

— top

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Last Updated : 1/9/2015

**gist:Top**  
gist:1.1 top

Base URI : <http://ontologies.semanticarts.com/gistTop>  
Version URI : <http://ontologies.semanticarts.com/gistTop/1.1>

**Namespaces**

gist <http://ontologies.semanticarts.com/gist>

**Imports**

**gist:hasA (IF)**  
(gist:of)

The subject exclusively has or possesses the object, the object does not have independent existence.

**rdfs:comment**  
EXAMPLE: a table has an edge, a car has weight (which cannot exist unless the car exists)

**rdfs:comment**  
NOTE: Cascading delete.

**gist:produces**  
The subject creates the object.

**rdfs:comment**  
EXAMPLE: a task produces a deliverable.

**gist:hasMember**  
(gist:memberOf)

Domain: gist:Collection  
Relates a Collection to its member individuals.

**gist:Collection**  
(N) gist:hasMember some owl:Thing

**rdfs:comment**  
EXAMPLE: a jury, deck of cards, some books

**gist:hasPart (T)**  
(gist:partOf)

The transitive version of hasDirectPart

**gist:hasDirectPart**  
(gist:directPartOf)

The relationship between a whole and a part where the part has independent existence.

**rdfs:comment**  
NOTE: Use this property to directly associate parts. hasPart is the transitive version.

**rdfs:comment**  
NOTE: No cascading delete.

**gist:name**  
Range: string

Relates an individual to a casual name. NOTE: For more formal use, consider using a sub-property of the object property, identifiedBy.

**gist:SocialBeing**  
A Person or an Organization.

**rdfs:label**  
Social Being

**rdfs:comment**  
NOTE: Includes anything that can be partyTo an Agreement (e.g. Contract) but not all SocialBeings can be parties to all Agreements. For example, minors can be beneficiaries but perhaps not primary signatories on contracts.

Equivalent to  
--- OR ---

**gist:Organization**  
An entity that comes into existence for some specific purpose.

**rdfs:comment**  
NOTE: Organizations differ in many ways, formal / informal, legal / non-legal, has members / no members

**gist:Person**  
A member of homo sapiens, living or dead.

**rdfs:comment**  
NOTE: With open world you never know if someone has died.

**rdfs:comment**  
NEGATIVE EXAMPLE: fictitious characters

**gist:Category**  
Something used to categorize things, informally a "bucket".

**rdfs:comment**  
EXAMPLE: Tags used in Wikisources; things that can be thought of as types are usually Categories.

**rdfs:comment**  
NOTE: Often a "bucket" can be modeled either as an owl:Class or as a gist:Category. Use the latter if you don't care much about the formal structure of the different types, or if there is a whole hierarchy of types that are going to be managed by a different group separate from the ontology developers. The formal structure may be defined elsewhere and linked to, if necessary.

**gist:Collection**  
Any identifiable grouping of instances. For instance a jury is a collection of people. A route is (an ordered) collection of segments

**rdfs:label**  
Collection

**rdfs:comment**  
NOTE: A Collection is another kind of bucket, like owl:Class and gist:Category. Use Collection, when fundamentality

**rdfs:comment**  
EXAMPLE: A jury, a group of documents, a financial ledger which is a collection of entries on a ledger.

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

**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, etc). Often the first expression precedes our recognition of the IP, but subsequent expressions are known to be derivatives of the IP, even if they are expression to expression translations for copies. IP can also be tacit knowledge, knowhow or skill. Also includes Brands.

**gist:intention**  
Goal, desire, aspiration. This is the "teleologic" aspect of the system that indicates things are done with a purpose.

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

**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).

**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.

**gist:PhysicalSubstance**  
Non corporeal material. That is, "stuff" which can be divided in half and still retain its essence (i.e., water, pencil-lead and even, *pluri* bacteria except for those very rare cases where someone is creating an individual bacterium).

**gist:Place**  
Locatable location

**gist:TimeInstant**  
A point on a time line. Could be a literal instant (as in 12:29:00Z, 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

**gist:TimeInterval**  
A specific interval on a time line with start and end Timeinstants and a Duration.

**gist:UnitOfMeasure**  
The primitive units can be converted, the complex units (ratio or product) have to decompose to their primitive. Each unit has a base unit and a conversion factor to the base. The bases are from SI. This is the number you multiply a Unit by to get to base or divide by to get from base. So the convertToBase factor is 1.0254 to get you to the base (meter)

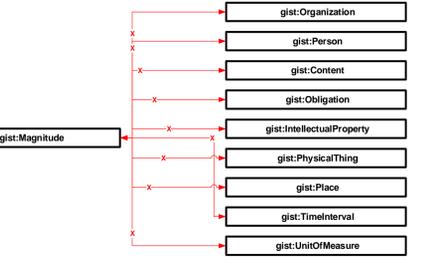
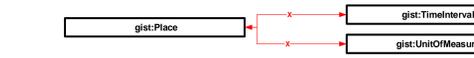
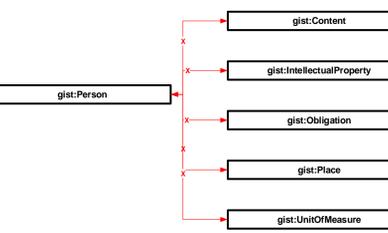
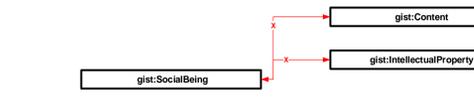
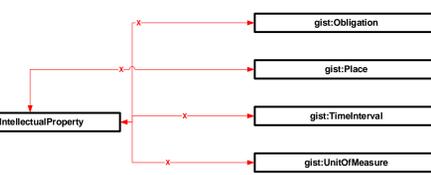
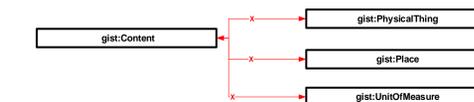
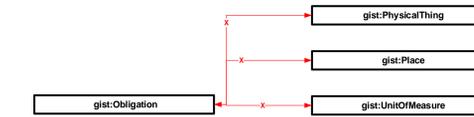
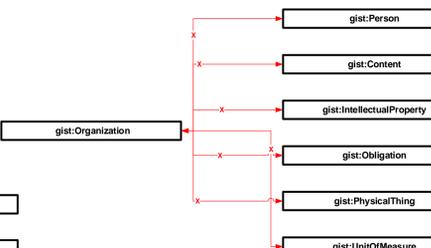
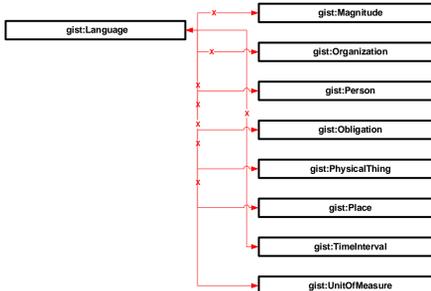
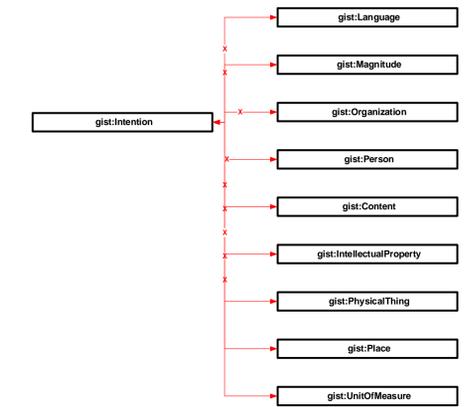
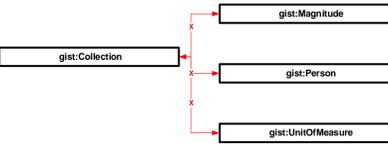
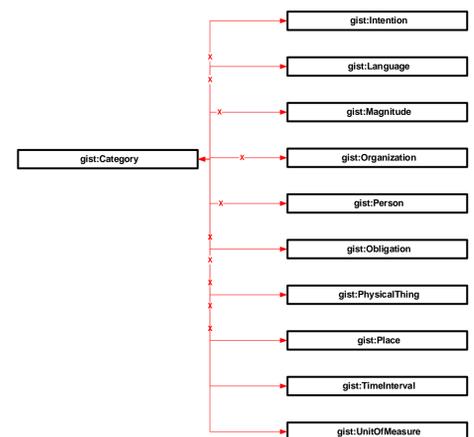
**gist:PhysicalThing**  
Something that takes up space and has weight.

Equivalent to  
--- OR ---

**gist:PhysicalIdentifiableItem**

**gist:PhysicalSubstance**

	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
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
Person							eq	d	d	d	d			d
Content								eq		d	d			d
IP									eq	d	d	d	d	d
Obligation										eq	d	d		d
PhysicalThing											eq			d
Place												eq	d	d
TimeInterval													eq	d
UnitOfMeasure														eq



# Units and Measures

**gistUnit**  
 gist7.1.1 units of measure  
 Base URI : http://ontologies.semanticarts.com/o/gistUnit  
 Version URI : http://ontologies.semanticarts.com/o/gistUnit7.1.1

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

**Imports**  
 URI : http://ontologies.semanticarts.com/o/gistTop7.1.1  
 Location : gistTop7.1.1.owl

Introduced the product unit (similar to the ratio unit where two units are multiplied), and made area and volume specialization

**gist:hasBaseUnit**  
 Domain: gist:UnitOfMeasure  
 Range: gist:BaseUnit  
 Relates a UnitOfMeasure to its BaseUnit. This indicates what kind Unit it 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  
 Range: 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 - (-469.67)) \* (5/9). To go the other way: F = (K \* 9/5) - 469.67. 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:multiplicand**  
 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: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 multiply 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)

**rdfs:label**  
 Simple Unit Of Measure

**gist:convertToBase**  
 some double

**gist:hasBaseUnit**  
 exactly 1 gist:BaseUnit

**gist:RatioUnit**  
 A UnitOfMeasure composed of a numerator unit and a denominator unit.

**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.

**rdfs:label**  
 Product Unit

**gist:UnitOfMeasure**

**gist:multiplicand**  
 some gist:UnitOfMeasure

**gist:multiplicand**  
 some gist:UnitOfMeasure

**gist:convertToBase**  
 min 0 double

**gist:DistanceUnit**  
 Units to measure linear distance such as feet and kilometers.

**rdfs:label**  
 Distance Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:meter

**gist:DurationUnit**  
 Units to measure passage of time, hours, days, years.

**rdfs:label**  
 Duration Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:second

**gist:MassUnit**  
 Units of weight, e.g., pounds, kilos, etc.

**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.

**rdfs:label**  
 Temperature Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:kelvin

**gist:conversionOffset**  
 some double

**gist:ElectricalCurrentUnit**  
 Units of electrical current, which is charge per unit time. Note that watts, current and kilowatt-hours are composed units.

**rdfs:label**  
 Electrical Current Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:ampere

**gist:LuminescenceUnit**  
 Measure of brightness (candles).

**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

**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).

**rdfs:label**  
 Currency Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:uSDollar

**gist:CountingUnit**  
 Units of counting, especially "each" but also units such as dozens.

**rdfs:label**  
 Counting Unit

**gist:SimpleUnitOfMeasure**

**gist:hasBaseUnit**  
 has gist:each

**gist:AreaUnit**  
 Units of two-dimensional area such as square inches and hectares.

**rdfs:label**  
 Area Unit

**gist:ProductUnit**

**gist:multiplicand**  
 some gist:DistanceUnit

**gist:multiplicand**  
 some gist:DistanceUnit

**gist:VolumeUnit**  
 Units of three dimensional space, expressed here as an area times a distance

**rdfs:label**  
 Volume Unit

**gist:ProductUnit**

**gist:multiplicand**  
 some gist:AreaUnit

**gist:multiplicand**  
 some gist:DistanceUnit

**gist:BaseUnit**  
 The base units in gist are the seven primary ones from SI (second, kilogram etc) plus two convenience ones: each and uSDollar.

**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:hasBaseUnit** -> **gist:kelvin**

**gist:conversionOffset - 0 double**

**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**

Square and cubic meters are no longer base units

# gistMagnitude

gist7.1.1 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/gistTop7.1.1>  
Location : <gistTop7.1.1.owl>

URI : <http://ontologies.semanticarts.com/o/gistUnit7.1.1>  
Location : <gistUnit7.1.1.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 applies 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: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:hasMagnitude

Range: gist:Magnitude

To have a comparable numerical value. Each magnitude has a unit.

### gist:decimalValue

Domain: gist:Magnitude  
Range: double

### gist:currencyValue

Domain: gist:Magnitude  
Range: double  
Currencies are rounded to specified precision

### 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: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 expressed 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

Amperage

--- 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**  
gist7.1.1 time

Base URI : <http://ontologies.semanticarts.com/o/gistTime>  
Version URI : <http://ontologies.semanticarts.com/o/gistTime7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistMagnitude7.1.1>  
Location : [gistMagnitude7.1.1.owl](#)

**gist:TimeInterval**  
A specific interval on a time line with start and end Timelinstants 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: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 ---

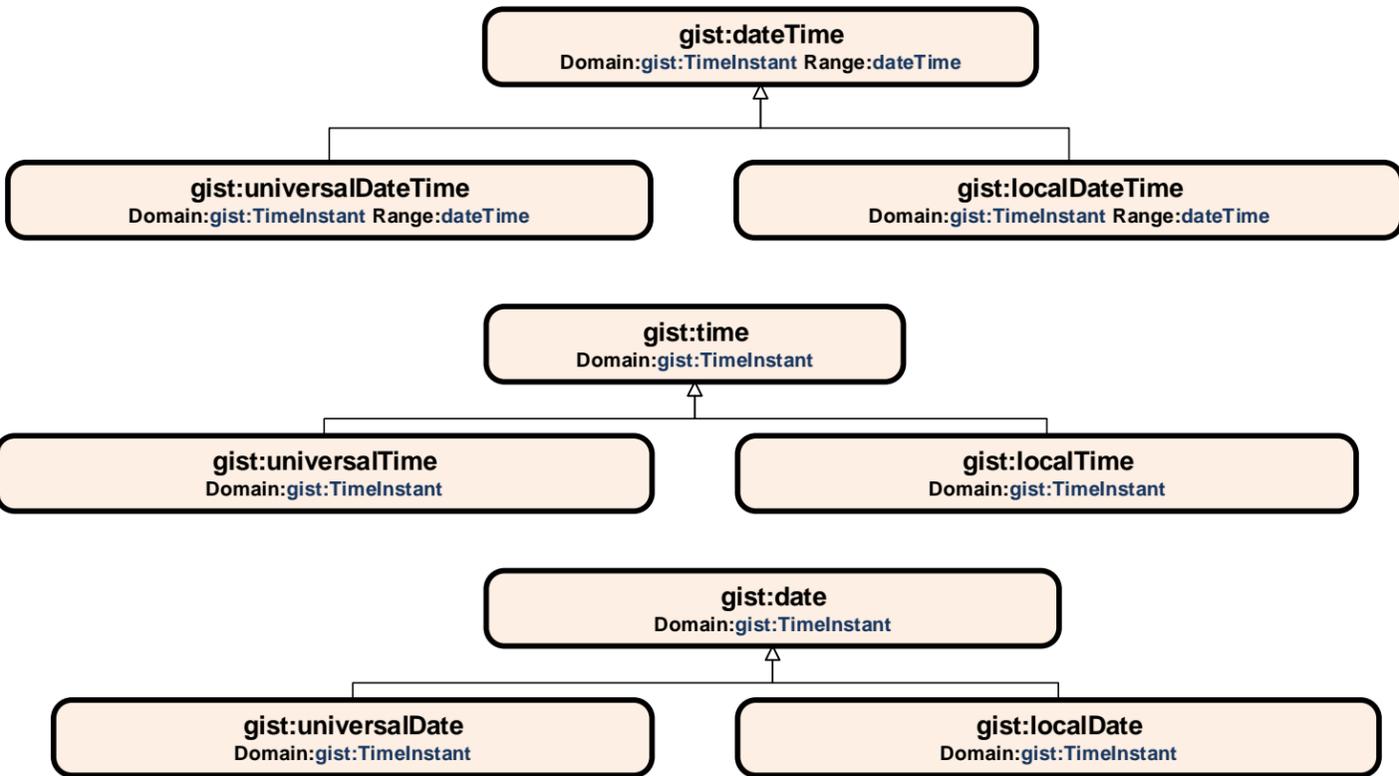
**rdfs:label**  
Time Zone Standard

**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: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: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, minute or second

--- AND ---

**rdfs:label**  
Local Instant

**gist:timeZoneStandardUsed**  
some gist:TimeZoneStandard

**gist:sameTimeAs**  
some gist:TimeInstant

**gist:localDateTime**  
some dateTime

**gist:localDate**  
min 1

**gist:localTime**  
min 1

**gist:TimeInstant**

**gistPlace**  
gist7.1.1 place

Base URI : <http://ontologies.semanticarts.com/o/gistPlace>  
Version URI : <http://ontologies.semanticarts.com/o/gistPlace7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistPhysicalThing7.1.1>  
Location : [gistPhysicalThing7.1.1.owl](http://ontologies.semanticarts.com/o/gistPhysicalThing7.1.1.owl)

URI : <http://ontologies.semanticarts.com/o/gistMagnitude7.1.1>  
Location : [gistMagnitude7.1.1.owl](http://ontologies.semanticarts.com/o/gistMagnitude7.1.1.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**  
Range: integer  
For ordering ordered lists.

**gist:latitude**  
Domain: gist:GeoPoint Range: double

**gist:longitude**  
Domain: gist:GeoPoint Range: double

**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 contiguous 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**  
gist7.1.1 event

Base URI : <http://ontologies.semanticarts.com/o/gistEvent>  
Version URI : <http://ontologies.semanticarts.com/o/gistEvent7.1.1>

**Namespaces**

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

**Imports**

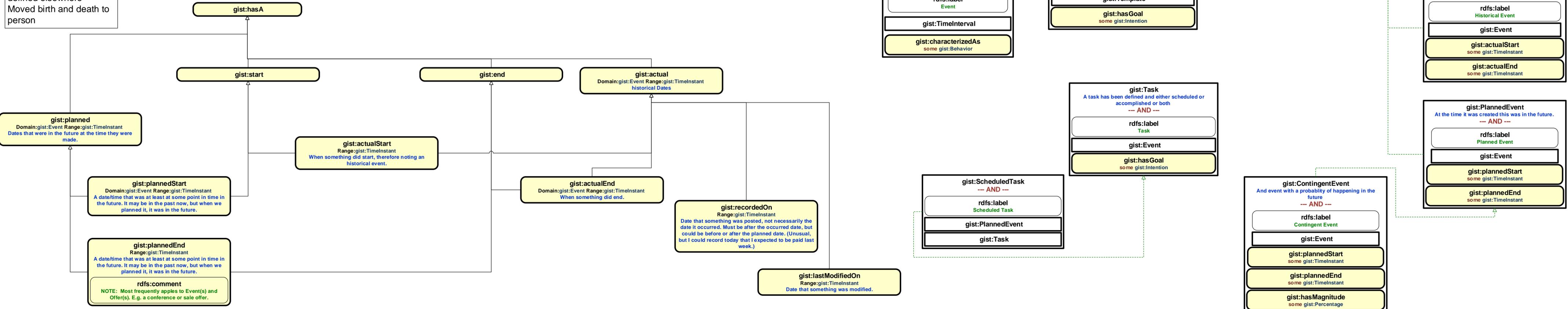
URI : <http://ontologies.semanticarts.com/o/gistTop7.1.1>  
Location : gistTop7.1.1.owl

URI : <http://ontologies.semanticarts.com/o/gistIntention7.1.1>  
Location : gistIntention7.1.1.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:characterizedAs**  
Domain: gist:Event Range: gist:Behavior  
The kind of Behavior that took place during an Event.

**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:hasDirectSubTask**  
(gist:directSubTaskOf)  
Domain: gist:Task Range: gist:Task

**gist:Behavior**  
Ways of categorizing events, e.g., differentiating drilling versus cutting.

rdfs:label  
Behavior

Subclass of  
**gist:Category**  
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: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

**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:actualEnd**  
Domain: 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:lastModifiedOn**  
Range: gist:TimeInstant  
Date that something was modified.

**gist:hasA**

**gist:start**

**gist:end**

**gist:actual**  
Domain: gist:Event Range: gist:TimeInstant  
historical Dates

**gist:planned**  
Domain: 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:plannedStart**  
Domain: 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: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.

### gistAddress

gist7.1.1 Address

Base URI : <http://ontologies.semanticarts.com/o/gistAddress>  
Version URI : <http://ontologies.semanticarts.com/o/gistAddress7.1.1>

#### Namespaces

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

#### Imports

URI : <http://ontologies.semanticarts.com/o/gistContent7.1.1>  
Location : <gistContent7.1.1.owl>

URI : <http://ontologies.semanticarts.com/o/gistPlace7.1.1>  
Location : <gistPlace7.1.1.owl>

### 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

### 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.

**gistPerson**  
gist7.1.1 Person

Base URI : <http://ontologies.semanticarts.com/o/gistPerson>  
Version URI : <http://ontologies.semanticarts.com/o/gistPerson7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistPhysicalThing7.1.1>  
Location : gistPhysicalThing7.1.1.owl

URI : <http://ontologies.semanticarts.com/o/gistAddress7.1.1>  
Location : gistAddress7.1.1.owl

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

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

**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

**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.



### gistPhysicalThing

gist7.1.1 PhysicalThing

Base URI : <http://ontologies.semanticarts.com/o/gistPhysicalThing>  
Version URI : <http://ontologies.semanticarts.com/o/gistPhysicalThing7.1.1>

#### Namespaces

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

#### Imports

URI : <http://ontologies.semanticarts.com/o/gistID7.1.1>  
Location : <gistID7.1.1.owl>

URI : <http://ontologies.semanticarts.com/o/gistMagnitude7.1.1>  
Location : <gistMagnitude7.1.1.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: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 amount of water, of penicillin, of sand

#### rdfs:comment

NOTE: This is the actual amount 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.

### 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

**gistID**  
gist7.1.1 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/gistTop7.1.1>  
Location : [gistTop7.1.1.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, organization, 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, organization, 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]**  
Range: 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**

gist7.1.1.org

Base URI : <http://ontologies.semanticarts.com/o/gistOrganization>  
 Version URI : <http://ontologies.semanticarts.com/o/gistOrganization7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistPerson7.1.1>  
 Location : [gistPerson7.1.1.owl](#)

URI : <http://ontologies.semanticarts.com/o/gistAddress7.1.1>  
 Location : [gistAddress7.1.1.owl](#)

URI : <http://ontologies.semanticarts.com/o/gistPlace7.1.1>  
 Location : [gistPlace7.1.1.owl](#)

**gist:GovernmentOrganization - gist:\_unitedNations**  
 if the united nations recognizes you as a country you are a country

**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**

**gist:governs**  
 (gist:governedBy)

*Domain*

--- OR ---

**gist:SocialBeing**

*Range*

--- OR ---

**gist:SocialBeing**

**gist:Place**

**gist:Category**  
*Category*

**gist:Content**

**gist:Agreement**

**gist:IntellectualProperty**

**gist:PhysicalThing**

**gist:hasJurisdiction**  
 (gist:presidedOverBy)  
 Domain: gist:SocialBeing

**gist:Organization**  
**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**  
 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.

**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**

gist7.1.1 content

Base URI : <http://ontologies.semanticarts.com/o/gistContent>  
 Version URI : <http://ontologies.semanticarts.com/o/gistContent7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistID7.1.1>  
 Location : <gistID7.1.1.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:containedText**  
 Range: string  
 Links to the string corresponding to Text

**gist:encryptedText**  
 Range: string  
 Links to the string corresponding to EncryptedText

**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: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**

**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

**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

**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 derivatives 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**  
 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**

## gistAgreement

gist7.1.1 agreement

Base URI : <http://ontologies.semanticarts.com/o/gistAgreement>  
Version URI : <http://ontologies.semanticarts.com/o/gistAgreement7.1.1>

### Namespaces

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

### Imports

URI : <http://ontologies.semanticarts.com/o/gistTime7.1.1>  
Location : <gistTime7.1.1.owl>

URI : <http://ontologies.semanticarts.com/o/gistCategory7.1.1>  
Location : <gistCategory7.1.1.owl>

URI : <http://ontologies.semanticarts.com/o/gistIntention7.1.1>  
Location : <gistIntention7.1.1.owl>

## gist:party

Range: gist:SocialBeing  
The people or organizations participating in an agreement or obligation

gist:giver

gist:getter

## gist:Category

### gist:DegreeOfCommitment

The degree of commitment is the difficulty of reversing a commitment. A car rental typically 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: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:ContingentObligation

An obligation that is not yet fully executed. There is some contingent event, the occurrence 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 obligations 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 unambiguous 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**

gist7.1.1 temporalRelation

Base URI : <http://ontologies.semanticarts.com/o/gistTemporalRelation>  
 Version URI : <http://ontologies.semanticarts.com/o/gistTemporalRelation7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistTime7.1.1>  
 Location : gistTime7.1.1.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**  
 gist7.1.1 Category

Base URI : <http://ontologies.semanticarts.com/o/gistCategory>  
 Version URI : <http://ontologies.semanticarts.com/o/gistCategory7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistContent7.1.1>  
 Location : [gistContent7.1.1.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

**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 hierarchy and we need a way to distinguish formal and informal taxos

**rdfs:label**  
 Taxonomy

**Subclass of**  
 gist:ControlledVocabulary

**gistIntention**  
gist 7.1.1 Intention

Base URI : <http://ontologies.semanticarts.com/o/gistIntention>  
Version URI : <http://ontologies.semanticarts.com/o/gistIntention7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistTop7.1.1>  
Location : gistTop7.1.1.owl

**gist:prevents**  
Domain:gist:Intention  
Range:gist:Behavior

**gist:allows**  
Domain:gist:Intention  
Range: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

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

**rdfs:label**  
Specification

Subclass of  
**gist:Requirement**

**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 than what is desired.

**rdfs:label**  
Intention

**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: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:Measure**  
gist 7.1.1 Measure

Base URI : <http://ontologies.semanticarts.com/gistMeasure>  
Version URI : <http://ontologies.semanticarts.com/gistMeasure7.1.1>

**Namespaces**

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

**Imports**

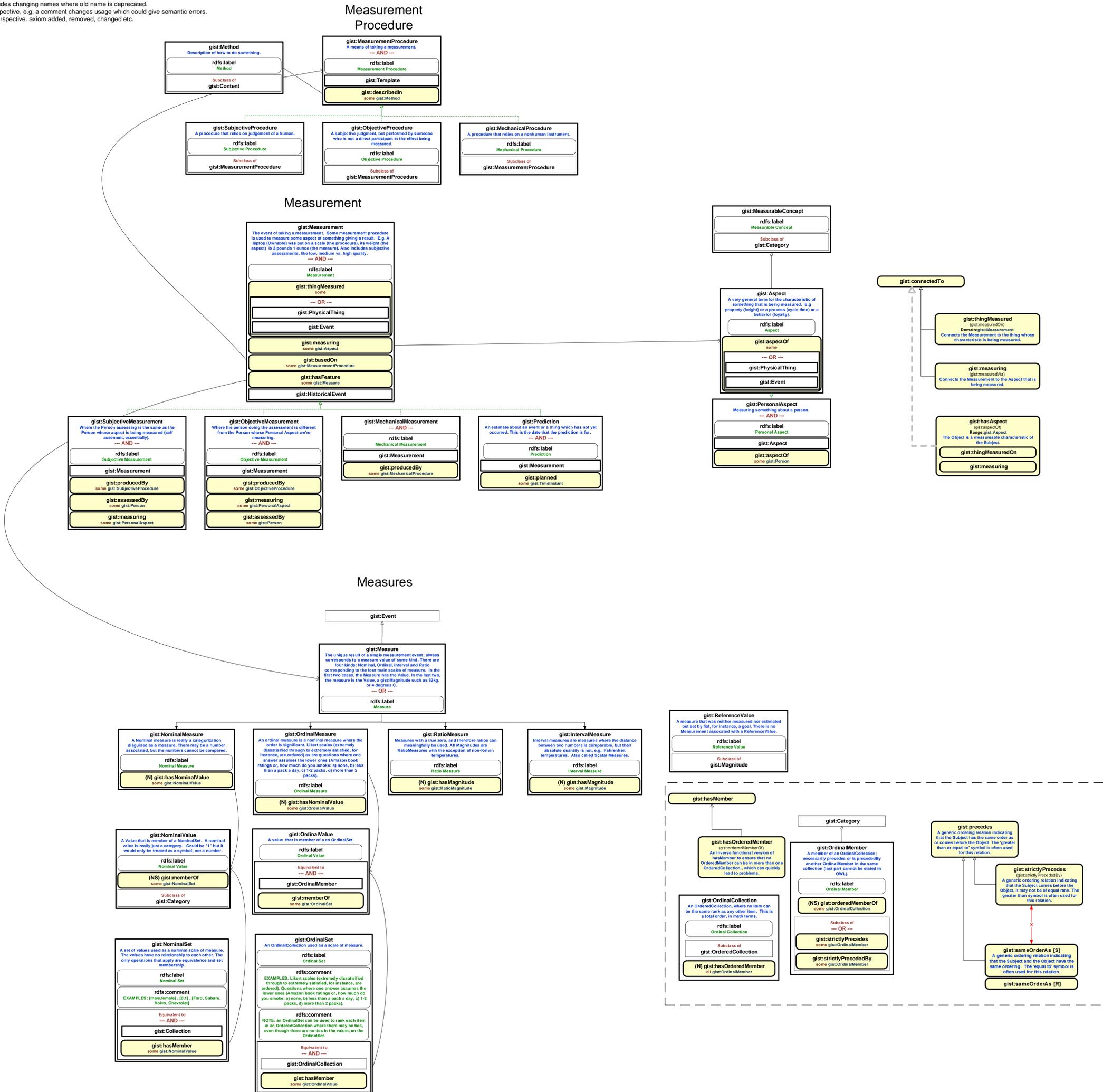
URI : <http://ontologies.semanticarts.com/gistEvent7.1.1>  
Location : gistEvent7.1.1.owl

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	St: (MFU) Now imports gist:Core6.3
1.2	8/19/2011	RF: (MFU) Renamed Substance to PhysicalSubstance.
1.2	10/21/2011	St: (DMc) now imports core6.4
1.2	10/21/2011	CL: (DMc) changed name from measures to measure
1.3	2/22/2012	CL: (DMc) moved instances example into new tab measure-exp
1.4	7/6/2012	St: (MU) Made aspectOf a subproperty of connectedTo
1.4	7/6/2012	St: (MU) Made aspectOf a property chain and tweaked comment
1.4	7/6/2012	St: (MU) Added restriction to Measurement using a new thingMeasured property
1.5	12/16/2012	Bl: (MU) Removed property: hasInSharedPart, use memberOf instead.
1.5	12/16/2012	St: (MU) Add label restriction to definitions of Nominal and OrdinalValue.
1.5	12/16/2012	St: (MU) NominalValue restriction linking to NominalSet is now N&S.
1.5	12/16/2012	Bl: (MU) OrderedMember replaces RankedPosition in the definition of OrdinalValue
1.5	12/16/2012	RF: (MU) OrdinalSet now defined in terms of OrdinalCollection, not OrdinalCollection 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	St: (MU) NominalSet no longer uses ExtensionalSet in definition.

1.67	3/18/2014	St: (MU) Removed gist:label, use rdfs:label instead.
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- 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. St: has semantic import from inference perspective. axiom added, removed, changed etc.
  5. Bl: Backwards incompatible



**gistCore**

gist7.1.1 Core this is meant to recreate the equivalent of gistCore6.7.1 (last non-modular version) by reassembling the pieces'

Base URI : <http://ontologies.semanticarts.com/o/gistCore>  
 Version URI : <http://ontologies.semanticarts.com/o/gistCore7.1.1>

**Namespaces**

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

**Imports**

URI : <http://ontologies.semanticarts.com/o/gistEvent7.1.1>  
 Location : [gistEvent7.1.1.owl](http://ontologies.semanticarts.com/o/gistEvent7.1.1)

URI : <http://ontologies.semanticarts.com/o/gistOrganization7.1.1>  
 Location : [gistOrganization.7.1.1.owl](http://ontologies.semanticarts.com/o/gistOrganization7.1.1)

URI : <http://ontologies.semanticarts.com/o/gistAgreement7.1.1>  
 Location : [gistAgreement7.1.1.owl](http://ontologies.semanticarts.com/o/gistAgreement7.1.1)

URI : <http://ontologies.semanticarts.com/o/gistTemporalRelation7.1.1>  
 Location : [gistTR.7.1.1.owl](http://ontologies.semanticarts.com/o/gistTemporalRelation7.1.1)

URI : <http://ontologies.semanticarts.com/o/gistCategory7.1.1>  
 Location : [gistCategory7.1.1.owl](http://ontologies.semanticarts.com/o/gistCategory7.1.1)

URI : <http://ontologies.semanticarts.com/o/gistMeasure7.1.1>  
 Location : [gistMeasure7.1.1.owl](http://ontologies.semanticarts.com/o/gistMeasure7.1.1)

