

Description logic view: GFO-Abstract-Core-Ontology

Classes

Attribute

Attribute \sqsubseteq Individual

Category

Category \sqsubseteq Item

Category $\sqsubseteq \neg$ Individual

Entity

Individual

Individual $\sqsubseteq \neg(\exists \text{ instantiated_by } \text{Item})$

Individual \sqsubseteq Item

Individual $\sqsubseteq \neg$ Category

Item

Item \equiv Category \sqcup Individual

Item \sqsubseteq Entity

Item $\sqsubseteq \neg(\exists \text{ has_member } \text{Entity})$

Object

Object \sqsubseteq Individual

ObjectCategory

ObjectCategory \sqsubseteq Category

Property

Property \sqsubseteq Category

Relation

Relation \sqsubseteq Category

RelationCategory

RelationCategory \sqsubseteq Category

Relator

Relator \sqsubseteq Individual

Role

Role \sqsubseteq Individual

Thing

Object properties

abstract_{has_part}

$\text{[http://www.onto-med.de/ontologies/gfo.owlabstract_part_of > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlabstract_part_of >}$
TransitivePropertyabstract_has_part
 \exists abstract_has_part Thing \sqsubseteq Item
 $\top \sqsubseteq \forall$ abstract_has_part Item

abstract_{part_{of}}

$\text{[http://www.onto-med.de/ontologies/gfo.owlabstract_part_of > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlabstract_part_of >}$
TransitivePropertyabstract_part_of
 \exists abstract_part_of Thing \sqsubseteq Item
 $\top \sqsubseteq \forall$ abstract_part_of Item

agent_{i_n}

\sqsubseteq participates_in
 \sqsubseteq causes
 $\text{[http://www.onto-med.de/ontologies/gfo.owlagent_in > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlagent_in >}$

boundary_{of}

\sqsubseteq depends_on
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas_boundary > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas_boundary >}$

categorial_{part_{of}}

\sqsubseteq abstract_part_of
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas_categorial_part > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas_categorial_part >}$

category_{i_nayer}

\sqsubseteq categorial_part_of
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas_category > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas_category >}$

caused_{by}

$\text{[http://www.onto-med.de/ontologies/gfo.owlcaused_by > } \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlcaused_by >}$

causes

$\text{http://www.onto-med.de/ontologies/gfo.owlcaused}_by > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlcauses}$

constituent_{part_of}

\sqsubseteq proper_part_of

$\text{http://www.onto-med.de/ontologies/gfo.owlconstituent}_part_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$

depends_{on}

$\text{http://www.onto-med.de/ontologies/gfo.owlnecessary}_for > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owldepe}$

\exists depends_on Thing \sqsubseteq Item

$\top \sqsubseteq \forall$ depends_on Item

exists_{at}

$\top \sqsubseteq \leq 1$ exists_at Thing

framed_{by}

\sqsubseteq occupies

$\text{http://www.onto-med.de/ontologies/gfo.owlframes}_i \equiv \text{http://www.onto-med.de/ontologies/gfo.owlframed}_by >^-$

$\top \sqsubseteq \leq 1$ framed_by Thing

frames

$\text{http://www.onto-med.de/ontologies/gfo.owlframes}_i \equiv \text{http://www.onto-med.de/ontologies/gfo.owlframed}_by >^-$

$\top \sqsubseteq \leq 1$ frames Thing

function_{determinant_of}

$\text{http://www.onto-med.de/ontologies/gfo.owlfunction}_determinant_of > \equiv < \text{http://www.onto-med.de/ontologies/g}$

function_{of}

$\text{http://www.onto-med.de/ontologies/gfo.owlfunction}_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_f$

functional_{item_of}

\sqsubseteq function_determinant_of

$\text{http://www.onto-med.de/ontologies/gfo.owlhas}_functional_item > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$

goal_{of}

\sqsubseteq function_determinant_of

$\text{http://www.onto-med.de/ontologies/gfo.owlhas}_goal > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlgoal}_of >$

has_agent

$\text{[http://www.onto-med.de/ontologies/gfo.owlagent}_i n > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_a \text{gent}$

has_boundary

$\text{[http://www.onto-med.de/ontologies/gfo.owlhas}_b \text{boundary} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlbound}$
 $\top \sqsubseteq \leq 1 \text{ has_boundary}^- \text{ Thing}$

has_categorial_part

$\sqsubseteq \text{ abstract_has_part}$
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas}_c \text{ategorial}_p \text{art} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$
 $\exists \text{ has_categorial_part Thing} \sqsubseteq \text{Category}$
 $\top \sqsubseteq \forall \text{ has_categorial_part Category}$

has_category

$\text{[http://www.onto-med.de/ontologies/gfo.owlhas}_c \text{ategory} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlcateg}$
 $\top \sqsubseteq \forall \text{ has_category Category}$

has_constituent_part

$\sqsubseteq \text{ has_proper_part}$
 $\text{[http://www.onto-med.de/ontologies/gfo.owlconstituent}_p \text{art}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$

has_function

$\text{[http://www.onto-med.de/ontologies/gfo.owlfunction}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_f \text{un}$
 $\exists \text{ has_function Thing} \sqsubseteq \text{Individual}$

has_function_determinant

$\text{[http://www.onto-med.de/ontologies/gfo.owlfunction}_d \text{eterminant}_o f > \equiv < \text{http://www.onto-med.de/ontologies/g}$
 $\top \sqsubseteq \forall \text{ has_function_determinant Individual}$

has_functional_item

$\sqsubseteq \text{ has_function_determinant}$
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas}_f \text{unctional}_i \text{tem} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$
 $\top \sqsubseteq \leq 1 \text{ has_functional_item Thing}$

has_goal

$\sqsubseteq \text{ has_function_determinant}$
 $\text{[http://www.onto-med.de/ontologies/gfo.owlhas}_g \text{oal} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlgoal}_o f >$

has_left_time_boundary

⊆ has_time_boundary

!http://www.onto-med.de/ontologies/gfo.owlhas_left_time_boundary > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_left_time_boundary >

⊤ ⊆ ≤ 1 has_left_time_boundary Thing

has_member

!http://www.onto-med.de/ontologies/gfo.owlhas_member > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_member >

⊤ ⊆ ∀ has_member Entity

has_part

⊆ abstract_has_part

!http://www.onto-med.de/ontologies/gfo.owlpart_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_part >

TransitivePropertyhas_part

has_participant

!http://www.onto-med.de/ontologies/gfo.owlhas_participant > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_participant >

has_proper_part

⊆ has_part

!http://www.onto-med.de/ontologies/gfo.owlproper_part_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_proper_part >

TransitivePropertyhas_proper_part

has_requirement

⊆ has_function_determinant

!http://www.onto-med.de/ontologies/gfo.owlrequirement_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_requirement >

has_right_time_boundary

⊆ has_time_boundary

!http://www.onto-med.de/ontologies/gfo.owlright_time_boundary_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_right_time_boundary >

⊤ ⊆ ≤ 1 has_right_time_boundary Thing

has_sequence_constituent

!http://www.onto-med.de/ontologies/gfo.owlsequence_constituent_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_sequence_constituent >

has_spatial_boundary

⊆ has_boundary

!http://www.onto-med.de/ontologies/gfo.owlhas_spatial_boundary > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_spatial_boundary >

has_time_boundary

\sqsubseteq has_boundary

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlhas}_t\text{ime}_b\text{oundary} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owl}$

has_token

\sqsubseteq instance_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlhas}_t\text{oken} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owltoken}_o\text{f}$

has_value

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlvalue}_o\text{f} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_v\text{alue}$

instance_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlinstantiated}_b\text{y} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlins}$

\exists instance_of Thing \sqsubseteq Entity

$\top \sqsubseteq \forall$ instance_of Category

instantiated_by

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlinstantiated}_b\text{y} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlins}$

\exists instantiated_by Thing \sqsubseteq Category

layer_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owllayer}_o\text{f} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlon}_l\text{ayer}$

$\top \sqsubseteq \forall$ layer_of Individual

left_boundary_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlhas}_l\text{eft}_t\text{ime}_b\text{oundary} > \equiv < \text{http://www.onto-med.de/ontologies/gfo}$

$\top \sqsubseteq \leq 1$ left_boundary_of Thing

level_of

\sqsubseteq layer_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owllevel}_o\text{f} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlon}_l\text{evel} >$

member_of

$\text{jhttp://www.onto-med.de/ontologies/gfo.owlhas}_m\text{ember} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlmemb}$

\exists member_of Thing \sqsubseteq Entity

necessary_for

$\text{!http://www.onto-med.de/ontologies/gfo.owlnecessary_for} > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owldepe}$
 $\exists \text{ necessary_for Thing} \sqsubseteq \text{Item}$
 $\top \sqsubseteq \forall \text{ necessary_for Item}$

occupied_by

$\text{!http://www.onto-med.de/ontologies/gfo.owloccupies}_i \equiv \text{!http://www.onto-med.de/ontologies/gfo.owloccupied}_by > ^-$
 $\top \sqsubseteq \leq 1 \text{ occupied_by}^- \text{ Thing}$

occupies

$\text{!http://www.onto-med.de/ontologies/gfo.owloccupies}_i \equiv \text{!http://www.onto-med.de/ontologies/gfo.owloccupied}_by > ^-$
 $\top \sqsubseteq \leq 1 \text{ occupies Thing}$

on_layer

$\text{!http://www.onto-med.de/ontologies/gfo.owllayer}_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlon}_layer$
 $\exists \text{ on_layer Thing} \sqsubseteq \text{Individual}$

on_level

$\sqsubseteq \text{on_layer}$
 $\text{!http://www.onto-med.de/ontologies/gfo.owllevel}_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlon}_level >$

on_stratum

$\sqsubseteq \text{on_layer}$
 $\text{!http://www.onto-med.de/ontologies/gfo.owlon}_stratum > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlstratum}$

part_of

$\sqsubseteq \text{abstract_part_of}$
 $\text{!http://www.onto-med.de/ontologies/gfo.owlpart}_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_part >$
 $\text{TransitivePropertypart_of}$

participates_in

$\text{!http://www.onto-med.de/ontologies/gfo.owlhas}_participant > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlpa}$

plays_role

$\exists \text{ plays_role Thing} \sqsubseteq \text{Thing}$

projection_of

$\text{!http://www.onto-med.de/ontologies/gfo.owlprojection}_of > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlproj}$
 $\top \sqsubseteq \leq 1 \text{ projection_of}^- \text{ Thing}$

projects_to

$\text{!http://www.onto-med.de/ontologies/gfo.owlprojection}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlproj}$

$\top \sqsubseteq \leq 1 \text{ projects_to Thing}$

proper_part_of

$\sqsubseteq \text{ part_of}$

$\text{!http://www.onto-med.de/ontologies/gfo.owlproper}_p \text{art}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}_p$

$\text{TransitiveProperty proper_part_of}$

realized_by

$\text{!http://www.onto-med.de/ontologies/gfo.owlrealizes}_i \equiv \text{!http://www.onto-med.de/ontologies/gfo.owlrealized}_b y >^-$

realizes

$\text{!http://www.onto-med.de/ontologies/gfo.owlrealizes}_i \equiv \text{!http://www.onto-med.de/ontologies/gfo.owlrealized}_b y >^-$

$\exists \text{ realizes Thing} \sqsubseteq \text{ Individual}$

requirement_of

$\sqsubseteq \text{ function_determinant_of}$

$\text{!http://www.onto-med.de/ontologies/gfo.owlrequirement}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlhas}$

right_boundary_of

$\text{!http://www.onto-med.de/ontologies/gfo.owlright}_b \text{oundary}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlh}$

$\top \sqsubseteq \leq 1 \text{ right_boundary_of}^- \text{ Thing}$

role_of

$\top \sqsubseteq \forall \text{ role_of Individual}$

sequence_constituent_of

$\sqsubseteq \text{ part_of}$

$\text{!http://www.onto-med.de/ontologies/gfo.owlsequence}_c \text{onstituent}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gf}$

spatial_boundary_of

$\sqsubseteq \text{ boundary_of}$

$\text{!http://www.onto-med.de/ontologies/gfo.owlhas}_s \text{patial}_b \text{oundary}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.o}$

stratum_of

$\sqsubseteq \text{ layer_of}$

$\text{!http://www.onto-med.de/ontologies/gfo.owlon}_s \text{tratum}_o f > \equiv < \text{http://www.onto-med.de/ontologies/gfo.owlstratum}$

time_tboundary_of

⊆ boundary_of

|http://www.onto-med.de/ontologies/gfo.owlhas_ttime_tboundary > ≡ < http://www.onto-med.de/ontologies/gfo.owl

token_of

|http://www.onto-med.de/ontologies/gfo.owlhas_ttoken > ≡ < http://www.onto-med.de/ontologies/gfo.owltoken_of

value_of

|http://www.onto-med.de/ontologies/gfo.owlvalue_of > ≡ < http://www.onto-med.de/ontologies/gfo.owlhas_oalue

Data properties

Individuals

Attribute

Datatypes

PlainLiteral

string