

Description logic view: DOLCE-Endurants

Classes

abstract

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

abstract-quality

abstract-quality \sqsubseteq quality
abstract-quality $\sqsubseteq \forall$ q-location abstract-region
abstract-quality $\sqsubseteq \forall$ has-quality abstract-quality
abstract-quality $\sqsubseteq \exists$ inherent-in non-physical-endurant
abstract-quality $\sqsubseteq \neg$ physical-quality
abstract-quality $\sqsubseteq \neg$ temporal-quality

abstract-region

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

amount-of-matter

amount-of-matter \sqsubseteq physical-endurant
amount-of-matter $\sqsubseteq \neg$ feature
amount-of-matter $\sqsubseteq \neg$ physical-object

arbitrary-sum

arbitrary-sum $\sqsubseteq \exists$ part endurant
arbitrary-sum \sqsubseteq endurant
arbitrary-sum $\sqsubseteq \neg$ non-physical-endurant
arbitrary-sum $\sqsubseteq \neg$ physical-endurant

dependent-place

dependent-place \sqsubseteq feature

endurant

endurant $\sqsubseteq \forall$ part endurant
endurant \sqsubseteq spatio-temporal-particular
endurant $\sqsubseteq \forall$ specific-constant-constituent endurant
endurant $\sqsubseteq \neg$ quality
endurant $\sqsubseteq \neg$ abstract

feature

feature \sqsubseteq physical-endurant
feature $\sqsubseteq \exists$ host physical-endurant
feature $\sqsubseteq \neg$ amount-of-matter
feature $\sqsubseteq \neg$ physical-object

non-physical-endurant

non-physical-endurant $\sqsubseteq \forall$ has-quality abstract-quality
non-physical-endurant $\sqsubseteq \forall$ part non-physical-endurant
non-physical-endurant \sqsubseteq endurant
non-physical-endurant $\sqsubseteq \neg$ physical-endurant
non-physical-endurant $\sqsubseteq \neg$ arbitrary-sum

non-physical-object

non-physical-object $\sqsubseteq \forall$ part non-physical-object
non-physical-object \sqsubseteq non-physical-endurant
non-physical-object $\sqsubseteq \exists$ generically-dependent-on physical-endurant

particular

physical-endurant

physical-endurant $\sqsubseteq \exists$ has-quality spatial-location_q
physical-endurant $\sqsubseteq \exists$ has-quality physical-quality
physical-endurant $\sqsubseteq \forall$ has-quality physical-quality
physical-endurant \sqsubseteq endurant
physical-endurant $\sqsubseteq \forall$ specific-constant-constituent physical-endurant
physical-endurant $\sqsubseteq \forall$ part physical-endurant
physical-endurant $\sqsubseteq \neg$ non-physical-endurant
physical-endurant $\sqsubseteq \neg$ arbitrary-sum

physical-object

physical-object \sqsubseteq physical-endurant
physical-object $\sqsubseteq \neg$ amount-of-matter
physical-object $\sqsubseteq \neg$ feature

physical-quality

physical-quality \sqsubseteq quality
physical-quality $\sqsubseteq \forall$ has-quality physical-quality
physical-quality $\sqsubseteq \exists$ inherent-in physical-endurant
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

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 $\sqsubseteq \neg$ endurant
quality $\sqsubseteq \neg$ abstract

quality-space

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

region

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

relevant-part

relevant-part \sqsubseteq feature

set

set \sqsubseteq abstract

space-region

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

space-region \sqsubseteq physical-region

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

spatial-location_q

spatial-location_q \sqsubseteq physical-quality

spatio-temporal-particular

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

spatio-temporal-region

spatio-temporal-region \sqsubseteq space-region

temporal-location_q

temporal-location_q \sqsubseteq temporal-quality

temporal-quality

temporal-quality \sqsubseteq quality

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

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

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

$\exists \text{ abstract-location Thing} \sqsubseteq \text{non-physical-endurant}$

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

abstract-location-of

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

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

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

$\top \sqsubseteq \forall \text{ abstract-location-of non-physical-endurant}$

atomic-part

$\sqsubseteq \text{part}$

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

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

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

atomic-part-of

$\sqsubseteq \text{part-of}$

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

$\exists \text{ atomic-part-of Thing} \sqsubseteq \text{particular}$

$\top \sqsubseteq \forall \text{ atomic-part-of particular}$

boundary

$\sqsubseteq \text{proper-part}$

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

$\exists \text{ boundary Thing} \sqsubseteq \text{particular}$

$\top \sqsubseteq \forall \text{ boundary particular}$

boundary-of

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

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

$\exists \text{ boundary-of Thing} \sqsubseteq \text{particular}$

$\top \sqsubseteq \forall \text{ boundary-of particular}$

constant-participant

$\sqsubseteq \text{participant}$

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

$\top \sqsubseteq \forall \text{ constant-participant } \text{endurant}$

constant-participant-in

$\sqsubseteq \text{participant-in}$

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

$\exists \text{ constant-participant-in } \text{Thing} \sqsubseteq \text{endurant}$

exact-location

$\sqsubseteq \text{generic-location}$

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

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

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

exact-location-of

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

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

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

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

generic-constituent

$\sqsubseteq \text{immediate-relation}$

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

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

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

generic-constituent-of

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

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

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

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

generic-dependent

$\sqsubseteq \text{immediate-relation}$

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

\exists generic-dependent Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ generic-dependent particular

generic-location

\sqsubseteq 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 generic-location Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ generic-location particular

generic-location-of

\sqsubseteq 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 generic-location-of Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ generic-location-of particular

generically-dependent-on

\sqsubseteq 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 generically-dependent-on Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ generically-dependent-on particular

has-quale

\sqsubseteq q-location
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhas-quale}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlquality-of}_i^-$
 \exists has-quale Thing \sqsubseteq quality
 $\top \sqsubseteq \forall$ has-quale quale

has-quality

\sqsubseteq immediate-relation-i
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlinherent-in}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhas-quality}_i^-$
 \exists has-quality Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ has-quality quality

has-t-quality

\sqsubseteq has-quality
 $\text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlt-inherent-in}_i \equiv \text{[http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhas-t-quality}_i^-$

\exists has-t-quality Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ has-t-quality quality

host

\sqsubseteq specifically-constantly-dependent-on
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of}_i^-$
 \exists host Thing \sqsubseteq feature
 $\top \sqsubseteq \forall$ host physical-endurant

host-of

\sqsubseteq specific-constant-dependent
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlhost-of}_i^-$
 \exists host-of Thing \sqsubseteq physical-endurant
 $\top \sqsubseteq \forall$ host-of feature

identity-c

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

identity-n

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

immediate-relation

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

immediate-relation-i

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

inherent-in

⊆ immediate-relation

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlinherent-in¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlha

∃ inherent-in Thing ⊆ quality

⊤ ⊆ ∀ inherent-in particular

life

⊆ constant-participant-in

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owllife¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlife-of¡

∃ life Thing ⊆ endurant

life-of

⊆ constant-participant

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlife ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlife-of¡

⊤ ⊆ ∀ life-of endurant

mediated-relation

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlmediated-relation-i¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite. relation¡

∃ mediated-relation Thing ⊆ particular

⊤ ⊆ ∀ mediated-relation particular

mediated-relation-i

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlmediated-relation-i¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite. relation¡

∃ mediated-relation-i Thing ⊆ particular

⊤ ⊆ ∀ mediated-relation-i particular

mereologically-coincides

⊆ temporary-part

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlmereologically-coincides¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlmereologically-coincides¡

∃ mereologically-coincides Thing ⊆ endurant

⊤ ⊆ ∀ mereologically-coincides endurant

overlaps

⊆ mediated-relation

¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owloverlaps¡ ≡ ¡http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlverla

∃ overlaps Thing ⊆ particular

⊤ ⊆ ∀ overlaps particular

part

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

part-of

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

participant

\sqsubseteq immediate-relation
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlparticipant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlparticipant}_i^-$
 $\top \sqsubseteq \forall \text{ participant enduring}$

participant-in

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

partly-compresent

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

physical-location

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

physical-location-of

\sqsubseteq exact-location-of

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

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

$\top \sqsubseteq \forall$ physical-location-of physical-endurant

proper-part

\sqsubseteq part

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

TransitiveProperty proper-part

\exists proper-part Thing \sqsubseteq particular

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

proper-part-of

\sqsubseteq part-of

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

TransitiveProperty proper-part-of

\exists proper-part-of Thing \sqsubseteq particular

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

q-location

\sqsubseteq immediate-relation

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

\exists q-location Thing \sqsubseteq quality

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

q-location-of

\sqsubseteq immediate-relation-i

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

\exists q-location-of Thing \sqsubseteq region

$\top \sqsubseteq \forall$ q-location-of quality

q-present-at

\sqsubseteq mediated-relation

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

\exists q-present-at Thing \sqsubseteq physical-quality

$\top \sqsubseteq \forall$ q-present-at time-interval

quale-of

\sqsubseteq 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 quale-of Thing \sqsubseteq quale

$\top \sqsubseteq \forall$ quale-of quality

r-location

\sqsubseteq 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 r-location Thing \sqsubseteq region

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

r-location-of

\sqsubseteq 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 r-location-of Thing \sqsubseteq region

$\top \sqsubseteq \forall$ r-location-of region

sibling-part

\sqsubseteq 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 sibling-part Thing \sqsubseteq particular

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

spatio-temporal-presence-of

\sqsubseteq 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 spatio-temporal-presence-of Thing \sqsubseteq spatio-temporal-region

$\top \sqsubseteq \forall$ spatio-temporal-presence-of particular

spatio-temporally-present-at

\sqsubseteq 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 spatio-temporally-present-at Thing \sqsubseteq particular
 $\top \sqsubseteq \forall$ spatio-temporally-present-at spatio-temporal-region

specific-constant-constituent

\sqsubseteq immediate-relation

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

\exists specific-constant-constituent Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ specific-constant-constituent particular

specific-constant-constituent-of

\sqsubseteq immediate-relation-i

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

\exists specific-constant-constituent-of Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ specific-constant-constituent-of particular

specific-constant-dependent

\sqsubseteq immediate-relation

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \}$ specific-constant-dependent $_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \}$ specifically-constantly-dependent-on $_i^-$

\exists specific-constant-dependent Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ specific-constant-dependent particular

specifically-constantly-dependent-on

\sqsubseteq immediate-relation-i

$\{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \}$ specific-constant-dependent $_i \equiv \{ \text{http://www.loa-cnr.it/ontologies/DOLCE-Lite.owl} \}$ specifically-constantly-dependent-on $_i^-$

\exists specifically-constantly-dependent-on Thing \sqsubseteq particular

$\top \sqsubseteq \forall$ specifically-constantly-dependent-on particular

strong-connection

\sqsubseteq mediated-relation

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

\exists strong-connection Thing \sqsubseteq particular

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

t-inherent-in

\sqsubseteq inherent-in

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

\exists t-inherent-in Thing \sqsubseteq quality
 $\top \sqsubseteq \forall$ t-inherent-in particular

temporary-atomic-part

\sqsubseteq temporary-proper-part
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part}_i^-$
 \exists temporary-atomic-part Thing \sqsubseteq endurant
 $\top \sqsubseteq \forall$ temporary-atomic-part endurant

temporary-atomic-part-of

\sqsubseteq temporary-proper-part-of
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-atomic-part}_i^-$
 \exists temporary-atomic-part-of Thing \sqsubseteq endurant
 $\top \sqsubseteq \forall$ temporary-atomic-part-of endurant

temporary-part

\sqsubseteq part
 \sqsubseteq partly-compresent
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part}_i^-$
 \exists temporary-part Thing \sqsubseteq endurant
 $\top \sqsubseteq \forall$ temporary-part endurant

temporary-part-of

\sqsubseteq partly-compresent
 \sqsubseteq part-of
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-part}_i^-$
 \exists temporary-part-of Thing \sqsubseteq endurant
 $\top \sqsubseteq \forall$ temporary-part-of endurant

temporary-participant

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

temporary-participant-in

\sqsubseteq participant-in

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

temporary-proper-part

$\sqsubseteq \text{temporary-part}$
 $\sqsubseteq \text{proper-part}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-proper-part}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlproper-part-of}_i^-$
 $\exists \text{ temporary-proper-part Thing} \sqsubseteq \text{endurant}$
 $\top \sqsubseteq \forall \text{ temporary-proper-part} \text{ endurant}$

temporary-proper-part-of

$\sqsubseteq \text{temporary-part-of}$
 $\sqsubseteq \text{proper-part-of}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltemporary-proper-part-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlproper-part-of}_i^-$
 $\exists \text{ temporary-proper-part-of Thing} \sqsubseteq \text{endurant}$
 $\top \sqsubseteq \forall \text{ temporary-proper-part-of} \text{ endurant}$

time-of-q-presence-of

$\sqsubseteq \text{mediated-relation-i}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltime-of-q-presence-of}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owlpresent-at}_i^-$
 $\exists \text{ time-of-q-presence-of Thing} \sqsubseteq \text{time-interval}$
 $\top \sqsubseteq \forall \text{ time-of-q-presence-of} \text{ physical-quality}$

total-constant-participant

$\sqsubseteq \text{constant-participant}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltotal-constant-participant}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltotal-constant-participant-in}_i^-$
 $\top \sqsubseteq \forall \text{ total-constant-participant} \text{ endurant}$

total-constant-participant-in

$\sqsubseteq \text{constant-participant-in}$
 $\text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltotal-constant-participant-in}_i \equiv \text{!http://www.loa-cnr.it/ontologies/DOLCE-Lite.owltotal-constant-participant-in}_i^-$
 $\exists \text{ total-constant-participant-in Thing} \sqsubseteq \text{endurant}$

total-temporary-participant

$\sqsubseteq \text{temporary-participant}$

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

total-temporary-participant-in

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

weak-connection

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

Data properties

Individuals

Datatypes

string