VCoI Call Notes

*15 Feb 2021*

# Attendees

* Claude Baudoin
* Rob Nehmer
* Stephen Powley
* Mike Bennett
* Bobbin Teegarden
* Cory Casanave MDS

# Agenda

* Wishlist
* Reference RFIs
* Qualifiers – Cory presentation

# Meeting Notes

## Reference Documents

* DSSID RFI – metadata capture
* LETS RFP – check what we needed for that and what we did
  + See also Interoperability RFI
  + Format from FIBO
    - Copied from / used SBVR
* New Smart Contracts RFI

#### LETS RFP

This uses an SBVR-derived format. Features:

* Not a table as such
* No synonym
* Includes special format for words in a definition that are themselves terms defined in that glossary

Note in a more complete SBVR resource, more (most) of the words in the definitions would be hyperlinks to other terms in that resource.

What I did in this one was specifically and only include as styled words or terms, those terms that are in the same table of terms and definitions.

#### Comments:

These are what Stephen meant by ‘parenthetical references’. Whether strictly hyperlinks or not.

It is possible to also include as styled words, terms in other standards and / or in other external resources.

If we did use hyperlinks there is a question about scope.

VCoI idea is that we have a maintained terminology resource for the whole TF or SIG but also sue parts of that in individual documents.

That would address the scoping question – if the terms were styled, they would cover the scope of the TF or SIG, not just the document.

* Raises questions for documents.

Another question for documents, if we did so that (or if we did in the wiki for the SIG itself), we could make these hyperlinks (whether SBVR-inspired or not).

There are other questions for if we went down that road, in terms of maintenance process and overheads e.g. maintainers / gardeners as seen in Wikipedia.

## Qualifiers

To Cory screen.

Slide deck ‘Qualifying the meaning of Properties’

#### MB - Some Notes during the Presentation

Focus on the semantics and meta-relationships between properties. This is largely lacking in other efforts.

Sometimes these are derived.

Sometimes different subjects but otherwise the same property (or seemingly so)

Common semantic to uncover.

Most ontologies don’t have any connection between these levels of attribute – al primitive.

Has called out timeline as a specific kind of qualifier for these

* Comparable to WWWWW of ‘Context’ (see VCoI)

Could do sub-properties or restrictions but these are generally either

* Insufficient
* Overly constraining

Wants to find the fundamental property concepts

Each of the matters in the property definition themselves link to other concepts (classes, properties and the rest).

Want definition of the business not definition of the data.

Context:

* Loan – quantifies Unpaid Balance
* Time – Loan Modification: balance AFTER the modification event
  + It is a value at a particular time
  + Qualification is temporal
  + Timeframe (in this case) references some specific Event
* There are also non timeframe specific concepts (can occur any time)
  + Be able to say when not temporally qualified

So Time is a Qualifier

Other more open kinds of Qualifier also exist

* Some are enterprise-specific

e.g. Net v Actual, Factored v Unfactored

Need to be able to define a set of qualifiers

* Open set
* May be something available specifically in the model
* Or may be more general
  + What to do about those?

These all define meta-relationships between the specific attribute, the base business concepts, and the things that qualify it.

These Qualifiers are:

* Groupable
  + e.g. Actual / Projected / Schedule
* Factored / Unfactored
* Aggregated / not aggregated

Also may have Defaults

See table of Relationships

Missing in typical semantic models

### Comments

MB: Use this as a framework for how to create object properties, since the detail doesn’t go in the OWL notation. Would also determine when to define a new sub property and when to use a restriction (e.g. context is the owning class)

SB: Why was this specific base property chosen and not ‘balance’ which is even more base level.

CC: agree this could go up a layer.

Need migration path for these.

Unpaid Principal Balance is itself qualified – that could be highlighted in the reference for that term.

MB: use our VCoI Context treatment – the base term for a given document might not be the base term for the overall TF or industry.

Data Dictionary context is the data. So these higher level abstractions would not be in scope for a DD.

Some DDs might include more abstract terms (maybe because they are trying to do the whole job).

Allow for qualifications that are less direct.

Total is not a sub property but a derived property.

Mathematical expressions belong in the conceptual model even if not expressible in DL or OWL.

Business Concept domain should include these.

We need something that talks about the maths, while not in OWL.

SB: observation – a lot of the qualifiers seem to be stateful properties.

In UFO these are ‘phase’ fundamental property. So that is available in the TLO.

e.g. Unpaid is a Phase.

CC: This is a phase in the CCM model we are using.

### What’s needed

Events – occurrent thing

Do a TLO of Phase and Status

And the relation to Event

Also understand the temporal nature of the thing being defined

e.g. Balance is (by definition) a Time Series.

What the Time context does is slice one value in that time series. It is the intersection of the time of the occurrent and the set of values in the time series.

One of the things to do to qualify properties is to have a good ontological representation of the thing that are the domains of these properties. E.g. temporality. Also actors, parties, places etc. (the Ws).

### Variation Across Communities / Industries / Subject Matter

Rob: insight as to whether, given this is a specific speech community – if you go into another sub discipline e.g. chemical processing facility management (e.g. a cracking facility), will some of these dimensions be common across many of these, will others be more unique to e.g. finance. Is this a crystallization of how a given Speech Community has come up with how to deal with these issues?

CC: Healthcare – similar patterns exist for timeseries values. Different qualifiers of course.

e.g. actual v projected v scheduled thing is generic.

May be some domain specific, some reusable.

e.g. ‘As-builts’ in system engineering

CB: Industry engineering: as designed, as installed, as built, as deployed, as maintained.

= phases again

Also in digital twins and IoT.

CB: Also Units of Measure are fundamental.

Depth of a Well – not a unique concept.

Likewise locations.

CC: Healthcare (BP etc.)

## AoB

BT see comments in chat [appended at the end of this document]

These slides – can we put them in wiki? Yes - in private space.

MB to upload copies of the relevant RFI / RFP documents we are working from, to the wiki.

## Next Meeting

22 Feb

Agenda:

* Decide what is presented to whom
  + Gov DTF (15 min)
* Continue with the wishlist
  + Including how to represent the Qualifier stuff
    - As with definitions, there was information we needed to capture that wasn’t visible in the end product, so we had a wishlist for that. Do the same for what we needed to know in order to derive the property hierarchy, naming (qualified names), use of restrictions etc.

# Chat Log

**Bobbin Teegarden (to Everyone)**: 5:59 PM: As Stephen pointed out, the implied versioning at a fine level makes your eyes water. It more of how do you model morphing contextual environments. The only example I know of in use right now is the software versioning which is not great: snapshots at points in time...

**Bobbin Teegarden (to Everyone)**: 6:01 PM: As time is an aspect of context (who, what, ...when...) then one has to address what happens when other dimensions of the context change also.

**Bobbin Teegarden (to Everyone)**: 6:04 PM: Please add how to address models that morph to the wish list.