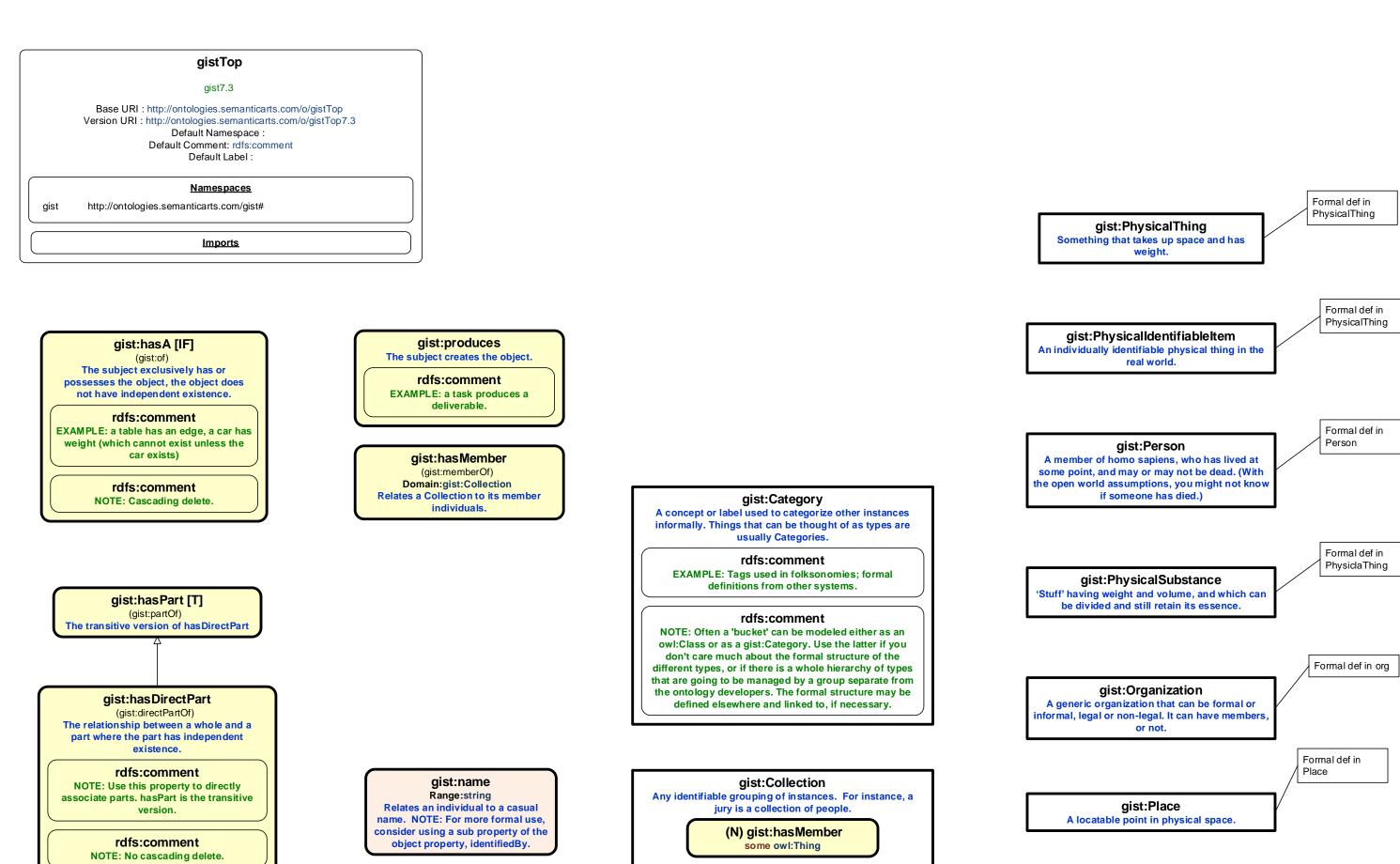


Author: mccomb@semanticarts.com Last Updated: 9/23/2016



rdfs:comment

EXAMPLES: A jury is a group of documents; a financial

ledger is a collection of transaction entries; a route is an

gist:Content

(Categories are not content until they are

Content

gist:Language

rdfs:label

Language

rdfs:comment

EXAMPLES: Natural languages such as English and Spanish; computer languages

such as OWL, Python, and XML.

gist:Intention

Goal, desire, aspiration. This is the

"teleologic" aspect of the system that indicates things are done with a purpose.

recognized, organized set of symbols an

written down.)

A document, program, image, etc.

(ordered) collection of segments.

gist:sequence
Range:integer
For ordering ordered lists

gist:OrderedCollection

sequence.

rdfs:label

Subclass of

gist:Collection

gist:IntellectualProperty

work, invention or concept, independer

of its being expressed in text, audio, video

tacit knowledge, know-how, or skill. Also

includes Brands.

rdfs:label

Intellectual Property

rdfs:comment

NOTE: For literature this could be call the 'Work', except that 'work' is a high

overloaded term (expenditure of energy

resource consumption, art). Often the

first expression precedes our

recognition of the IP, but subsequen

expressions are known to be derivative

of the IP, even if they are expression-toexpression translations (or copies).

rdfs:comment
EXAMPLES: 'The Old Man and The Sea';
the Page Rank algorithm; Coca Cola

image, or live performance. IP can also b

Ordered Collection

in	
	-
in	-
ning	-
	-
org	-
	-
	-
	l
	l
def in	-
def in	
def in Unit	
ef in Mag	

gist:TimeInstant

xsd:dateTime format in Universal Time.

A point on a time line. Time and dates are in

gist:TimeInterval

A specific interval on a timeline with start and

end TimeInstant instances and a Duration.

gist:UnitOfMeasure

ase class for units which can be converted. Th

primitive units can be converted from one

neasurement system to another; the complex

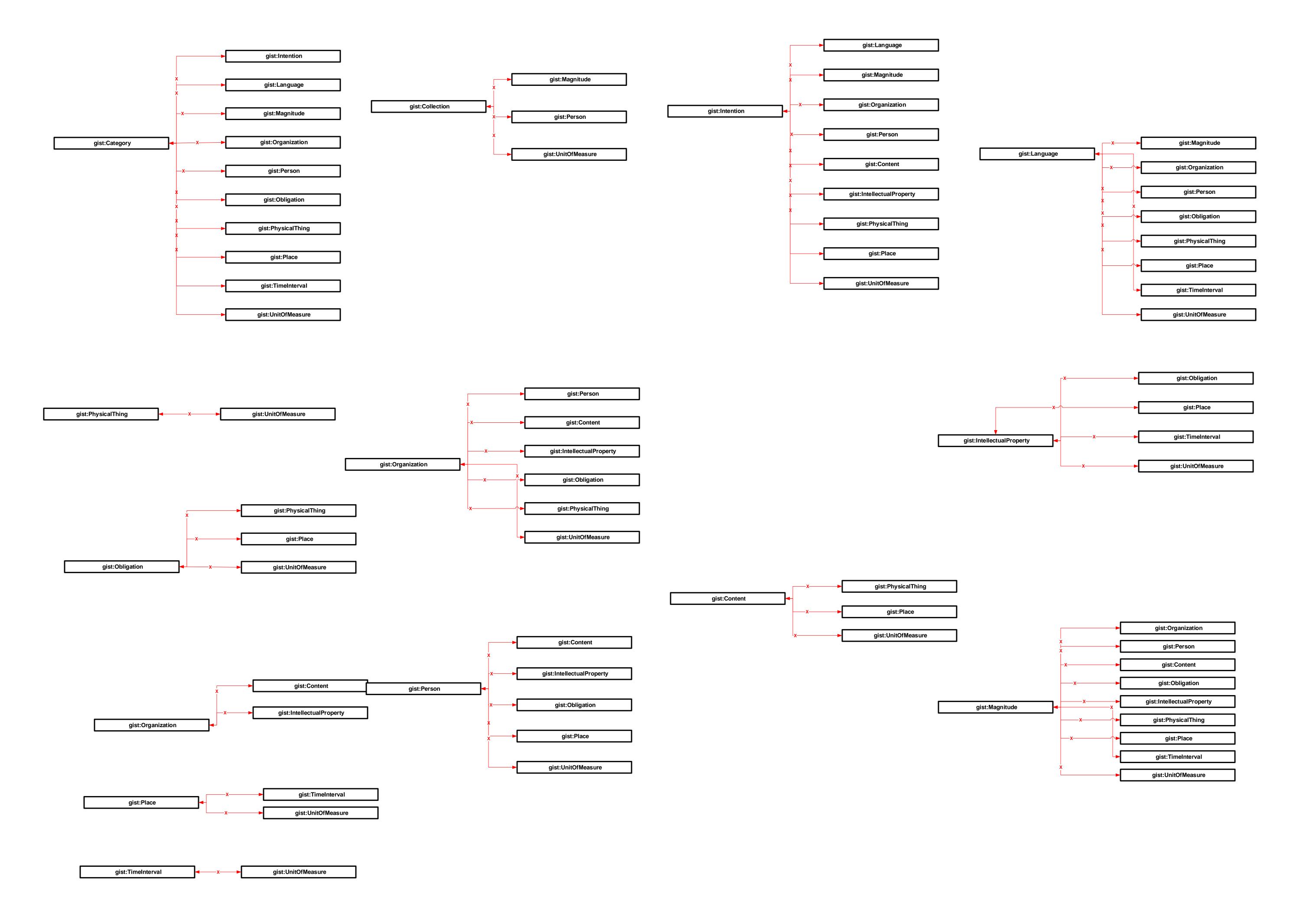
units (ratio or product) have to decompose to

their primitives.

gist:Magnitude

A scalar value which is either measured, estimated, or set as a reference value.

	Ç	legory Co	nection in	ention	TEN 386	denitude	^{રુ} જુઈ	son co	ntent P	0%	igation ph	ysical this	is in	nelntervi	it Of Measur
Category	eq		d	d	d	d	d			d	d	d	d	d	
Collection		eq			d		d							d	
ntention			eq	d	d	d	d	d	d		d	d		d	
_anguage				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	
Р									eq	d		d	d	d	
Obligation										eq	d	d		d	
PhysicalThing Physical Thing Physica											eq			d	
Place												eq	d	d	
ΓimeInterval													eq	d	
JnitOfMeasure														eq	



semantic arts

,

gist7.3 units of measure

Base URI: http://ontologies.semanticarts.com/o/gistUnit
Version URI: http://ontologies.semanticarts.com/o/gistUnit7.3

Default Namespace:

Default Comment: rdfs:comment

Default Label:

gist:convertToBase

Domain:gist:UnitOfMeasure

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

unit to another.

Degrees K = (Degrees F -

versionOffset to convert from one

ersionOffset) * convertToBase. Or

= (F-(-469.67)) * (5/9). To go the other

way: F = (K * 9/5) -469.67. Try it on

Google.

gist:conversionOffset

Domain:gist:UnitOfMeasure

this number to get to the zero poir

Range:double

On the Celsius scale, the

nversionOffset is -273.15 degrees

grees. Is equal to 0 when the unit has

same zero point as the base unit. e.g.

On the Fahrenheit scale it is -459.67

inch, meter.

e conversion factor used to get to the

Range:double

<u>Namespaces</u>

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

<u>Imports</u>

URI: http://ontologies.semanticarts.com/o/gistTop7.3 Location: gistTop7.3.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:numerator
Domain:gist:RatioUnit
Range:gist:UnitOfMeasure

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: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).

Units and Measures

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

gist:UnitOfMeasure rdfs:label Unit of Measure aist:ProductUnit gist:RatioUnit gist:SimpleUnitOfMeasure unit of measure that is the product of UnitOfMeasure composed of a numerato Each simple unit has a base unit and a two simpler ones. unit and a denominator unit. conversion factor to the base. The base --- AND ------ AND --are from the System International (SI). Th is the number by which one multiplies a rdfs:label rdfs:label Unit by to get to base, or divides by to ge Product Unit from base. So the convertToBase for inc Ratio Unit is 0.0254 to get you to the base (meter). --- AND --rdfs:comment rdfs:comment EXAMPLES: Area and Volume are the EXAMPLE: Miles per hour. rdfs:label classic cases. But other, more exotic Simple Unit Of Measure cases exist, such as Newtons. rdfs:comment NOTE: If needed, a conversion factor for a gist:convertToBase gist:UnitOfMeasure RatioUnit can be (recursively) derived from some double e conversion factors of the numerator an denominator units. E.g., the derived gist:multiplier nversion factor from km/minute to meters gist:hasBaseUnit some gist:UnitOfMeasure second is 1000/60 or 16 2/3. exactly 1 gist:BaseUnit gist:multiplicand gist:UnitOfMeasure some gist:UnitOfMeasure aist:numerator qist:convertToBase gist:BaseUnit some gist:UnitOfMeasure min 0 double gist:denominator

some gist:UnitOfMeasure

gist:DistanceUnit
unit to measure linear distance, such as

rdfs:label
Distance Unit

gist:SimpleUnitOfMeasure

feet or kilometers.

has gist:_meter

gist:hasBaseUnit

gist:DurationUnit
unit to measure passage of time: hours,
days, years.
--- AND ---

rdfs:label

gist:SimpleUnitOfMeasure

gist:hasBaseUnit

gist:nasBaseUnit
has gist:_second

gist:MassUnit
A unit representing the amount of matter in a particle or object. The SI unit of mass is the kilogram.
--- AND ---

rdfs:label Mass Unit

rdfs:comment

NOTE: Assuming an object is near the
Earth's surface, weight and mass may be
treated as equivalents.

gist:SimpleUnitOfMeasure

gist:hasBaseUnit has gist:_kilogram gist:TemperatureUnit
Unit of measurement for expressing
temperature. Per SI, the base of

temperature is in Kelvin, to allow for all units to be expressed relative to a real (in this case absolute) zero.

--- AND ---

rdfs:label
Temperature Unit

gist:SimpleUnitOfMeasure

gist:hasBaseUnit

gist:conversionOffset

gist:ElectricalCurrentUnit

Unit of electrical current, which is charge per unit time. The SI unit is the ampere.
(Note that electrical current is a composed unit.)
--- AND ---

rdfs:label Electrical Current Unit

gist:SimpleUnitOfMeasure

has gist:_ampere

gist:hasBaseUnit

gist:LuminousIntensityUnit

The measure of brightness. The SI unit is the candela.
--- AND ---

rdfs:label Luminous Intensity Unit

qist:SimpleUnitOfMeasure

gist:hasBaseUnit has gist:_candela

gist:MoleUnit

Amount of chemical material. Measured i

Avogadro units (moles) of 6.02 x 10^23

molecules.

--- AND ---

rdfs:label Mole Unit

gist:SimpleUnitOfMeasure

gist:hasBaseUnit has gist:_mole gist:CurrencyUnit
A unit of money. Note: this is the only unit
whose conversion factors include time
(i.e., the conversion rates change on a

--- AND --rdfs:label

Currency Unit

--- AND ---

gist:SimpleUnitOfMeasure

gist:hasBaseUnit

gist:CountingUnit
A unit of counting, especially 'each', but
also units such as dozens.

rdfs:label Counting Unit

gist:SimpleUnitOfMeasure

qist:hasBaseUnit

has gist:_each

gist:AreaUnit
A unit of two-dimensional area, such as square inches or hectares.
--- AND ---

gist:ProductUnit

rdfs:label

Area Unit

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

gist:multiplicand
some gist:DistanceUnit

gist:DataSizeUnit
A unit to measure amounts of digital information.
--- AND ---

rdfs:label Data Size Unit

gist:hasBaseUnit

gist:SimpleUnitOfMeasure

Square and cubic meters are no longer base units

gist:BaseUnit

A primitive unit that cannot be

gist:_meter

gist:_USDollar

gist:_bit

decomposed into other units. It can be converted from one measurement system to another. The base units in gist are the seven primitive units from the System Internationale (SI): (meter, second, kilogram, ampere, kelvin, mole candela), 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:_bit

--- ALL DIFFERENT --gist:_each

gist:_kilogram

gist:_kelvin

gist:_ampere

gist:_candela

gist:_mole

gist:_second

gist:_meter

gist:_USDollar

gist:convertToBase - 1.0 double gist:BaseUnit - gist:_kilogram -gist:hasBaseUnitgist:convertToBase - 1.0 double gist:BaseUnit - gist:_kelvin qist:convertToBase - 1.0 double gist:conversionOffset - 0 double gist:BaseUnit - gist:_ampere gist:convertToBase - 1.0 gist:hasBaseUnitdouble gist:BaseUnit - gist:_candela gist:convertToBase - 1.0 double gist:BaseUnit - gist:_mole gist:convertToBase - 1.0 -gist:hasBaseUnitdouble gist:BaseUnit - gist:_second gist:convertToBase - 1.0 double gist:BaseUnit - gist:_meter -gist:hasBaseUnitgist:convertToBase - 1.0 double

gist:BaseUnit - gist: USDollar

gist:convertToBase - 1.0 double

gist:BaseUnit - gist: bit

A bit (short for binary digit) is the

smallest unit of data in a computer. A bit

has a single binary value, either 0 or 1.

gist:convertToBase - 1.0 double

gist:BaseUnit - gist:_each

−gist:hasBaseUnit—

gist:_each

gist:_kilogram

gist: kelvin

gist:_ampere

gist:_candela

gist: mole

gist:_second

gist:_meter

gistMagnitude

gist7.3 magnitudes

Base URI: http://ontologies.semanticarts.com/o/gistMagnitude Version URI: http://ontologies.semanticarts.com/o/gistMagnitude7.3 Default Namespace:

Default Comment: rdfs:comment Default Label:

Namespaces

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

http://ontologies.semanticarts.com/o/gistUnit7.3 Location: gistUnit7.3.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:Count

A measure that involves countable amounts ('eaches' as well as cases, etc.). Can be decimal. --- AND ---

rdfs:label

Count

rdfs:comment

NOTE: Count is not disjoint with all the other magnitudes, as there are some magnitudes that could conceivably be counted.

gist:Magnitude

gist:hasUoM some gist:CountingUnit

gist:Magnitude

--- AND ---

rdfs:label Magnitude

rdfs:comment

NOTE: 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, so long as the dimension is the same.)

rdfs:comment

NOTE: Note the precision should be in the same type of unit as the magnitude.

gist:hasUoM

some gist:UnitOfMeasure

gist:hasPrecision

some gist:Magnitude

gist:of

some owl:Thing

gist:decimalValue

some double

gist:ProductMagnitude gist:hasUoM

gist:hasMagnitude

Range:gist:Magnitude

To have a comparable numerical value.

Each magnitude has a unit.

gist:decimalValue

Domain:gist:Magnitude

Range:double

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:RatioMagnitude

This is a number whose unit of measure is

a ratio.

--- AND ---

rdfs:label

Ratio Magnitude

rdfs:comment

NOTE: A RatioMagnitude just has one

decimal value.

rdfs:comment

EXAMPLE: Speed. The ratio magnitude is

60, the unit of measure might be

MilesPerHour.

gist:Magnitude

gist:hasUoM

some gist:RatioUnit

primitives. (E.g., Force = M*A). --- AND ---

gist:hasUoM some gist:ProductUnit

A magnitude expressed as a product of

rdfs:label

Product Magnitude

gist:Magnitude

gist:Duration

Time, but not on a timeline.

--- AND ---

rdfs:label

Duration

rdfs:comment

EXAMPLE: One week (or seven days), but not Jan 1, 2008 to Jan 7, 2008 (which is an interval). Intervals have durations, but are not themselves durations.

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

gist:Magnitude

gist:hasUoM

some gist:DistanceUnit

gist:Weight

Magnitude of mass. Assumes object is near the Earth's surface. Thus weight and mass may be treated as equivalents.

--- AND ---

rdfs:label

gist:Magnitude

gist:hasUoM

some gist:MassUnit

gist:InformationQuantity

An amount of data, such as 6 petabytes, or 640KB.

--- AND ---

rdfs:label Information Quantity

gist:Magnitude

gist:hasUoM

some gist:DataSizeUnit

gist:Area

A measurement of two-dimensional space.

--- 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

A special type of magnitude, due to the way rounding is handled in math and the temporal aspect of conversion.

--- AND ---

rdfs:label Monetary

gist:Magnitude

gist:decimalValue

some double

gist:hasUoM

some gist:CurrencyUnit

gist:Percentage

A ratio where the numerator and denominator are of the same unit of

rdfs:label Percentage

rdfs:comment

NOTE: there are various ways to represent percentage: 50/100 could be represented as '50' or '0.5'. gist uses the latter, as it involves fewer conversions for subsequent use

Subclass of

gist:RatioMagnitude

gist:Temperature

The degree or intensity of heat present in a substance or object, especially as expressed according to a comparative scale.

--- AND ---

rdfs:label

Temperature

gist:hasUoM

some gist:TemperatureUnit

gist:Magnitude

gist:ElectricCurrent

A flow of electric charge.

--- AND ---

rdfs:label

Electric Current

gist:hasUoM

some gist:ElectricalCurrentUnit

gist:Magnitude

gist:LuminousIntensity

A measure of the wavelength-weighted power emitted by a light source in a particular direction per unit solid angle. This is based on the luminosity function, a standardized model of the sensitivity of the human eye. --- AND ---

rdfs:label

Luminous Intensity

gist:Magnitude

gist:hasUoM

some gist:LuminousIntensityUnit

gist:MolarQuantity

Amount of a substance, as counted molecules.

--- AND ---

rdfs:label **Molar Quantity**

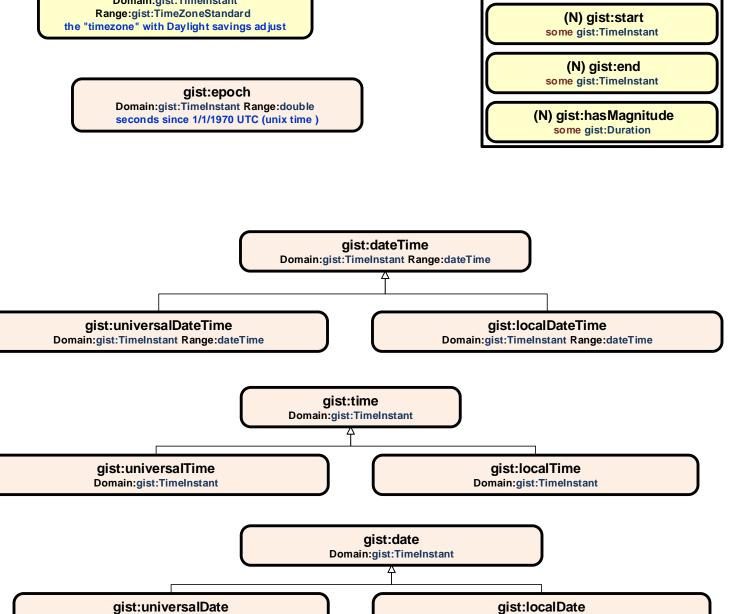
gist:Magnitude

gist:hasUoM

some gist:MoleUnit

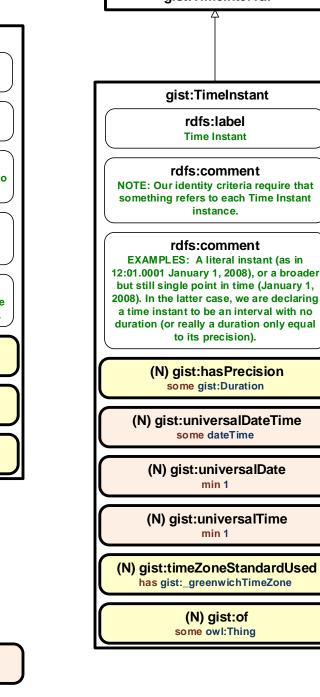
gistTime gist7.3 time Base URI: http://ontologies.semanticarts.com/o/gistTime Version URI: http://ontologies.semanticarts.com/o/gistTime7.3 Default Namespace: Default Comment: rdfs:comment Default Label: **Names paces** http://ontologies.semanticarts.com/gist# http://ontologies.semanticarts.com/o/gistMagnitude7.3 Location: gistMagnitude7.3.owl gist:timeZoneStandardUsed Domain:gist:TimeInstant Range:gist:TimeZoneStandard the "timezone" with Daylight savings adjust gist:epoch Domain:gist:TimeInstant Range:double seconds since 1/1/1970 UTC (unix time)

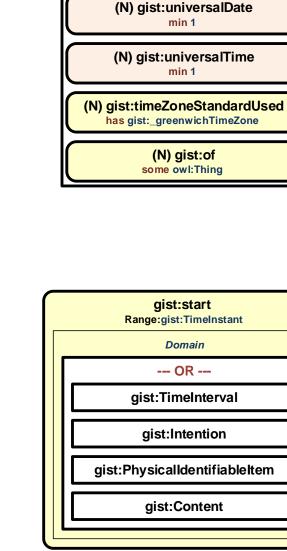
Domain:gist:TimeInstant





Domain:gist:TimeInstant





gist:TimeInterval

gist:TimeInstant

rdfs:label

Time Instant

rdfs:comment

instance.

rdfs:comment

to its precision).

(N) gist:hasPrecision

some gist:Duration

some dateTime

Time Zone Standard gist:LocalInstant A point in time expressed relative to a local some gist:TimeZone 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

gist:TimeZoneStandard gist:_greenwichTimeZone

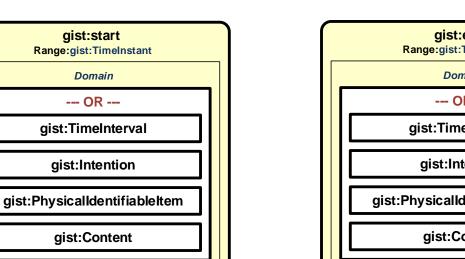
gist:TimeZoneStandard The algorithm for getting from Greenwich Mean Time to local time, which includes the time zone offset and rules about daylight savings time. --- AND ---

rdfs:label

gist:Specification

gist:basedOn

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



gist:end Range:gist:TimeInstant Domain --- OR --gist:TimeInterval gist:Intention gist:PhysicalIdentifiableItem gist:Content

gistPlace

gist7.3 place

Base URI: http://ontologies.semanticarts.com/o/gistPlace Version URI: http://ontologies.semanticarts.com/o/gistPlace7.3

Default Namespace: Default Comment: rdfs:comment Default Label:

Namespaces

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

http://ontologies.semanticarts.com/o/gistPhysicalThing7.3

Location: gistPhysicalThing7.3.owl

http://ontologies.semanticarts.com/o/gistMagnitude7.3

Location: gistMagnitude7.3.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: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

An individual point on the Earth's surface, identified by latitude, longitude and altitude. If altitude is missing, it is 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: Assume coordinate system used by Google (WGS 84 Web Mercator).

gist:GeoRegion

A bounded region (or set of regions) on the surface of the Earth.

--- AND ---

rdfs:label

Geo Region

gist:geoDirectlyContains

some gist:GeoPoint

gist:hasMagnitude

some gist:Area

rdfs:comment

EXAMPLES: The bounded shape that defines the region occupied by Crater Lake; the bounded area known as the contiguous USA.

rdfs:comment

NOTE: A GeoRegion has an area, but it is not itself an instance of the Area class. (Area in gist is a magnitude).

rdfs:comment

NOTE: A GeoRegion could be noncontiguous; 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

gist:TimeZone

A region that observes a uniform standard time for legal, commercial, and social purposes. A typical time zone averages 15° of longitude in width and typically observes a clock time one hour earlier than the zone immediately to the east.

> rdfs:label Time Zone

--- AND ---

gist:GeoRegion

gist:offsetToUniversal

some gist:Duration

gist:GeoSegment

A single portion of a GeoRegion which has been divided (i.e., segmented).

--- AND ---

rdfs:label

Geo Segment

gist:fromPlace

exactly 1 gist:GeoPoint

gist:toPlace

exactly 1 gist:GeoPoint

gist:GeoRoute

An ordered set of GeoPoints that defines a path from starting point to ending point.

--- AND ---

rdfs:label

Geo Route gist:OrderedCollection

gist:hasDirectPart

some gist:GeoSegment

gist:GeoVolume

A 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

gist:Place

--- OR --rdfs:label

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

gist:directPartOf

some gist:Building

gist:identifiedBy

some gist:ID

gist:Landmark

Something permanently attached to the Earth. --- AND ---

rdfs:label

Landmark

gist:PhysicalIdentifiableItem

gist:permanentGeoOccupies

--- OR ---

gist:GeoVolume

gist:GeoRegion

gist:Building

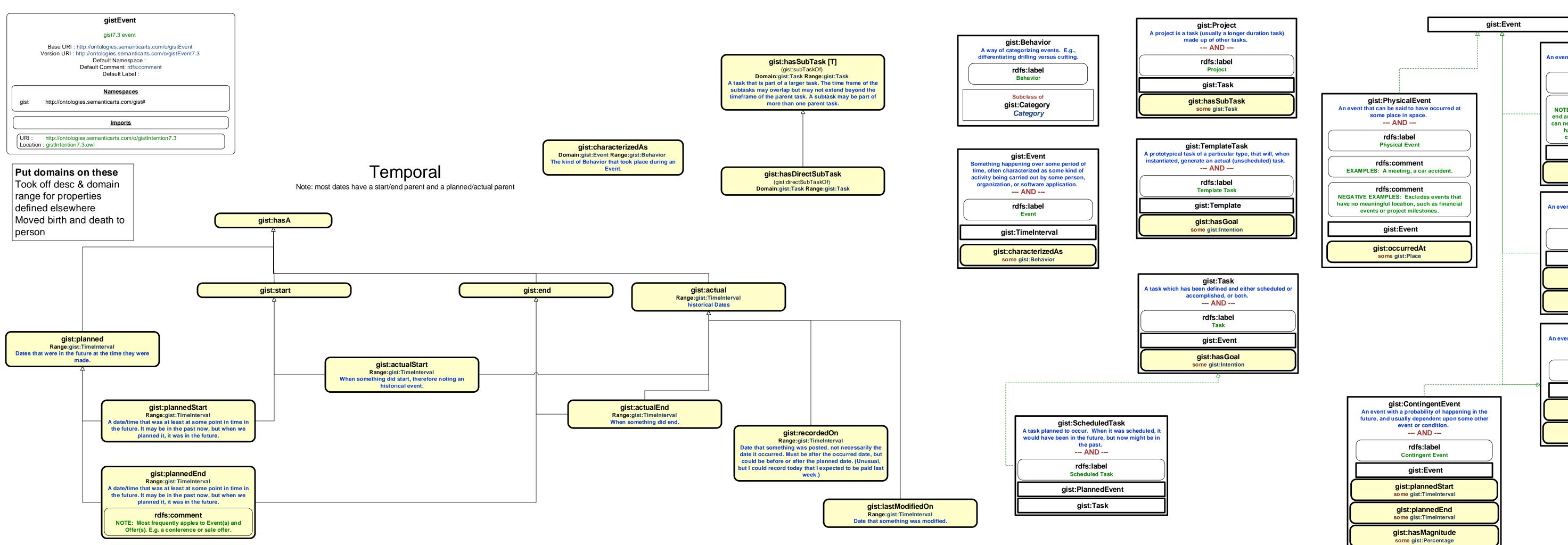
A man-made structure for dwelling or working.

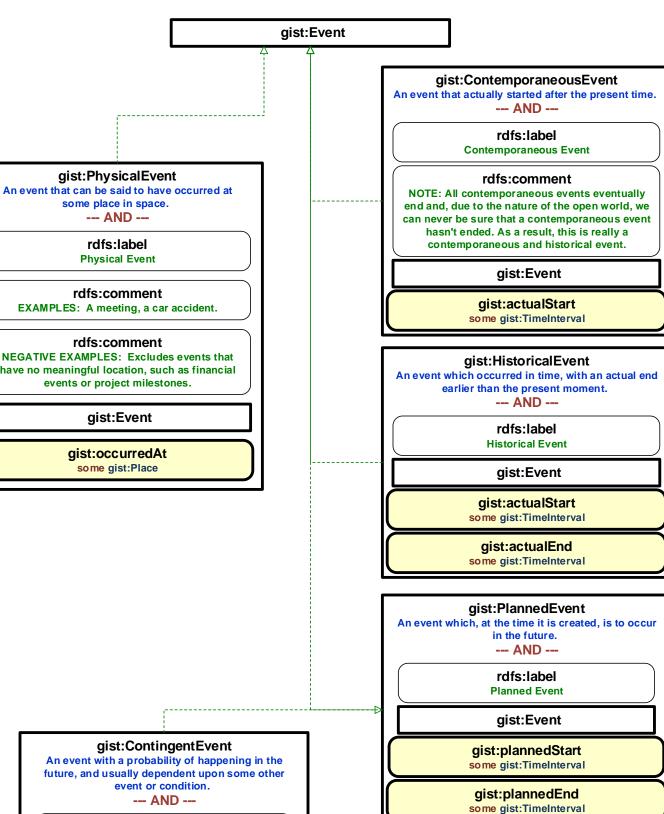
rdfs:label

Building

Subclass of

gist:Landmark





gistAddress

gist7.3 Address

Base URI: http://ontologies.semanticarts.com/o/gistAddress Version URI: http://ontologies.semanticarts.com/o/gistAddress7.3 Default Namespace:

Default Comment: rdfs:comment

Default Label:

Namespaces

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

Imports

URI: http://ontologies.semanticarts.com/o/gistContent7.3

Location: gistContent7.3.owl

URI: http://ontologies.semanticarts.com/o/gistPlace7.3

Location : gistPlace7.3.owl

gist:hasCommunicationAddress

(gist:communicationAddressOf)

Range:gist:Address

Points to a 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 physical mail.

rdfs:label

Postal Address

rdfs:comment

EXAMPLES: a street address, a PO Box, an FPO code, or the route codes.

Subclass of

gist:Address

(N) gist:communicationAddressOf

some gist:SocialBeing

gist:TelephoneNumber

A numeric code a telephonic device uses for contacting another telephonic device.

rdfs:label

Telephone Number

rdfs:comment

EXAMPLES: Mobile, fax, or landline phone number.

Subclass of

gist:Address

gist:communicationAddressOf

some gist:SocialBeing

gist:BuildingAddress

An address to which you can send mail, 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 an electronic message (email, fax, etc.) can be sent.

rdfs:label

Electronic Message Address

Subclass of

gist:Address

gist:communicationAddressOf

some gist:SocialBeing

gistPerson

gist7.3 Person

Base URI: http://ontologies.semanticarts.com/o/gistPerson Version URI: http://ontologies.semanticarts.com/o/gistPerson7.3 Default Namespace:

Default Comment: rdfs:comment

Default Label:

Names paces

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

Imports

URI: http://ontologies.semanticarts.com/o/gistPlace7.3

Location: gistPlace7.3.owl

URI: http://ontologies.semanticarts.com/o/gistAddress7.3

Location: gistAddress7.3.owl

gist:offspringOf

(gist:parentOf)

Domain:gist:LivingThing

Range:gist:LivingThing

gist:actualStart 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:LivingThing

Something that is now, or at some point in time was, alive and growing.

--- AND ---

rdfs:label

Living Thing

rdfs:comment

EXAMPLES: A cat, a mushroom, a tree.

rdfs:comment

NEGATIVE EXAMPLES: fictional life forms such as Unicorns or Mickey Mouse.

rdfs:comment

NOTE: In the open world, you must assume that it might have since died.

gist:PhysicalIdentifiableItem

gist:offspringOf

some gist:LivingThing

gist:hasBirthDate

some gist:TimeInstant

gist:Person

--- AND ---

rdfs:label

Person

rdfs:comment

NEGATIVE EXAMPLE: fictional characters.

gist:LivingThing

gist:name

some string

gist:offspringOf

some gist:Person

gistPhysicalThing

gist7.3 PhysicalThing

Base URI: http://ontologies.semanticarts.com/o/gistPhysicalThing Version URI: http://ontologies.semanticarts.com/o/gistPhysicalThing7.3

Default Namespace :
Default Comment: rdfs:comment
Default Label :

Namespaces

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

Imports

JRI: http://ontologies.semanticarts.com/o/gistID7.3

Location: gistID7.3.owl

JRI: http://ontologies.semanticarts.com/o/gistMagnitude7.3

Location: gistMagnitude7.3.owl

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:PhysicalThing

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:PhysicalIdentifiableItem

rdfs:label

Physical Identifiable Item

rdfs:comment

NOTE: You could, at least in principle, put an RFID tag on members of this class. Physical things are made of so mething. E.g., statues are made of bronze.

rdfs:comment

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

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

EXAMPLES: a computer, a book.

(N) gist:madeUpOf

some gist:PhysicalSubstance

(N) gist:identifiedBy

some gist:ID

gist:PhysicalSubstance

rdfs:label

Physical Substance

rdfs:comment

EXAMPLES: An amount of water, of penicillin, of sand, of gold.

rdfs:comment

NOTE: An instance of this class must be a physical thing, and not just a categorical description. Example: an actual piece of gold, not "gold" as a concept.

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

gist7.3 id

Base URI: http://ontologies.semanticarts.com/o/gistID
Version URI: http://ontologies.semanticarts.com/o/gistID7.3

Default Namespace : Default Comment: rdfs:comment Default Label :

Names paces

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

<u>Imports</u>

JRI: http://ontologies.semanticarts.com/o/gistTop7.3

Location: gistTop7.3.owl

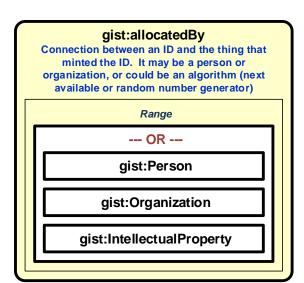
gist:identifiedBy [IF]

(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: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:ID **EXAMPLES: SSN for a person; serial number** for a product; employee ID. --- AND --rdfs:label ID rdfs:comment EXAMPLE: e.g. SSN for a person, serial number for a product, employee id gist:Content gist:allocatedBy --- OR --gist:Person gist:Organization gist:IntellectualProperty gist:uniqueText some string

gist:SocialBeing

A Person or an Organization.

rdfs:label

Social Being

rdfs:comment

NOTE: Includes anything than can be party to an Agreement (e.g. Contract). But not all SocialBeing(s) can be parties to all Agreement(s). For example, minors can be beneficiaries, but perhaps not primary signatories on contracts.

Equivalent to

--- OR ---

gist:Organization

gist:Person

gistOrganization

gist7.3 org

Base URI: http://ontologies.semanticarts.com/o/gistOrganization

Version URI: http://ontologies.semanticarts.com/o/gistOrganization7.3

Default Namespace:

Default Comment: rdfs:comment

Default Comment: rdfs:comment Default Label :

<u>Names paces</u>

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

Imports

URI: http://ontologies.semanticarts.com/o/gistPerson7.3

Location: gistPerson7.3.owl

URI: http://ontologies.semanticarts.com/o/gistAddress7.3

Location: gistAddress7.3.owl

URI: http://ontologies.semanticarts.com/o/gistPlace7.3

Location: gistPlace7.3.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)
The subject controls or inhibits the object in some

Domain

--- OR ---

gist:SocialBeing

gist:Intention

Range

--- OR ---

gist:SocialBeing

gist:Place

gist:Category

gist:Content

gist:Agreement

gist:IntellectualProperty

gist:PhysicalThing

gist:Organization

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

EXAMPLES: Legal entities like companies; non-legal entities like clubs, committees, or departments.

gist:GovernmentOrganization

An organization 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.

Differs from a corporation in that it cannot be owned.

--- AND ---

rdfs:label

Government Organization

rdfs:comment

EXAMPLES: The State of Washington
Office of Financial Management; the Food
and Drug Administration; the Scottish
Parliament.

gist:Organization

gist:recognizedBy

some gist:CountryGovernment

rdfs:comment

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

gist:CountryGovernment

The geopolitical body that runs a geopolitical region recognized as a

--- AND ---

rdfs:label

Country Government

gist:GovernmentOrganization

gist:directlyRecognizedBy

has gist:_unitedNations

gist:governs

some gist:GeoRegion

gist:Group

A collection of People. The group may or may not be an Organization. Many organizations consist of groups of people, but that is not a defining characteristic.

--- AND ---

rdfs:label Group

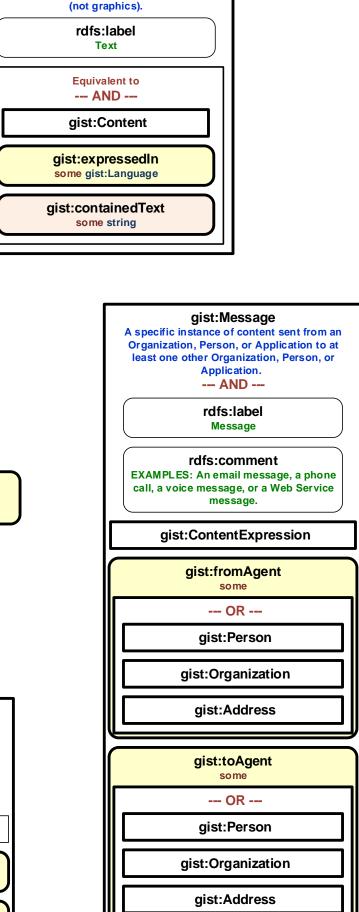
gist:Collection

gist:hasMember

some gist:Person

gistContent gist7.3 content Base URI: http://ontologies.semanticarts.com/o/gistContentContent expressed as words and numbers Version URI: http://ontologies.semanticarts.com/o/gistContent7.3 Default Namespace: Default Comment: rdfs:comment Default Label: <u>Namespaces</u> http://ontologies.semanticarts.com/gist# <u>Imports</u> http://ontologies.semanticarts.com/o/gistID7.3 Location: gistID7.3.owl gist:toAgent gist:fromAgent Range:gist:SocialBeing The source of a message or shipment Comment: this is not the inverse of from Agent. A message can be from someone. If we made it the Range inverse the person would be "to" the message --- OR ---Range gist:Address --- OR --gist:Address gist:Person gist:Person gist:Organization gist:Organization gist:expressedIn gist:basedOn pointer to the thing something was derived from gist:containedText Range:string gist:categorizedBy Links to the string corresponding gist:about Points to a taxonomy item or other less to Text (gist:describedIn) formally defined class. Domain:gist:Content Subject matter of a document. gist:encryptedText Range:string Links to the string corresponding gist:renderedOn to EncryptedText gist:ContentExpression gist:FormattedContent gist:RenderedContent Content which is in a particular format. Intellectual Property reduced to text, audio Content which has been expressed, either to (E.g., html, pdf, jpg.) etc. If it contains text (written or spoken), print, or through speakers, or on a monitor. --- AND --it may be in a language. --- AND --rdfs:label rdfs:label rdfs:label **Content Expression Formatted Content Rendered Content** Subclass of gist:ContentExpression gist:ContentExpression gist:Content gist:expressedIn gist:expressedIn (N) gist:expressedIn some gist:MimeType some gist:MimeType some gist:Language gist:renderedOn (N) gist:categorizedBy some gist:Medium

some gist:GeneralMediaType



gist:Text

gist:Template

Any of a large variety of pieces of content that can be used to generate other content.

--- 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 on which a work could be implemented or exposed. E.g., paper, clay, or a computer monitor.

rdfs:label

Medium

Subclass of

gist:Category

gist:GeneralMediaType

The real-world media type for content.

rdfs:label

General Media Type

rdfs:comment

EXAMPLE: audio, still image, video, textual, physical (e.g., a statue), or performance (i.e. a play). Or it could be oil or pastel for a painting.

Subclass of

gist:Category

gist:MimeType

A digitized type that computer applications can recognize.

> rdfs:label MIME Type

Subclass of gist:Category

gistAgreement

gist7.3 agreement

Base URI: http://ontologies.semanticarts.com/o/gistAgreement Version URI: http://ontologies.semanticarts.com/o/gistAgreement7.3 Default Namespace:

Default Comment: rdfs:comment Default Label:

<u>Namespaces</u>

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

http://ontologies.semanticarts.com/o/gistTime7.3

Location: gistTime7.3.owl

http://ontologies.semanticarts.com/o/gistCategory7.3

Location: gistCategory7.3.owl

http://ontologies.semanticarts.com/o/gistIntention7.3

Location: gistIntention7.3.owl

gist:party

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

gist:giver gist:getter

gist:DegreeOfCommitment

The difficulty of reversing a commitment.

rdfs:label

Degree Of Commitment

rdfs:comment

EXAMPLE: A car rental typically has a lower degree of commitment than an airfare reservation.

> Subclass of gist:Category

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 onger be contingent. In most cases it will be a ContingentEvent

gist:affects

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

An obligation (possibly unilateral). --- AND ---

Commitment

some gist:SocialBeing

gist:categorizedBy

--- OR ---

gist:Restriction

gist:Requirement

gist:ContingentObligation

An obligation that is not yet firm. There is

some contingent event, the occurrence of

which will cause the obligation to become firm

rdfs:label

Contingent Obligation

rdfs:comment

NOTE: A contingent obligation might

have a getter counterparty (as in the

case of insurance); but it might not (as

in the case of an offer).

Equivalent to

--- AND ---

gist:Commitment

gist:giver

some gist:SocialBeing

gist:triggeredBy

some gist:Event

gist:Commitment

rdfs:label

gist:giver

some gist:DegreeOfCommitment

gist:Obligation

gist:ContractTerm

A specification of some aspect of a 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

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

A future commitment from one organization or person to another. Contracts are sets of obligations to do or forebear, or to indemnify or warrant.

rdfs:label Obligation

rdfs:comment

NOTE: Obligations 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, given in a sufficient level of detail that a receiver could determine whether delivery constituted discharge of the 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

A 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 plus 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

An agreement having a balance, as in a bank account, or credit card account, or Accounts Receivable account.

--- AND ---

rdfs:label

Account

gist:Agreement

gist:hasMagnitude

some gist:Balance

gist:Balance

An amount decremented or incremented by a series of transactions.

--- AND ---

rdfs:label

Balance

gist:Magnitude

gist:affectedBy some gist:Transaction

gist:Transaction

An event which has an effect on at least one accumulator.

rdfs:label

Transaction

Subclass of

gist:Event

gistTemporalRelation

gist7.3 temporalRelation

Base URI: http://ontologies.semanticarts.com/o/gistTemporalRelation
Version URI: http://ontologies.semanticarts.com/o/gistTemporalRelation7.3

Default Namespace:

Default Comment: rdfs:comment

Default Label :

<u>Names paces</u>

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

<u>Imports</u>

URI: http://ontologies.semanticarts.com/o/gistTime7.3

Location : gistTime7.3.owl

gist:connectedTo

A non owning, non causal, nonsubordinate (ie. peer to peer) relationship.

gist:TimeInterval

gist:TemporalRelation

A relationship existing for a period of time.

rdfs:label

Temporal Relation

rdfs:comment

NOTE: A temporal relation must be gist:connectedTo a minimum of two objects. For example, a temporal relation representing a period of employment is connected both to the person and to the role/position they held.

rdfs:comment

EXAMPLES: employs-Employment, hasStreetAddress-EstablishedLocation. One important context for reifying a property.

(N) gist:start

some gist:TimeInstant

(N) gist:end

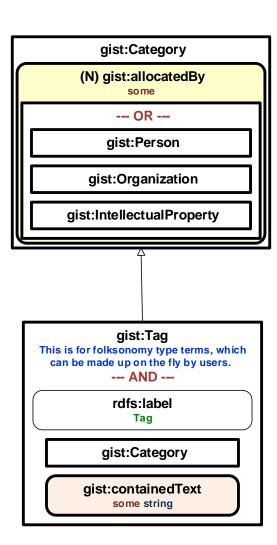
some gist:TimeInstant

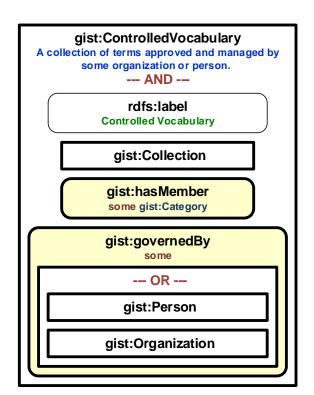
(N) gist:connectedTo

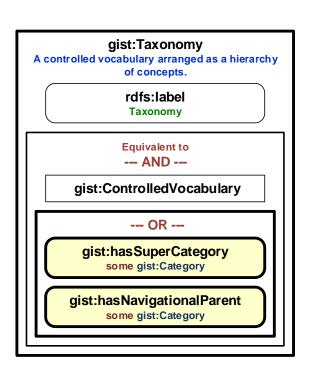
some owl:Thing

Gist Category 7.3

gistCategory gist7.3 Categoy Base URI: http://ontologies.semanticarts.com/o/gistCategory Version URI: http://ontologies.semanticarts.com/o/gistCategory7.3 Default Namespace: Default Comment: rdfs:comment Default Label: Names paces gist http://ontologies.semanticarts.com/gist# **Imports** http://ontologies.semanticarts.com/o/gistContent7.3 Location : gistContent7.3.owl gist:allocatedBy gist:hasPreferredTerm [F] (gist:preferredTermOf) gist:hasSuperCategory Range:gist:Text (gist:hasSubCategory) If there are many terms for a concept or specific Categories linked in this way are to instance, this is the one to use. represeent true sub types. The categories aren't subtypes but classes defined by a supercategory will be a superclass of one derrived from its sub gist:hasUniqueSuperCategory [F] Used for taxos that must have single parents gist:governedBy (gist:governs) gist:hasNavigationalParent (gist:hasNavigationalChild) Used for informal hierarchical taxonomies. Supports polyhierarchies gist:hasUniqueNavigationalParent [F] Used for taxos that must have single parents







gistIntention

gist 7.3 Intention

Base URI: http://ontologies.semanticarts.com/o/gistIntention Version URI: http://ontologies.semanticarts.com/o/gistIntention7.3

Default Namespace : Default Comment: rdfs:comment Default Label :

Namespaces

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

Imports

RI: http://ontologies.semanticarts.com/o/gistTop7.3

Location: gistTop7.3.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: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. Most laws are restrictions.

--- AND ---

rdfs:label

Restriction

gist:Intention

gist:prevents

some gist:Behavior

gist:Requirement

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

rdfs:label

Requirement

Subclass of

gist:Intention

gist:requires

some gist:Behavior

gist:Permission

A description of things one is permitted to do. This 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: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. One can tell whether it has been achieved, as opposed to an intention, which may not have an evaluation function.

rdfs:label

Goal

Subclass of

gist:Intention

gistMeasure

gist 7.3 Measure

Base URI: http://ontologies.semanticarts.com/o/gistMeasure Version URI: http://ontologies.semanticarts.com/o/gistMeasure7.3

Default Namespace: Default Comment: rdfs:comment Default Label:

<u>Namespaces</u>

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

<u>Imports</u>

http://ontologies.semanticarts.com/o/gistEvent7.3

Location : gistEvent7.3.owl

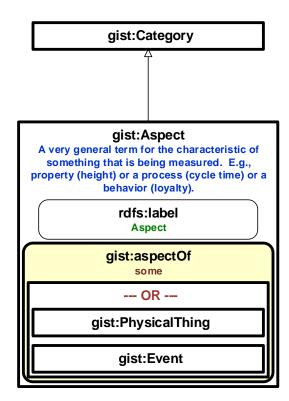
Measures

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:hasMember

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 Ordered Collection where no item can be of the same rank as any other item. In mathematical terms, this is a 'total order'.

rdfs:label

Ordinal Collection

Subclass of gist:OrderedCollection

(N) gist:hasOrderedMember

all gist:OrdinalMember

gist:Category

gist:OrdinalMember

A member of an Ordinal Collection. It necessarily precedes or is preceded by another Ordinal Member in the same collection. (This last condition cannot be formally 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: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.

gist:strictlyPrecedes

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]

gist:aspectOf

gistDimensionedUnits

gist7.3 dimensioned units of measure. This extension allows (and requires) you to have a conversion factor for all units with the same dimension. If you introduce MilesPerHour you will have to supply the conversion to MetersPerSecond (even though the system "knows" how to convert Miles to meters and hours to seconds. You will have to supply and additional conversion when you introduce KilometersPerHour. Any new combination of primtive rations requires a new Dimension. While this is a burden, it allows units to be converted in sparql

Base URI: http://ontologies.semanticarts.com/o/gistUnitDim Version URI: http://ontologies.semanticarts.com/o/gistUnitDim7.3 Default Namespace:

Default Comment: rdfs:comment Default Label:

<u>Namespaces</u>

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

<u>Imports</u>

http://ontologies.semanticarts.com/o/gistUnit7.3

Location: gistUnit7.3.owl

gist:UnitOfMeasure

(N) gist:convertToStandard

some double

(N) gist:hasStandardUnit

some gist:CoherentUnit

gist:CoherentUnit

A unit that is expressed in units that have no conversions. It may be a simple unit. It may also be a product or ratio unit that bottoms out in simple units.

--- OR ---

rdfs:comment

NOTE: coherent unit is the physics term for this, informally you might think of it as the standard unit for a given dimension.

rdfs:comment

NOTE: in principle, the CoherentUnit for a ProductUnit or RatioUnit can be inferred by recursively decomposing the products and ratios into their respective CoherentUnits, bottoming out in SimpleUnits

rdfs:comment

EXAMPLEs: a simple unit: kilogram

rdfs:comment

EXAMPLEs: the standard unit for acceleration is meters per square second (feet per square second requires a conversion)

gist:BaseUnit

gist:CoherentRatioUnit

gist:CoherentProductUnit

gist:RatioUnit

(N) gist:numerator

exactly 1 gist:UnitOfMeasure

(N) gist:denominator

exactly 1 gist:UnitOfMeasure

gist:CoherentRatioUnit

A ratio unit whos numerator and denominator reduce to 1

--- AND ---

gist:RatioUnit

gist:numerator

--- OR ---

gist:CoherentRatioUnit

gist:CoherentProductUnit

gist:BaseUnit

gist:denominator

--- OR ---

gist:CoherentRatioUnit

gist:CoherentProductUnit

gist:BaseUnit

gist:ProductUnit

(N) gist:multiplier

exactly 1 gist:UnitOfMeasure

(N) gist:multiplicand

exactly 1 gist:UnitOfMeasure

gist:CoherentProductUnit

A ratio unit whos numerator and denominator reduce to 1

--- AND ---

gist:ProductUnit

gist:multiplier

--- OR ---

gist:CoherentRatioUnit

gist:CoherentProductUnit

gist:BaseUnit

gist:multiplicand

--- OR ---

gist:CoherentRatioUnit

gist:CoherentProductUnit

gist:BaseUnit

gist:hasStandardUnit

Range:gist:CoherentUnit For a complex unit refers to a unit that has all the component parts in SI

gist:hasBaseUnit

gist:convertToStandard

Domain:gist:UnitOfMeasure Range:double

Note this kind of conversion will only work with temperatures if they are in Kelvin or Rankine (with a true 0). You multiple to get to the base, divide to go from the base. mph to mps is .44704. The multiple from kph to mps is .277778 . To convert 60 mph to kph is (60 * .44704 / .277778 or 96.56056 kph

gist:convertToBase

gistCore

gist7.3 Core

Base URI : http://ontologies.semanticarts.com/o/gistCore Version URI: http://ontologies.semanticarts.com/o/gistCore7.3 Default Namespace : Default Comment: rdfs:comment

Default Label:

<u>Namespaces</u>

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

<u>Imports</u>

http://ontologies.semanticarts.com/o/gistOrganization7.3

Location: gistOrganization.7.1.1.owl

http://ontologies.semanticarts.com/o/gistAgreement7.3

Location: gistAgreement7.3.owl

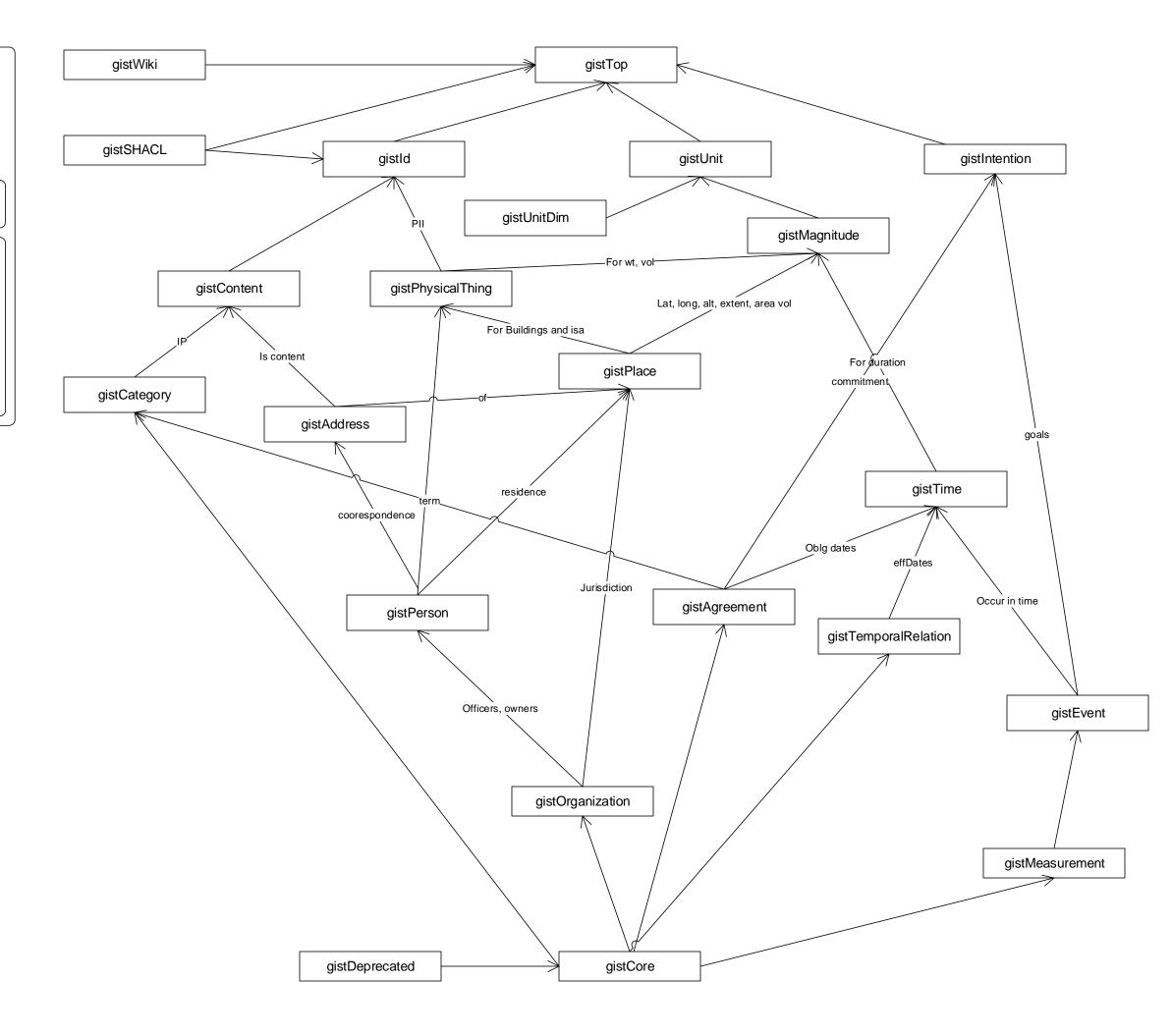
URI: http://ontologies.semanticarts.com/o/gistTemporalRelation7.3

Location: gistTemoralRelation.7.1.1.owl

URI : http://ontologies.semanticarts.com/o/gistCategory7.3 Location : gistCategory7.3.owl

URI: http://ontologies.semanticarts.com/o/gistMeasure7.3

Location: gistMeasure7.3.owl



gistDeprecated

Concepts that have been deprecated between the 7.2 and 7.3 release

Base URI: http://ontologies.semanticarts.com/o/gistDeprecated Version URI: http://ontologies.semanticarts.com/o/gistDeprecated7.3 Default Namespace:

Default Comment: rdfs:comment Default Label :

<u>Namespaces</u>

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

mports

URI: http://ontologies.semanticarts.com/o/gistCore7.3

Location : gistCore7.3

gist:GovernanceCommittee

A group empowered to maintain a controlled vocabulary

--- AND ---

rdfs:label

Governance Committee

gist:Group

gist:directPartOf

some gist:Organization

gist:governs

some gist:ControlledVocabulary

owl:deprecated

true

gist:Measure

The unique result of a single measurement event. It 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 latter two, the measure is the Value, a gist:Magnitude such as 82kg, or 4 degrees C.

rdfs:label

Measure

owl:deprecated

true

gist:MeasurableConcept

rdfs:label

Measurable Concept

Subclass of

gist:Category

owl:deprecated

gist:hasAspect

(gist:aspectOf)
Range:gist:Aspect

The Object is a measureable characteristic of the Subject.

owl:deprecated

true

gist:thingMeasuredOn

owl:deprecated

true

gist:measuring

owl:deprecated

true

gist:Luminance

Measure of light
--- AND ---

rdfs:label

Luminance

gist:Magnitude

gist:hasUoM

some gist:LuminescenceUnit

owl:deprecated

gist:LuminescenceUnit

Measure of brightness (candles).

--- AND ---

rdfs:label

Luminescence Unit

gist:SimpleUnitOfMeasure

gist:hasBaseUnit

has gist:candela

owl:deprecated

true

gist:BaseUnit - gist:each

owl:deprecated

true

gist:BaseUnit - gist:kilogram

owl:deprecated

true

gist:BaseUnit - gist:kelvin

owl:deprecated

true

gist:BaseUnit - gist:ampere

owl:deprecated

true

gist:BaseUnit - gist:candela

owl:deprecated

true

gist:BaseUnit - gist:mole

owl:deprecated

true

gist:BaseUnit - gist:second

owl:deprecated

true

gist:BaseUnit - gist:meter

owl:deprecated

true

gist:BaseUnit - gist:uSDollar

owl:deprecated

true

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

7.0	E/0/201E	ADI /DMs) (rightCot) Added Tog. with a contained Tout (whatever the vegs entered)
7.2	5/9/2015 5/9/2015	AD: (DMc) [gistCat] Added Tag, with a contained Text (whatever the user entered) AD: (DMc) [gistCat] Added with page with an appetation for plurals, and four kinds of topics in case we want to use this. Also povigational categories
7.2		AD: (DMc) [gistWiki] Added wiki page with an annotation for plurals, and four kinds of topics in case we want to use this. Also navigational categories AD: (DMc) [gistRDFShapes] Added RDFShapes page
7.2	5/9/2015 5/9/2015	, , , , , , , , , , , , , , , , , , , ,
7.2		RF: (DMc) [gistPlace]/[gistTop] Moved Ordered Collection to Top (needs a to have some precedence or sequence)
7.2	5/9/2015	RF: (DMc) [gistCore] removed redundant import from core to event
7.2	5/9/2015	CL: (DMc) [gistTop][gistCat] rationalized redundant comments
7.2	5/9/2015	CL: (DMc) [gistID] rationalized 2 ID boxes
7.2	5/9/2015	RF: (DMc) [gistCat] [gistContent] moved gist:categorizedBy from Cat to Content, where it is first introduced
7.2	5/9/2015	AD: (DMc) [gistCat] added restriction to Governance Committee
7.2	5/9/2015	RF: (DMc) [gistPlace] [gistTop] moved sequence from place to top
7.2	5/12/2015	AD: (DMc) [gistOrg] added Intention to the domain of governs
7.2	5/12/2015	RF: (DMc) [gistPerson] removed redundant name property
7.2	5/12/2015	SU/SI: (DMc) [gistGrfee] moved affects from Intention to Agree and changed defin of Balance to be affected By Trans not has DirectPart
7.2	5/12/2015	SU/SI: (DMc) [gistOrf] moved governs over from Government Org to Country Government
7.2	5/12/2015	SU/SI: (DMc) [gistID] removed the supproperty from unique text to contained text
7.2	5/12/2015	CL: (DMc) [gist:Org] added comment to governrs
7.2	5/12/2015	BI: (DMc) [gist:Mag] removed currencyValue (use decimalValue)
7.2	5/12/2015	SU/SI: (DMc) [gist:event] removed domain of Event from PlannedStart to make it consistent with PlannedEnd
7.2	6/12/2015	SU/SI: (DMc) [gist:event] removed domain of Event from all date properties
7.2	6/17/2015	SU/SI: (AE) [gistAddress] removed the domain (SocialBeing) from gist:hasCommunicationAddress
7.2	6/17/2015	SU/SI: (AE) [gistTime] expanded domain of gist:start and gist:end to include gist:Intention
7.2	6/17/2015	RF: (DMc Method, and all Procedures, EncryptedText (the class), most of the Measurements and hasOccuant to Deprecated onto
7.3	10/20/2015	AD: (DMc Category added in navigational subtyping and formal subtyping, and unique formal subtyping
7.3	10/20/2015	AD: (DMc ombined the redundant classes in gist Top, took SocialBeing out of the top and replaced the disjoint of SB with Org (this was probably a prior mistake)
7.3	10/20/2015	RF: (DMc moved SocialBeing down to ID (on the beginning of its way out.)
7.3	10/20/2015	RF: (DMc removed redundant imports
7.3	10/20/2015	AD: (DMc added Measurement back in (Measure was an event so I guess this is disruptive)
7.3	10/20/2015	BI: (DMc removed the property chain on aspectOf
7.3	10/20/2015	BI: (DMc total redo of Shacl)
7.3	10/20/2015	BI: (DMc deleted hasAspect (wasn't used)
7.3	10/20/2015	RF: (DMc remoed redundant Ordered Collection in gistPlace)
7.3	10/20/2015	RF: (DMc in some cases (Mag, PhyThing) I have taken the desc and formal defout of Top, because to bring it in introduces a bunch of stuff not at top level)
7.3	10/20/2015	BI: DMc removed MeasurableConcept
7.3	11/30/2015	AD: DMc added epoch to the Time stuff so we can do durations
7.3	12/23/2015	AD: DMc expanded the domain for start and end
7.3	12/23/2015	CL: DMc moved comments for primitives to top
7.3	1/14/2016	AD: DMc Added UoMDim an optional module to allow sparql unit conversion
7.3	1/14/2016	AD: DMc Also added bit to units and magnitude
7.3	1/20/2016	AD: DMc Made a bunch of comment changes inspired by Michaels wiki posts. Also changed range of allocated to be more explicit, but didn't change meaning.
7.3	1/20/2016	BI: DMc changed name of GovernanceCommittee to DataGovernanceCommittee
7.3	3/4/2016	BI: AE changed gist:Luminance to gist:LuminousIntensity, changed gist:LuminescenceUnit to gist:LuminousIntensityUnit.
7.3	3/25/2016	BI: DMc Made the range of toAgent and fromAgent a union that includes Address
7.3	3/30/2016	CL: MU Unit: Added comment to gist:bit
7.3	3/30/2016	CL: MU CoherentUnit: Added comment to gist:bit
7.3	3/30/2016	SI: MU Event: Changed range from TimeInstant to TimeInverval on gist:actual, and all subproperties of start and end.
7.3	3/30/2016	SI: MU Event: Changed range from TimeInstant to TimeInverval on gist:actual, and all subproperties of start and end.
7.3	3/31/2016	SI: MU Category: Bugfix, added allocatedBy restriction on Category
7.3	3/31/2016	SI: MU Magnitude: Typo: no such class as DataUnit; changed to DataSizeUnit in InformationQuantity restriction
7.3 Adde	7/8/2016 ed explanatory rdfs	SI: AE Temporal Relation: changed gist:connected to restriction on the gist:TemporalRelation Class - instead of "min 2" owl:Thing it is now "some" owl:Thing. :comment
7.3	9/12/2016	BI: AE Category: deleted gist:DataGovernanceCommittee class, formerly known as gist:GovernanceCommittee.
7.3	9/12/2016	SI: AE Category: added restriction to gist:ControlledVocabulary (gist:governedBy some Person or Organization)
7.3	9/12/2016	SI: AE Category: added the OR restriction to gist:Taxonomy (gist:hasSuperCategory OR gist:hasNavigationalParent some Category)
7.3	9/13/2016	BI/SI: AE Units: added a leading underscore to the URIs of the 8 gist base units
7.3	9/13/2016	CL: AE All: improved annotations on all Classes
7.3	9/23/2016	BI: AE Measure: re-removed Measure and Measurement