

Description logic view: DOLCE-Perdurants

Classes

abstract

abstract $\sqsubseteq \forall$ has-quality \neg temporal-location_q
abstract \sqsubseteq particular
abstract $\sqsubseteq \forall$ has-quality \neg spatial-location_q
abstract $\sqsubseteq \neg$ perdurant
abstract $\sqsubseteq \neg$ quality

abstract-quality

abstract-quality \sqsubseteq quality
abstract-quality $\sqsubseteq \forall$ q-location abstract-region
abstract-quality $\sqsubseteq \forall$ has-quality abstract-quality
abstract-quality $\sqsubseteq \neg$ physical-quality
abstract-quality $\sqsubseteq \neg$ temporal-quality

abstract-region

abstract-region $\sqsubseteq \forall$ part abstract-region
abstract-region $\sqsubseteq \forall$ q-location-of abstract-quality
abstract-region \sqsubseteq region
abstract-region $\sqsubseteq \neg$ temporal-region
abstract-region $\sqsubseteq \neg$ physical-region

accomplishment

accomplishment \sqsubseteq event

achievement

achievement \sqsubseteq event

event

event \sqsubseteq perdurant

particular

perdurant

perdurant \sqsubseteq spatio-temporal-particular
perdurant $\sqsubseteq \forall$ has-quality temporal-quality
perdurant $\sqsubseteq \forall$ specific-constant-constituent perdurant
perdurant $\sqsubseteq \forall$ part perdurant
perdurant $\sqsubseteq \exists$ has-quality temporal-location_q

perdurant $\sqsubseteq \neg$ abstract
perdurant $\sqsubseteq \neg$ quality

physical-quality

physical-quality \sqsubseteq quality
physical-quality $\sqsubseteq \forall$ has-quality physical-quality
physical-quality $\sqsubseteq \forall$ q-location physical-region
physical-quality $\sqsubseteq \neg$ abstract-quality
physical-quality $\sqsubseteq \neg$ temporal-quality

physical-region

physical-region \sqsubseteq region
physical-region $\sqsubseteq \forall$ part physical-region
physical-region $\sqsubseteq \forall$ q-location-of physical-quality
physical-region $\sqsubseteq \neg$ temporal-region
physical-region $\sqsubseteq \neg$ abstract-region

process

process \sqsubseteq stative

proposition

proposition \sqsubseteq abstract

quale

quale \equiv region $\sqcap \exists$ atomic-part-of region

quality

quality \sqsubseteq spatio-temporal-particular
quality $\sqsubseteq \exists$ inherent-in particular
quality $\sqsubseteq \neg$ abstract
quality $\sqsubseteq \neg$ perdurant

quality-space

quality-space \equiv region $\sqcap \forall$ overlaps \neg quality-space

region

region $\sqsubseteq \forall$ part region
region \sqsubseteq abstract

set

set \sqsubseteq abstract

space-region

space-region $\sqsubseteq \forall$ q-location-of spatial-location_q

space-region $\sqsubseteq \forall$ part space-region

space-region \sqsubseteq physical-region

spatial-location_q

spatial-location_q \sqsubseteq physical-quality

spatio-temporal-particular

spatio-temporal-particular \equiv particular \sqcap perdurant \sqcup quality

spatio-temporal-region

spatio-temporal-region \sqsubseteq space-region

state

state \sqsubseteq stative

stative

stative \sqsubseteq perdurant

temporal-location_q

temporal-location_q \sqsubseteq temporal-quality

temporal-quality

temporal-quality $\sqsubseteq \forall$ has-quality temporal-quality

temporal-quality \sqsubseteq quality

temporal-quality $\sqsubseteq \exists$ inherent-in perdurant

temporal-quality $\sqsubseteq \forall$ q-location temporal-region

temporal-quality $\sqsubseteq \neg$ abstract-quality

temporal-quality $\sqsubseteq \neg$ physical-quality

temporal-region

temporal-region $\sqsubseteq \forall$ q-location-of temporal-quality

temporal-region $\sqsubseteq \forall$ part temporal-region

temporal-region \sqsubseteq region

temporal-region $\sqsubseteq \neg$ physical-region

temporal-region $\sqsubseteq \neg$ abstract-region

time-interval

time-interval \sqsubseteq temporal-region

Object properties

abstract-location

\sqsubseteq exact-location

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{abstract-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.}\text{location-of}_i^-$

$\top \sqsubseteq \forall$ abstract-location abstract-region

abstract-location-of

\sqsubseteq exact-location-of

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{abstract-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.}\text{location-of}_i^-$

\exists abstract-location-of Thing \sqsubseteq abstract-region

atomic-part

\sqsubseteq part

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{atomic-part}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{part-of}_i^-$

\exists atomic-part Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ atomic-part particular

atomic-part-of

\sqsubseteq part-of

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{atomic-part}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{part-of}_i^-$

\exists atomic-part-of Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ atomic-part-of particular

boundary

\sqsubseteq proper-part

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{boundary}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}\text{boundary-of}_i^-$

\exists boundary Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ boundary particular

boundary-of

\sqsubseteq proper-part-of

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlboundary}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlbou}$
 of_i^-

\exists boundary-of Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ boundary-of particular

constant-participant

\sqsubseteq participant

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlconstant-participant-in}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE}$
 participant_i^-

\exists constant-participant Thing \sqsubseteq perdurant

constant-participant-in

\sqsubseteq participant-in

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlconstant-participant-in}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE}$
 participant_i^-

$\top \sqsubseteq \forall$ constant-participant-in perdurant

exact-location

\sqsubseteq generic-location

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlexact-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}$
 location-of_i^-

\exists exact-location Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ exact-location region

exact-location-of

\sqsubseteq generic-location-of

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlexact-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}$
 location-of_i^-

\exists exact-location-of Thing \sqsubseteq region

$\top \sqsubseteq \forall$ exact-location-of particular

generic-constituent

\sqsubseteq immediate-relation

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-constituent-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE}$
 constituent_i^-

\exists generic-constituent Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ generic-constituent particular

generic-constituent-of

⊆ immediate-relation-i

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-constituent-of}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite-constituent}_i^-$

$\exists \text{ generic-constituent-of Thing } \sqsubseteq \text{ particular}$

$\top \sqsubseteq \forall \text{ generic-constituent-of particular}$

generic-dependent

⊆ immediate-relation

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-dependent}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite-dependent-on}_i^-$

$\exists \text{ generic-dependent Thing } \sqsubseteq \text{ particular}$

$\top \sqsubseteq \forall \text{ generic-dependent particular}$

generic-location

⊆ mediated-relation

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-location-of}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite-location}_i^-$

$\exists \text{ generic-location Thing } \sqsubseteq \text{ particular}$

$\top \sqsubseteq \forall \text{ generic-location particular}$

generic-location-of

⊆ mediated-relation-i

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-location-of}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite-location}_i^-$

$\exists \text{ generic-location-of Thing } \sqsubseteq \text{ particular}$

$\top \sqsubseteq \forall \text{ generic-location-of particular}$

generically-dependent-on

⊆ immediate-relation-i

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlgeneric-dependent}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite-dependent-on}_i^-$

$\exists \text{ generically-dependent-on Thing } \sqsubseteq \text{ particular}$

$\top \sqsubseteq \forall \text{ generically-dependent-on particular}$

has-quale

⊆ q-location

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhas-quale}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlquale-of}_i^-$

$\exists \text{ has-quale Thing } \sqsubseteq \text{ quality}$

$\top \sqsubseteq \forall \text{ has-quale quale}$

has-quality

\sqsubseteq immediate-relation-i
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlinherent-in $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlha
 \exists has-quality Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ has-quality quality

has-t-quality

\sqsubseteq has-quality
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlt-inherent-in $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlh
t-quality $_i^-$
 \exists has-t-quality Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ has-t-quality quality

host

\sqsubseteq specifically-constantly-dependent-on
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost $_i^-$

host-of

\sqsubseteq specific-constant-dependent
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost $_i^-$

identity-c

\sqsubseteq immediate-relation
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlidentity-c $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owliden
c $_i^-$
TransitivePropertyidentity-c
 \exists identity-c Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ identity-c particular

identity-n

\sqsubseteq immediate-relation
¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlidentity-n $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owliden
n $_i^-$
TransitivePropertyidentity-n
 \exists identity-n Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ identity-n particular

immediate-relation

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlimmediate-relation-i $_i$ \equiv ¡http://www.loa-cnr.it/ontologies/DOLCE-L
relation $_i^-$
 \exists immediate-relation Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ immediate-relation particular

immediate-relation-i

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{immediate-relation-i}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{immediate-relation}_i^-$

\exists immediate-relation-i Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ immediate-relation-i particular

inherent-in

\sqsubseteq immediate-relation

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{inherent-in}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{inherent-in}_i^-$

\exists inherent-in Thing \sqsubseteq quality

$\top \sqsubseteq \forall$ inherent-in particular

life

\sqsubseteq constant-participant-in

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{life}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{life-of}_i^-$

$\top \sqsubseteq \forall$ life perdurant

life-of

\sqsubseteq constant-participant

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{life}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{life-of}_i^-$

\exists life-of Thing \sqsubseteq perdurant

mediated-relation

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mediated-relation-i}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mediated-relation}_i^-$

\exists mediated-relation Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ mediated-relation particular

mediated-relation-i

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mediated-relation-i}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mediated-relation}_i^-$

\exists mediated-relation-i Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ mediated-relation-i particular

mereologically-coincides

\sqsubseteq temporary-part

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mereologically-coincides}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \text{mereologically-coincides}_i^-$

overlaps

\sqsubseteq mediated-relation
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#overlaps}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#overlaps}_i^-$
 \exists overlaps Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ overlaps particular

part

\sqsubseteq immediate-relation
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#part-of}_i^-$
TransitiveProperty part
 \exists part Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ part particular

part-of

\sqsubseteq immediate-relation-i
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#part-of}_i^-$
TransitiveProperty part-of
 \exists part-of Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ part-of particular

participant

\sqsubseteq immediate-relation
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#participant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#participant}_i^-$
 \exists participant Thing \sqsubseteq perdurant

participant-in

\sqsubseteq immediate-relation-i
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#participant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#participant}_i^-$
 \exists participant-in perdurant

partly-compresent

\sqsubseteq mediated-relation
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#partly-compresent}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl#partly-compresent}_i^-$
 \exists partly-compresent Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ partly-compresent particular

physical-location

\sqsubseteq exact-location

$\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlphysical-location}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.}$
 location-of_i^-
 $\top \sqsubseteq \forall \text{ physical-location physical-region}$

physical-location-of

$\sqsubseteq \text{exact-location-of}$
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlphysical-location}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.}$
 location-of_i^-
 $\exists \text{ physical-location-of Thing } \sqsubseteq \text{ physical-region}$

proper-part

$\sqsubseteq \text{part}$
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlproper-part}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlpr}$
 part-of_i^-
 $\text{TransitivePropertyproper-part}$
 $\exists \text{ proper-part Thing } \sqsubseteq \text{ particular}$
 $\top \sqsubseteq \forall \text{ proper-part particular}$

proper-part-of

$\sqsubseteq \text{part-of}$
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlproper-part}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlpr}$
 part-of_i^-
 $\text{TransitivePropertyproper-part-of}$
 $\exists \text{ proper-part-of Thing } \sqsubseteq \text{ particular}$
 $\top \sqsubseteq \forall \text{ proper-part-of particular}$

q-location

$\sqsubseteq \text{immediate-relation}$
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlq-location}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlq-l}$
 of_i^-
 $\exists \text{ q-location Thing } \sqsubseteq \text{ quality}$
 $\top \sqsubseteq \forall \text{ q-location region}$

q-location-of

$\sqsubseteq \text{immediate-relation-i}$
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlq-location}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlq-l}$
 of_i^-
 $\exists \text{ q-location-of Thing } \sqsubseteq \text{ region}$
 $\top \sqsubseteq \forall \text{ q-location-of quality}$

q-present-at

$\sqsubseteq \text{mediated-relation}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltime-of-q-presence-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlpresent-at}_i^-$

$\exists \text{ q-present-at Thing} \sqsubseteq \text{physical-quality}$

$\top \sqsubseteq \forall \text{ q-present-at time-interval}$

quale-of

$\sqsubseteq \text{q-location-of}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhas-quale}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlquale-of}_i^-$

$\exists \text{ quale-of Thing} \sqsubseteq \text{quale}$

$\top \sqsubseteq \forall \text{ quale-of quality}$

r-location

$\sqsubseteq \text{immediate-relation}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlr-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlr-location-of}_i^-$

$\exists \text{ r-location Thing} \sqsubseteq \text{region}$

$\top \sqsubseteq \forall \text{ r-location region}$

r-location-of

$\sqsubseteq \text{immediate-relation-i}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlr-location}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlr-location-of}_i^-$

$\exists \text{ r-location-of Thing} \sqsubseteq \text{region}$

$\top \sqsubseteq \forall \text{ r-location-of region}$

sibling-part

$\sqsubseteq \text{mediated-relation}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl sibling-part}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl sibling-part}_i^-$

$\exists \text{ sibling-part Thing} \sqsubseteq \text{particular}$

$\top \sqsubseteq \forall \text{ sibling-part particular}$

spatio-temporal-presence-of

$\sqsubseteq \text{exact-location-of}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspatio-temporal-presence-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspatio-temporally-present-at}_i^-$

$\exists \text{ spatio-temporal-presence-of Thing} \sqsubseteq \text{spatio-temporal-region}$

$\top \sqsubseteq \forall \text{ spatio-temporal-presence-of particular}$

spatio-temporally-present-at

$\sqsubseteq \text{exact-location}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspatio-temporal-presence-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspatio-temporally-present-at}_i^-$
 $\exists \text{ spatio-temporally-present-at Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ spatio-temporally-present-at spatio-temporal-region}$

specific-constant-constituent

$\sqsubseteq \text{immediate-relation}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-constituent}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-constituent-of}_i^-$
 $\exists \text{ specific-constant-constituent Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ specific-constant-constituent particular}$

specific-constant-constituent-of

$\sqsubseteq \text{immediate-relation-i}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-constituent}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-constituent-of}_i^-$
 $\exists \text{ specific-constant-constituent-of Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ specific-constant-constituent-of particular}$

specific-constant-dependent

$\sqsubseteq \text{immediate-relation}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-dependent}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecifically-constantly-dependent-on}_i^-$
 $\exists \text{ specific-constant-dependent Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ specific-constant-dependent particular}$

specifically-constantly-dependent-on

$\sqsubseteq \text{immediate-relation-i}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecific-constant-dependent}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlspecifically-constantly-dependent-on}_i^-$
 $\exists \text{ specifically-constantly-dependent-on Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ specifically-constantly-dependent-on particular}$

strong-connection

$\sqsubseteq \text{mediated-relation}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlstrong-connection}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlstrong-connection}_i^-$
 $\exists \text{ strong-connection Thing} \sqsubseteq \text{particular}$
 $\top \sqsubseteq \forall \text{ strong-connection particular}$

t-inherent-in

$\sqsubseteq \text{inherent-in}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlt-inherent-in}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl}$
 t-quality_i^-

$\exists \text{ t-inherent-in Thing} \sqsubseteq \text{quality}$

$\top \sqsubseteq \forall \text{ t-inherent-in particular}$

temporary-atomic-part

$\sqsubseteq \text{temporary-proper-part}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOL}$
 $\text{ce.owltemporary-atomic-part}_i^-$

temporary-atomic-part-of

$\sqsubseteq \text{temporary-proper-part-of}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOL}$
 $\text{ce.owltemporary-atomic-part}_i^-$

temporary-part

$\sqsubseteq \text{part}$

$\sqsubseteq \text{partly-compresent}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite}$
 part_i^-

temporary-part-of

$\sqsubseteq \text{partly-compresent}$

$\sqsubseteq \text{part-of}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite}$
 part_i^-

temporary-participant

$\sqsubseteq \text{participant}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-participant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE}$
 $\text{participant-in}_i^-$

$\exists \text{ temporary-participant Thing} \sqsubseteq \text{perdurant}$

temporary-participant-in

$\sqsubseteq \text{participant-in}$

$\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-participant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE}$
 $\text{participant-in}_i^-$

$\top \sqsubseteq \forall \text{ temporary-participant-in perdurant}$

temporary-proper-part

$\sqsubseteq \text{temporary-part}$

\sqsubseteq proper-part

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{temporary-proper-part}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{proper-part-of}_i^-$

temporary-proper-part-of

\sqsubseteq temporary-part-of

\sqsubseteq proper-part-of

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{temporary-proper-part}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{proper-part-of}_i^-$

time-of-q-presence-of

\sqsubseteq mediated-relation-i

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{time-of-q-presence-of}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{present-at}_i^-$

$\exists \text{ time-of-q-presence-of Thing } \sqsubseteq \text{ time-interval}$

$\top \sqsubseteq \forall \text{ time-of-q-presence-of physical-quality}$

total-constant-participant

\sqsubseteq constant-participant

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-constant-participant}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-constant-participant-in}_i^-$

$\exists \text{ total-constant-participant Thing } \sqsubseteq \text{ perdurant}$

total-constant-participant-in

\sqsubseteq constant-participant-in

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-constant-participant}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-constant-participant-in}_i^-$

$\top \sqsubseteq \forall \text{ total-constant-participant-in perdurant}$

total-temporary-participant

\sqsubseteq temporary-participant

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-temporary-participant-in}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-temporary-participant}_i^-$

$\exists \text{ total-temporary-participant Thing } \sqsubseteq \text{ perdurant}$

total-temporary-participant-in

\sqsubseteq temporary-participant-in

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-temporary-participant-in}_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \} \text{total-temporary-participant}_i^-$

$\top \sqsubseteq \forall \text{ total-temporary-participant-in perdurant}$

weak-connection

\sqsubseteq immediate-relation

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl\#weak-connection} \} \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite-connection} \}^{-}$

\exists weak-connection Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ weak-connection particular

Data properties

Individuals

Datatypes

string