

Description logic view: BFO 1.1

Classes

ConnectedSpatiotemporalRegion

ConnectedSpatiotemporalRegion \equiv SpatiotemporalInstant \sqcup SpatiotemporalInterval

ConnectedSpatiotemporalRegion \sqsubseteq SpatiotemporalRegion

ConnectedSpatiotemporalRegion $\sqsubseteq \neg$ ScatteredSpatiotemporalRegion

ConnectedTemporalRegion

ConnectedTemporalRegion \equiv TemporalInstant \sqcup TemporalInterval

ConnectedTemporalRegion \sqsubseteq TemporalRegion

ConnectedTemporalRegion $\sqsubseteq \neg$ ScatteredTemporalRegion

Continuant

Continuant \equiv DependentContinuant \sqcup IndependentContinuant \sqcup SpatialRegion

Continuant \sqsubseteq Entity

Continuant $\sqsubseteq \neg$ Occurrent

DependentContinuant

DependentContinuant \equiv GenericallyDependentContinuant \sqcup SpecificallyDependentContinuant

DependentContinuant \sqsubseteq Continuant

DependentContinuant $\sqsubseteq \neg$ SpatialRegion

DependentContinuant $\sqsubseteq \neg$ IndependentContinuant

Disposition

Disposition \sqsubseteq RealizableEntity

Disposition $\sqsubseteq \neg$ Role

Disposition $\sqsubseteq \neg$ Function

Entity

Entity \equiv Continuant \sqcup Occurrent

FiatObjectPart

FiatObjectPart \sqsubseteq MaterialEntity

FiatObjectPart $\sqsubseteq \neg$ ObjectBoundary

FiatObjectPart $\sqsubseteq \neg$ Site

FiatObjectPart $\sqsubseteq \neg$ Object

FiatObjectPart $\sqsubseteq \neg$ ObjectAggregate

FiatProcessPart

FiatProcessPart \sqsubseteq ProcessualEntity
FiatProcessPart $\sqsubseteq \neg$ ProcessualContext
FiatProcessPart $\sqsubseteq \neg$ Process
FiatProcessPart $\sqsubseteq \neg$ ProcessAggregate
FiatProcessPart $\sqsubseteq \neg$ ProcessBoundary

Function

Function \sqsubseteq RealizableEntity
Function $\sqsubseteq \neg$ Disposition
Function $\sqsubseteq \neg$ Role

GenericallyDependentContinuant

GenericallyDependentContinuant \sqsubseteq DependentContinuant
GenericallyDependentContinuant $\sqsubseteq \neg$ SpecificallyDependentContinuant

IndependentContinuant

IndependentContinuant \equiv MaterialEntity \sqcup ObjectBoundary \sqcup Site
IndependentContinuant \sqsubseteq Continuant
IndependentContinuant $\sqsubseteq \neg$ DependentContinuant
IndependentContinuant $\sqsubseteq \neg$ SpatialRegion

MaterialEntity

MaterialEntity \equiv FiatObjectPart \sqcup Object \sqcup ObjectAggregate
MaterialEntity \sqsubseteq IndependentContinuant
MaterialEntity $\sqsubseteq \neg$ Site
MaterialEntity $\sqsubseteq \neg$ ObjectBoundary

Object

Object \sqsubseteq MaterialEntity
Object $\sqsubseteq \neg$ ObjectAggregate
Object $\sqsubseteq \neg$ ObjectBoundary
Object $\sqsubseteq \neg$ FiatObjectPart
Object $\sqsubseteq \neg$ Site

ObjectAggregate

ObjectAggregate \sqsubseteq MaterialEntity
ObjectAggregate $\sqsubseteq \neg$ Object
ObjectAggregate $\sqsubseteq \neg$ ObjectBoundary
ObjectAggregate $\sqsubseteq \neg$ Site
ObjectAggregate $\sqsubseteq \neg$ FiatObjectPart

ObjectBoundary

ObjectBoundary \sqsubseteq IndependentContinuant
ObjectBoundary $\sqsubseteq \neg$ ObjectAggregate
ObjectBoundary $\sqsubseteq \neg$ FiatObjectPart
ObjectBoundary $\sqsubseteq \neg$ Site
ObjectBoundary $\sqsubseteq \neg$ MaterialEntity
ObjectBoundary $\sqsubseteq \neg$ Object

Occurrent

Occurrent \equiv ProcessualEntity \sqcup SpatiotemporalRegion \sqcup TemporalRegion
Occurrent \sqsubseteq Entity
Occurrent $\sqsubseteq \neg$ Continuant

OneDimensionalRegion

OneDimensionalRegion \sqsubseteq SpatialRegion
OneDimensionalRegion $\sqsubseteq \neg$ TwoDimensionalRegion
OneDimensionalRegion $\sqsubseteq \neg$ ThreeDimensionalRegion
OneDimensionalRegion $\sqsubseteq \neg$ ZeroDimensionalRegion

Process

Process \sqsubseteq ProcessualEntity
Process $\sqsubseteq \neg$ ProcessAggregate
Process $\sqsubseteq \neg$ FiatProcessPart
Process $\sqsubseteq \neg$ ProcessBoundary
Process $\sqsubseteq \neg$ ProcessualContext

ProcessAggregate

ProcessAggregate \sqsubseteq ProcessualEntity
ProcessAggregate $\sqsubseteq \neg$ Process
ProcessAggregate $\sqsubseteq \neg$ ProcessBoundary
ProcessAggregate $\sqsubseteq \neg$ ProcessualContext
ProcessAggregate $\sqsubseteq \neg$ FiatProcessPart

ProcessBoundary

ProcessBoundary \sqsubseteq ProcessualEntity
ProcessBoundary $\sqsubseteq \neg$ ProcessAggregate
ProcessBoundary $\sqsubseteq \neg$ Process
ProcessBoundary $\sqsubseteq \neg$ FiatProcessPart
ProcessBoundary $\sqsubseteq \neg$ ProcessualContext

ProcessualContext

ProcessualContext \sqsubseteq ProcessualEntity
ProcessualContext $\sqsubseteq \neg$ FiatProcessPart
ProcessualContext $\sqsubseteq \neg$ ProcessAggregate
ProcessualContext $\sqsubseteq \neg$ Process
ProcessualContext $\sqsubseteq \neg$ ProcessBoundary

ProcessualEntity

ProcessualEntity \equiv FiatProcessPart \sqcup Process \sqcup ProcessAggregate \sqcup ProcessBoundary \sqcup ProcessualContext
ProcessualEntity \sqsubseteq Occurrent
ProcessualEntity $\sqsubseteq \neg$ TemporalRegion
ProcessualEntity $\sqsubseteq \neg$ SpatiotemporalRegion

Quality

Quality \sqsubseteq SpecificallyDependentContinuant
Quality $\sqsubseteq \neg$ RealizableEntity

RealizableEntity

RealizableEntity \sqsubseteq SpecificallyDependentContinuant
RealizableEntity $\sqsubseteq \neg$ Quality

Role

Role \sqsubseteq RealizableEntity
Role $\sqsubseteq \neg$ Disposition
Role $\sqsubseteq \neg$ Function

ScatteredSpatiotemporalRegion

ScatteredSpatiotemporalRegion \sqsubseteq SpatiotemporalRegion
ScatteredSpatiotemporalRegion $\sqsubseteq \neg$ ConnectedSpatiotemporalRegion

ScatteredTemporalRegion

ScatteredTemporalRegion \sqsubseteq TemporalRegion
ScatteredTemporalRegion $\sqsubseteq \neg$ ConnectedTemporalRegion

Site

Site \sqsubseteq IndependentContinuant
Site $\sqsubseteq \neg$ ObjectAggregate
Site $\sqsubseteq \neg$ ObjectBoundary
Site $\sqsubseteq \neg$ FiatObjectPart
Site $\sqsubseteq \neg$ MaterialEntity
Site $\sqsubseteq \neg$ Object

SpatialRegion

$\text{SpatialRegion} \equiv \text{OneDimensionalRegion} \sqcup \text{ThreeDimensionalRegion} \sqcup \text{TwoDimensionalRegion} \sqcup \text{ZeroDimensionalRegion}$

$\text{SpatialRegion} \sqsubseteq \text{Continuant}$

$\text{SpatialRegion} \sqsubseteq \neg \text{DependentContinuant}$

$\text{SpatialRegion} \sqsubseteq \neg \text{IndependentContinuant}$

SpatiotemporalInstant

$\text{SpatiotemporalInstant} \sqsubseteq \text{ConnectedSpatiotemporalRegion}$

$\text{SpatiotemporalInstant} \sqsubseteq \neg \text{SpatiotemporalInterval}$

SpatiotemporalInterval

$\text{SpatiotemporalInterval} \sqsubseteq \text{ConnectedSpatiotemporalRegion}$

$\text{SpatiotemporalInterval} \sqsubseteq \neg \text{SpatiotemporalInstant}$

SpatiotemporalRegion

$\text{SpatiotemporalRegion} \equiv \text{ConnectedSpatiotemporalRegion} \sqcup \text{ScatteredSpatiotemporalRegion}$

$\text{SpatiotemporalRegion} \sqsubseteq \text{Occurrent}$

$\text{SpatiotemporalRegion} \sqsubseteq \neg \text{ProcessualEntity}$

$\text{SpatiotemporalRegion} \sqsubseteq \neg \text{TemporalRegion}$

SpecificallyDependentContinuant

$\text{SpecificallyDependentContinuant} \equiv \text{Quality} \sqcup \text{RealizableEntity}$

$\text{SpecificallyDependentContinuant} \sqsubseteq \text{DependentContinuant}$

$\text{SpecificallyDependentContinuant} \sqsubseteq \neg \text{GenericallyDependentContinuant}$

TemporalInstant

$\text{TemporalInstant} \sqsubseteq \text{ConnectedTemporalRegion}$

$\text{TemporalInstant} \sqsubseteq \neg \text{TemporalInterval}$

TemporalInterval

$\text{TemporalInterval} \sqsubseteq \text{ConnectedTemporalRegion}$

$\text{TemporalInterval} \sqsubseteq \neg \text{TemporalInstant}$

TemporalRegion

$\text{TemporalRegion} \equiv \text{ConnectedTemporalRegion} \sqcup \text{ScatteredTemporalRegion}$

$\text{TemporalRegion} \sqsubseteq \text{Occurrent}$

$\text{TemporalRegion} \sqsubseteq \neg \text{ProcessualEntity}$

$\text{TemporalRegion} \sqsubseteq \neg \text{SpatiotemporalRegion}$

ThreeDimensionalRegion

ThreeDimensionalRegion \sqsubseteq SpatialRegion
ThreeDimensionalRegion $\sqsubseteq \neg$ TwoDimensionalRegion
ThreeDimensionalRegion $\sqsubseteq \neg$ ZeroDimensionalRegion
ThreeDimensionalRegion $\sqsubseteq \neg$ OneDimensionalRegion

TwoDimensionalRegion

TwoDimensionalRegion \sqsubseteq SpatialRegion
TwoDimensionalRegion $\sqsubseteq \neg$ ZeroDimensionalRegion
TwoDimensionalRegion $\sqsubseteq \neg$ ThreeDimensionalRegion
TwoDimensionalRegion $\sqsubseteq \neg$ OneDimensionalRegion

ZeroDimensionalRegion

ZeroDimensionalRegion \sqsubseteq SpatialRegion
ZeroDimensionalRegion $\sqsubseteq \neg$ TwoDimensionalRegion
ZeroDimensionalRegion $\sqsubseteq \neg$ ThreeDimensionalRegion
ZeroDimensionalRegion $\sqsubseteq \neg$ OneDimensionalRegion

Object properties

Data properties

Individuals

Datatypes

string