

Circular Economy Ontology Network (CEON) - Process ODP

Metadata

IRI

<http://w3id.org/CEON/ontology/processODP/>

Title

Circular Economy Ontology Network (CEON) - Process ODP

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Version Iri

<http://w3id.org/CEON/ontology/processODP/0.4/>

Version Info

0.4

Preferred Namespace Prefix

processODP

Preferred Namespace Uri

<http://w3id.org/CEON/ontology/processODP/>

Description

A core ODP of the CEON ontology network, defining aspects of the process concept.

Covers Requirements

Covers the following requirements from Onto-DESIDE D3.1: CVN-Process-3,4,5, C3-1, C4-2, C4-5, C4-7, C4-9, C13-2, E2-6

Covers the following requirements from Onto-DESIDE D3.2: CE1-1, CE3-5, CE7-4, CE7-5, CE8-2, CE10-7, CE12-1, C3-1, C4-2, C4-5, C4-7, C4-9, C13-2, E2-6

Classes

| | |
|-----------------------|---|
| Location ^C | |
| IRI | http://w3id.org/CEON/ontology/location/Location |
| In Range Of | occursAtLocation^{OP} |

| | |
|--------------------------|---|
| Description ^C | |
| IRI | http://w3id.org/CEON/ontology/processODP/Description |
| Super Class Of | Plan^C |

Event^C

IRI <http://w3id.org/CE0N/ontology/processODP/Event>

Super Class Of [Process^C](#)

Plan^C

IRI <http://w3id.org/CE0N/ontology/processODP/Plan>

Sub Class Of [Description^C](#)

Restriction [hasPart^{op}](#) some [Plan^C](#)

Plan Execution^C

IRI <http://w3id.org/CE0N/ontology/processODP/PlanExecution>

Sub Class Of [Situation^C](#)
[duringTime^{op}](#) some [TimeInterval^C](#) or [occursAtTime^{dp}](#) some [xsd:dateTime^C](#)

In Domain Of [followsExecution^{op}](#)
[precedesExecution^{op}](#)
[occursAtTime^{dp}](#)

Restriction [followsExecution^{op}](#) some [PlanExecution^C](#)
[hasPart^{op}](#) some [PlanExecution^C](#)
[isSettingFor^{op}](#) some [PlanExecution^C](#)
[precedesExecution^{op}](#) some [PlanExecution^C](#)
[satisfiesPlan^{op}](#) some [PlanExecution^C](#)

Super Class Of [Transition^C](#)

Process^C

IRI <http://w3id.org/CE0N/ontology/processODP/Process>

Is Defined By ISO 59004:2024 - 3.5.5 process

Description Set of interrelated or interacting activities that transforms inputs into outputs.

Sub Class Of [Event^C](#)

In Domain Of [hasInput^{op}](#)
[hasOutput^{op}](#)

Super Class Of [TransformationProcess^C](#)

Situation^c

| | |
|------------------------------|---|
| IRI | http://w3id.org/CE0N/ontology/processODP/Situation |
| <u>In Domain Of</u> | isSettingFor ^{op} |
| <u>Restriction</u> | isSettingFor ^{op} some Situation ^c |
| <u>Super Class Of</u> | PlanExecution ^c |

Time Interval^c

| | |
|----------------------------|---|
| IRI | http://w3id.org/CE0N/ontology/processODP/TimeInterval |
| <u>In Domain Of</u> | endTime ^{dp} startTime ^{dp} |
| <u>In Range Of</u> | duringTime ^{op} |

Transformation Process^c

| | |
|----------------------------|---|
| IRI | http://w3id.org/CE0N/ontology/processODP/TransformationProcess |
| <u>Sub Class Of</u> | Process ^c |

Transition^c

| | |
|----------------------------|--|
| IRI | http://w3id.org/CE0N/ontology/processODP/Transition |
| <u>Sub Class Of</u> | PlanExecution ^c |
| <u>In Domain Of</u> | affectedObject ^{op} duringTime ^{op} |
| <u>Restriction</u> | isSettingFor ^{op} some Transition ^c affectedObject ^{op} <i>min</i> 1 Transition ^c |

Object Properties

affected object^{op}

| | |
|-------------------------------|---|
| IRI | http://w3id.org/CE0N/ontology/processODP/affectedObject |
| <u>Sub Property Of</u> | isSettingFor ^{op} |
| <u>Domain</u> | Transition ^c |

during time^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/duringTime>

Sub Property Of [isSettingFor^{op}](#)

Domain [Transition^c](#)

Range [TimeInterval^c](#)

follows execution^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/followsExecution>

Sub Property Of [isSettingFor^{op}](#)

Domain [PlanExecution^c](#)

has input^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/hasInput>

Domain [Process^c](#)

has output^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/hasOutput>

Domain [Process^c](#)

has part^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/hasPart>

has plan execution^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/hasPlanExecution>

Description A plan can have specific executions.

is setting for^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/isSettingFor>

Super Property Of

- [affectedObject](#)^{op}
- [duringTime](#)^{op}
- [followsExecution](#)^{op}
- [occursAtLocation](#)^{op}
- [precedesExecution](#)^{op}

Domain [Situation](#)^c

occurs at location^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/occursAtLocation>

Sub Property Of [isSettingFor](#)^{op}

Range <http://w3id.org/CE0N/ontology/location/Location>^c

precedes execution^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/precedesExecution>

Sub Property Of [isSettingFor](#)^{op}

Domain [PlanExecution](#)^c

satisfies plan^{op}

IRI <http://w3id.org/CE0N/ontology/processODP/satisfiesPlan>

Datatype Properties

end time^{dp}

IRI <http://w3id.org/CE0N/ontology/processODP/endTime>

Domain [TimeInterval](#)^c

occurs at time^{dp}

IRI <http://w3id.org/CE0N/ontology/processODP/occursAtTime>

Domain [PlanExecution](#)^c

Range [xsd:dateTime](#)

start time^{dp}

IRI <http://w3id.org/CEON/ontology/processODP/startTime>

Domain [TimeInterval^c](#)

Annotation Properties

contributor^{ap}

IRI <http://purl.org/dc/terms/contributor>

created^{ap}

IRI <http://purl.org/dc/terms/created>

creator^{ap}

IRI <http://purl.org/dc/terms/creator>

description^{ap}

IRI <http://purl.org/dc/terms/description>

license^{ap}

IRI <http://purl.org/dc/terms/license>

title^{ap}

IRI <http://purl.org/dc/terms/title>

preferred namespace prefix^{ap}

IRI <http://purl.org/vocab/vann/preferredNamespacePrefix>

preferred namespace uri^{ap}

IRI <http://purl.org/vocab/vann/preferredNamespaceUri>

covers requirements^{ap}

IRI <http://www.ontologydesignpatterns.org/schemas/cpannotation/schema.owl#coversRequirements>

Namespaces

| | |
|----------------|---|
| : | http://w3id.org/CEON/ontology/processODP/ |
| dcterms | http://purl.org/dc/terms/ |
| odp | http://www.ontologydesignpatterns.org/schemas/cannotationschema.owl# |
| owl | http://www.w3.org/2002/07/owl# |
| prov | http://www.w3.org/ns/prov# |
| rdf | http://www.w3.org/1999/02/22-rdf-syntax-ns# |
| rdfs | http://www.w3.org/2000/01/rdf-schema# |
| vann | http://purl.org/vocab/vann/ |
| xsd | http://www.w3.org/2001/XMLSchema# |

Legend

| | |
|----|--------------------------|
| c | Classes |
| op | Object Properties |
| dp | Datatype Properties |
| ap | Annotation Properties |