# **NT Names Documentation**

# **Table of contents**

1	Introduction	. 2
	1.1 Status	2
	2 Using NTN	
	2.1 Namespaces	
	2.2 Imports	
	2.3 Other Ontologies.	
	2.4 Instances	
	2.5 NTN Properties.	
	2.6 Practices	
	2.0 Flactices	/

## 1 Introduction

NTN (for New Testament Names) is a semantic knowledge base describing each named thing in the New Testament, about 600 names in all. Each named thing (an *entity*) is categorized according to its *class*, including God, Jesus, individual men and women, groups of people, and locations. These entities are related to each other by *properties* that interconnect the entities into a web of information, all represented in a standardized language with formal semantics, and shared on the Web with URI's for others to use and extend. A less technical <u>overview</u> is available, and you can download NTN from <u>this page</u>.

NTN is represented in <u>OWL</u>, the Ontology Web Language which is now a W3C recommendation. OWL in turn is built on RDF, and expressed in XML.

Brief descriptions of the classes and properties of the OWL ontology are incorporated into the ontology itself. This page provides more detailed technical documentation, as well as 'best practices' used in creating NTN.

## 1.1 Status

#### Warning:

As of 2006-11, this documentation is still an incomplete draft.

Current version: 2006-11-05

This documentation describes the 2006-11 version of NTN: see this page for additional information.

# 2 Using NTN

#### 2.1 Namespaces

The normative namespace for NTN resources is http://semanticbible.org/ns/2006/NTNames#. This includes both the ontology definition, and the individual instances. The preferred namespace prefix is ntnames.

Any major future versions will adopt a distinct (year-oriented) namespace to ensure the current version can be treated as stable.

# 2.2 Imports

Beginning with the 09/2005 release, NTN consists of two files: the ontology definition (NTNames.owl), and the instance data (NTN-individuals-nn.owl). The instance data therefore imports the ontology definition, using **owl:imports**. This separation is intended

to make the ontology reusable for other purposes. A combined version is also available for applications like <u>Longwell</u>: see <u>this page</u>.

# 2.3 Other Ontologies

An important benefit offered by Semantic Web efforts is the opportunity to re-use and extend existing ontologies, rather than starting each effort from scratch. However, it's still early enough in the Semantic Web era that there aren't a lot of appropriate ontologies (or appropriately-scoped ontologies) available for re-use.

In several cases, class and property names are compatible with other ontologies. The most notable examples are:

- The <u>Suggested Upper Merged Ontology</u> (SUMO) effort by the IEEE group
- Friend of a Friend (FOAF)
- The RELATIONSHIP vocabulary, which extends FOAF.

I've used relevant names (but in the NTN namespace) from these ontologies where possible in the hope of future synchronization, but at present they are not reused directly.

#### 2.4 Instances

#### FIXME (Sean):

Need to describe when are instances created, and why.

I've attempted to cover all named things in the New Testament text as completely as possible: special thanks go to Stephen Smith of Good News Publishers/Crossway Books for his help in this. At the same time, once one begins to specify relationships, it quickly becomes clear that the endpoints of those relationships, while perhaps known to readers of the New Testament through other sources, may not actually be named within it. For example, many wives, siblings, and children of King David are listed in the Old Testament: of these, only his wife Bathsheba, and his sons Solomon and Nathan are mentioned by name in the New Testament. I have not extended the coverage of NTN to include these individuals, simply to keep the effort managable.

#### 2.4.1 Identifiers

Identifiers are intended to be as human readable as possible, while meeting the specifications required of valid Uniform Resource Identifiers (URIs). For people, the commonest form by which they are known is used: for example, "Jesus" or "Paul" (qualified by the NTN namespace). When different entities share the same name, more complex identifiers are

required to distinguish them. As much as possible, these are constructed along the following principles:

- Any established conventional descriptions like "JohnTheBaptist" are used first.
- If they are primarily known by their family relationships (this includes many individuals named in the genealogies of Jesus in Matthew and Luke), the father's name is appended, e.g. "AbijahSonOfRehoboam"
- Other suffixes are used when necessary, based on descriptions in the text: e.g. "AlexanderTheCoppersmith", "AlexanderOfEphesus", "AlexanderOfTheSanhedrin".

When identifiers are derived from multiple words, each individual word's first letter is capitalized to enhance readability.

# 2.5 NTN Properties

## 2.5.1 Name properties

#### Warning:

This section describes the *intended* use of name properties, but it is not yet implemented. At present, only rdfs:label is used, with xml:lang attribute of en, and resources with varying names have multiple rdfs:label properties to reflect that. Resources with different URIs therefore wind up with non-distinct rdfs:label properties.

There are several rationales for the (as yet unimplemented) approach below: **rdfs:label** should really be a readable representation of the *identifier*, not the textual mentions, to enhance the usability of display tools. Only one of these is required, whereas there can be several different name forms used in texts. Similarly, the textual mentions really need to be more directly tied to the language of the text (and even the particular translation).

- rdfs:label provides a single human-readable representation of the resource, usually closely related to its identifier. It will typically be the most common name\_en value, though there is no assertion that this is authoritative. For individuals with multiple name variants, they are not repeated here: name\_en exists for this purpose.
- name\_en indicates the form(s) in which the name occurs in the English New Testament (using the <u>ESV</u> text as the standard of reference). When the same named object is referred to in various ways (e.g. Peter, Simon Peter, Simeon, Cephas), there will be a single instance, with one name\_en property for each name. Though owl:sameAs could be used in such cases, it becomes difficult to decide which instance should have which properties, and to maintain this over time.

It is commonly the case that multiple individual share their names (e.g. Mary the mother of Jesus and Mary the mother of John Mark both have name\_en of "Mary"). These are distinguished, of course, as different instances with different URIs, though their name\_en values may overlap.

- When other descriptive terms are sometimes used as name indicators (e.g. Dionysius the Aeropagite), both variants are provided as name\_en attributes.
- name\_gk indicates the uninflected Greek form(s) in which the name occurs in the Nestle-Aland Greek New Testament, ?? version.
- rdfs:label provides a single human-readable representation of the resource. It will typically be the most common name\_en value, though there is no assertion that this is authoritative. For individuals with multiple name variants, they are not repeated here: name\_en exists for this purpose.

#### 2.5.2 Attributes of Humans

- **description**: a brief description of the most salient aspects of a Human. This property is not used in cases where no relevant information is available from the text.
- occupation: the primary role or activity of an individual. The notion of occupation here is somewhat less formal than our contemporary one, including cases like "tentmaker" and "governor of Judea" but also broader roles like "apostle" and "prophet".
- PreligiousBelief: the dominant values are Christianity, Judaism, and specific Jewish sects like Phariseeism. Since all twelve of Jesus' apostles and the vast majority of the early church came from a Jewish background, nearly all those mentioned as contemporaries living in Palestine could be considered to have Judaism as a religiousBelief at some point in their life. I have elected therefore to generally record only those beliefs which are specifically mentioned. That means for those who clearly became Christians (including those greeted or sending greetings in Paul's epistles), only Christianity is recorded as a religiousBelief. However, several individuals are described in both a specifically Jewish context (Paul, Apollos) and a later Christian one: for these, both values are provided. It is not generally assumed that all residents of Israel (in Old or New Testament narratives) subscribe to Judaism as a religious belief, unless there is some evidence as to their religious context. Those Paul traveled with or greeted in his letters are generally assumed to be Christians.
- ethnicity The attribute of belonging to a particular ethnic group, or originating from a GeographicArea. Unlike Residency, which can change, Ethnicity is considered permanent. This attribute is particularly difficult to assess for individuals prior to the New Testament period for which there is little or no additional information. However, Jewish ethnicity is assumed of all the ancestors of Jesus back to Abraham in both Matthew and Luke's genealogies. It cannot be inferred that someone of Jewish ethnicity was born in Israel: Paul, for example, was born of Jewish parents in Tarsus, a Roman city. However, people with Jewish ethnicity are assumed to hold the religiousBelief of Judaism unless there are indications to the contrary.
- politicalBelief

# 2.5.3 Properties relating Humans and Humans

#### 2.5.3.1 Familial Properties

- parentOf, childOf
- spouseOf
- **siblingOf:** includes siblings with only a single common parent (e.g. half brothers and sisters).
- **relativeOf:** In several places, Paul used the phrase "my kinsman": this is assumed to mean something general like fellow Jews, or those from the same geographic area, not literal family relationships.

# 2.5.3.2 Other Personal Relationship Properties

- **knows:** Similar to the <u>foaf:knows</u> property, knows indicates "some level of reciprocated interaction between the parties". It does not mean mere knowledge at a distance: plenty of his contemporaries would have seen or heard of John the Baptist or Jesus, without *knowing* them in this sense. This relationship is symmetric: if I know you, you also know me. Paul is assumed to have known those to whom he sent greetings, though in some cases it may have only been through reputation. Though it's reasonable to assume those Paul greeted in his letters would also have known each other, these relationships are not currently recorded: this should probably be fixed. Those who collaborated are assumed to have also known each other. I have not attempted to itemize the many possible relationships implied by Luke's use of "we" in extensive portions of Acts. Those who are related to an individual are assumed to also know them (without explicitly adding this property).
- collaboratesWith: Similar to the rel:collaboratesWith property, this describes working towards a common goal. As applied in NTN, those who work together in ministry (the 12 disciples with Jesus, and many of Paul's colleagues, including those who traveled with him for ministry) have a collaboratesWith relationship. Those described only as "workers in the Lord" or similar language in the churches Paul wrote to are not assumed to be collaborators except where described as a "fellow worker". It is not used generally to describe the relationship between all Christians, since that would tend to make its usage vacuous.
- antagonistOf/hasAntagonist: Similar to the <u>rel:antagonistOf</u> property, this describes "a person who opposes and contends against this person." hasAntagonist is the inverse relationship.
- **enemyOf/hasEnemy**: Similar to the <u>rel:enemyOf</u> property, this describes "a person towards whom this person feels hatred, intends injury to, or opposes the interests of." As applied within NTN, antagonism is typically only expressed verbally, whereas the

stronger enemyOf relationship involves threats or actual injury and abuse. hasEnemy is the inverse relationship.

## 2.5.4 Properties relating Humans and Locations

As with other properties, while there are many instances where an individual is described a visiting a certain town or having a certain place of origen, there are many gaps in our knowledge. Except as noted below, my practice has been to err on the side of conservatism and not speculate about locations that are not made explicit or that are necessarily implied.

- **visitedPlace** is the weakest relationship, and describes places someone is recorded as visiting, even if only briefly. One's nativePlace or a residentPlace are, by implication, also places where one has visited.
- **residentPlace** describes those who live for more than a brief duration in a place. This includes imprisonments of more than a few days. When Paul greets Christians who live in place that he is addressing with a general letter (e.g. Romans or Corinthians), those he addresses are assumed to be residing there. Events and descriptions that normally require residence in a place are assigned this property: for example, Epaenatus is described by Paul in Romans 16.5 as "the first convert in Asia", which means he must have been resident in Asia then (though at the time Romans was written, he was clearly resident in Rome).
- **nativePlace** is used when the text explicitly describes someone's place or origin. When it is part of their description (e.g. Simon of Cyrene), usually nativePlace is assigned, though a residentPlace is sometimes also possible.

## 2.6 Practices

#### 2.6.1 Identification

There are numerous places where scholars disagree as to whether two different names identify the same person (e.g. Alphaeus and Clopas), or whether the same name identifies two (or more) people (e.g. Mary, a common name in New Testament times). I have generally treated the ISBE as the most authoritative source, but been conservative if significant doubt exists. In such cases, comments are used to indicate other possibilities.