Description logic view: DOLCE-EL

Classes

| abstract |
|---|
| abstract \sqsubseteq particular abstract $\sqsubseteq \neg$ perdurant abstract $\sqsubseteq \neg$ quality abstract $\sqsubseteq \neg$ endurant |
| abstract-quality |
| abstract-quality \sqsubseteq 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 region abstract-region $\sqsubseteq \neg$ temporal-region abstract-region $\sqsubseteq \neg$ physical-region |
| accomplishment |
| ${\it accomplishment} \sqsubseteq {\it event}$ |
| achievement |
| achievement \sqsubseteq event |
| 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 spatio-temporal-particular endurant \sqsubseteq \exists participant-in perdurant endurant \sqsubseteq \neg quality endurant \sqsubseteq \neg perdurant endurant \sqsubseteq \neg abstract |
| event |
| event \sqsubseteq perdurant |
| 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 endurant non-physical-endurant $\sqsubseteq \neg$ physical-endurant non-physical-endurant $\sqsubseteq \neg$ arbitrary-sum |
| non-physical-object |
| non-physical-object \sqsubseteq non-physical-endurant non-physical-object \sqsubseteq \exists generically-dependent-on physical-endurant |
| particular |
| perdurant |
| perdurant \sqsubseteq spatio-temporal-particular perdurant \sqsubseteq \exists has-quality temporal-location_q perdurant \sqsubseteq \exists participant endurant perdurant \sqsubseteq \neg abstract perdurant \sqsubseteq \neg endurant perdurant \sqsubseteq \neg quality |
| physical-endurant |
| physical-endurant $\sqsubseteq \exists$ has-quality spatial-location_q physical-endurant $\sqsubseteq \exists$ has-quality physical-quality physical-endurant \sqsubseteq 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 3 inherent-in physical-endurant physical-quality $\sqsubseteq \neg$ abstract-quality physical-quality $\sqsubseteq \neg$ temporal-quality physical-region physical-region \sqsubseteq region 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 $\sqsubseteq \neg$ endurant $quality \sqsubseteq \neg \ abstract$ quality $\sqsubseteq \neg$ perdurant quality-space region region \sqsubseteq abstract relevant-part

 $relevant-part \sqsubseteq feature$

```
\mathbf{set}
\mathtt{set} \sqsubseteq \mathtt{abstract}
space-region
{\it space-region} \sqsubseteq {\it physical-region}
spatial-location<sub>q</sub>
spatial\text{-location\_q} \sqsubseteq physical\text{-quality}
{\bf spatio-temporal-particular}
spatio-temporal-region
spatio-temporal-region \sqsubseteq space-region
\mathbf{state}
state \sqsubseteq stative
stative
stative \sqsubseteq perdurant
temporal-location_q
temporal-location_q \sqsubseteq temporal-quality
temporal-quality
temporal-quality \sqsubseteq quality
temporal-quality \sqsubseteq \exists inherent-in perdurant
temporal-quality \sqsubseteq \neg abstract-quality
temporal-quality \sqsubseteq \neg physical-quality
temporal-region
temporal-region \sqsubseteq region
temporal-region \sqsubseteq \neg physical-region temporal-region \sqsubseteq \neg abstract-region
time-interval
time\text{-interval}\sqsubseteq temporal\text{-region}
```

Object properties

abstract-location \square exact-location \exists abstract-location Thing \sqsubseteq non-physical-endurant $\top \sqsubseteq \forall \text{ abstract-location abstract-region}$ abstract-location-of \sqsubseteq exact-location-of \exists abstract-location-of Thing \sqsubseteq abstract-region $\top \sqsubseteq \forall$ abstract-location-of non-physical-endurant atomic-part \sqsubseteq part \exists atomic-part Thing \sqsubseteq particular $\top \sqsubseteq \forall$ atomic-part particular atomic-part-of \sqsubseteq part-of \exists atomic-part-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ atomic-part-of particular boundary \sqsubseteq proper-part \exists boundary Thing \sqsubseteq particular $\top \sqsubseteq \forall$ boundary particular boundary-of \sqsubseteq proper-part-of \exists boundary-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ boundary-of particular constant-participant ⊑ participant \exists constant-participant Thing \sqsubseteq perdurant

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

 \exists constant-participant-in Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ constant-participant-in perdurant

constant-participant-in

 \sqsubseteq participant-in

| exact-location |
|---|
| \sqsubseteq generic-location \exists exact-location Thing \sqsubseteq particular $\top \sqsubseteq \forall$ exact-location region |
| exact-location-of |
| \sqsubseteq generic-location-of \exists exact-location-of Thing \sqsubseteq region $\top \sqsubseteq \forall$ exact-location-of particular |
| generic-constituent |
| \sqsubseteq immediate-relation \exists generic-constituent Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generic-constituent particular |
| generic-constituent-of |
| \sqsubseteq immediate-relation-i \exists generic-constituent-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generic-constituent-of particular |
| generic-dependent |
| \sqsubseteq immediate-relation \exists generic-dependent Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generic-dependent particular |
| generic-location |
| \sqsubseteq mediated-relation \exists generic-location Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generic-location particular |
| generic-location-of |
| \sqsubseteq mediated-relation-i \exists generic-location-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generic-location-of particular |
| generically-dependent-on |
| \sqsubseteq immediate-relation-i \exists generically-dependent-on Thing \sqsubseteq particular $\top \sqsubseteq \forall$ generically-dependent-on particular |

| nas-quale |
|---|
| \sqsubseteq q-location \exists has-quale Thing \sqsubseteq quality \top \sqsubseteq \forall has-quale quale |
| has-quality |
| \sqsubseteq immediate-relation-i \exists has-quality Thing \sqsubseteq particular $\top \sqsubseteq \forall$ has-quality quality |
| has-t-quality |
| \sqsubseteq has-quality \exists has-t-quality Thing \sqsubseteq particular $\top \sqsubseteq \forall$ has-t-quality quality |
| host |
| $\sqsubseteq specifically\text{-constantly-dependent-on} \\ \exists \ host \ Thing \sqsubseteq \ feature \\ \top \sqsubseteq \forall \ host \ physical\text{-endurant} \\$ |
| host-of |
| \sqsubseteq specific-constant-dependent \exists host-of Thing \sqsubseteq physical-endurant $\top \sqsubseteq \forall$ host-of feature |
| identity-c |
| \sqsubseteq immediate-relation TransitivePropertyidentity-c \exists identity-c Thing \sqsubseteq particular $\top \sqsubseteq \forall$ identity-c particular |
| identity-n |
| \sqsubseteq immediate-relation TransitivePropertyidentity-n \exists identity-n Thing \sqsubseteq particular $\top \sqsubseteq \forall$ identity-n particular |
| immediate-relation |
| $\exists \ immediate\text{-relation Thing} \sqsubseteq particular \\ \top \sqsubseteq \forall \ immediate\text{-relation particular}$ |

| immediate-relation-i |
|--|
| \exists immediate-relation-i Thing \sqsubseteq particular $\top \sqsubseteq \forall$ immediate-relation-i particular |
| inherent-in |
| \sqsubseteq immediate-relation \exists inherent-in Thing \sqsubseteq quality $\top \sqsubseteq \forall$ inherent-in particular |
| life |
| \sqsubseteq constant-participant-in \exists life Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ life perdurant |
| life-of |
| \sqsubseteq constant-participant \exists life-of Thing \sqsubseteq perdurant $\top \sqsubseteq \forall$ life-of endurant |
| mediated-relation |
| \exists mediated-relation Thing \sqsubseteq particular \top \sqsubseteq \forall mediated-relation particular |
| mediated-relation-i |
| \exists mediated-relation-i Thing \sqsubseteq particular \top \sqsubseteq \forall mediated-relation-i particular |
| mereologically-coincides |
| $\sqsubseteq \text{ temporary-part}$ $\exists \text{ mereologically-coincides Thing } \sqsubseteq \text{ endurant}$ $\top \sqsubseteq \forall \text{ mereologically-coincides endurant}$ |
| overlaps |
| \sqsubseteq mediated-relation \exists overlaps Thing \sqsubseteq particular $\top \sqsubseteq \forall$ overlaps particular |
| part |
| \sqsubseteq immediate-relation |

| TransitivePropertypart \exists part Thing \sqsubseteq particular $\top \sqsubseteq \forall$ part particular |
|--|
| part-of |
| \sqsubseteq immediate-relation-i TransitivePropertypart-of \exists part-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ part-of particular |
| participant |
| \sqsubseteq immediate-relation \exists participant Thing \sqsubseteq perdurant $\top \sqsubseteq \forall$ participant endurant |
| participant-in |
| \sqsubseteq immediate-relation-i \exists participant-in Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ participant-in perdurant |
| partly-compresent |
| \sqsubseteq mediated-relation \exists partly-compresent Thing \sqsubseteq particular $\top \sqsubseteq \forall$ partly-compresent particular |
| physical-location |
| \sqsubseteq exact-location \exists physical-location Thing \sqsubseteq physical-endurant $\top \sqsubseteq \forall$ physical-location physical-region |
| physical-location-of |
| \sqsubseteq exact-location-of \exists physical-location-of Thing \sqsubseteq physical-region $\top \sqsubseteq \forall$ physical-location-of physical-endurant |
| proper-part |
| \sqsubseteq part TransitivePropertyproper-part \exists proper-part Thing \sqsubseteq particular $\top \sqsubseteq \forall$ proper-part particular |

| proper-part-of |
|--|
| \sqsubseteq part-of TransitivePropertyproper-part-of \exists proper-part-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ proper-part-of particular |
| q-location |
| \sqsubseteq immediate-relation \exists q-location Thing \sqsubseteq quality $\top \sqsubseteq \forall$ q-location region |
| q-location-of |
| \sqsubseteq immediate-relation-i \exists q-location-of Thing \sqsubseteq region \top \sqsubseteq \forall q-location-of quality |
| q-present-at |
| \sqsubseteq mediated-relation \exists q-present-at Thing \sqsubseteq physical-quality \top \sqsubseteq \forall q-present-at time-interval |
| quale-of |
| \sqsubseteq q-location-of \exists quale-of Thing \sqsubseteq quale \top \sqsubseteq \forall quale-of quality |
| r-location |
| \sqsubseteq immediate-relation \exists r-location Thing \sqsubseteq region $\top \sqsubseteq \forall$ r-location region |
| r-location-of |
| \sqsubseteq immediate-relation-i \exists r-location-of Thing \sqsubseteq region \top \sqsubseteq \forall r-location-of region |
| sibling-part |
| \sqsubseteq mediated-relation \exists sibling-part Thing \sqsubseteq particular $\top \sqsubseteq \forall$ sibling-part particular |

| spatio-temporal-presence-of |
|---|
| \sqsubseteq exact-location-of \exists spatio-temporal-presence-of Thing \sqsubseteq spatio-temporal-presence-of particular |
| spatio-temporally-present-at |
| \sqsubseteq exact-location \exists spatio-temporally-present-at Thing \sqsubseteq particular $\top \sqsubseteq \forall$ spatio-temporally-present-at spatio-temporal-region |
| specific-constant-constituent |
| \sqsubseteq immediate-relation \exists specific-constant-constituent Thing \sqsubseteq particular $\top \sqsubseteq \forall$ specific-constant-constituent particular |
| specific-constant-constituent-of |
| \sqsubseteq immediate-relation-i \exists specific-constant-constituent-of Thing \sqsubseteq particular $\top \sqsubseteq \forall$ specific-constant-constituent-of particular |
| specific-constant-dependent |
| \sqsubseteq immediate-relation \exists specific-constant-dependent Thing \sqsubseteq particular $\top \sqsubseteq \forall$ specific-constant-dependent particular |
| specifically-constantly-dependent-on |
| \sqsubseteq immediate-relation-i \exists specifically-constantly-dependent-on Thing \sqsubseteq particular $\top \sqsubseteq \forall$ specifically-constantly-dependent-on particular |
| strong-connection |
| \sqsubseteq mediated-relation \exists strong-connection Thing \sqsubseteq particular $\top \sqsubseteq \forall$ strong-connection particular |
| t-inherent-in |
| \sqsubseteq inherent-in \exists t-inherent-in Thing \sqsubseteq quality $\top \sqsubseteq \forall$ t-inherent-in particular |

| temporary-atomic-part |
|---|
| \sqsubseteq temporary-proper-part \exists temporary-atomic-part Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-atomic-part endurant |
| temporary-atomic-part-of |
| \sqsubseteq temporary-proper-part-of \exists temporary-atomic-part-of Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-atomic-part-of endurant |
| temporary-part |
| \sqsubseteq part \sqsubseteq partly-compresent \exists temporary-part Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-part endurant |
| temporary-part-of |
| \sqsubseteq partly-compresent \sqsubseteq part-of \exists temporary-part-of Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-part-of endurant |
| temporary-participant |
| \sqsubseteq participant \exists temporary-participant Thing \sqsubseteq perdurant $\top \sqsubseteq \forall$ temporary-participant endurant |
| temporary-participant-in |
| \sqsubseteq participant-in \exists temporary-participant-in Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-participant-in perdurant |
| temporary-proper-part |
| \sqsubseteq temporary-part \sqsubseteq proper-part \exists temporary-proper-part Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-proper-part endurant |
| temporary-proper-part-of |
| \sqsubseteq temporary-part-of |

| \sqsubseteq proper-part-of \exists temporary-proper-part-of Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ temporary-proper-part-of endurant |
|--|
| time-of-q-presence-of |
| \sqsubseteq mediated-relation-i \exists time-of-q-presence-of Thing \sqsubseteq time-interval $\top \sqsubseteq \forall$ time-of-q-presence-of physical-quality |
| total-constant-participant |
| \sqsubseteq constant-participant \exists total-constant-participant Thing \sqsubseteq perdurant $\top \sqsubseteq \forall$ total-constant-participant endurant |
| total-constant-participant-in |
| \sqsubseteq constant-participant-in \exists total-constant-participant-in Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ total-constant-participant-in perdurant |
| total-temporary-participant |
| \sqsubseteq temporary-participant \exists total-temporary-participant Thing \sqsubseteq perdurant $\top \sqsubseteq \forall$ total-temporary-participant endurant |
| total-temporary-participant-in |
| \sqsubseteq temporary-participant-in \exists total-temporary-participant-in Thing \sqsubseteq endurant $\top \sqsubseteq \forall$ total-temporary-participant-in perdurant |
| weak-connection |
| ☐ immediate-relation ☐ weak-connection Thing ☐ particular ☐ ∀ weak-connection particular |

Data properties

Individuals

Datatypes

string