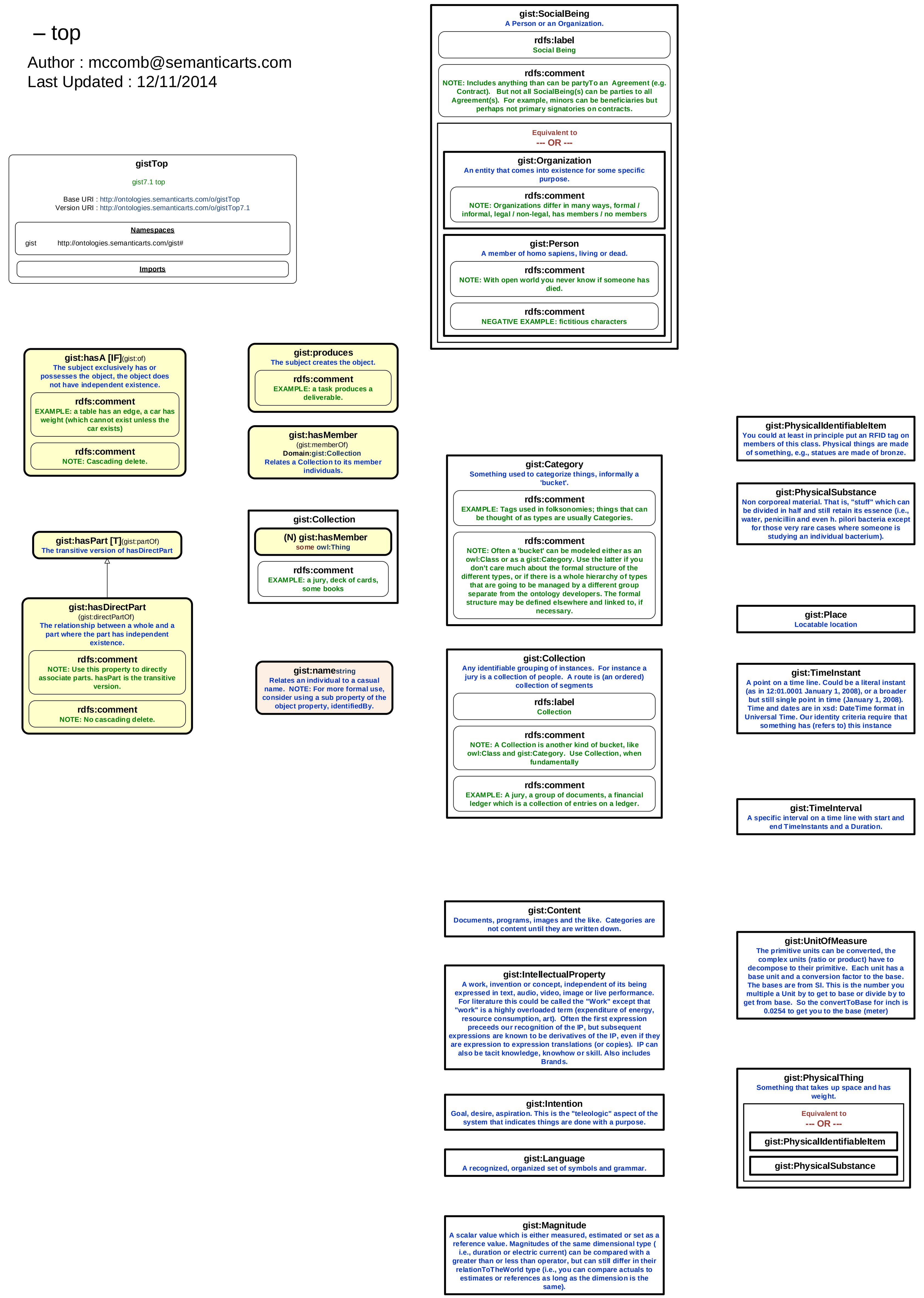
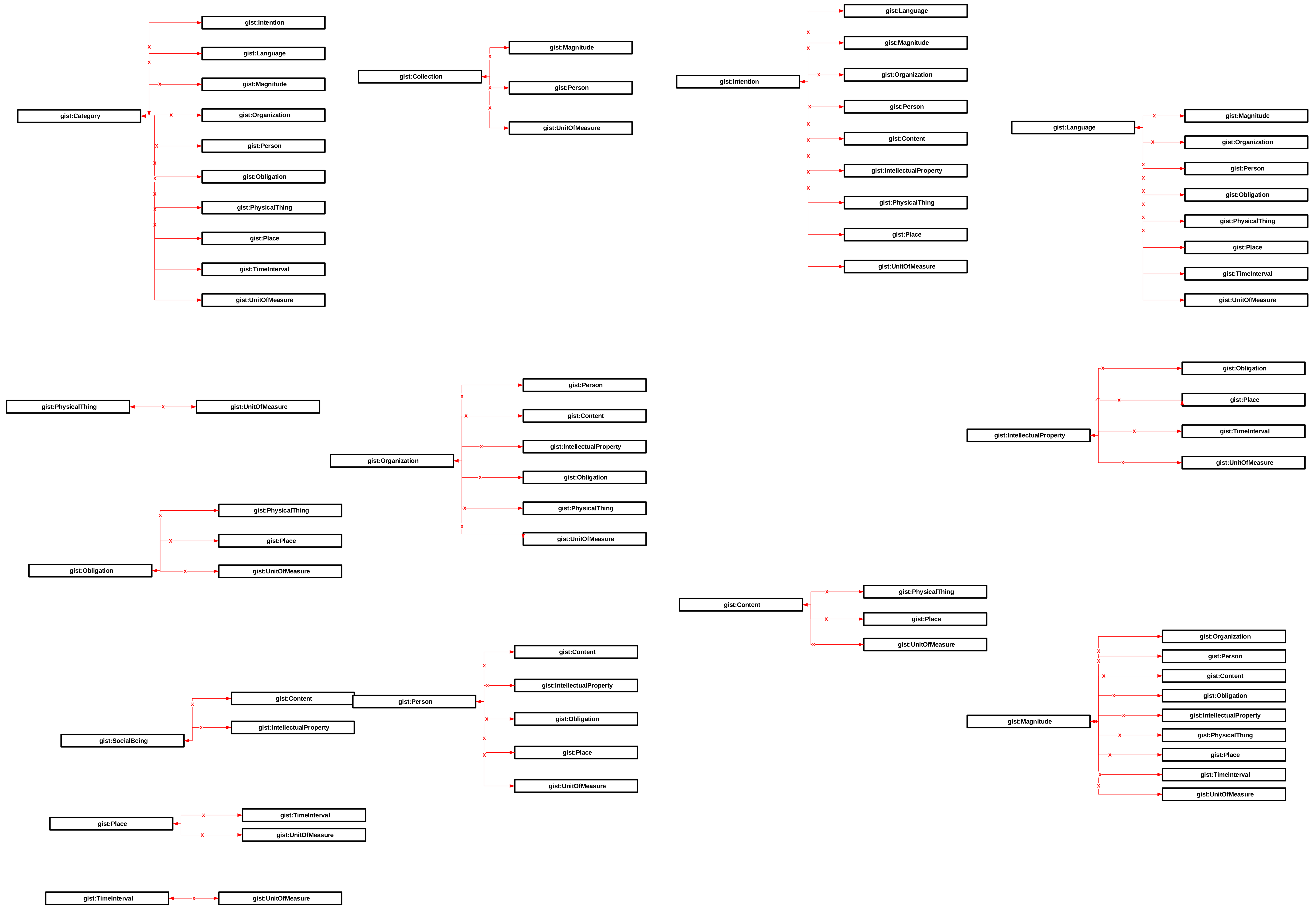
– top

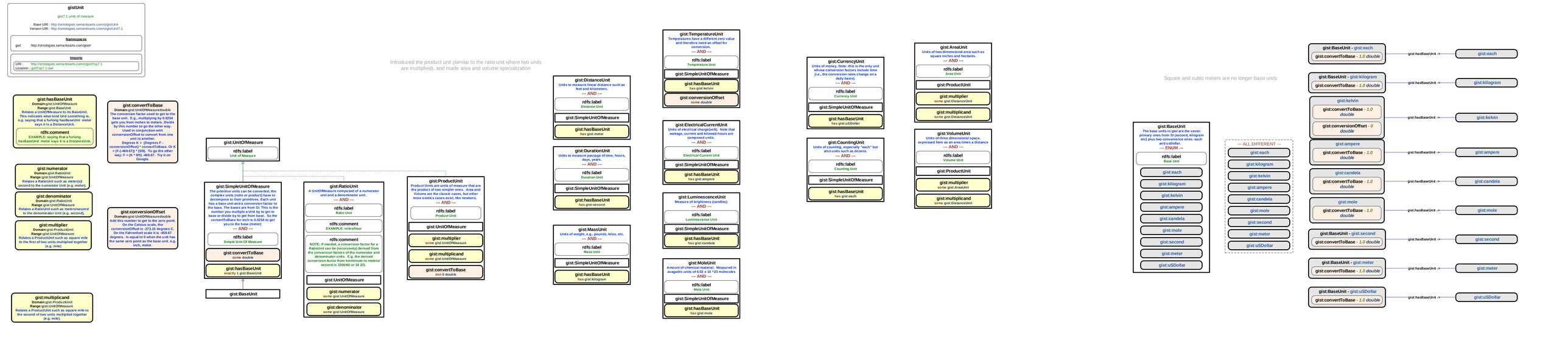
Author : mccomb@semanticarts.com
Last Updated : 12/11/2014



	Category	Collection	Intention	Language	Magnitude	Org	Person	Content	IP	Obligation	PhysicalThing	Place	TimeInterval	UnitOfMeasure
Category	eq		d	d	d	d	d			d	d	d	d	d
Collection		eq			d		d							d
Intention			eq	d	d	d	d	d	d		d	d		d
Language				eq	d	d	d			d	d	d	d	d
Magnitude					eq	d	d	d	d	d	d	d	d	d
Org						eq	d	d	d	d	d			d
Person							eq	d	d	d		d		d
Content								eq			d	d		d
IP									eq	d		d	d	d
Obligation										eq	d	d		d
PhysicalThing											eq			d
Place												eq	d	d
TimeInterval													eq	d
UnitOfMeasure														eq

...ss matrix implemented disjointness axioms




gistUnit
gist7.1 units of measure
Base URI : http://ontologies.semanticarts.com/o/gistUnit
Version URI : http://ontologies.semanticarts.com/o/gistUnit/7.1
Namespaces
gist http://ontologies.semanticarts.com/gist#
Imports
URI : http://ontologies.semanticarts.com/o/gistTop/7.1
Location : gistTop/7.1.owl
gist:hasBaseUnit
Domain:gist:UnitOfMeasure
Range:gist:BaseUnit
Relates a UnitOfMeasure to its BaseUnit. This indicates what kind Unit something is, e.g. saying that a furlong hasBaseUnit meter says it is a DistanceUnit.
rdfs:comment
EXAMPLE: saying that a furlong hasBaseUnit meter says it is a DistanceUnit.
gist:convertToBase
Domain:gist:UnitOfMeasure|double
The conversion factor used to get to the base unit. E.g., multiplying by 0.0254 gets you from inches to meters. Divide by this number to go the other way. Used in conjunction with conversionOffset to convert from one unit to another. Degrees K = (Degrees F - conversionOffset) * convertToBase. Or K = ((F-(-459.67)) *(5/9)). To go the other way: F = (K * 9/5) -459.67. Try it on Google.
gist:numerator
Domain:gist:RatioUnit
Range:gist:UnitOfMeasure
Relates a RatioUnit such as meter/(s)(second) to the numerator Unit (e.g. meter).
gist:denominator
Domain:gist:RatioUnit
Range:gist:UnitOfMeasure
Relates a RatioUnit such as meters/second to the denominator Unit (e.g. second).
gist:multiplier
Domain:gist:ProductUnit
Range:gist:UnitOfMeasure
Relates a ProductUnit such as square mile to the first of two units multiplied together (e.g. mile)
gist:conversionOffset
Domain:gist:UnitOfMeasure|double
Add this number to get to the zero point. On the Celsius scale, the conversionOffset is -273.15 degrees C. On the Fahrenheit scale it is -459.67 degrees. Is equal to 0 when the unit has the same zero point as the base unit. e.g. inch, meter.
gist:multiplicand
Domain:gist:ProductUnit
Range:gist:UnitOfMeasure
Relates a ProductUnit such as square mile to the second of two units multiplied together (e.g. mile).
gist:UnitOfMeasure
rdfs:label
Unit of Measure
gist:SimpleUnitOfMeasure
The primitive units can be converted, the complex units (ratio or product) have to decompose to their primitives. Each unit has a base unit and a conversion factor to the base. The bases are from SI. This is the number you multiple a Unit by to get to base or divide by to get from base. So the convertToBase for inch is 0.0254 to get you to the base (meter)
--- AND ---
rdfs:label
Simple Unit Of Measure
gist:convertToBase
some double
gist:hasBaseUnit
exactly 1 gist:BaseUnit
gist:BaseUnit
gist:RatioUnit
A UnitOfMeasure composed of a numerator unit and a denominator unit.
--- AND ---
rdfs:label
Ratio Unit
rdfs:comment
EXAMPLE: miles/hour
rdfs:comment
NOTE: If needed, a conversion factor for a RatioUnit can be (recursively) derived from the conversion factors of the numerator and denominator units. E.g. the derived conversion factor from km/minute to meters/second is 1000/60 or 16 2/3.
gist:UnitOfMeasure
gist:numerator
some gist:UnitOfMeasure
gist:denominator
some gist:UnitOfMeasure
gist:ProductUnit
Product Units are units of measure that are the product of two simpler ones. Area and Volume are the classic cases, but other more exotics cases exist, like newtons.
--- AND ---
rdfs:label
Product Unit
gist:UnitOfMeasure
gist:multiplier
some gist:UnitOfMeasure
gist:multiplicand
some gist:UnitOfMeasure
gist:convertToBase
min 0 double
Introduced the product unit (similar to the ratio unit where two units are multiplied), and made area and volume specialization
gist:DistanceUnit
Units to measure linear distance such as feet and kilometers.
--- AND ---
rdfs:label
Distance Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:meter
gist:DurationUnit
Units to measure passage of time, hours, days, years.
--- AND ---
rdfs:label
Duration Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:second
gist:MassUnit
Units of weight, e.g., pounds, kilos, etc.
--- AND ---
rdfs:label
Mass Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:kilogram
gist:TemperatureUnit
Temperatures have a different zero value and therefore need an offset for conversion.
--- AND ---
rdfs:label
Temperature Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:kelvin
gist:conversionOffset
some double
gist:ElectricalCurrentUnit
Units of electrical charge(volt). Note that wattage, current and kilowatt hours are composed units.
--- AND ---
rdfs:label
Electrical Current Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:ampere
gist:LuminescenceUnit
Measure of brightness (candles).
--- AND ---
rdfs:label
Luminescence Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:candela
gist:MoleUnit
Amount of chemical material. Measured in avagadro units of 6.02 x 10 ^23 molecules
--- AND ---
rdfs:label
Mole Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:mole
gist:CurrencyUnit
Units of money. Note: this is the only unit whose conversion factors include time (i.e., the conversion rates change on a daily basis).
--- AND ---
rdfs:label
Currency Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:usDollar
gist:CountingUnit
Units of counting, especially "each" but also units such as dozens.
--- AND ---
rdfs:label
Counting Unit
gist:SimpleUnitOfMeasure
gist:hasBaseUnit
has gist:each
gist:AreaUnit
Units of two-dimensional area such as square inches and hectares.
--- AND ---
rdfs:label
Area Unit
gist:ProductUnit
gist:multiplier
some gist:DistanceUnit
gist:multiplicand
some gist:DistanceUnit
gist:VolumeUnit
Units of three dimensional space, expressed here as an area times a distance
--- AND ---
rdfs:label
Volume Unit
gist:ProductUnit
gist:multiplier
some gist:AreaUnit
gist:multiplicand
some gist:DistanceUnit
Square and cubic meters are no longer base units
gist:BaseUnit
The base units in gist are the seven primary ones from SI (second, kilogram etc) plus two convenience ones: each and usDollar.
--- ENUM ---
rdfs:label
Base Unit
gist:each
gist:kilogram
gist:kelvin
gist:ampere
gist:candela
gist:mole
gist:second
gist:meter
gist:usDollar
--- ALL DIFFERENT ---
gist:each
gist:kilogram
gist:kelvin
gist:ampere
gist:candela
gist:mole
gist:second
gist:meter
gist:usDollar
gist:BaseUnit - gist:each
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:each
gist:BaseUnit - gist:kilogram
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:kilogram
gist:kelvin
gist:convertToBase - 1.0 double
gist:conversionOffset - 0 double
gist:hasBaseUnit ->
gist:kelvin
gist:ampere
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:ampere
gist:candela
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:candela
gist:mole
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:mole
gist:BaseUnit - gist:second
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:second
gist:BaseUnit - gist:meter
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:meter
gist:BaseUnit - gist:usDollar
gist:convertToBase - 1.0 double
gist:hasBaseUnit ->
gist:usDollar

gistMagnitude

gist7.1 magnitudes

Base URI : http://ontologies.semanticarts.com/o/gistMagnitude
Version URI : http://ontologies.semanticarts.com/o/gistMagnitude7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistTop7.1
Location : gistTop7.1.owl

URI : http://ontologies.semanticarts.com/o/gistUnit7.1
Location : gistUnit7.1.owl

gist:hasA [IF]

gist:hasPrecision
Range:gist:Magnitude
Links a Magnitude to the degree of accuracy of the numeric value. This allows for fuzzy numbers. All magnitudes have a precision. Usually we don't record them. When we do this, it will be a value whose extent covers 2 standard deviations around the stated magnitude

rdfs:comment
NOTE: Most frequently apples to Magnitude(s) and TimeInstant. Could also apply to a measurement.

rdfs:comment
EXAMPLE: Temperature precise to tenth of a degree C; TimeInstant precise to 24 hours.

gist:hasMagnitude
Range:gist:Magnitude
To have a comparable numerical value. Each magnitude has a unit.

gist:Count
Measures that involve countable amounts ("eaches" as well as cases, etc.). Can be decimal. Note: we did not make count disjoint with all the other magnitudes as there are some magnitudes that could conceivably be counted (say distance in rods, it's a bit of a stretch admittedly but shouldn't harm anything).
--- AND ---
rdfs:label
Count
gist:Magnitude
gist:hasUoM
some gist:CountingUnit

gist:Magnitude
A scalar value which is either measured, estimated or set as a reference value. Magnitudes of the same dimensional type (i.e., duration or electric current) can be compared with a greater than or less than operator, but can still differ in their relationToTheWorld type (i.e., you can compare actuals to estimates or references as long as the dimension is the same).
--- AND ---
rdfs:label
Magnitude
rdfs:comment
NOTE: Note the precision should be in the same type of unit as the magnitude but we'd need rules to enforce that
gist:hasUoM
some gist:UnitOfMeasure
gist:hasPrecision
some gist:Magnitude
gist:of
some owl:Thing
gist:decimalValue
some double

gist:decimalValue Domain: gist:Magnitudedouble

gist:currencyValue Domain: gist:Magnitudedouble
Currencies are rounded to specified precision

gist:hasUoM Domain:gist:Magnitude
Range:gist:UnitOfMeasure
Which unit of measure you are using. All measures are in some uom, even if we don't know what it is initially.

gist:ProductMagnitude
These are magnitudes expresses as products of primitives (such as force M*A)
--- AND ---
rdfs:label
Product Magnitude
gist:Magnitude
gist:hasUoM
some gist:ProductUnit

gist:Duration
Time, but not on time line. For instance one week, or seven days, but not Jan 1, 2008 to Jan 7, 2008 (which is an interval). Intervals have durations but aren't durations.
--- AND ---
rdfs:label
Duration
gist:Magnitude
gist:hasUoM
some gist:DurationUnit

gist:Extent
A measure of distance which could be distances over the earth, and could also be height, width, length, depth, girth, etc.
--- AND ---
rdfs:label
Extent
gist:Magnitude
gist:hasUoM
some gist:DistanceUnit

gist:Weight
Magnitude of mass. Assumes object is near the earth's surface, so weight and mass are equivalent for our purposes.
--- AND ---
rdfs:label
Weight
gist:Magnitude
gist:hasUoM
some gist:MassUnit

gist:RatioMagnitude
--- AND ---
rdfs:label
Ratio Magnitude
gist:Magnitude
gist:hasUoM
some gist:RatioUnit

gist:Area
Two-dimensional area.
--- AND ---
rdfs:label
Area
gist:Magnitude
gist:hasUoM
some gist:AreaUnit

gist:Volume
Three dimensional space or equivalent fluid measurement.
--- AND ---
rdfs:label
Volume
gist:Magnitude
gist:hasUoM
some gist:VolumeUnit

gist:Monetary
Special type of magnitude due to the way rounding is handled in math and temporal aspect of conversion.
--- AND ---
rdfs:label
Monetary
gist:Magnitude
gist:currencyValue
some double
gist:hasUoM
some gist:CurrencyUnit

gist:Percentage
This is a ratio class where the numerator and denominator are of the same unit of measure. This would have to be enforced as a SWRL rule. Note: there are various ways to represent percentage: 50/100 could be represented as "50" or "0.5". We have chosen the later as it involves fewer conversions for subsequent use.
rdfs:label
Percentage
Subclass of
gist:RatioMagnitude

gist:Temperature
Base of temperature is in Kelvin per SI to allow for all units to be expressed relative to a real (in this case absolute) zero.
--- AND ---
rdfs:label
Temperature
gist:hasUoM
some gist:TemperatureUnit
gist:Magnitude

gist:ElectricCurrent
Voltage
--- AND ---
rdfs:label
Electric Current
gist:hasUoM
some gist:ElectricalCurrentUnit
gist:Magnitude

gist:Luminance
Measure of light
--- AND ---
rdfs:label
Luminance
gist:Magnitude
gist:hasUoM
some gist:LuminescenceUnit

gist:MolarQuantity
Amount of a substance as counted molecules. It's here for completeness, in case we bridge to an SI unit conversion ontology. It is unlikely a commercial system, with the possible exception of some involved in chemical research, would use this. Note: I left out the disjointness with Count, Weight and Volume as there is some ambiguity, at least in my mind, as to whether they are mutually exclusive.
--- AND ---
rdfs:label
Molar Quantity
gist:Magnitude
gist:hasUoM
some gist:MoleUnit

gistTime

gist7.1 time

Base URI : http://ontologies.semanticarts.com/o/gistTime
Version URI : http://ontologies.semanticarts.com/o/gistTime7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistMagnitude7.1
Location : gistMagnitude7.1.owl

gist:start Domain:gist:TimeInterval
Range:gist:TimeInstant

gist:end Domain:gist:TimeInterval
Range:gist:TimeInstant

gist:timeZoneStandardUsed
Domain:gist:TimeInstant
Range:gist:TimeZoneStandard
the "timezone" with Daylight savings adjust

gist:sameTimeAs [S] Domain:gist:TimeInstant
Range:gist:TimeInstant
Allows relating local time to universal time.

gist:dateTime Domain:gist:TimeInstantdateTime

gist:universalDateTime Domain:gist:TimeInstantdateTime

gist:localDateTime Domain:gist:TimeInstantdateTime

gist:time
Domain:gist:TimeInstant

gist:universalTime
Domain:gist:TimeInstant

gist:localTime
Domain:gist:TimeInstant

gist:date
Domain:gist:TimeInstant

gist:universalDate
Domain:gist:TimeInstant

gist:localDate
Domain:gist:TimeInstant

gist:TimeInterval

A specific interval on a time line with start and end TimeInstants and a Duration.

rdfs:label
Time Interval

rdfs:comment
EXAMPLE: Jan1 through Jan8, 2013

(N) gist:start
some gist:TimeInstant

(N) gist:end
some gist:TimeInstant

(N) gist:hasMagnitude
some gist:Duration

rdfs:comment
EXAMPLE: Jan1 through Jan8, 2013

rdfs:comment
NOTE: has a Duration, but is not a Duration.

rdfs:comment
NOTE: end should be later than start, but this is not enforced

gist:TimeInterval

gist:TimeInstant

A point on a time line. Could be a literal instant (as in 12:01.0001 January 1, 2008), or a broader but still single point in time (January 1, 2008). Time and dates are in xsd: DateTime format in Universal Time. Our identity criteria require that something has (refers to) this instance. We are declaring a time instant to be an interval with no duration (or really a duration only equal to its precision)

rdfs:label
Time Instant

(N) gist:hasPrecision
some gist:Duration

(N) gist:universalDateTime
some dateTime

(N) gist:universalDate
min 1

(N) gist:universalTime
min 1

(N) gist:timeZoneStandardUsed
has gist:_greenwichTimeZone

(N) gist:of
some owl:Thing

rdfs:comment
EXAMPLE: 12:01.0001 April8, 2012 or March 8, 1955

gist:TimeZoneStandard - gist:_greenwichTimeZone

Added grenich time zone

gist:TimeZoneStandard

--- AND ---

rdfs:label
Time Zone Standard

gist:Specification

gist:basedOn
some gist:TimeZone

Note: converted date and time from xsd:date and xsd:time to min 1 blank because Fact++ doesn't recognized date or time

gist:LocalInstant

A point in time expressed relative to a local time zone. Can be converted to Universal Time using the time zone offset. The precision is used to state how precise this instant is. Typical values would be day, hour, miinute or second

--- AND ---

rdfs:label
Local Instant

gist:timeZoneStandardUsed
some gist:TimeZoneStandard

(N) gist:sameTimeAs
some gist:TimeInstant

gist:localDateTime
some dateTime

gist:localDate
min 1

gist:localTime
min 1

gist:TimeInstant

gistPlace

gist7.1 place

Base URI : http://ontologies.semanticarts.com/o/gistPlace
Version URI : http://ontologies.semanticarts.com/o/gistPlace7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistPhysicalThing7.1
Location : gistPhysicalThing7.1.owl

URI : http://ontologies.semanticarts.com/o/gistMagnitude7.1
Location : gistMagnitude7.1.owl

gist:offsetToUniversal Domain:gist:TimeZone Range:gist:Duration

gist:fromPlace Range:gist:Place

gist:toPlace Range:gist:Place

gist:hasAltitude Domain:gist:GeoPoint Range:gist:Extent
Distance above sea level

gist:geoOccupies
(gist:geoOccupiedBy)
Domain:gist:PhysicalThing

Range

--- OR ---
- gist:GeoRegion
- gist:GeoVolume

gist:permanentGeoOccupies
(gist:permanentGeoOccupiedBy)

gist:sequence integer
For ordering ordered lists.

gist:latitude Domain:gist:GeoPointdouble

gist:longitude Domain:gist:GeoPointdouble

gist:geoContains [T]
(gist:geoContainedIn)
Transitive version of geoDirectlyContains

Domain

--- OR ---
- gist:GeoRoute
- gist:GeoSegment
- gist:Landmark
- gist:Room
- gist:GeoPoint
- gist:GeoRegion
- gist:GeoVolume

Range

--- OR ---
- gist:GeoRoute
- gist:GeoSegment
- gist:Landmark
- gist:Room
- gist:GeoPoint
- gist:GeoRegion
- gist:GeoVolume

gist:geoDirectlyContains
(gist:geoDirectlyContainedIn)
The subject geospatially contains the object. E.g. the area of a city contains the area of its neighborhoods

gist:GeoPoint
Individual point on Earth's surface, including latitude, longitude and altitude. If altitude is missing, assumed to be at the earth's surface, however, altitude is measured from sea level.
--- AND ---
- rdfs:label — Geo Point
- gist:hasAltitude — some gist:Extent
- gist:latitude — some double
- gist:longitude — some double
- rdfs:comment — NOTE: Altitude is above sea level.
- rdfs:comment — NOTE: Assume coordinate system used by Google.

gist:GeoRegion
Bounded region(s) on surface of the earth. At this level a geoRegion could be non-contiguous; e.g. the region governed by the USA is the region governed by the lower 48 states plus that of Alaska and Hawaii). Child classes in lower ontologies can make this distinction.
--- AND ---
- rdfs:label — Geo Region
- gist:geoDirectlyContains — some gist:GeoPoint
- gist:hasMagnitude — some gist:Area
- rdfs:comment — EXAMPLE: the bounded shape that defines the region occupied by Crater Lake; the bounded are known as the continguous USA
- rdfs:comment — NOTE: GeoRegion has an area, but it isn't an area (area in gist is a magnitude)

gist:OrderedCollection
- rdfs:label — Ordered Collection

Subclass of gist:Collection

gist:TimeZone
I haven't found a definitive source for time zone names or their geoboundaries. I'll suggest the tz database for now.
--- AND ---
- rdfs:label — Time Zone
- gist:GeoRegion
- gist:offsetToUniversal — some gist:Duration

gist:GeoSegment
Single segment.
--- AND ---
- rdfs:label — Geo Segment
- gist:fromPlace — exactly 1 gist:GeoPoint
- gist:toPlace — exactly 1 gist:GeoPoint

gist:GeoRoute
Ordered set of GeoPoints that define a route from starting point to ending point.
--- AND ---
- rdfs:label — Geo Route
- gist:OrderedCollection
- gist:hasDirectPart — some gist:GeoSegment

gist:GeoVolume
Three dimensional space on or near the surface of the earth such as an oil reservoir, the body of a lake or an airspace
--- AND ---
- rdfs:label — Geo Volume
- gist:geoDirectlyContains — some gist:GeoPoint
- gist:hasMagnitude — some gist:Volume

Added volume and three D point

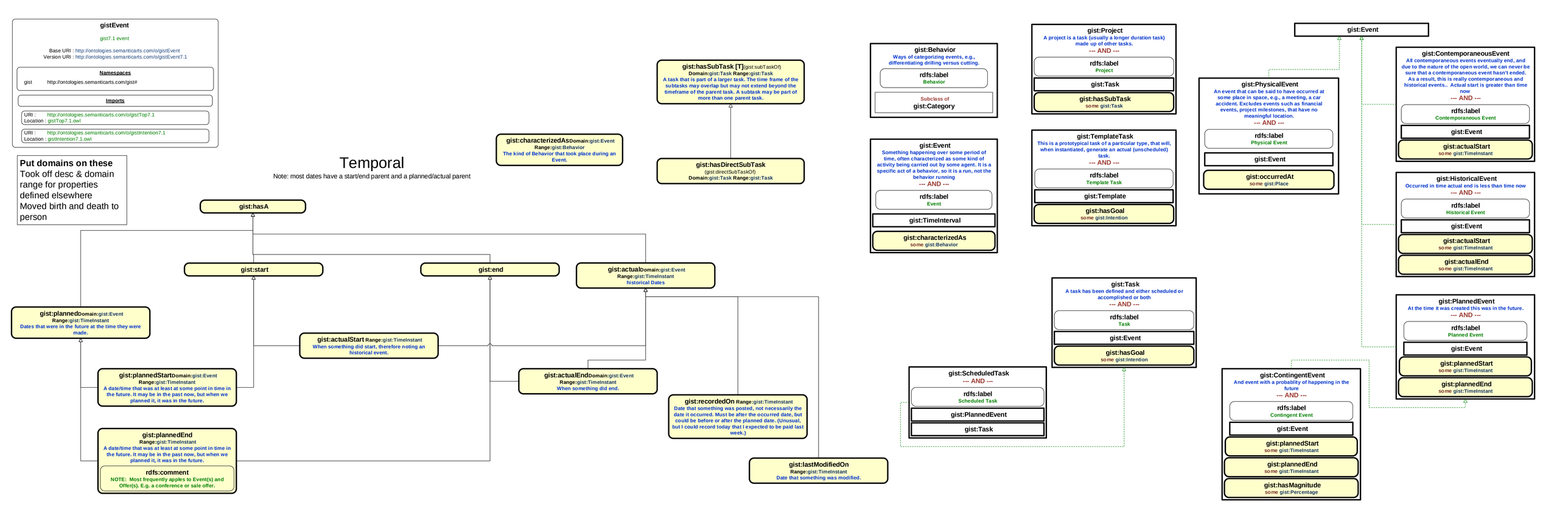
gist:Place
Locatable location
--- OR ---
- rdfs:label — Place
- gist:GeoRoute
- gist:GeoSegment
- gist:Landmark
- gist:Room
- gist:GeoPoint
- gist:GeoRegion
- gist:GeoVolume

gist:Room
An enclosed area within a building.
--- AND ---
- rdfs:label — Room
- gist:directPartOf — some gist:Building
- gist:identifiedBy — some gist:ID

gist:Landmark
--- AND ---
- rdfs:label — Landmark
- gist:PhysicalIdentifiableItem
- gist:permanentGeoOccupies — some
  --- OR ---
  - gist:GeoVolume
  - gist:GeoRegion

gist:Building
- rdfs:label — Building

Subclass of gist:Landmark


gistEvent
gist7.1 event
Base URI : http://ontologies.semanticarts.com/o/gistEvent
Version URI : http://ontologies.semanticarts.com/o/gistEvent7.1
Namespaces
gist http://ontologies.semanticarts.com/gist#
Imports
URI : http://ontologies.semanticarts.com/o/gistTop7.1
Location : gistTop7.1.owl
URI : http://ontologies.semanticarts.com/o/gistIntention7.1
Location : gistIntention7.1.owl
Put domains on these
Took off desc & domain
range for properties
defined elsewhere
Moved birth and death to
person
Temporal
Note: most dates have a start/end parent and a planned/actual parent
gist:hasSubTask [T](gist:subTaskOf)
Domain:gist:Task Range:gist:Task
A task that is part of a larger task. The time frame of the subtasks may overlap but may not extend beyond the timeframe of the parent task. A subtask may be part of more than one parent task.
gist:characterizedAsDomain:gist:Event
Range:gist:Behavior
The kind of Behavior that took place during an Event.
gist:hasDirectSubTask
(gist:directSubTaskOf)
Domain:gist:Task Range:gist:Task
gist:hasA
gist:start
gist:end
gist:actualDomain:gist:Event
Range:gist:TimeInstant
historical Dates
gist:plannedDomain:gist:Event
Range:gist:TimeInstant
Dates that were in the future at the time they were made.
gist:actualStart Range:gist:TimeInstant
When something did start, therefore noting an historical event.
gist:plannedStartDomain:gist:Event
Range:gist:TimeInstant
A date/time that was at least at some point in time in the future. It may be in the past now, but when we planned it, it was in the future.
gist:actualEndDomain:gist:Event
Range:gist:TimeInstant
When something did end.
gist:recordedOn Range:gist:TimeInstant
Date that something was posted, not necessarily the date it occurred. Must be after the occurred date, but could be before or after the planned date. (Unusual, but I could record today that I expected to be paid last week.)
gist:plannedEnd
Range:gist:TimeInstant
A date/time that was at least at some point in time in the future. It may be in the past now, but when we planned it, it was in the future.
rdfs:comment
NOTE: Most frequently applies to Event(s) and Offer(s). E.g. a conference or sale offer.
gist:lastModifiedOn
Range:gist:TimeInstant
Date that something was modified.
gist:Behavior
Ways of categorizing events, e.g., differentiating drilling versus cutting.
rdfs:label
Behavior
Subclass of
gist:Category
gist:Event
Something happening over some period of time, often characterized as some kind of activity being carried out by some agent. It is a specific act of a behavior, so it is a run, not the behavior running
--- AND ---
rdfs:label
Event
gist:TimeInterval
gist:characterizedAs
some gist:Behavior
gist:Project
A project is a task (usually a longer duration task) made up of other tasks.
--- AND ---
rdfs:label
Project
gist:Task
gist:hasSubTask
some gist:Task
gist:TemplateTask
This is a prototypical task of a particular type, that will, when instantiated, generate an actual (unscheduled) task.
--- AND ---
rdfs:label
Template Task
gist:Template
gist:hasGoal
some gist:Intention
gist:Task
A task has been defined and either scheduled or accomplished or both
--- AND ---
rdfs:label
Task
gist:Event
gist:hasGoal
some gist:Intention
gist:ScheduledTask
--- AND ---
rdfs:label
Scheduled Task
gist:PlannedEvent
gist:Task
gist:Event
gist:PhysicalEvent
An event that can be said to have occurred at some place in space, e.g., a meeting, a car accident. Excludes events such as financial events, project milestones, that have no meaningful location.
--- AND ---
rdfs:label
Physical Event
gist:Event
gist:occurredAt
some gist:Place
gist:ContemporaneousEvent
All contemporaneous events eventually end, and due to the nature of the open world, we can never be sure that a contemporaneous event hasn't ended. As a result, this is really contemporaneous and historical events.. Actual start is greater than time now
--- AND ---
rdfs:label
Contemporaneous Event
gist:Event
gist:actualStart
some gist:TimeInstant
gist:HistoricalEvent
Occurred in time actual end is less than time now
--- AND ---
rdfs:label
Historical Event
gist:Event
gist:actualStart
some gist:TimeInstant
gist:actualEnd
some gist:TimeInstant
gist:PlannedEvent
At the time it was created this was in the future.
--- AND ---
rdfs:label
Planned Event
gist:Event
gist:plannedStart
some gist:TimeInstant
gist:plannedEnd
some gist:TimeInstant
gist:ContingentEvent
And event with a probability of happening in the future
--- AND ---
rdfs:label
Contingent Event
gist:Event
gist:plannedStart
some gist:TimeInstant
gist:plannedEnd
some gist:TimeInstant
gist:hasMagnitude
some gist:Percentage

gistAddress

gist7.1 Address

Base URI : http://ontologies.semanticarts.com/o/gistAddress
Version URI : http://ontologies.semanticarts.com/o/gistAddress7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistContent7.1
Location : gistContent7.1.owl

URI : http://ontologies.semanticarts.com/o/gistPlace7.1
Location : gistPlace7.1.owl

gist:hasCommunicationAddress
(gist:communicationAddressOf)
Domain:gist:SocialBeing **Range:**gist:Address
The general class of places you can send messages including postal addresses, fax numbers, phone numbers, email, web site, etc.

gist:hasStreetAddress
(gist:streetAddressOf)
Range:gist:BuildingAddress
A place that can be found on a map, has geo coordinates; you could live or work there.

gist:PostalAddress
A set of codes the postal authorities can use to deliver mail. Could be a street address, could be a postal address, could be the route codes.

rdfs:label
Postal Address

Subclass of
gist:Address

(N) gist:communicationAddressOf
some gist:SocialBeing

rdfs:comment
EXAMPLE: a street address, a PO Box, an FPO code

gist:TelephoneNumber
Some phone numbers accept faxes, some allow Internet access, etc.

rdfs:label
Telephone Number

rdfs:comment
EXAMPLE: cell, fax, landline

Subclass of
gist:Address

gist:communicationAddressOf
some gist:SocialBeing

gist:BuildingAddress
An address that you can send mail to or that you could find in the physical world.

rdfs:label
Building Address

Subclass of
gist:Address

(N) gist:streetAddressOf
some gist:Building

gist:Address
A reference to a place (real or virtual) that can be located by some routing algorithm and where messages or things can be sent to or retrieved from. E.g. PO Box or URL to a pdf file.

rdfs:label
Address

Subclass of
gist:Content

gist:ElectronicMessageAddress
Any place a message can be sent (email, fax, etc.).

rdfs:label
Electronic Message Address

Subclass of
gist:Address

gist:communicationAddressOf
some gist:SocialBeing

Need something here on the types of things that can be sent, text messages, images, audio messages, letters, small packages, trucks, boats.etc (this is a taxo)

Probably should put the communication preferences stuff here

gistPerson

gist7.1 Person

Base URI : http://ontologies.semanticarts.com/o/gistPerson
Version URI : http://ontologies.semanticarts.com/o/gistPerson7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistPhysicalThing7.1
Location : gistPhysicalThing7.1.owl

URI : http://ontologies.semanticarts.com/o/gistAddress7.1
Location : gistAddress7.1.owl

gist:offspringOf(gist:parentOf)
Domain:gist:LivingThing
Range:gist:LivingThing

gist:name Note this can be firstName, lastName, fullName etc

gist:actualStart

gist:actualEnd

gist:hasBirthDate Domain:gist:LivingThing
Range:gist:TimeInstant
Date a living thing was "born" (or germinated, for plants).

gist:hasDeathDate Domain:gist:LivingThing
Range:gist:TimeInstant
Date a living thing died

gist:hasOccupant(gist:occupantOf)
Domain:gist:Building **Range:**gist:SocialBeing
More specific form of incumbent where we are referring to residing at or working at, or doing business at a very specific location.

gist:LivingThing
Something that is or at some point was alive and growing.
--- AND ---

rdfs:label
Living Thing

rdfs:comment
NEGATIVE EXAMPLE: fictional life forms such as Unicorns or Mickie Mouse

rdfs:comment
EXAMPLE: a cat, a mushroom, a tree

rdfs:comment
NOTE: Is or at some point was alive and growing. With open world you never know if it has since died.

gist:PhysicalIdentifiableItem

gist:offspringOf
some gist:LivingThing

gist:hasBirthDate
some gist:TimeInstant

gist:Person
This is a member of homo sapiens, who has lived at some point, and may or may not be dead. With open world you never know if someone has died. Fictitious people are not persons.
--- AND ---

rdfs:label
Person

rdfs:comment
NEGATIVE EXAMPLE: fictional characters

gist:LivingThing

gist:name
some string

gist:offspringOf
some gist:Person

gistPhysicalThing

gist7.1 PhysicalThing

Base URI : http://ontologies.semanticarts.com/o/gistPhysicalThing
Version URI : http://ontologies.semanticarts.com/o/gistPhysicalThing7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistID7.1
Location : gistID7.1.owl

URI : http://ontologies.semanticarts.com/o/gistMagnitude7.1
Location : gistMagnitude7.1.owl

gist:PhysicalThing

Something that takes up space and has weight.

rdfs:label
Physical Thing

Equivalent to
--- AND ---

gist:hasMagnitude
some gist:Weight

gist:hasMagnitude
some gist:Volume

Equivalent to
--- OR ---

gist:PhysicalIdentifiableItem

gist:PhysicalSubstance

gist:madeUpOf

Domain:gist:PhysicalThing
Range:gist:PhysicalSubstance
as in the vase is made up of clay

gist:owns

(gist:ownedBy)
Domain:gist:SocialBeing
Relationship where a Social Being can enjoy the rights of the asset being owned. Note this could be made temporal with gistTemporalRelation

Range

--- OR ---

gist:PhysicalThing

gist:IntellectualProperty

gist:Content

gist:SocialBeing

gist:PhysicalIdentifiableItem

You could at least in principle put an RFID tag on members of this class. Physical things are made of something, e.g., statues are made of bronze.

rdfs:label
Physical Identifiable Item

rdfs:comment
NEGATIVE EXAMPLE: a discontinuous thing like a manufacturing line cannot reasonably have an RFID attached to it even though its parts are not the same kind of thing as the whole.

rdfs:comment
EXAMPLE: a computer, a book

(N) gist:madeUpOf
some gist:PhysicalSubstance

(N) gist:identifiedBy
some gist:ID

rdfs:comment
NOTE: In practice, this always means that the parts are not the same kind of thing as the whole.

gist:PhysicalSubstance

Non corporeal material. That is, "stuff" which can be divided in half and still retain its essence. In principle, cannot have an ID.

rdfs:label
Physical Substance

rdfs:comment
EXAMPLE: an amout of water, of penicillin, of sand

rdfs:comment
NOTE: This is the actual amout of something, not the type of substance.

rdfs:comment
NOTE: some things are substances at a macro level, but ultimately end up as not being divisible into the same kind of thing, e.g. sand vs. grains of sand., bacteria vs. an individual bacterium.

gistID

gist7.1 id

Base URI : http://ontologies.semanticarts.com/o/gistID
Version URI : http://ontologies.semanticarts.com/o/gistID7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistTop7.1
Location : gistTop7.1.owl

gist:ID
an ID is a tiny piece of content

Subclass of
gist:Content

gist:ID
A string of characters that refers to a referent in the real world (person, place, organzation, vehicle, etc.), a concept or an event. Intended to be unique within a domain (but generally no guarantee of this).
--- AND ---

rdfs:label
ID

gist:allocatedBy
some gist:SocialBeing

gist:uniqueText
some string

rdfs:comment
EXAMPLE: e.g. SSN for a person, serial number for a product, employee id

rdfs:comment
NOTE: the thing identified can be anything, e.g. a person, place, organzation, product, concept, event.

gist:hasA

gist:identifiedBy [IF]
(gist:identifies)
Range:gist:ID
This is like a uri: a thing can have more than one ID, but each of the IDs must refer to a unique thing.

gist:containedText

gist:uniqueText [F]string
This is used for the actual value of a key or ID where you don't want the possibility of having more than one.

gist:allocatedBy
Range:gist:SocialBeing
anything that can be assigned includes ids, but also tasks, resources names, categories etc.

gistOrganization

gist7.1 org

Base URI : http://ontologies.semanticarts.com/o/gistOrganization
Version URI : http://ontologies.semanticarts.com/o/gistOrganization7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistPerson7.1
Location : gistPerson7.1.owl

URI : http://ontologies.semanticarts.com/o/gistAddress7.1
Location : gistAddress7.1.owl

URI : http://ontologies.semanticarts.com/o/gistPlace7.1
Location : gistPlace7.1.owl

gist:Organization

A generic organization that can be, e.g., formal or informal, legal or non-legal. It can have members or not

rdfs:label
Organization

rdfs:comment
NOTE: There are a plethora of different kinds of organizations that differ along many facets, including members, structure, purpose, legal vs. non-legal etc.

rdfs:comment
EXAMPLE: Legal entities like companies, non-legal entities like clubs, committees or departments.

gist:CountryGovernment

--- AND ---

rdfs:label
Country Government

gist:GovernmentOrganization

gist:directlyRecognizedBy
has gist:_unitedNations

gist:GovernmentOrganization - gist:_unitedNations

if the united nations recognizes you as a country you are a country

gist:GovernmentOrganization

Established either by fiat (as a conquering army overtakes a land and declares a government) or by delegation from a fiat government, such as a state or local government or a specific agency. Differ from corporations in that they cannot be owned.

--- AND ---

rdfs:label
Government Organization

rdfs:comment
EXAMPLE: State of WA Office of Financial Management; the FDA, the Scottish Parliament

gist:Organization

gist:recognizedBy
some gist:CountryGovernment

gist:governs
some gist:GeoRegion

rdfs:comment
NOTE: Recognition by a CountryGovernment may be indirect via local, regional or national GovernmentOrganization(s) that ultimately are recognized by a CountryGovernment.

ComputerPrograms can also govern things

gist:governs

(gist:governedBy)

Domain

--- OR ---

gist:SocialBeing

Range

--- OR ---

gist:SocialBeing

gist:Place

gist:Category

gist:Content

gist:Agreement

gist:IntellectualProperty

gist:PhysicalThing

gist:recognizedBy

(gist:recognizes)
Range:gist:SocialBeing
The entity that formally acknowledges the existence of, as the State recognizes the existence of a particular company

gist:directlyRecognizedBy

Add Equipment?

gist:hasJurisdiction

(gist:presidedOverBy)
Domain:gist:SocialBeing

gist:Group

A gist:Group is a group of People, they may or may not be an organization. Many organizations consist of groups of people but that isn't a defining characteristic.

--- AND ---

rdfs:label
Group

gist:Collection

gist:hasMember
some gist:Person

gistContent

gist7.1 content

Base URI : http://ontologies.semanticarts.com/o/gistContent
Version URI : http://ontologies.semanticarts.com/o/gistContent7.1

Namespaces

gist http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistID7.1
Location : gistID7.1.owl

gist:fromAgent
Range:gist:SocialBeing
The source of a message or shipment

gist:toAgent
Range:gist:SocialBeing
Comment: this is not the inverse of fromAgent. A message can be from someone. If we made it the inverse the person would be "to" the message

gist:expressedIn

gist:Content
Documents, programs, images and the like. Categories are not content until they are written down.

rdfs:label
Content

gist:basedOn
pointer to the thing something was derived from

gist:about
(gist:describedIn)
Domain:gist:Content
Subject matter of a document.

gist:renderedOn

gist:containedText
string
Links to the string corresponding to Text

gist:encryptedText
string
Links to the string corresponding to EncryptedText

gist:Text
Content in words.

rdfs:label
Text

Equivalent to
--- AND ---
gist:Content
gist:expressedIn
some gist:Language
gist:containedText
some string

gist:EncryptedText
Text that has been encrypted.

rdfs:label
Encrypted Text

rdfs:comment
NOTE: Will be likely be handled by an application by not showing the text in the UI.

Equivalent to
--- AND ---
gist:Text
gist:encryptedText
some string

Need image, audio and video

gist:Template
Any of a large variety of pieces of content that can be used to generate other content. For example a form can be used to generate data sets, a class can be used to create instances
--- AND ---

rdfs:label
Template

rdfs:comment
EXAMPLE: a form. A filled-in form has the structure of the form with data entered into some or all of the fields.

rdfs:comment
NOTE: Use gist:basedOn to link the instantiation of a Template back to its Template.

gist:Content

gist:produces
some gist:Content

gist:Medium
A physicality that a work could be implemented or exposed on, for instance, paper, or clay or a computer monitor

rdfs:label
Medium

Subclass of
gist:Category

gist:IntellectualProperty
A work, invention or concept, independent of its being expressed in text, audio, video, image or live performance. For literature this could be called the "Work" except that "work" is a highly overloaded term (expenditure of energy, resource consumption, art). Often the first expression preceeds our recognition of the IP, but subsequent expressions are known to be derivaties of the IP, even if they are expression to expression translations (or copies). IP can also be tacit knowledge, knowhow or skill. Also includes Brands.

rdfs:label
Intellectual Property

rdfs:comment
EXAMPLE: "The Old Man and The Sea" is Intellectual Property. As is the page rank algorithm, and Coca Cola

gist:Language
A recognized, organized set of symbols and grammar.

rdfs:label
Language

rdfs:comment
EXAMPLE: includes natural languages like English and Spanish and computer languages like C# and XML.

gist:GeneralMediaType
This is the real world media type (i.e., is it audio, image, video, textual, physical (ie a statue) or performance (i.e. a play) could be oil or pastel for painting

rdfs:label
General Media Type

Subclass of
gist:Category

gist:MimeType
These are digitized types that computer applications could recognize. These are the Mime types of interest to a given ontology

rdfs:label
MIME Type

Subclass of
gist:Category

gist:ContentExpression
what does FBRL call this --- this is IP reduced to text, audio etc. If it contains text (written or spoken) it may be in a language

rdfs:label
Content Expression

Subclass of
gist:Content

(N) gist:expressedIn
some gist:Language

(N) gist:categorizedBy
some gist:GeneralMediaType

gist:FormattedContent
Content which is in a particular format (i.e. html, pdf, jpg)
--- AND ---

rdfs:label
Formatted Content

gist:expressedIn
some gist:MimeType

gist:ContentExpression

Need a blob like thing for audio etc
How do I refer to the digitized file

gist:RenderedContent
Content which has been expressed, either to print, or through speakers, or through a monitor.
--- AND ---

rdfs:label
Rendered Content

gist:expressedIn
some gist:MimeType

gist:renderedOn
some gist:Medium

gist:ContentExpression

gist:Message
A specific message from an Agent to at least one other agent. Could be email, a phone call, a voice message or a Web Service message between applications.
--- AND ---

rdfs:label
Message

gist:ContentExpression

gist:fromAgent
some gist:SocialBeing

gist:toAgent
some gist:SocialBeing

gistAgreement

gist7.1 agreement

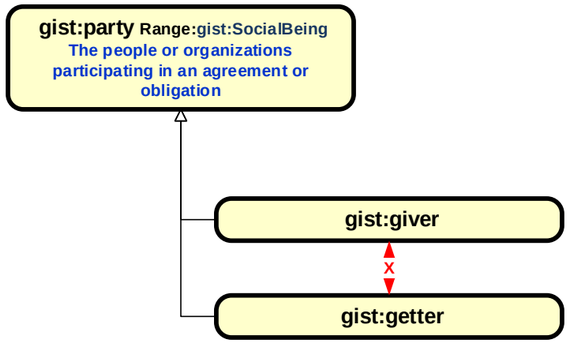
Base URI : http://ontologies.semanticarts.com/o/gistAgreement
Version URI : http://ontologies.semanticarts.com/o/gistAgreement7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI :	http://ontologies.semanticarts.com/o/gistTime7.1
Location :	gistTime7.1.owl
URI :	http://ontologies.semanticarts.com/o/gistCategory7.1
Location :	gistCategory7.1.owl
URI :	http://ontologies.semanticarts.com/o/gistIntention7.1
Location :	gistIntention7.1.owl



gist:Commitment
A possibly unilateral obligation
--- AND ---
- rdfs:label — Commitment
- gist:giver — some gist:SocialBeing
- gist:categorizedBy — some gist:DegreeOfCommitment

--- OR ---
- gist:Restriction
- gist:Requirement

gist:Category

gist:DegreeOfCommitment
The degree of commitment is the difficulty of reversing a commitment. A car rental typcially has a lower degree of commitment than a airfare reservation
- rdfs:label — Degree Of Commitment

gist:triggeredBy
a property that describes what would happen to trigger the contingent obligation. In most cases, before the Contingent becomes an Obligation, the triggered by event is a planned event (that is it hasn't happened yet -- if it had happened the contingency would no longer be contingent. In most cases it will be a ContingentEvent

gist:ContingentObligation
An obligation that is not yet fully executed. There is some contingent event, the occurance of which will cause the Obligation to become firm. Might have a getter counterparty (in the case of Insurance for instance) but it might not in the case of an Offer
- rdfs:label — Contingent Obligation

Equivalent to
--- AND ---
- gist:Commitment
- gist:giver — some gist:SocialBeing
- gist:triggeredBy — some gist:Event

gist:ContractTerm
A contract term is a specification of some aspect of the contract.
- rdfs:label — Contract Term

Subclass of
gist:Specification

gist:Offer
A commitment to buy or sell a described or identified part or service.
--- AND ---
- rdfs:label — Offer
- gist:plannedEnd — some gist:TimeInstant
- gist:start — some gist:TimeInstant
- gist:hasMagnitude — some gist:Monetary
- gist:giver — some gist:SocialBeing
- gist:hasDirectPart — some gist:CatalogItem
- gist:ContingentObligation

gist:Obligation
A future commitment from one social being to another. Contracts are sets of oblgations to do or forebear, or indemnify or warrant.
- rdfs:label — Obligation
- rdfs:comment — NOTE: Will often be governed by some Agreement or Offer.

Equivalent to
--- AND ---
- gist:Commitment
- gist:giver — some gist:SocialBeing
- gist:getter — some gist:SocialBeing

gist:CatalogItem
A description of a product or service to be delivered to sufficient level of detail that a receiver could determine whether delivery constituted discharge of obligation to deliver
- rdfs:label — Catalog Item
- rdfs:comment — NOTE: In short, an umbiguous characterization of what it is that a potential buyer is paying for.

Subclass of
gist:Specification

gist:ProductSpecification
Offering something which could be physically warehoused or digitally stored.
--- AND ---
- rdfs:label — Product Specification
- gist:CatalogItem
- gist:categorizedBy — some gist:ProductCategory

gist:ServiceSpecification
A description of something that can be done for a person or organization (which produces some form of an "act").
--- AND ---
- rdfs:label — Service Specification
- gist:CatalogItem
- gist:produces — some gist:Behavior

gist:Agreement
Contract or other binding agreement, usually evidenced by signature(s).
--- AND ---
- rdfs:label — Agreement
- gist:Commitment
- gist:party — min 2 gist:SocialBeing
- gist:hasDirectPart — min 2 gist:Obligation

gist:BundledCatalogItem
Any combination of descriptions of things offered together. Could be a kit (several parts offered together) but could also be a product + a warranty
--- AND ---
- rdfs:label — Bundled Catalog Item
- gist:CatalogItem
- gist:hasDirectPart — some gist:CatalogItem

gist:ProductCategory
Any of many ways of categorizing products including models, NATO product codes and the like
- rdfs:label — Product Category

Subclass of
gist:Category

gist:Account
This is account as in bank account, or credit card account, or AR account. It is an agreement with a balance
--- AND ---
- rdfs:label — Account
- gist:Agreement
- gist:hasMagnitude — some gist:Balance

gist:Balance
A balance is the result of a series of transactions
--- AND ---
- rdfs:label — Balance
- gist:Magnitude
- gist:hasDirectPart — some gist:Transaction

gist:Transaction
An event which has an affect on at least one accumulator
- rdfs:label — Transaction

Subclass of
gist:Event

gistTemporalRelation

gist7.1 temporalRelation

Base URI : http://ontologies.semanticarts.com/o/gistTemporalRelation
Version URI : http://ontologies.semanticarts.com/o/gistTemporalRelation7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistTime7.1
Location : gistTime7.1.owl

gist:connectedTo
A non owning, non causal, non-subordinate (ie. peer to peer) relationship.

gist:TimeInterval

gist:TemporalRelation
A relationship holding for a period of time. E.g. employs-Employment, hasStreetAddress-EstablishedLocation. One important context for reifying a property.

rdfs:label
Temporal Relation

rdfs:comment
EXAMPLE: employs-Employment, hasStreetAddress-EstablishedLocation.

rdfs:comment
NOTE: This is one important context for reifying a property.

(N) gist:start
some gist:TimeInstant

(N) gist:end
some gist:TimeInstant

(N) gist:connectedTo
min 2 owl:Thing

gistCategory

gist7.1 Categoy

Base URI : http://ontologies.semanticarts.com/o/gistCategory
Version URI : http://ontologies.semanticarts.com/o/gistCategory7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistContent7.1
Location : gistContent7.1.owl

gist:allocatedBy

gist:hasPreferredTerm
[F](gist:preferredTermOf)
Range:gist:Text
If there are many terms for a concept or specific instance, this is the one to use.

gist:categorizedBy Points to a taxonomy item or other less formally defined class.

gist:governedBy

gist:Category
Instances of this class are used to categorize other instances informally. This could be tags, folksonomies or formal definitions from other systems.

rdfs:label
Category

gist:allocatedBy
some gist:SocialBeing

Add Equipment to filter?

gist:ControlledVocabulary
Key terms and who is approving them
--- AND ---

rdfs:label
Controlled Vocabulary

gist:Collection

gist:governedBy
some gist:GovernanceCommittee

gist:hasMember
some gist:Category

gist:GovernanceCommittee
--- AND ---

rdfs:label
Governance Committee

gist:Group

gist:directPartOf
some gist:Organization

gist:Taxonomy
Hierarchical relationship of concepts in a controlled vocabulary. Note we need to have a property that represents the hierachy and we need a way to distinguish formal and informal taxos

rdfs:label
Taxonomy

Subclass of
gist:ControlledVocabulary

Need to add something like synonym ring

gistIntention

gist 7.1 Intention

Base URI : http://ontologies.semanticarts.com/o/gistIntention
Version URI : http://ontologies.semanticarts.com/o/gistIntention7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistTop7.1
Location : gistTop7.1.owl

gist:Restriction

A description of things one is prevented from doing; could be broad such as free speech, but more often is very specific such as the right of egress through a particular property. Most laws are restrictions

--- AND ---

rdfs:label
Restriction

gist:Intention

gist:prevents
some gist:Behavior

gist:Permission

A description of things one is permitted to do; could be broad such as free speech, but more often is very specific such as the right of egress through a particular property.

--- AND ---

rdfs:label
Permission

gist:Intention

gist:allows
some gist:Behavior

gist:prevents

Domain:gist:Intention
Range:gist:Behavior

gist:allows

Domain:gist:Intention
Range:gist:Behavior

gist:Requirement

A documented physical and functional need that a particular design, product or process must be able to perform. Alternately, the obligation of a Social Being to behave in a certain way (i.e., drive on the right side of the road for instance)

rdfs:label
Requirement

Subclass of
gist:Intention

gist:requires
some gist:Behavior

gist:requires

Domain:gist:Intention
Range:gist:Behavior

gist:affects

(gist:affectedBy)
the subject has or had or will have an effect on the object

gist:conformsTo

Range:gist:Intention
The subject conforms to the Object, e.g. meet an obligation, meet terms of an offer, adhere to a specification

TODO: see where this can be used.

gist:Specification

A set of requirements to be satisfied by a material, design, product or service.

rdfs:label
Specification

Subclass of
gist:Requirement

gist:Goal

A specific intentional endpoint. Can tell whether its been achieved, as opposed to an intention which may not have an evaluation function

rdfs:label
Goal

Subclass of
gist:Intention

gist:Intention

This is the "teleologic" aspect of the system that indicates things are done with a purpose. This answers the question: "What do I (they) want?" It is distinct from most of the other classes in the ontology as most of the others represent what is, rather that what is desired.

rdfs:label
Intention

gist:Measure

gist 7.1 Measure

Base URI : http://ontologies.semanticarts.com/o/gistMeasure
Version URI : http://ontologies.semanticarts.com/o/gistMeasure7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistEvent7.1
Location : gistEvent7.1.owl

TODO: this imports all of core, should only import what is needed.

Task List

Open	Description

Change Log

1.0	1/27/2011	changed names space and ontology name
1.0	6/2/2011	introduced versioning. For now version and base will be the same
1.1	8/10/2011	(MFU) Removed Location field for imports.
1.1	8/10/2011	SI: ((MFU) Now imports gistCore6.3
1.2	9/19/2011	RF: (MFU) Renamed Substance to PhysicalSubstance.
1.2	10/21/2011	SI: (DMc) now imports core6.4
1.2	10/21/2011	CL: (DMc) changed name from measures to measure
1.3	2/2/2012	CL: (DMc) moved instances example into new tab measure-exp
1.4	7/6/2012	SI: (MU) Made aspectOf a subproperty of connectedTo
1.4	7/6/2012	SI: (MU) Made aspectOf a property chain and tweaked comment.
1.4	7/6/2012	SI: (MU) Added restriction to Measurement using a new thingMeasured property
1.5	12/16/2012	BI: (MU) Removed property: hasUnsharedPart, use memberOf instead.
1.5	12/16/2012	SI: (MU) Add label restriction to definitions of Nomina- and OrdinalValue.
1.5	12/16/2012	SI: (MU) NominalValue restriction linking to NominalSet is now N&S.
1.5	12/16/2012	BI: (MU) OrderedMember replaces RankedPosition in the definition of OrdinalValue
1.5	12/16/2012	RF: (MU) OrdinalSet now defined in terms of OrdinalCollection, not OrderedCollection directly.
1.5	12/16/2012	RF: (MU) Imports Collection subgist
1.5	12/27/2012	CL: (MU) Added comment to Measure.
1.5	12/28/2012	CL: (MU) Renamed RatioMeasures and IntervalMeasures to be singular.
1.5	12/28/2012	CL: (MU) IntervalMeasure is now a subclass of Magnitude (bugfix: replaces incorrect restriction)
1.5	12/16/2012	SI: (MU) NominalSet no longer uses ExtensionalSet in definition.

Change Log for next version

1.6?	3/18/2014	SI: (MU) Removed gist:label, use rdfs:label instead.

KEY for Change Log

0. CL: for clarity only, better comments, fixing typos, laying out differently, etc.
1. AD: purely additive, will not affect anything already existing.
2. RF: refactoring, no semantic import. Includes changing names where old name is deprecated.
3. SU: has semantic import from usage perspective, e.g. a comment changes usage which could give semantic errors.
4. SI: has semantic import from inference perspective. axiom added, removed, changed etc.
5. BI: Backwards incompatible

Fork: these three changes are not moving forward with mainline measure subgist.

1.4PG 7/6/2012 RF: (MU) renamed measuring(measuredVia) to aspectMeasured(aspectMeasuredOn)
1.4PG 7/18/2012 RF: (MU) MeasurementProcedure is no longer a gist:Template, it is a NormativeSpecification
1.4PG 7/18/2012 RF: (MU) removed gist:Method, it is not needed because MeasurementProcedure is now a NormativeSpecification)

Method subclass of Template

documentedIn Content

Does not have to be documented as content.

Does not belong here, is much broader: a NormativeSpecificationDescription

gist:Method
Description of how to do something.
rdfs:label
Method
Subclass of
gist:Content

Measurement Procedure

gist:MeasurementProcedure
A means of taking a measurement.
--- AND ---
rdfs:label
Measurement Procedure
gist:Template
gist:describedIn
some gist:Method

A Template

Not a behavior but a model for some event.

Subclass of sheo:NormativeSpecification

gist:SubjectiveProcedure
A procedure that relies on judgement of a human.
rdfs:label
Subjective Procedure
Subclass of
gist:MeasurementProcedure

gist:ObjectiveProcedure
A subjective judgment, but performed by someone who is not a direct participant in the effect being measured.
rdfs:label
Objective Procedure
Subclass of
gist:MeasurementProcedure

gist:MechanicalProcedure
A procedure that relies on a nonhuman instrument.
rdfs:label
Mechanical Procedure
Subclass of
gist:MeasurementProcedure

gist:Measurement
The event of taking a measurement. Some measurement procedure is used to measure some aspect of something giving a result. E.g. A laptop (Ownable) was put on a scale (the procedure), its weight (the aspect) is 3 pounds 1 ounce (the measure). Also includes subjective assessments, like low, medium vs. high quality.
--- AND ---
rdfs:label
Measurement
gist:thingMeasured
some
--- OR ---
gist:PhysicalThing
gist:Event
gist:measuring
some gist:Aspect
gist:basedOn
some gist:MeasurementProcedure
gist:hasFeature
some gist:Measure
gist:HistoricalEvent

hasFeature sounds wrong for Nominal and Ordinal measures. The same value can be used for many different measurements.
MU: 2012-07-24

What is so special about Measurement that it is always in the past as opposed to present?
2012-06-13

gist:SubjectiveMeasurement
Where the Person assessing is the same as the Person whose aspect is being measured (self assement, essentially).
--- AND ---
rdfs:label
Subjective Measurement
gist:Measurement
gist:producedBy
some gist:SubjectiveProcedure
gist:assessedBy
some gist:Person
gist:measuring
some gist:PersonalAspect

gist:ObjectiveMeasurement
Where the person doing the assessment is different from the Person whose Personal Aspect we're measuring.
--- AND ---
rdfs:label
Objective Measurement
gist:Measurement
gist:producedBy
some gist:ObjectiveProcedure
gist:measuring
some gist:PersonalAspect
gist:assessedBy
some gist:Person

gist:MechanicalMeasurement
--- AND ---
rdfs:label
Mechanical Measurement
gist:Measurement
gist:producedBy
some gist:MechanicalProcedure

gist:Prediction
An estimate about an event or a thing which has not yet occurred. This is the date that the prediction is for.
--- AND ---
rdfs:label
Prediction
gist:Measurement
gist:planned
some gist:TimeInstant

gist:MeasurableConcept
rdfs:label
Measurable Concept
Subclass of
gist:Category

How is Aspect different from any other MeasureableConcept? The aspectOf restriction is not necessary, so adds no semantics.

DMc: this should have some relationship to a measurement method or something. He thinks he had that, but it is not so.

Perhaps gist:measuring restriction shodul point to this instead, but what is the difference?

MU proposes just get rid of this, not adding anything.

MeasureableConcept is a gist:Category, this means all Aspects are gist:Categories. But what are e.g height, eye-color or systolic blood pressuers categorizing?

gist:Aspect
A very general term for the characteristic of something that is being measured. E.g property (height) or a process (cycle time) or a behavior (loyalty).
rdfs:label
Aspect
gist:aspectOf
some
--- OR ---
gist:PhysicalThing
gist:Event

gist:PersonalAspect
Measuring something about a person.
--- AND ---
rdfs:label
Personal Aspect
gist:Aspect
gist:aspectOf
some gist:Person

gist:connectedTo

gist:thingMeasured
(gist:measuredOn)
Domain:gist:Measurement
Connects the Measurement to the thing whose characteristic is being measured.

gist:measuring
(gist:measuredVia)
Connects the Measurement to the Aspect that is being measured.

For naming consistency, should be called aspectMeasured and aspectMeasuredOn

gist:hasAspect
(gist:aspectOf)
Range:gist:Aspect
The Object is a measureable characteristic of the Subject.
gist:thingMeasuredOn
gist:measuring

This subproperty relationship is true, but cannot be stated in OWL2.

Measures

gist:Event

gist:Measure
The unique result of a single measurement event; always corresponds to a measure value of some kind. There are four kinds: Nominal, Ordinal, Interval and Ratio corresponding to the four main scales of measure. In the first two cases, the Measure has the Value. In the last two, the measure is the Value, a gist:Magnitude such as 82kg, or 4 degrees C.
--- OR ---
rdfs:label
Measure

gist:NominalMeasure
A Nominal measure is really a categorization disguised as a measure. There may be a number associated, but the numbers cannot be compared.
rdfs:label
Nominal Measure
(N) gist:hasNominalValue
some gist:NominalValue

gist:OrdinalMeasure
An ordinal measure is a nominal measure where the order is significant. Likert scales (extremely dissatisfied through to extremely satisfied, for instance, are ordered) as are questions where one answer assumes the lower ones (Amazon book ratings or, how much do you smoke: a) none, b) less than a pack a day, c) 1-2 packs, d) more than 2 packs).
rdfs:label
Ordinal Measure
(N) gist:hasNominalValue
some gist:OrdinalValue

gist:RatioMeasure
Measures with a true zero, and therefore ratios can meaningfully be used. All Magnitudes are RatioMeasures with the exception of non-Kelvin temperatures.
rdfs:label
Ratio Measure
(N) gist:hasMagnitude
some gist:RatioMagnitude

gist:IntervalMeasure
Interval measures are measures where the distance between two numbers is comparable, but their absolute quantity is not, e.g., Fahrenheit temperatures. Also called Scalar Measures.
rdfs:label
Interval Measure
(N) gist:hasMagnitude
some gist:Magnitude

gist:ReferenceValue
A measure that was neither measured nor estimated but set by fiat, for instance, a goal. There is no Measurement associated with a ReferenceValue.
rdfs:label
Reference Value
Subclass of
gist:Magnitude

gist:NominalValue
A Value that is member of a NominalSet. A nominal value is really just a category. Could be "1" but it would only be treated as a symbol, not a number.
rdfs:label
Nominal Value
(NS) gist:memberOf
some gist:NominalSet
Subclass of
gist:Category

gist:OrdinalValue
A value that is member of a an OrdinalSet.
rdfs:label
Ordinal Value
Equivalent to
--- AND ---
gist:OrdinalMember
gist:memberOf
some gist:OrdinalSet

Why is this not also a Category?

gist:NominalSet
A set of values used as a nominal scale of measure. The values have no relationship to each other. The only operations that apply are equivalence and set membership.
rdfs:label
Nominal Set
rdfs:comment
EXAMPLES: [male,female] , [0,1] , [Ford, Subaru, Volvo, Chevrolet]
Equivalent to
--- AND ---
gist:Collection
gist:hasMember
some gist:NominalValue

gist:OrdinalSet
An OrdinalCollection used as a scale of measure.
rdfs:label
Ordinal Set
rdfs:comment
EXAMPLES: Likert scales (extremely dissatisfied through to extremely satisfied, for instance, are ordered). Questions where one answer assumes the lower ones (Amazon book ratings or, how much do you smoke: a) none, b) less than a pack a day, c) 1-2 packs, d) more than 2 packs).
rdfs:comment
NOTE: an OrdinalSet can be used to rank each item in an OrderedCollection where there may be ties, even though there are no ties in the values on the OrdinalSet.
Equivalent to
--- AND ---
gist:OrdinalCollection
gist:hasMember
some gist:OrdinalValue

gist:Category

gist:hasOrderedMember
(gist:orderedMemberOf)
An inverse functional version of hasMember to ensure that no OrderedMember can be in more than one OrderedCollection., which can quickly lead to problems.

gist:OrdinalCollection
An OrderedCollection, where no item can be the same rank as any other item. This is a total order, in math terms.
rdfs:label
Ordinal Collection
Subclass of
gist:OrderedCollection
(N) gist:hasOrderedMember
all gist:OrdinalMember

gist:OrdinalMember
A member of an OrdinalCollection; necessarily precedes or is precededBy another OrdinalMember in the same collection (last part cannot be stated in OWL).
rdfs:label
Ordinal Member
(NS) gist:orderedMemberOf
some gist:OrdinalCollection
Subclass of
--- OR ---
gist:strictlyPrecedes
some gist:OrdinalMember
gist:strictlyPrecededBy
some gist:OrdinalMember

gist:precedes
A generic ordering relation indicating that the Subject has the same order as or comes before the Object. The 'greater than or equal to' symbol is often used for this relation.

gist:strictlyPrecedes
(gist:strictlyPrecededBy)
A generic ordering relation indicating that the Subject comes before the Object, it may not be of equal rank. The greater than symbol is often used for this relation.

X

We could add this if it was useful to do so. It is a picture for now.

gist:sameOrderAs [S]
A generic ordering relation indicating that the Subject and the Object have the same ordering. The 'equal to' symbol is often used for this relation.
gist:sameOrderAs [R]

TODO: this came from gist:Collection in 6.7.1, but ther eis other stuff missing about gistLPosition etc.

gistCore

gist7.1 Core this is meant to recreate the equivalent of gistCore6.9 by reassembling the pieces`

Base URI : http://ontologies.semanticarts.com/o/gistCore
Version URI : http://ontologies.semanticarts.com/o/gistCore7.1

Namespaces

gist	http://ontologies.semanticarts.com/gist#

Imports

URI : http://ontologies.semanticarts.com/o/gistEvent7.1
Location : gistEvent7.1.owl

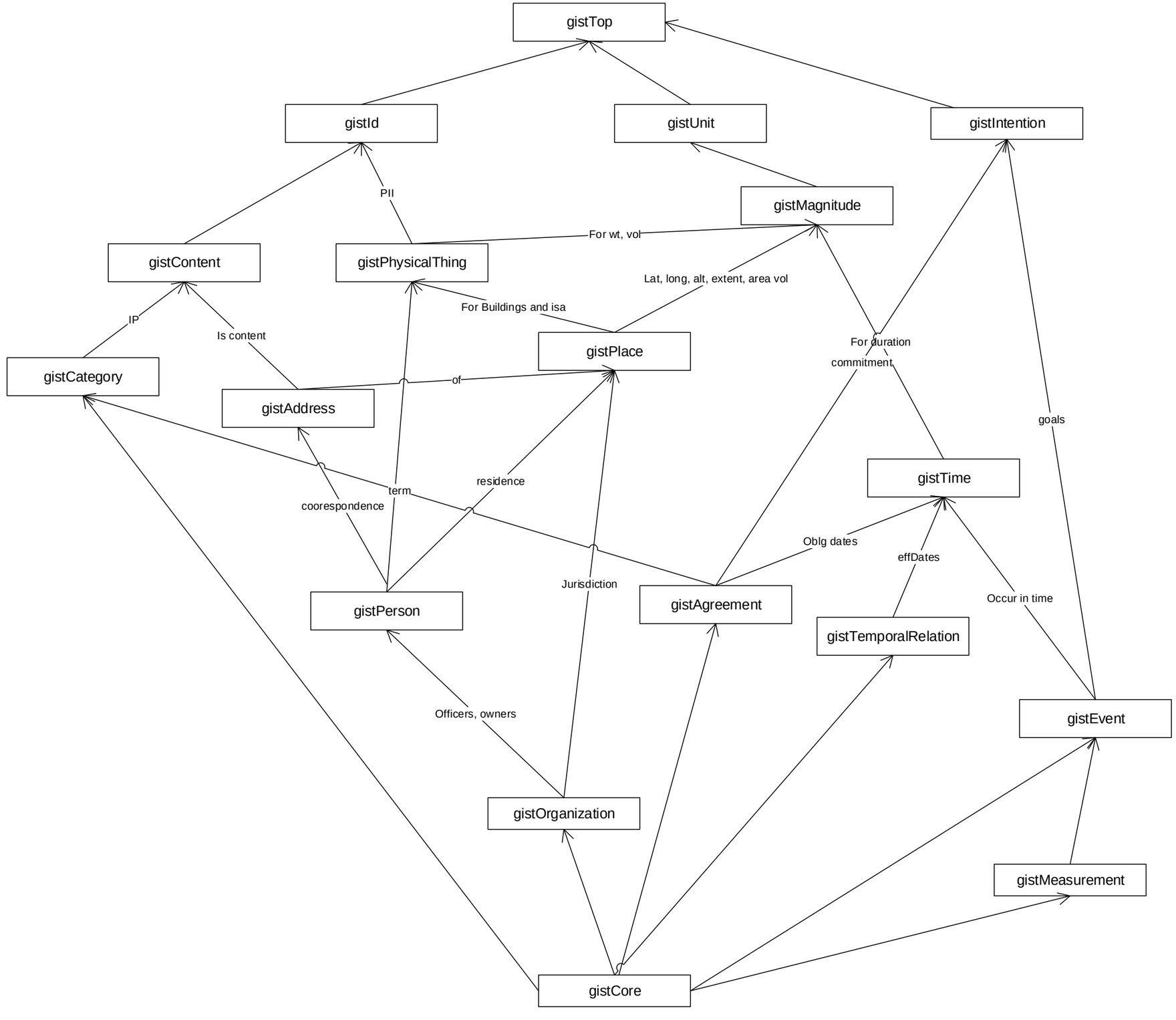
URI : http://ontologies.semanticarts.com/o/gistOrganization7.1
Location : gistOrganization.8.0.owl

URI : http://ontologies.semanticarts.com/o/gistAgreement7.1
Location : gistAgreement7.1.owl

URI : http://ontologies.semanticarts.com/o/gistTemporalRelation7.1
Location : gistTR.8.0.owl

URI : http://ontologies.semanticarts.com/o/gistCategory7.1
Location : gistCategory7.1.owl

URI : http://ontologies.semanticarts.com/o/gistMeasure7.1
Location : gistMeasure7.1.owl



KEY for Change Log

V: Visio/Visualization changes only, not affect the owl (callouts, layout, grouping etc)
CL: for clarity only, better comments, fixing typos, laying out differently, etc.
AD: purely additive, will not affect anything already existing.
RF: refactoring, no semantic import. Includes changing names where old name is deprecated.
SU: has semantic import from usage perspective, e.g. a comment changes usage which could give semantic errors.
SI: has semantic import from inference perspective. axiom added, removed, changed etc.
BI: Backwards incompatible

Change Log for next version

7.1	7/1/2014	SI: (AE) [Content] Made uniqueText a sub-property of containedText
7.1	7/1/2014	SU: (DMc/MU) [Top] Removed annotation from gist:name so that it doesn't turn it into a otp and cause confusion.
7.1	7/1/2014	SI: (AE/MU) [ID] Added Agreement to range of governs.
7.1	7/1/2014	RF: (AE) [Intention] Changed prevent, allow and require to prevents, allows, and requires
7.1	7/22/2014	RF: (MFU) [ID,Org] Move governs property from ID to Org
7.1	7/22/2014	CL: (MFU) [Unit] Change comment on ProductUnit
7.1	7/24/2014	SI: (MFU) [Agree] Change restriction on Offer to use hasDIrectPart CatalogItem
7.1	7/24/2014	BI: (MFU) [Agree] Removed property specifiedIn, no longer needed.
7.1	7/24/2014	RF: (MFU) [Content, Intention] moved Specification from Content to Intention
7.1	7/24/2014	AD: (MFU) [Intention] add conformsTo property to link things to their specs.
7.1	7/24/2014	AD: (MFU) [Org] added hasJurisdiction/presidedOverBy back into the ontology
7.1	7/24/2014	CL: (MFU?) [Agree] Fixed typo in DegreeOfCommitment, ContractTerm, CatalogItem, Product Specification
7.1	7/24/2014	CL: (MFU?) [Agree] Fixed typo that created a duplicate misspelled categorizedBy
7.1	7/24/2014	CL: (MFU?) [Agree] Added comment to CatalogItem
7.1	7/24/2014	SU: (DMc?) [Agree] Change property restriction on gist:Account from hasA Balance to hasMagnitude Balance
7.1	7/31/2014	SI: (MFU) [Event] Bugfix, inverse property of hasDirectSubtask changed to directSubtaskOf
7.1	9/4/2014	SI: (AE) [Org] Added IntellectualProperty and PhysicalThing to the range of governs.
7.1	9/4/2014	CL: (AE) [Content] Fixed typo in comment of MimeType
7.1	9/4/2014	CL: (AE) [Content] Fixed typo in comment of basedOn
7.1	9/4/2014	SI: (AE) [Cat] There was a typo in the Filter Class on the allocatedby restriction property on gist:Category
7.1	9/27/2014	CL: (AE) [Unit] Fixed typo in multiplicand and multiplier definition
7.1	9/27/2014	CL: (AE) [PhysThing] Fixed typo in gist:owns comment
7.1	9/27/2014	CL: (AE) [Org] Fixed 3 typos in gist:recognizedBy comment
7.1	9/27/2014	CL: (AE) [Agree] Fixed typo in gist:DegreeOfCommitment comment
7.1	9/27/2014	CL: (AE) [Top, Content] Fixed several typos in gist:IntellectualProperty comment
7.1	9/27/2014	CL: (AE) [Agree] Fixed typo in gist:CatalogItem and in gist:BundledCatalogItem comments
7.1	9/27/2014	CL: (AE) [Top, Mag] Fixed typo in gist:Magnitude comment
7.1	9/29/2014	CL: (AE) [Org] Fixed typos in gist:GovernmentOrganization comment
7.1	9/29/2014	CL: (AE) [PhysThing] Fixed typos in a couple of the gist:PhysicalIdentifiableItem comments
7.1	9/29/2014	CL: (AE) [Person] Fixed typo in gist:LivingThing comment
7.1	9/30/2014	CL: (AE) [Top, PhysThing] Fixed typo in gist:PhysicalSubstance comments
7.1	9/30/2014	CL: (AE) [Event] Fixed typo in gist:ContemporaneousEvent comment
7.1	9/30/2014	CL: (AE) [Measure] Fixed typo in gist:Measure comment
7.1	9/30/2014	CL: (AE) [Agree] Fixed typos in gist:Transaction comment
7.1	9/30/2014	CL: (AE) [Top] Fixed typo in gist:UnitOfMeasure comment
7.1	9/30/2014	CL: (AE) [Unit] Fixed typo in gist:SimpleUnitOfMeasure comment
7.1	9/30/2014	CL: (AE) [Unit] Fixed typos in gist:BaseUnit, gist:ElectricalCurrentUnit and gist:TemperatureUnit comments
7.1	9/30/2014	CL: (AE) [Agree] Fixed typos in gist:triggeredBy comment
7.1	9/30/2014	CL: (AE) [ALL] Removed all of the # in front of references to gist terms in the comments.
7.1	10/30/2014	SI: (AE) [Intention] In the definition of gist:Requirement, removed gist:Conformance from the range of gist:requires