Constrained RESTful Application Languager (CoRAL)

Interim status update

2021-10-13

Recap from last status update

- Information model merged
  - Basic model contains statements (graph; “</x> core:ct 40”)
  - Structured model shapes them (sequence of statements, nesting)
  - Forms and embedded payloads are built on top of the model

- How to handle literals?
  - Entity with arbitrary outgoing edges
    </g> core:label "Gift" (instance 1).
    "Gift" (instance 1) xml:lang "en". "
  + Value-with-properties
    </g> core:label "Gift"@en.

(Not that it'd matter for the serialization…)

New in the editor's copy since last time

- Packed CBOR
- CBOR diagnostic notation (with EDN) replaces text format
- Mappings with Link Format and RDF

"Applications that use links with the attribute semantics common in the CoRE ecosystem (typically used with RFC6690 Link Format) can use this conversion. "

Link Format mapping

```
</sensors>;ct=40;title="Sensor Index",
</sensors/temp>;rt="temperature-c";if="sensor tag:example.com:mysensor",
<http://www.example.com/sensors/t123>;anchor="/sensors/temp";rel="describedby"
```

```
[
  [2, simple(10) / rel:hosts /, cri'/sensors', [
    [2, 6(2) / core:ct /, 40],
    [2, simple(15) / core:title /, 'Sensor Index']
  ]],
  [2, simple(10) / rel:hosts /, cri'/sensors/temp', [
    [2, 6(1) / core:if /, 6(200) / cri'http:...temperature-c' /],
    [2, 6(1) / core:if /, cri'tag:example.com:mysensor' ],
    [2, 6(-2) / core:rt /, 6(250) / cri'http:...sensor' /],
    [2, simple(12) / rel:describedby /, cri'http://www.example.com/sensors/t123']
  ]]
]
```

Current issues

- Reasons left for deterministic encoding? #5
- Lock in the “property” model of literals? #10
- Can we do without circular visitation? #9
  (And if so, do we want to use this for a flatter file format?)
- Open or Closed World? #3
  (Not that we’d have to decide – but allowing both, guide people to be open-world compatible.)