

CCO design patterns

- The following slides contain design patterns for CCO and BFO to be vetted and translated into Mermaid.
- In some cases, big design patterns need to be split into more simple patterns. In other cases, they need to be made more or less general.

- The sources of these design patterns are varied (papers, independent work of researchers, presentations). When possible, provenance of the images is shown. All credits are due to the authors of the respective patterns.

The Common Core Ontologies

Mark JENSEN ^{a,b,1}, Giacomo DE COLLE ^{b,c}, Sean KINDYA ^c,
Cameron MORE ^{b,d}, Alexander P. COX ^{b,d}, and John BEVERLEY ^{b,c,e}

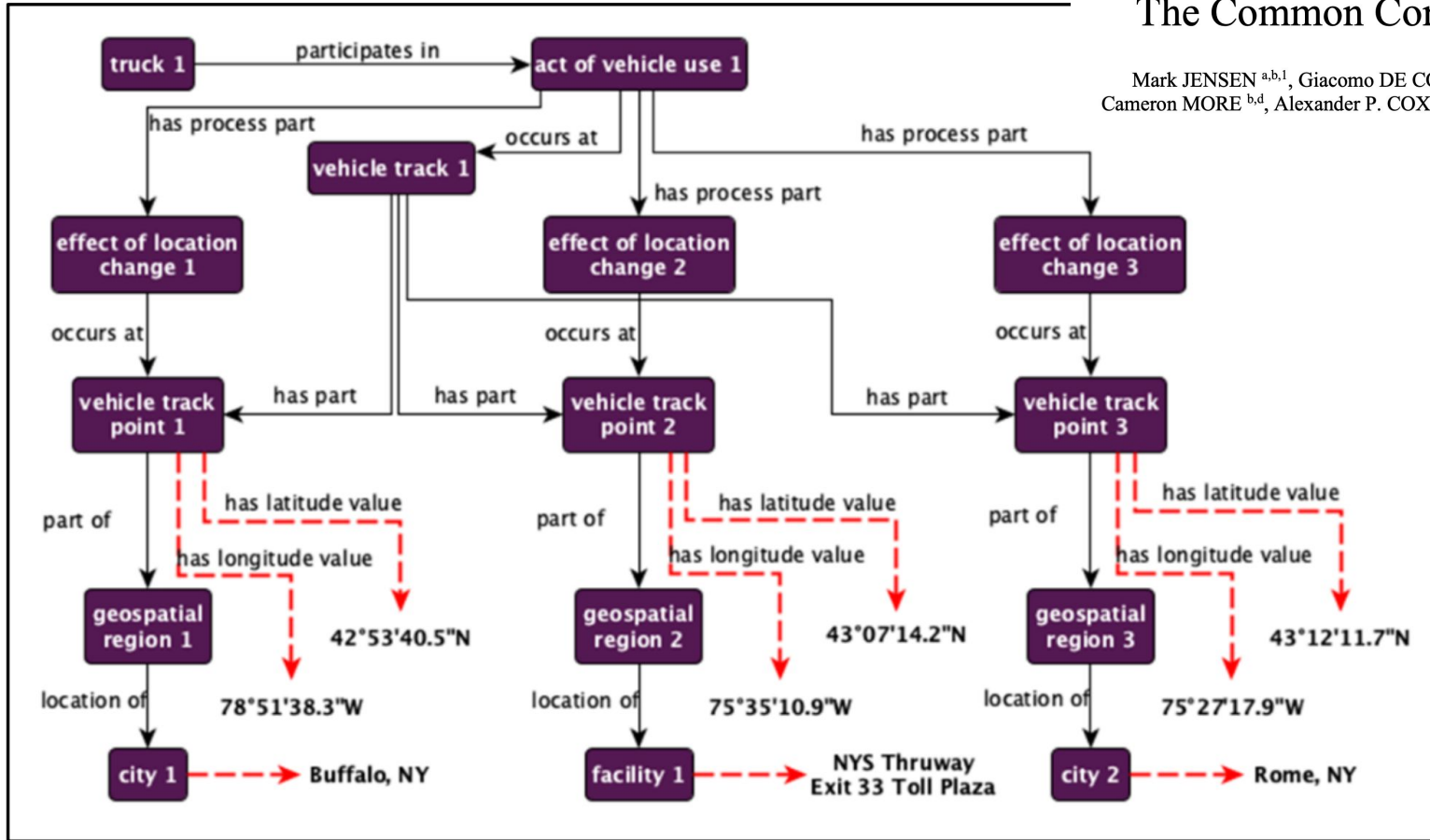


Figure 1: Tracing a Truck across Geospatial Regions

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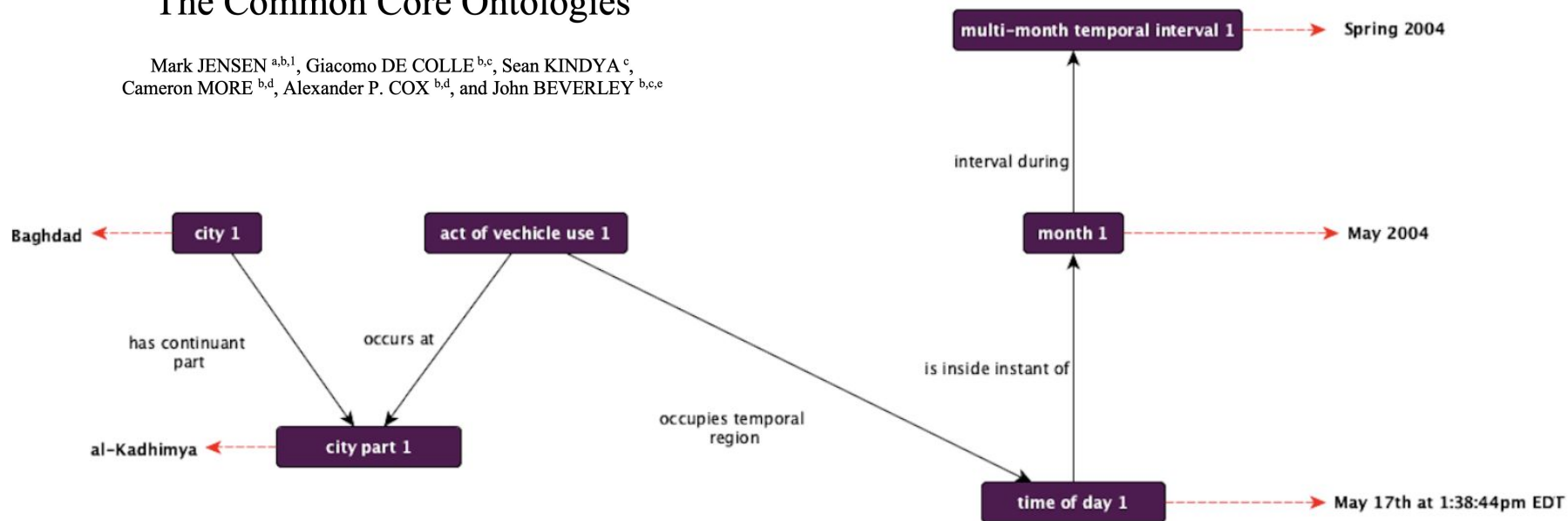
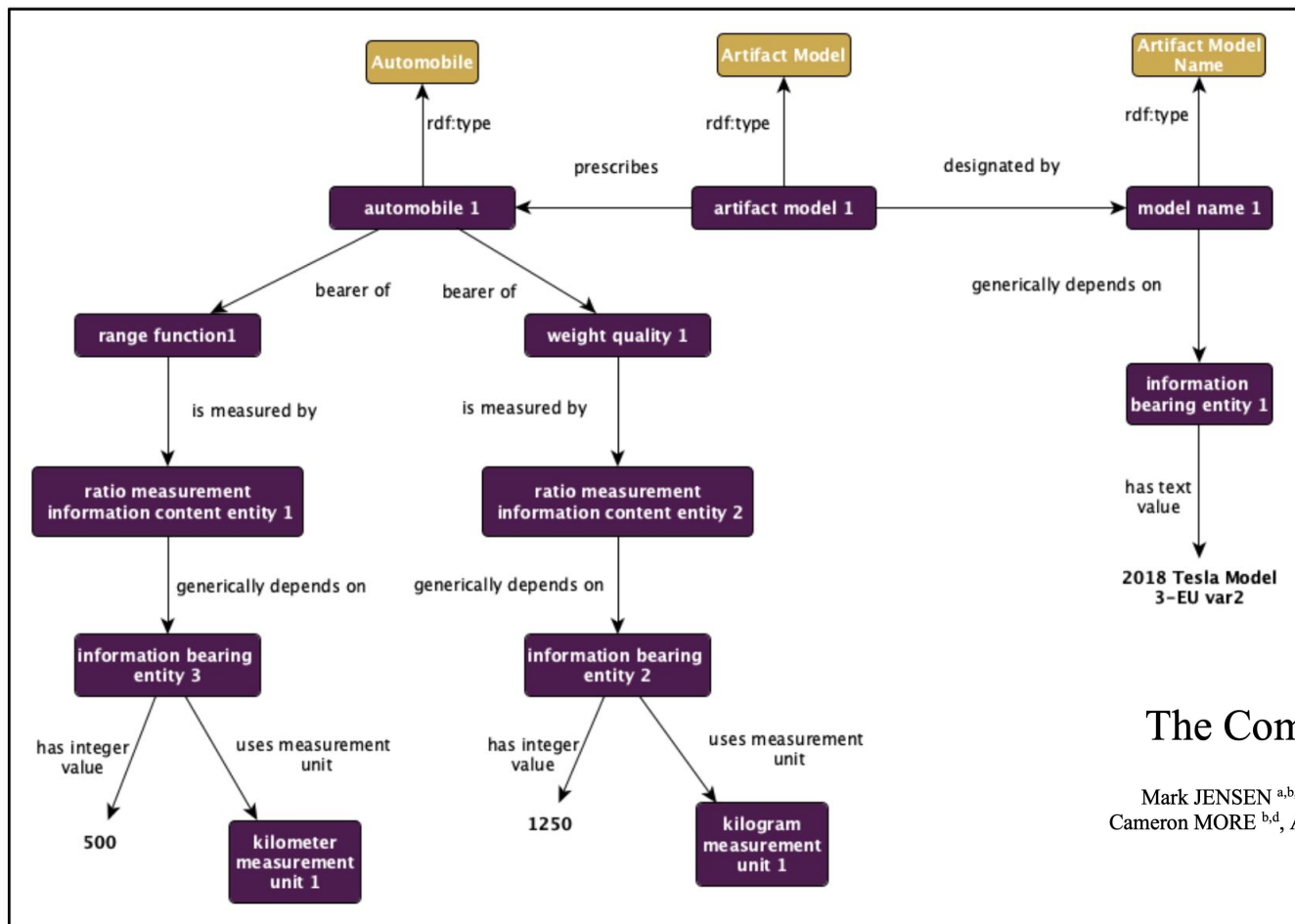


Figure 2: *Tracking Processes across Temporal and Spatial Granularities*



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Figure 3: Measuring Outcomes of an Artifact Model Prescription

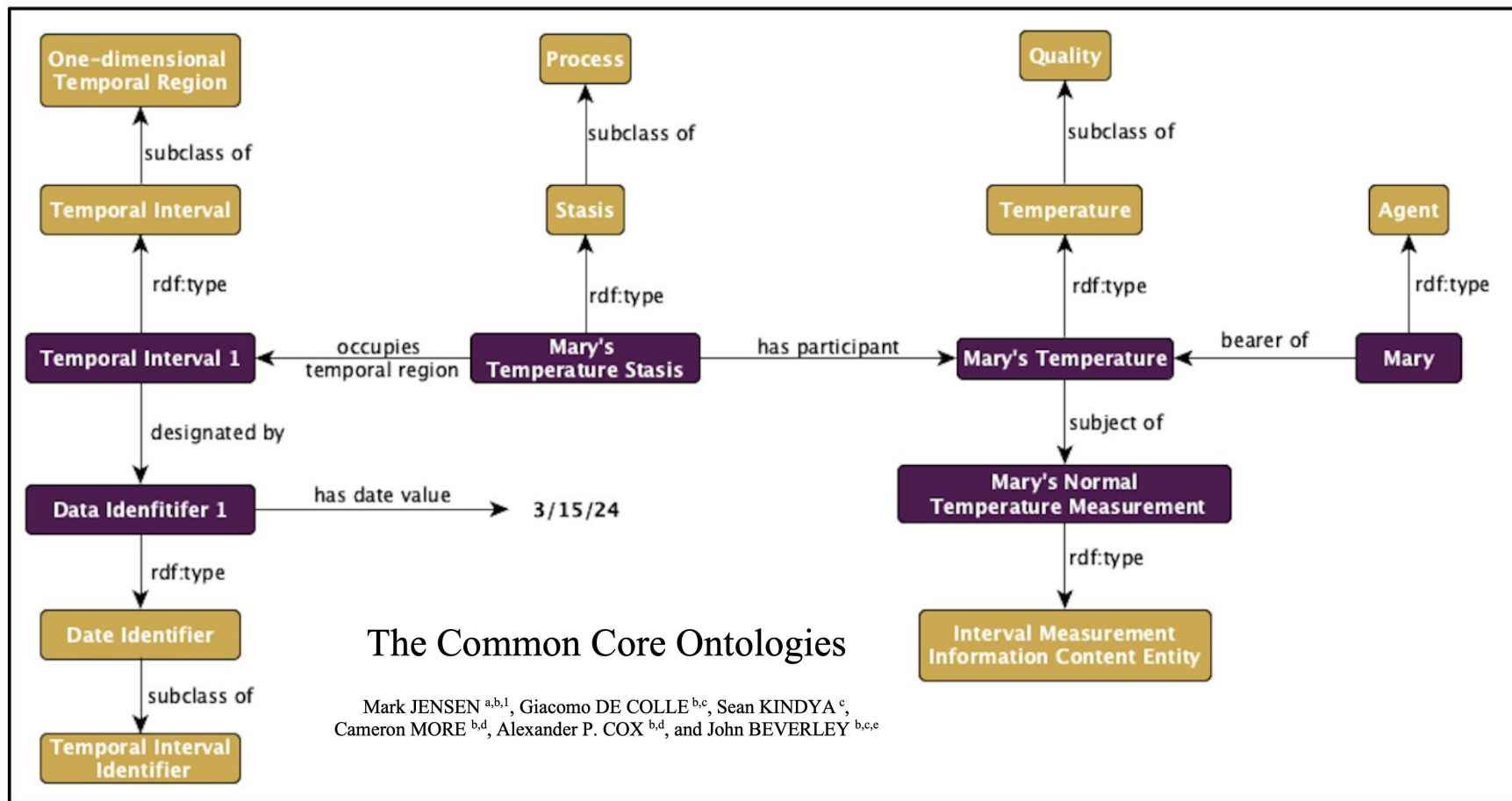


Figure 4: Measuring Constancy over Time

Basic Formal Ontology: Case Studies

J. Neil Otte¹, John Beverley², and Alan Ruttenberg³

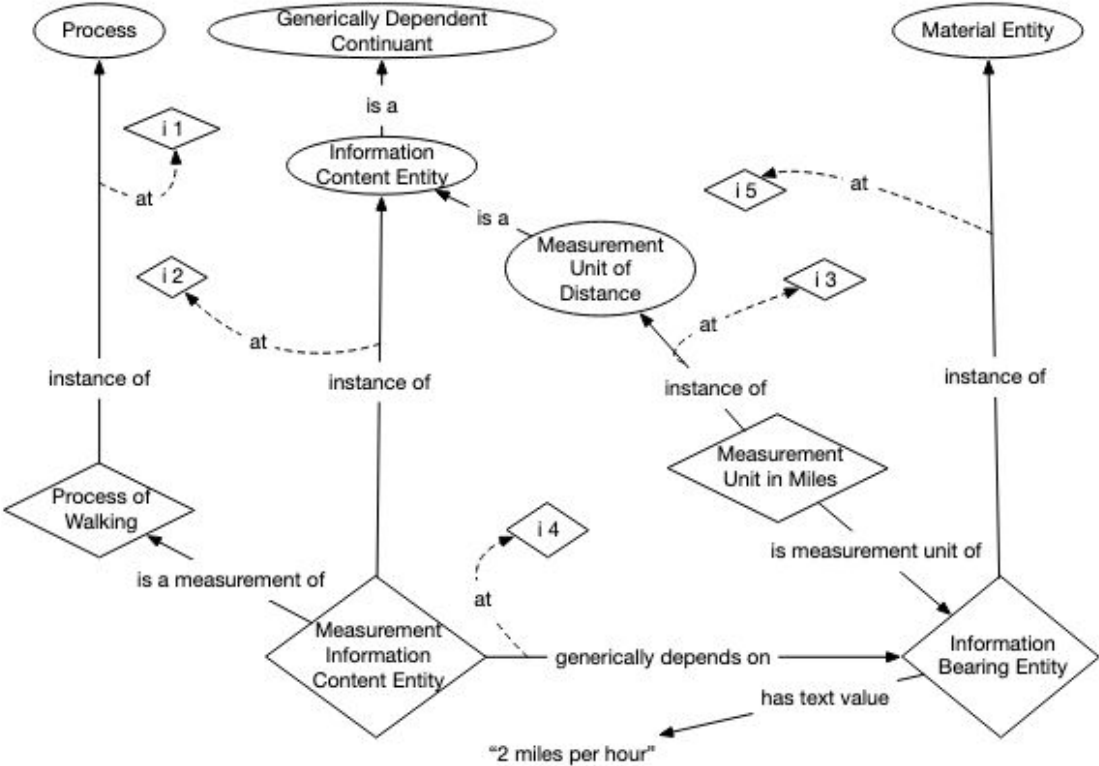


Figure 3: Relationships among Information Content Entities and Bearers

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J. Neil Otte¹, John Beverley², and Alan Ruttenberg³

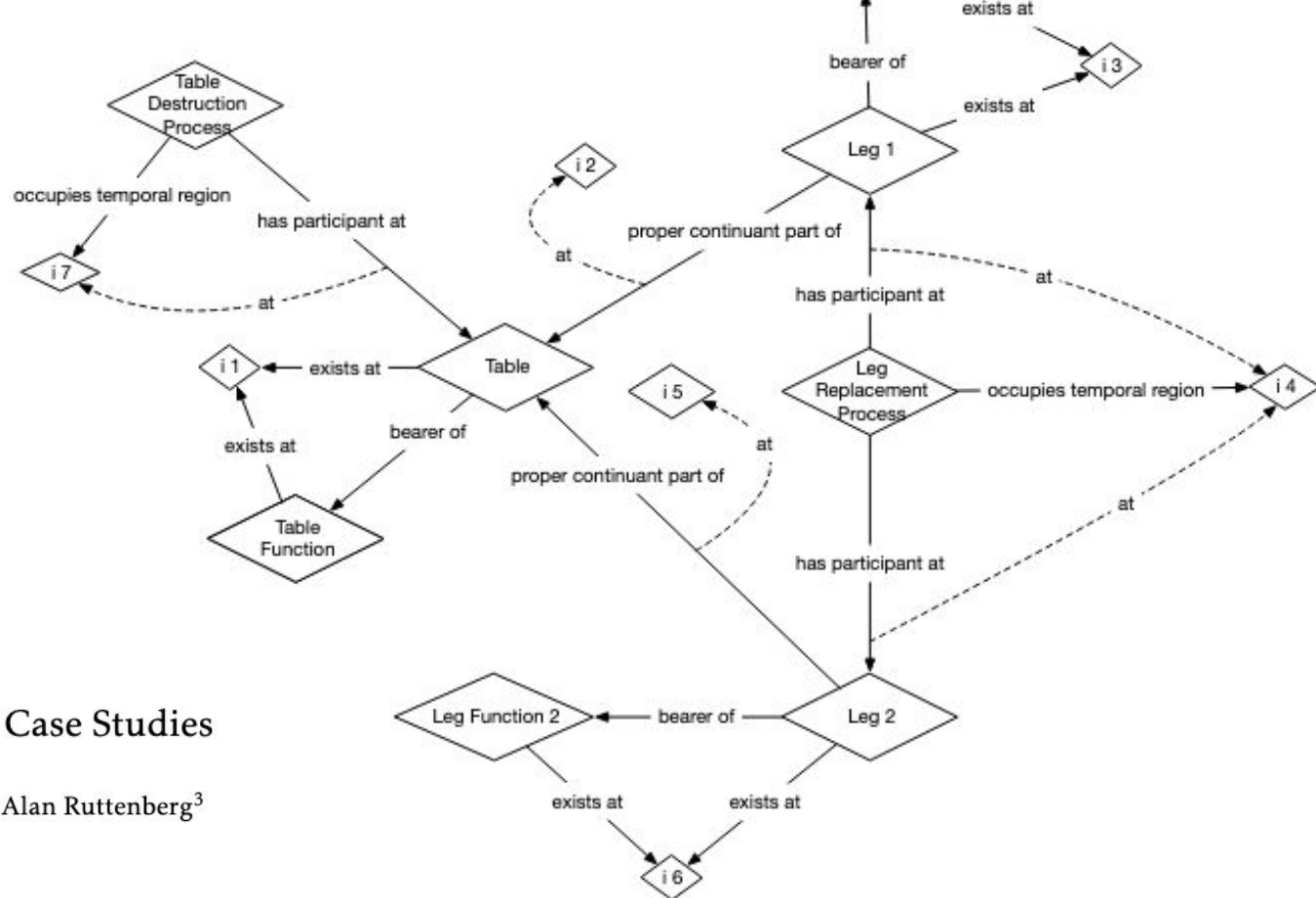


Figure 4: Table Undergoing Change in Case 1

Basic Formal Ontology: Case Studies

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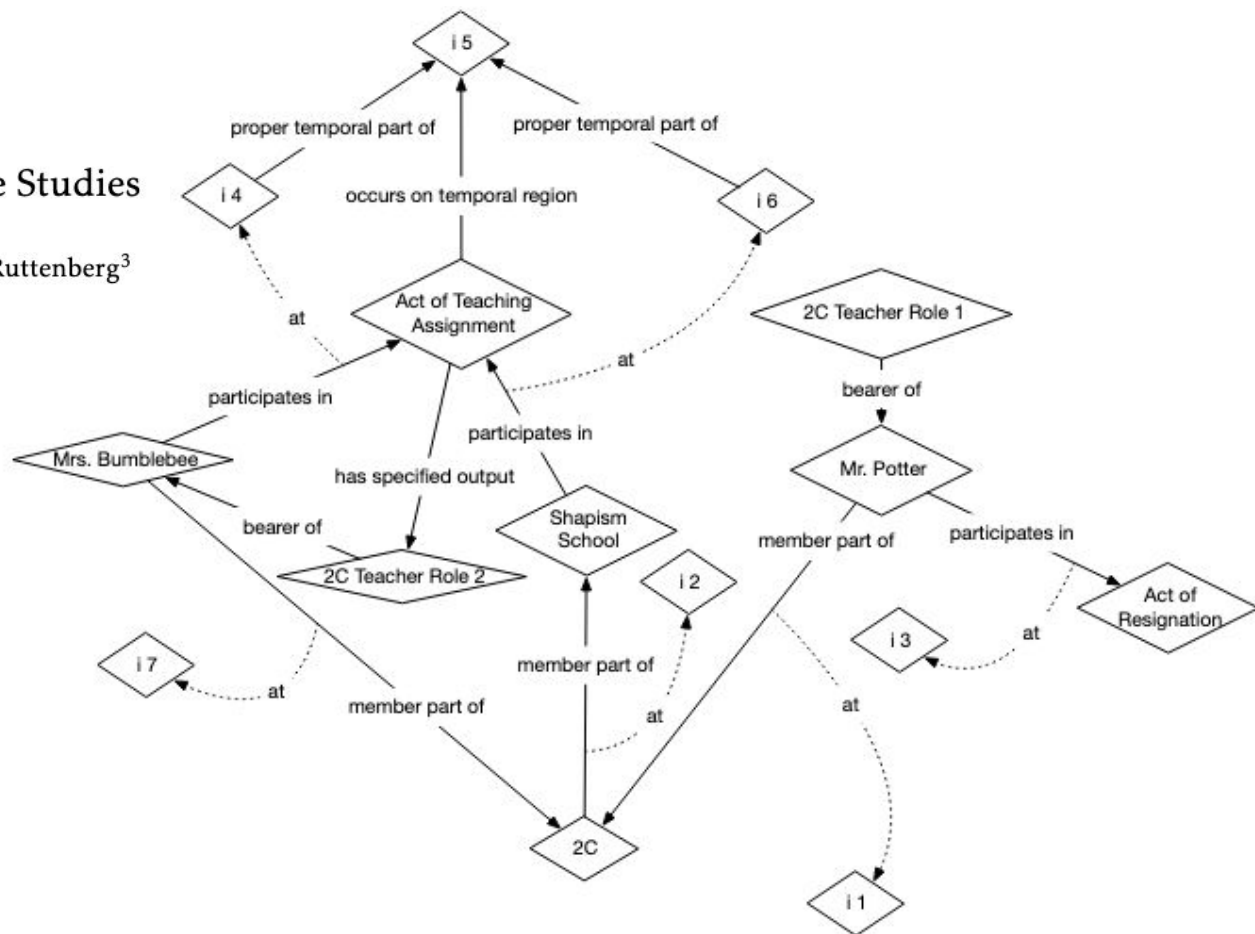


Figure 5: Resignation and Assignment of 2C Teacher Roles in Case 2

Basic Formal Ontology: Case Studies

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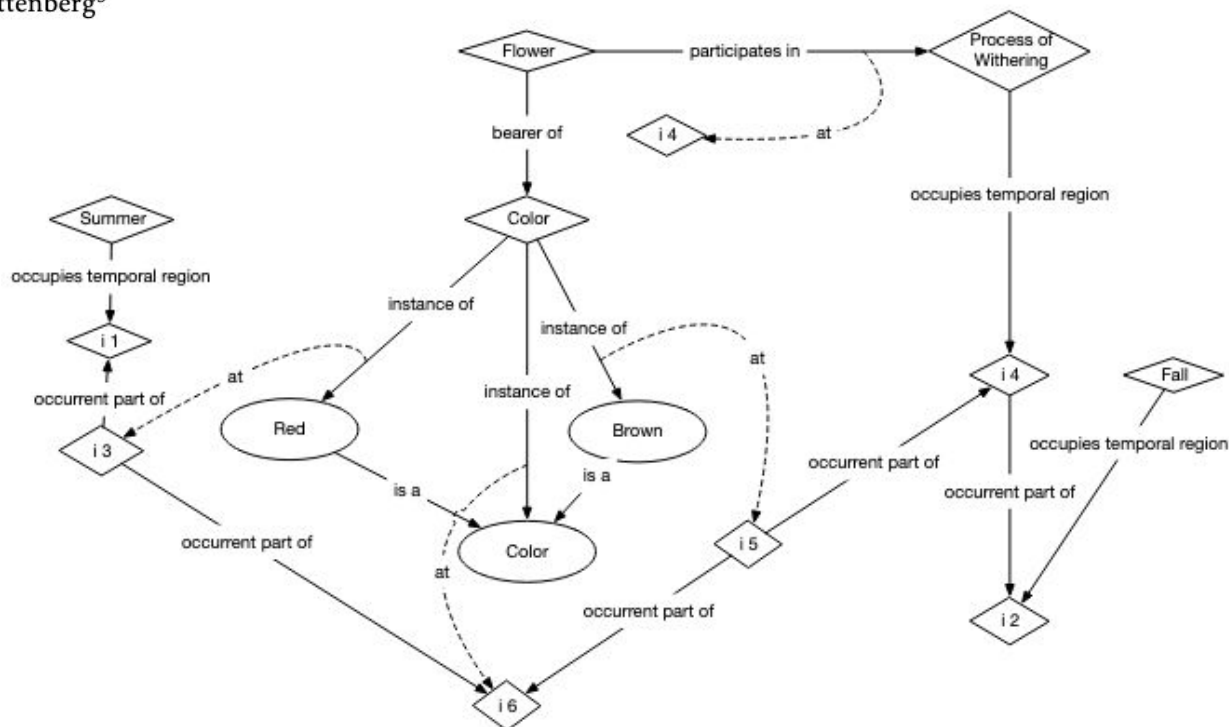


Figure 6: Petal Changing Color in Case 3

Basic Formal Ontology: Case Studies

J. Neil Otte¹, John Beverley², and Alan Ruttenberg³

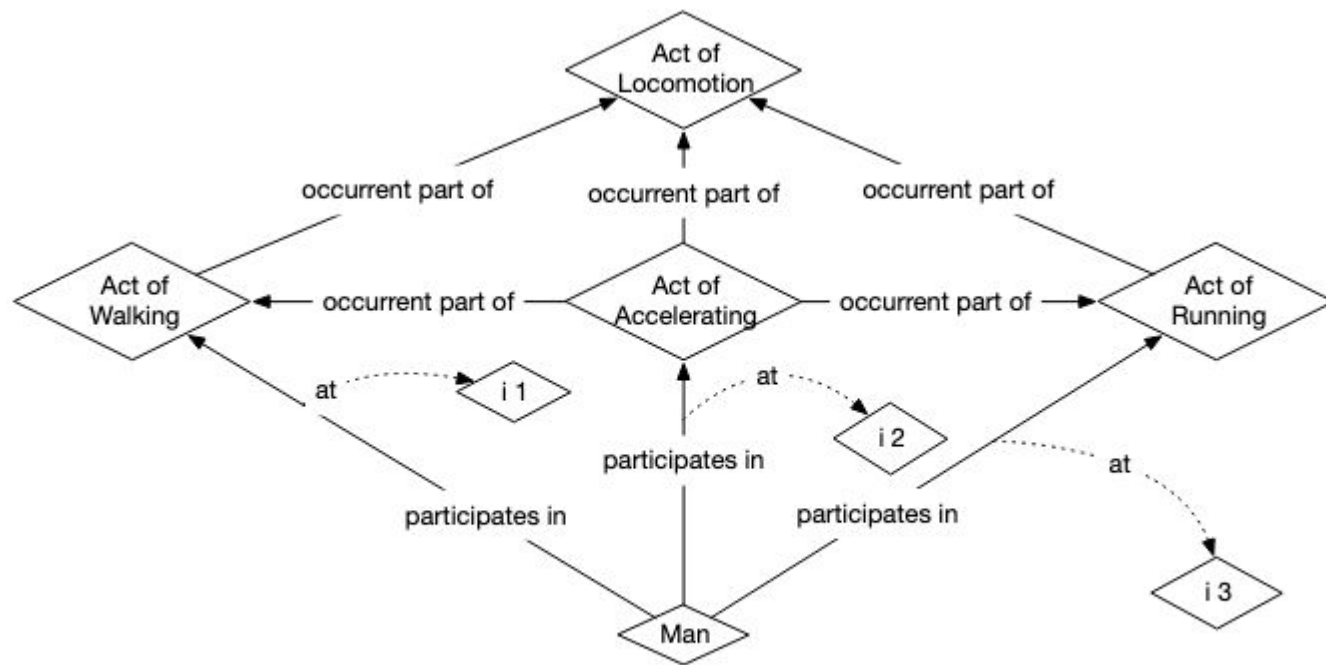
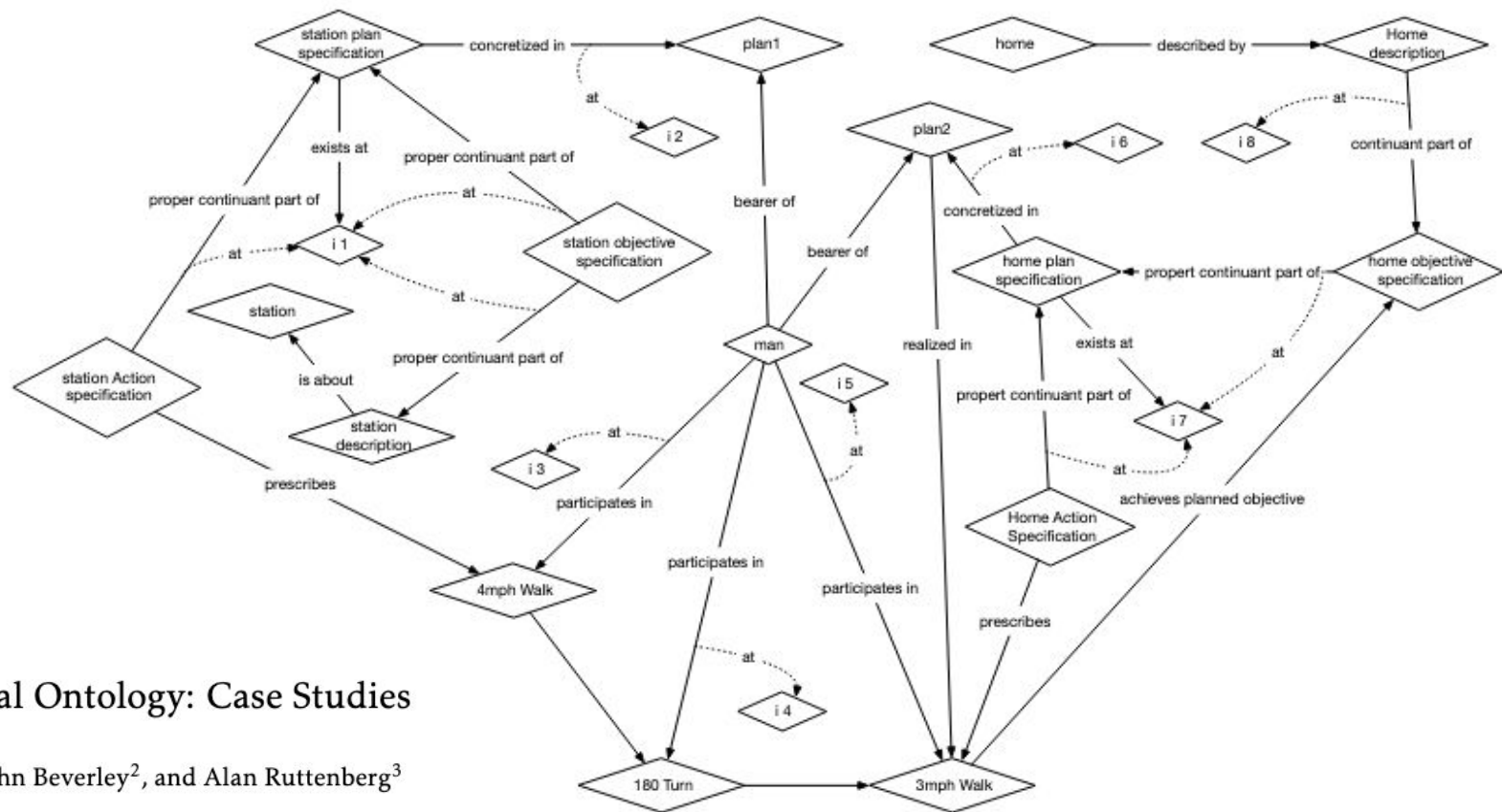


Figure 7: Man Moving with Increasing Speed in Case 4



Basic Formal Ontology: Case Studies

J. Neil Otte¹, John Beverley², and Alan Ruttenberg³

Figure 8: Man Walking to Station, then Home in Case 5

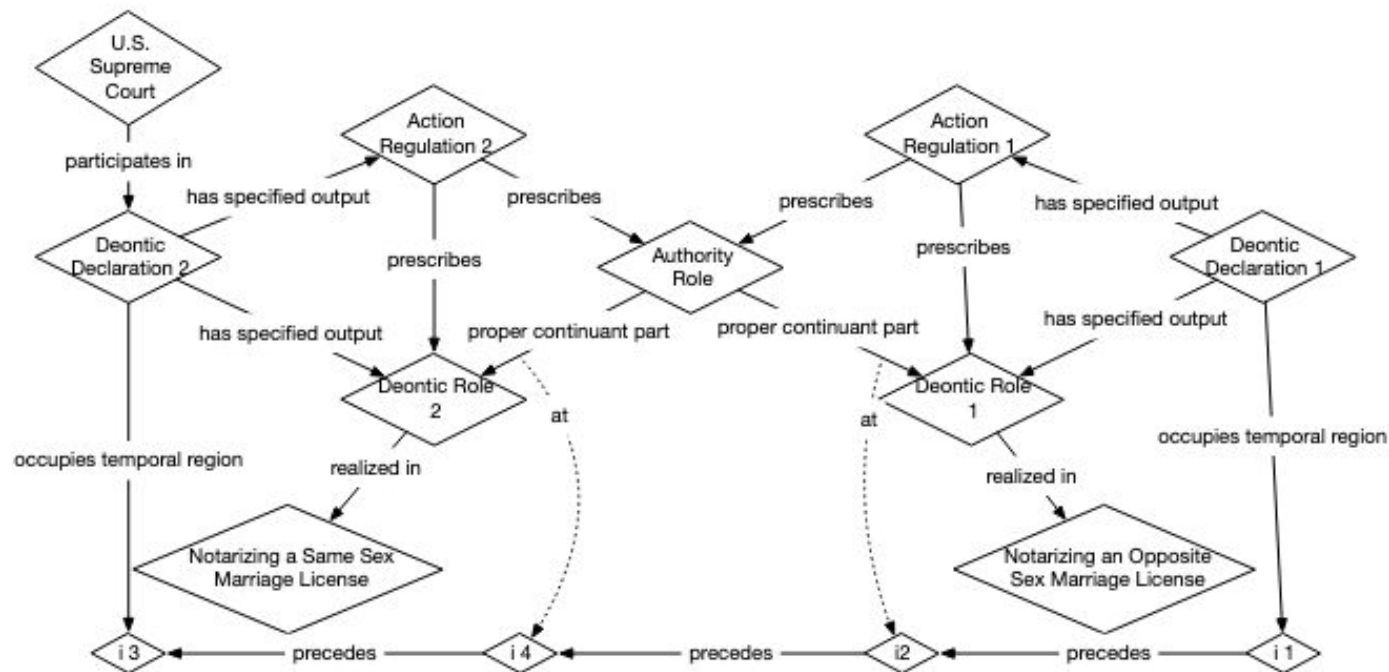
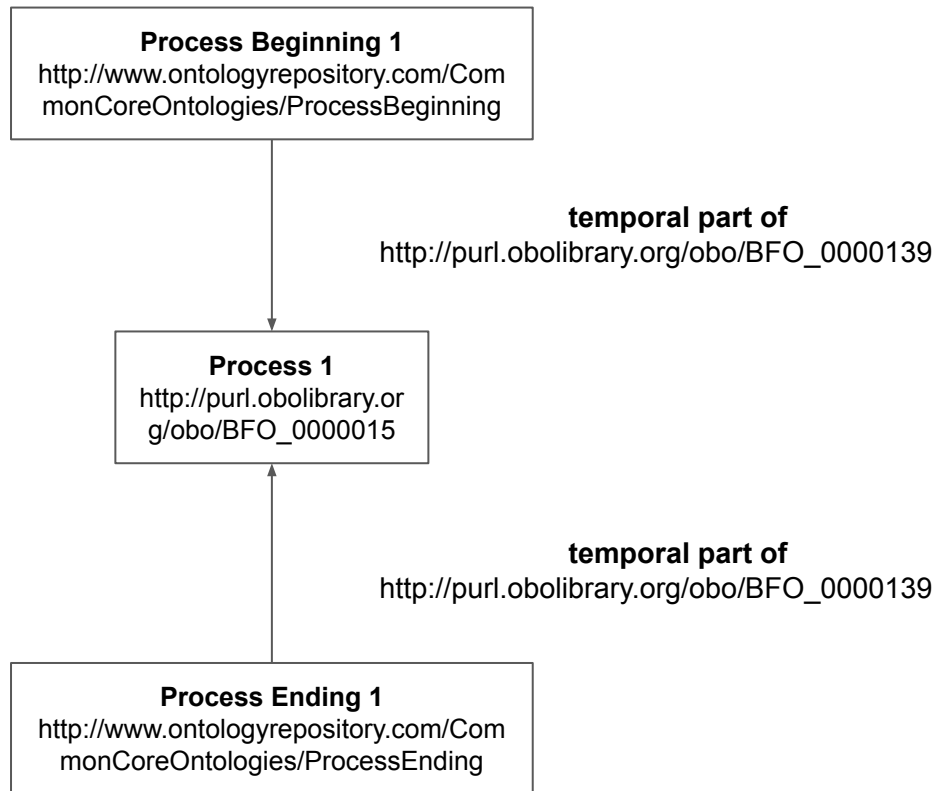


Figure 9: Changing Deontic Roles in Case 6

Basic Formal Ontology: Case Studies

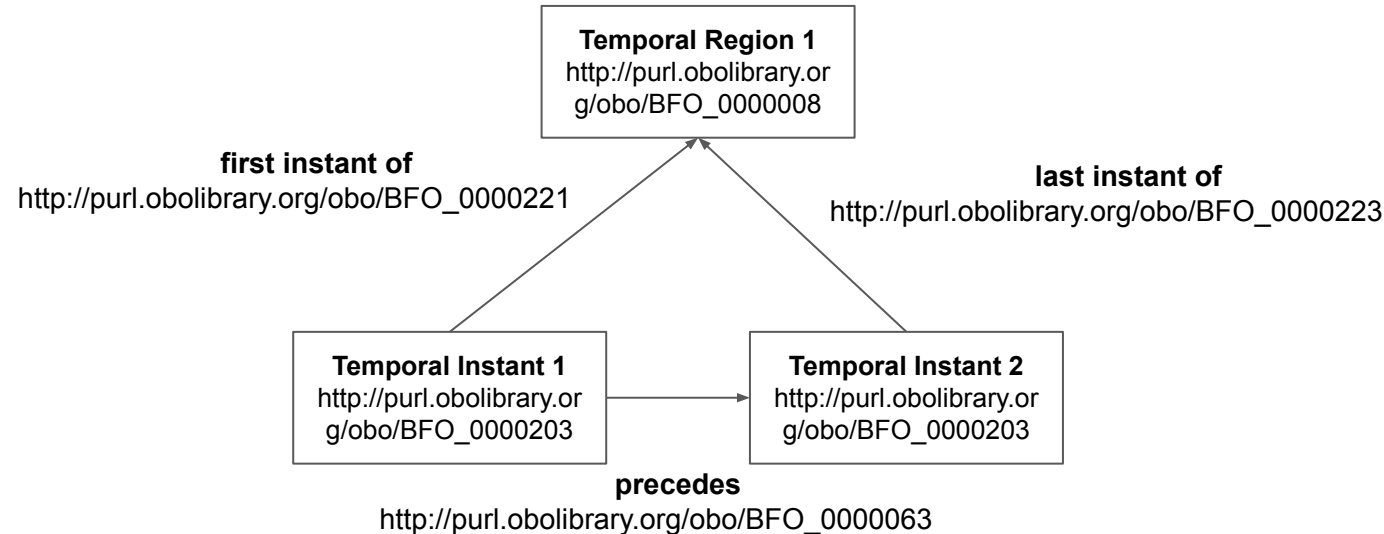
J. Neil Otte¹, John Beverley², and Alan Ruttenberg³

Starting and ending a process



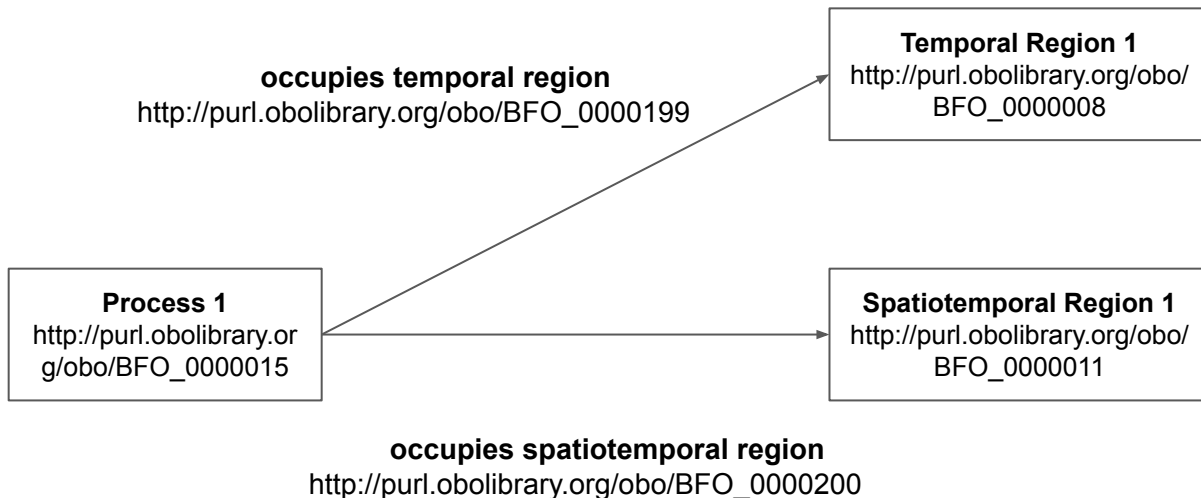
The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

First and Last Moments of Temporal Regions



The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

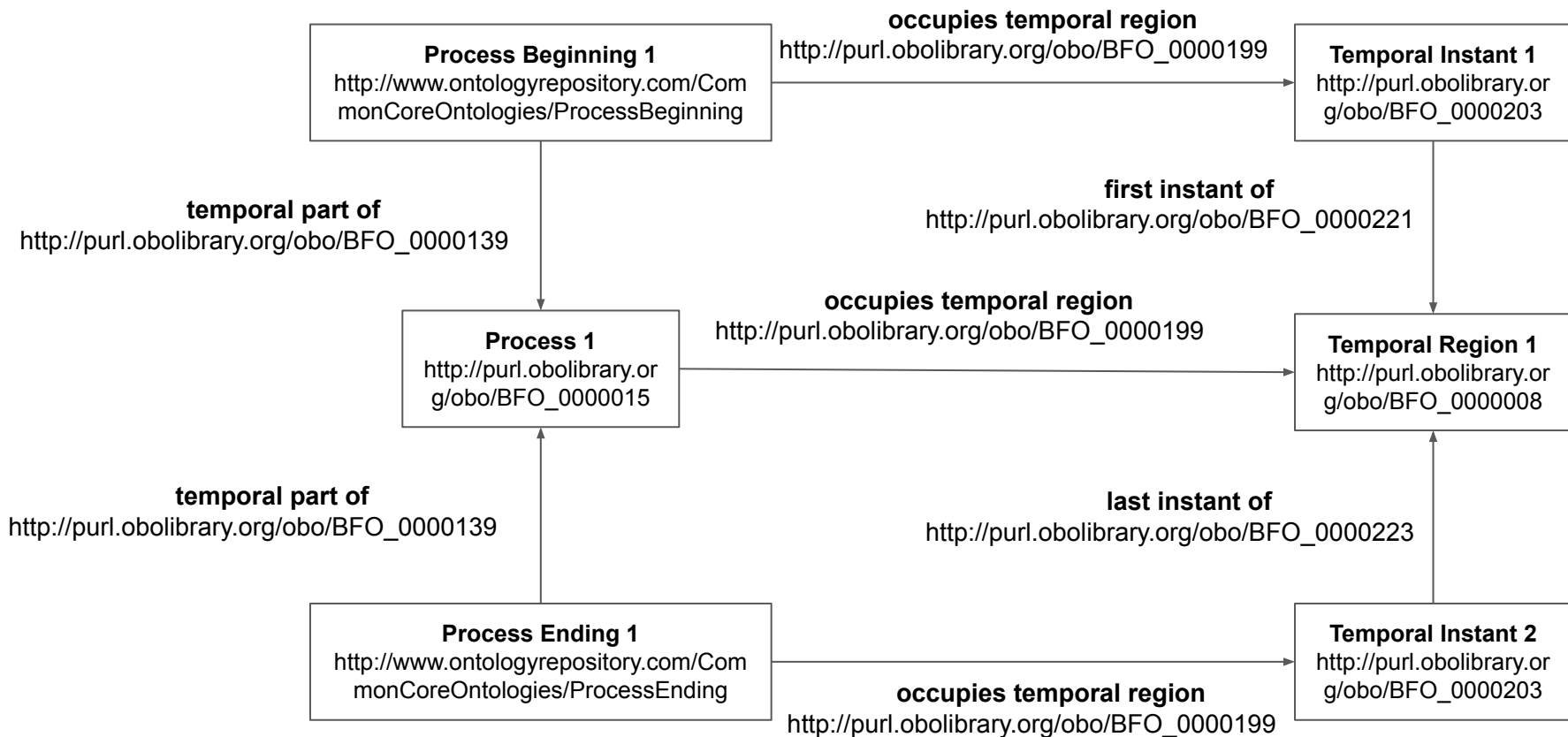
Tracking spatiotemporal and temporal information for processes



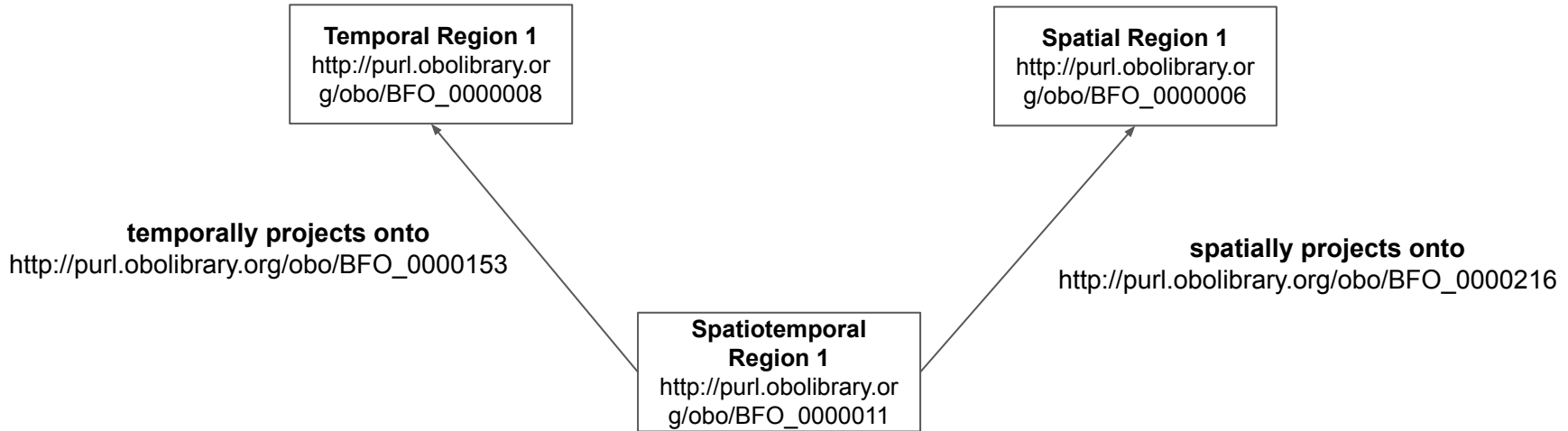
The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

Starting and ending processes in time

The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

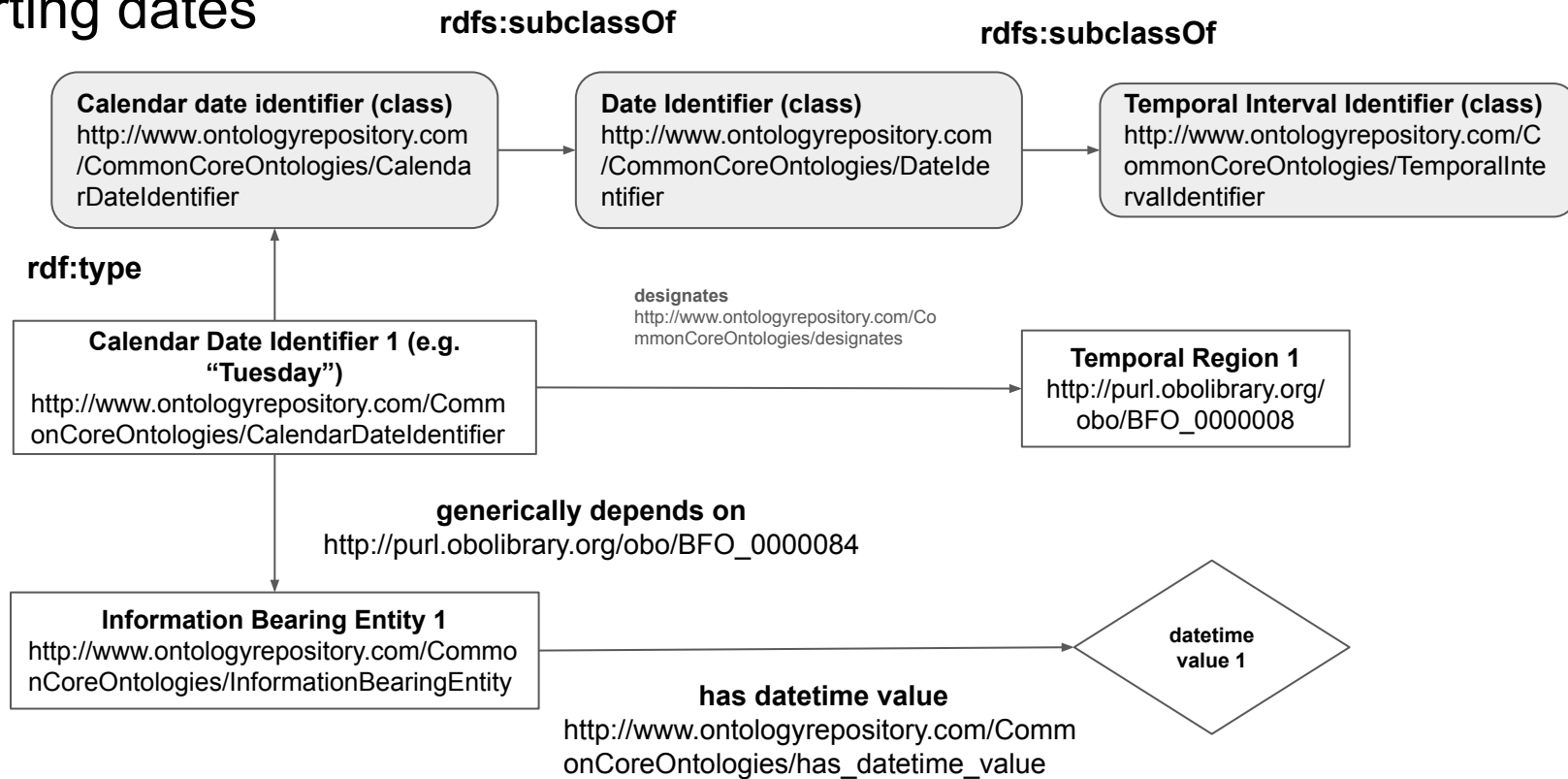


Separating space and time information from spacetime information



The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

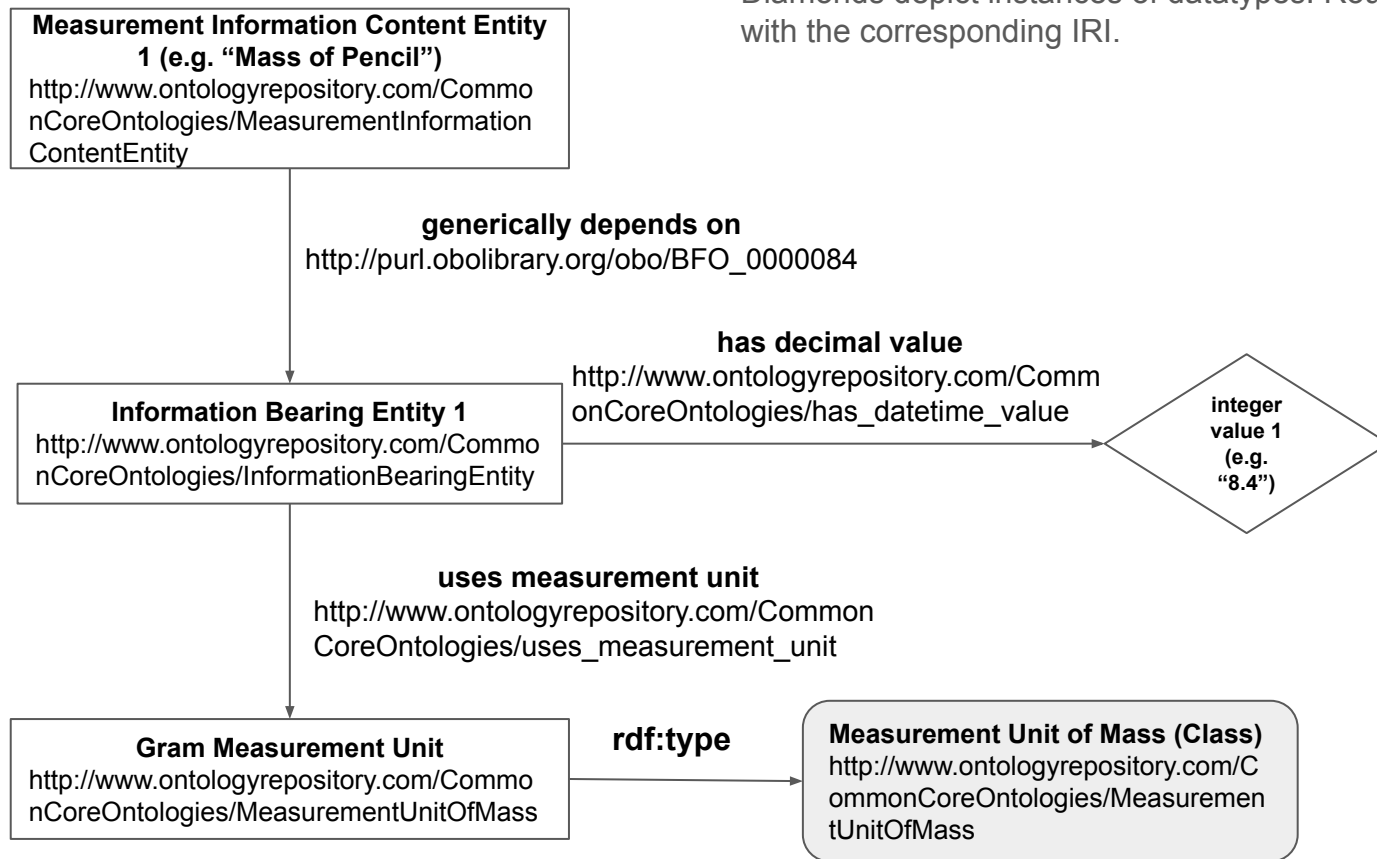
Inserting dates



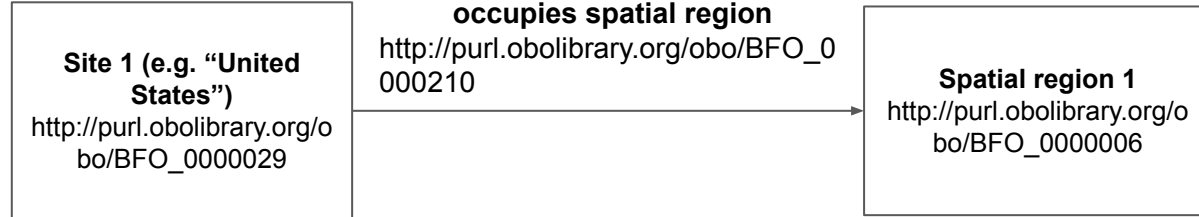
The white boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI. Gray boxes depict classes with the corresponding IRI. Diamonds depict instances of datatypes. Rounded boxes are classes with the corresponding IRI.

Measurement Data

The white boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI. Gray boxes depict classes with the corresponding IRI..
Diamonds depict instances of datatypes. Rounded boxes are classes with the corresponding IRI.

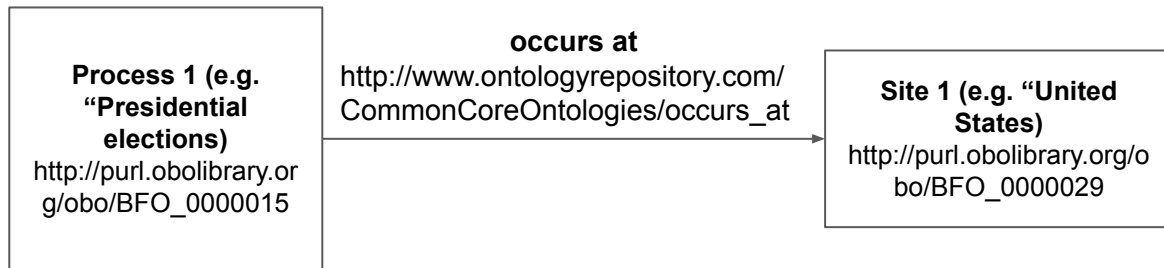


Sites and spatial regions



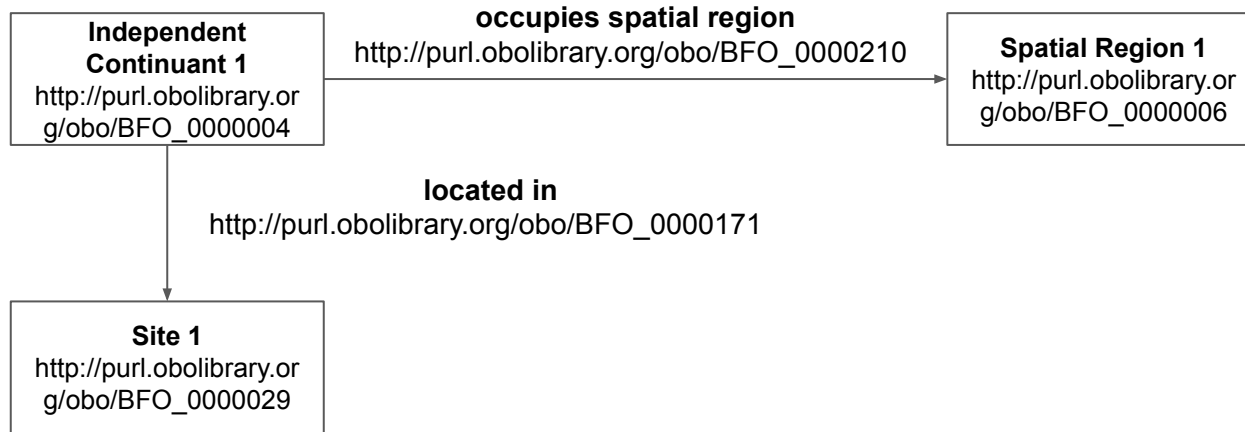
The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

Site of a Process

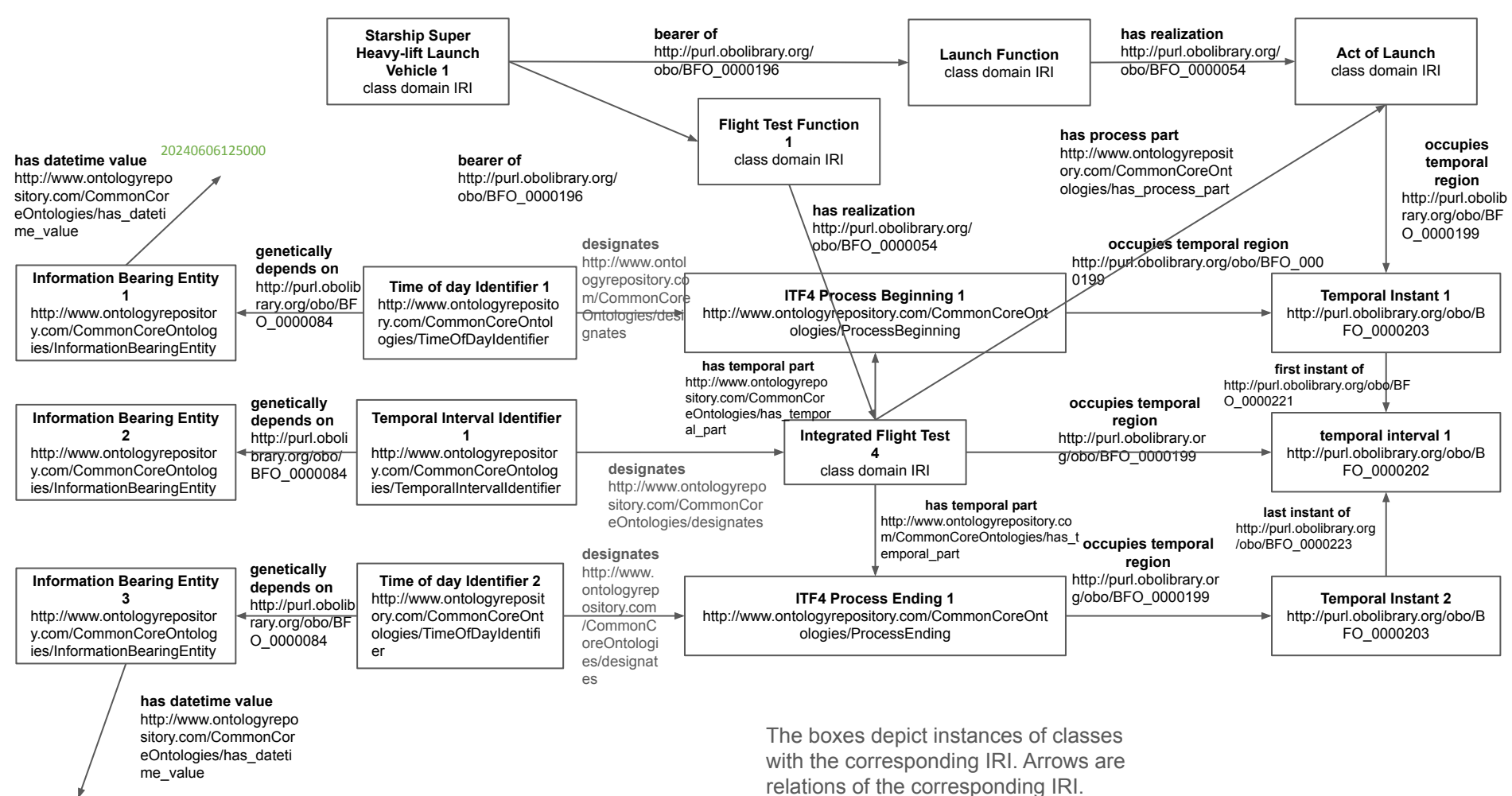


The boxes depict instances of classes with the corresponding IRI. Arrows are relations of the corresponding IRI.

Location of Independent Continuants

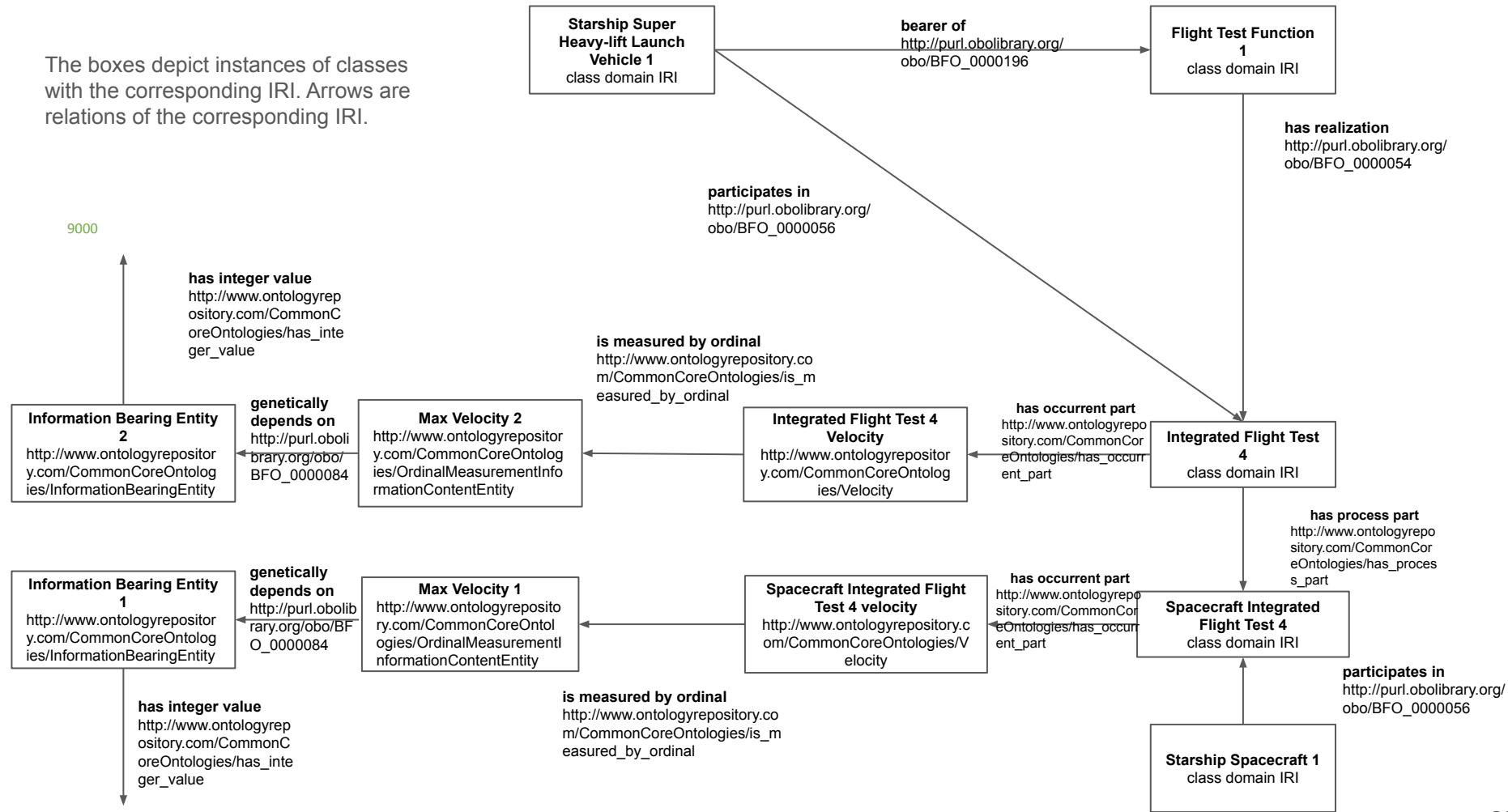


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Stages: Roles or Material Entities with Roles?

