RDF Dataset Canonicalization (RDFC-1.0) Test Suite

Tests the 1.0 version of RDF Dataset Canonicalization and the generation of canonical maps.

This page describes RDF Dataset Canonicalization tests for the RDFC-1.0 profile. These tests are also described in JSON-LD and Turtle formats for convenience. The manifest vocabulary is described in the RDF Dataset Canonicalization Test Vocabulary (JSON-LD, Turtle) and is based on the RDF Test Vocabulary.

A previous version of this test suite included tests for the URGNA2012 profile, which is non-normative. Those tests continue to be available in the Credentials Community Group repository.

General instructions for running the RDF Dataset Canonicalization Test suites

Tests for RDFC-1.0 take input files, specified as N-Quads, and generate Canonical N-Quads output as required by the RDFC-1.0 algorithm.

The result file is in the N-Quads format. The test passes if the result compares identically as the expected result as text files.

For a negative evaluation test, the test passes if the implementation generates an error due to excessive calls to Hash N-Degree Quads.

Tests for RDFC-1.0 Issued Identifiers Map.

The result file is in the JSON format with keys representing the blank node identifiers from the test input, and values representing the associated canonical identifier from the issued identifiers map created as an alternate result from Step 7 of the RDFC1.0 Canonicalization Algorithm. The test passes if the value of the resulting issued identifiers map matches the corresponding expected test result that can be loaded via the `result` field of the test.

Additionally, the keys of the issued identifiers map must exactly match the values of the input blank node identifier map. Note that the keys of the input blank node identifier map represent blank nodes and the specific value is not considered for test purposes.

Contributing Tests

The test manifests and entries are built automatically from manifest.csv using mk_manifest.rb, where each row defines a combination of Validation tests for the same *action* and implicit files. Tests may be contributed via pull request to https://github.com/w3c/rdf-canon with suitable changes to the manifest.csv and necessary *action* and *result* files.

Distribution

Disclaimer

RDF Dataset Canonicalization (RDFC-1.0) Test Suite (86 entries)

test001c: simple id

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test001-in.nq
result: rdfc10/test001-rdfc10.nq

test002c: duplicate property iri values

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test002-in.nq
result: rdfc10/test002-rdfc10.nq

test003c: bnode

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test003-in.nq
result:

rdfc10/test003-rdfc10.nq

test003m: bnode (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test003-in.nq
result: rdfc10/test003-rdfc10map.json

test004c: bnode plus embed w/subject

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test004-in.nq
result: rdfc10/test004-rdfc10.nq

test004m: bnode plus embed w/subject (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test004-in.nq
result: rdfc10/test004-rdfc10map.json

test005c: bnode embed

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test005-in.nq
result: rdfc10/test005-rdfc10.nq

test005m: bnode embed (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test005-in.nq

result: rdfc10/test005-rdfc10map.json

test006c: multiple rdf types

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test006-in.nq
result: rdfc10/test006-rdfc10.nq

test008c: single subject complex

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test008-in.nq
result: rdfc10/test008-rdfc10.nq

test009c: multiple subjects - complex

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test009-in.nq
result: rdfc10/test009-rdfc10.nq

test010c: type

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test010-in.nq
result: rdfc10/test010-rdfc10.nq

test011c: type-coerced type

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test011-in.nq

result: rdfc10/test011-rdfc10.nq

test013c: type-coerced type, cycle

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test013-in.nq
result: rdfc10/test013-rdfc10.nq

test014c: check types

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test014-in.nq
result: rdfc10/test014-rdfc10.nq

test016c: blank node - dual link - embed

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test016-in.nq
result: rdfc10/test016-rdfc10.nq

test016m: blank node - dual link - embed (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test016-in.nq
result: rdfc10/test016-rdfc10map.json

test017c: blank node - dual link - non-embed

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test017-in.nq

result: rdfc10/test017-rdfc10.nq

test017m: blank node - dual link - non-embed (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test017-in.nq
result: rdfc10/test017-rdfc10map.json

test018c: blank node - self link

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test018-in.nq
result: rdfc10/test018-rdfc10.nq

test018m: blank node - self link (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test018-in.nq
result: rdfc10/test018-rdfc10map.json

test019c: blank node - disjoint self links

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test019-in.nq
result: rdfc10/test019-rdfc10.nq

test020c: blank node - diamond

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test020-in.nq

result: rdfc10/test020-rdfc10.nq

test020m: blank node - diamond (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test020-in.nq
result: rdfc10/test020-rdfc10map.json

test021c: blank node - circle of 2

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test021-in.nq
result: rdfc10/test021-rdfc10.nq

test022c: blank node - double circle of 2

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test022-in.nq
result: rdfc10/test022-rdfc10.nq

test023c: blank node - circle of 3

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test023-in.nq
result: rdfc10/test023-rdfc10.nq

test024c: blank node - double circle of 3 (0-1-2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test024-in.nq

result: rdfc10/test024-rdfc10.nq

test025c: blank node - double circle of 3 (0-2-1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test025-in.nq
result: rdfc10/test025-rdfc10.nq

test026c: blank node - double circle of 3 (1-0-2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test026-in.nq
result: rdfc10/test026-rdfc10.nq

test027c: blank node - double circle of 3 (1-2-0)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test027-in.nq
result: rdfc10/test027-rdfc10.nq

test028c: blank node - double circle of 3 (2-1-0)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test028-in.nq
result: rdfc10/test028-rdfc10.nq

test029c: blank node - double circle of 3 (2-0-1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test029-in.nq

result: rdfc10/test029-rdfc10.nq

test030c: blank node - point at circle of 3

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test030-in.nq
result: rdfc10/test030-rdfc10.nq

test030m: blank node - point at circle of 3 (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test030-in.nq
result: rdfc10/test030-rdfc10map.json

test033c: disjoint identical subgraphs (1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test033-in.nq
result: rdfc10/test033-rdfc10.nq

test034c: disjoint identical subgraphs (2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test034-in.nq
result: rdfc10/test034-rdfc10.nq

test035c: reordered w/strings (1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test035-in.nq

result: rdfc10/test035-rdfc10.nq

test036c: reordered w/strings (2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test036-in.nq
result: rdfc10/test036-rdfc10.nq

test038c: reordered 4 bnodes, reordered 2 properties (1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test038-in.nq
result: rdfc10/test038-rdfc10.nq

test039c: reordered 4 bnodes, reordered 2 properties (2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test039-in.nq
result: rdfc10/test039-rdfc10.nq

test040c: reordered 6 bnodes (1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test040-in.nq
result: rdfc10/test040-rdfc10.nq

test043c: literal with language

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test043-in.nq

result: rdfc10/test043-rdfc10.nq

test044c: poison – evil (1)

A poison graph which is computable given defined limits.

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: high
action: rdfc10/test044-in.nq
result: rdfc10/test044-rdfc10.nq

test045c: poison – evil (2)

A poison graph which is computable given defined limits.

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: high
action: rdfc10/test045-in.nq
result: rdfc10/test045-rdfc10.nq

test046c: poison – evil (3)

A poison graph which is computable given defined limits.

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: high
action: rdfc10/test046-in.nq
result: rdfc10/test046-rdfc10.nq

test047c: deep diff (1)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test047-in.nq
result: rdfc10/test047-rdfc10.nq

test047m: deep diff (1) (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test047-in.nq
result: rdfc10/test047-rdfc10map.json

test048c: deep diff (2)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test048-in.nq
result: rdfc10/test048-rdfc10.nq

test048m: deep diff (2) (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test048-in.nq
result: rdfc10/test048-rdfc10map.json

test053c: @list

RDF Collections using rdf:first/rest ladders.

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test053-in.nq
result: rdfc10/test053-rdfc10.nq

test053m: @list (map test)

RDF Collections using rdf:first/rest ladders.

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity:

low
action: rdfc10/test053-in.nq
result: rdfc10/test053-rdfc10map.json

test054c: t-graph
type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity:medium
action: rdfc10/test054-in.nq
result: rdfc10/test054-rdfc10.nq

test055c: simple reorder (1)
type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity:low
action: rdfc10/test055-in.nq
result: rdfc10/test055-rdfc10.nq

test055m: simple reorder (1) (map test)
type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity:low
action: rdfc10/test055-in.nq
result: rdfc10/test055-rdfc10map.json

test056c: simple reorder (2)
type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity:low
action: rdfc10/test056-in.nq
result: rdfc10/test056-rdfc10.nq

test056m: simple reorder (2) (map test)
type: rdfc:RDFC10MapTest
approval: rdft:Approved

computationalComplexity: low
action: rdfc10/test056-in.nq
result: rdfc10/test056-rdfc10map.json

test057c: unnamed graph

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test057-in.nq
result: rdfc10/test057-rdfc10.nq

test057m: unnamed graph (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test057-in.nq
result: rdfc10/test057-rdfc10map.json

test058c: unnamed graph with blank node objects

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test058-in.nq
result: rdfc10/test058-rdfc10.nq

test059c: n-quads parsing

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test059-in.nq
result: rdfc10/test059-rdfc10.nq

test060c: n-quads escaping

type: rdfc:RDFC10EvalTest
approval: rdft:Approved

computationalComplexity: low
action: rdfc10/test060-in.nq
result: rdfc10/test060-rdfc10.nq

test060m: n-quads escaping (map test)

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test060-in.nq
result: rdfc10/test060-rdfc10map.json

test061c: same literal value with multiple languages

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test061-in.nq
result: rdfc10/test061-rdfc10.nq

test062c: same literal value with multiple datatypes

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test062-in.nq
result: rdfc10/test062-rdfc10.nq

test063c: blank node - diamond (with _:b)

This duplicates #test020, but uses _:b as a blank node prefix

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test063-in.nq
result: rdfc10/test063-rdfc10.nq

test063m: blank node - diamond (with _:b) (map test)

This duplicates #test020, but uses _:b as a blank node prefix

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test063-in.nq
result: rdfc10/test063-rdfc10map.json

test064c: blank node - double circle of 3 (0-1-2, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test064-in.nq
result: rdfc10/test064-rdfc10.nq

test065c: blank node - double circle of 3 (0-2-1, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test065-in.nq
result: rdfc10/test065-rdfc10.nq

test066c: blank node - double circle of 3 (1-0-2, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test066-in.nq
result: rdfc10/test066-rdfc10.nq

test067c: blank node - double circle of 3 (1-2-0, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test067-in.nq
result: rdfc10/test067-rdfc10.nq

test068c: blank node - double circle of 3 (2-1-0, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test068-in.nq
result: rdfc10/test068-rdfc10.nq

test069c: blank node - double circle of 3 (2-0-1, reversed)

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: medium
action: rdfc10/test069-in.nq
result: rdfc10/test069-rdfc10.nq

test070c: dataset - isomorphic default and iri named

Isomorphic graphs in default and IRI named graph

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test070-in.nq
result: rdfc10/test070-rdfc10.nq

test070m: dataset - isomorphic default and iri named (map test)

Isomorphic graphs in default and IRI named graph

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test070-in.nq
result: rdfc10/test070-rdfc10map.json

test071c: dataset - isomorphic default and node named

Isomorphic graphs in default and blank node named graph

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test071-in.nq
result: rdfc10/test071-rdfc10.nq

test071m: dataset - isomorphic default and node named (map test)

Isomorphic graphs in default and blank node named graph

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test071-in.nq
result: rdfc10/test071-rdfc10map.json

test072c: dataset - shared blank nodes

Blank nodes shared in default and named graph

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test072-in.nq
result: rdfc10/test072-rdfc10.nq

test072m: dataset - shared blank nodes (map test)

Blank nodes shared in default and named graph

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test072-in.nq
result: rdfc10/test072-rdfc10map.json

test073c: dataset - referencing graph name

Default graph with blank node shared with graph name

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test073-in.nq
result: rdfc10/test073-rdfc10.nq

test073m: dataset - referencing graph name (map test)

Default graph with blank node shared with graph name

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test073-in.nq
result: rdfc10/test073-rdfc10map.json

test074c: poison - Clique Graph (negative test)

A 10-node Clique of blank node resources all inter-related.

type: rdfc:RDFC10NegativeEvalTest
approval: rdft:Approved
computationalComplexity: high
action: rdfc10/test074-in.nq

test075c: blank node - diamond (uses SHA-384)

Same as test020 except for using SHA-384

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test075-in.nq
result: rdfc10/test075-rdfc10.nq

test075m: blank node - diamond (uses SHA-384) (map test)

Same as test020 except for using SHA-384

type: rdfc:RDFC10MapTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test075-in.nq
result: rdfc10/test075-rdfc10map.json

test076c: duplicate ground triple in input

The duplicate triples must be removed

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test076-in.nq
result: rdfc10/test076-rdfc10.nq

test077c: duplicate triple with blank node in input

The duplicate triples must be removed

type: rdfc:RDFC10EvalTest
approval: rdft:Approved
computationalComplexity: low
action: rdfc10/test077-in.nq
result: rdfc10/test077-rdfc10.nq