimental)
Resolve profiles

OSCAL CLI Live Demo

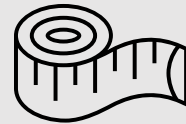
Additional Tools



OSCAL Content CI/CD

Supports development of OSCAL content and models on GitHub.

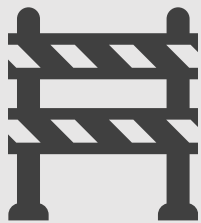
<https://github.com/usnistgov/OSCAL/tree/main/build>



Deep Diff

Provides context sensitive differencing.

<https://github.com/usnistgov/oscal-deep-diff/>



Additional Programming APIs

C#, Typescript/NodeJS



OSCAL-Cat

In browser Profile and Catalog authoring

How to Contribute?

OSCAL is a community-driven effort.

Your participation directly impacts OSCAL's success.

<https://github.com/usnistgov/OSCAL>

<https://pages.nist.gov/OSCAL/tools/>



Integrate support for OSCAL in your tools using these open-source projects



Provide feedback on our existing tools
Develop additional tools



Contribute to the development of OSCAL tools on GitHub

Questions?

Contact us at: oscal@nist.gov

Chat with us on Gitter: <https://gitter.im/usnistgov-OSCAL/Lobby>

Collaborate with us on GitHub: <https://github.com/usnistgov/OSCAL>

Join our COI meetings: <https://pages.nist.gov/OSCAL/contribute/#community-meetings>

Join our OSCAL Developer List: <https://pages.nist.gov/OSCAL/contact/#oscal-mailing-lists>

Thank you!

