

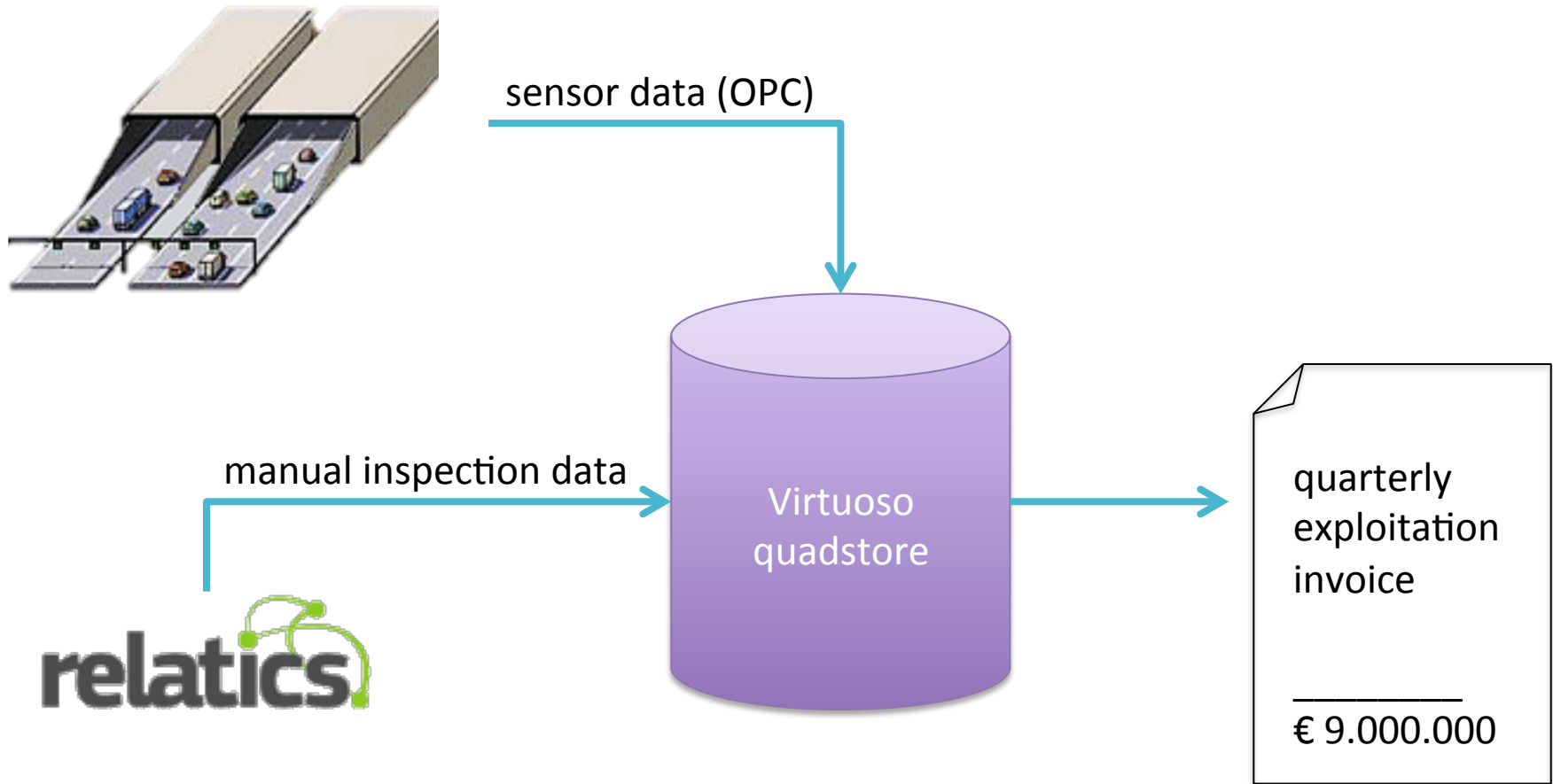
Virtuoso DB

at the **Second Coentunnel**

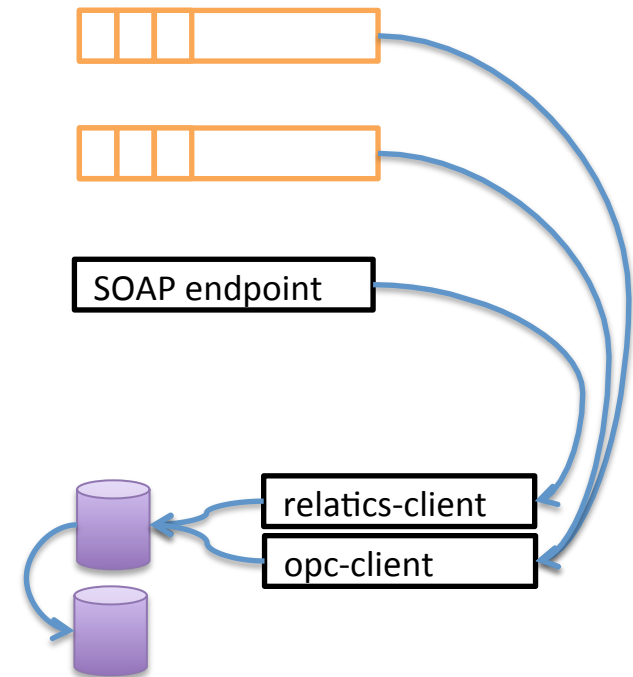
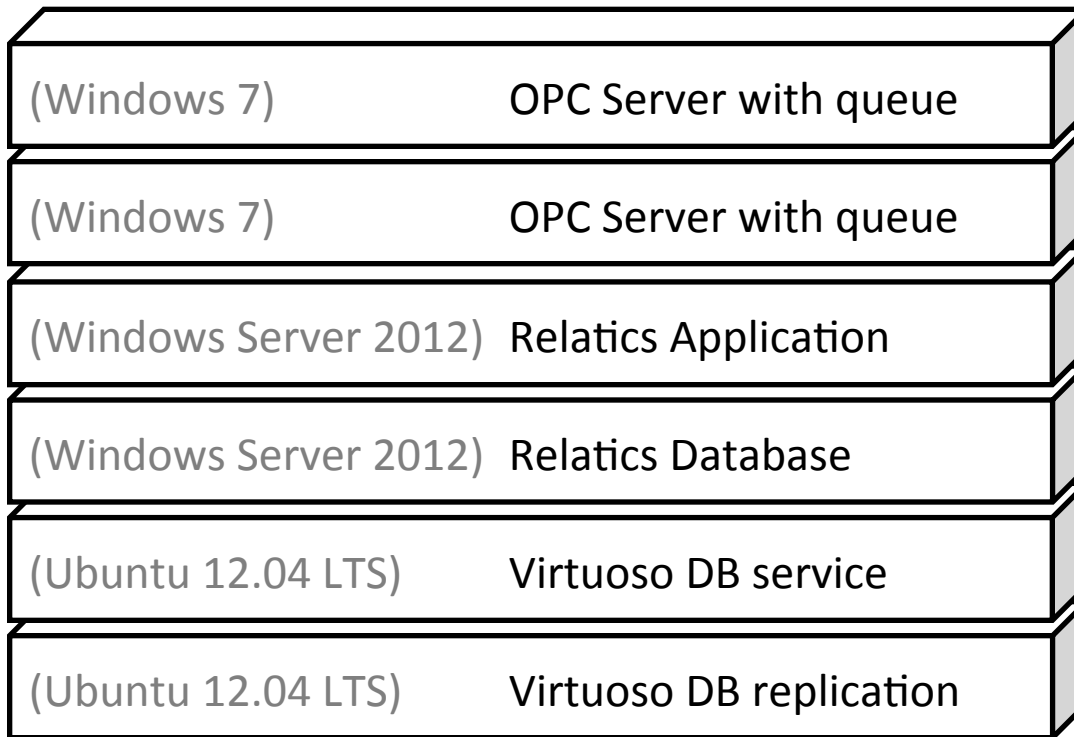
the first implementation of the
Performance Measurement System
(PMS)

Bastiaan Bijl Msc

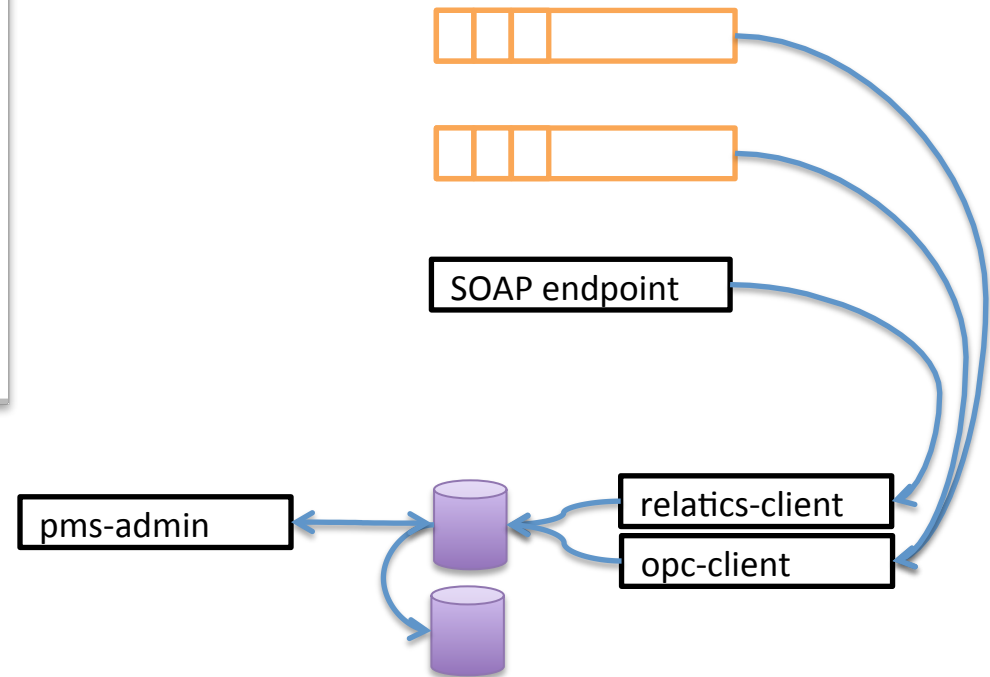
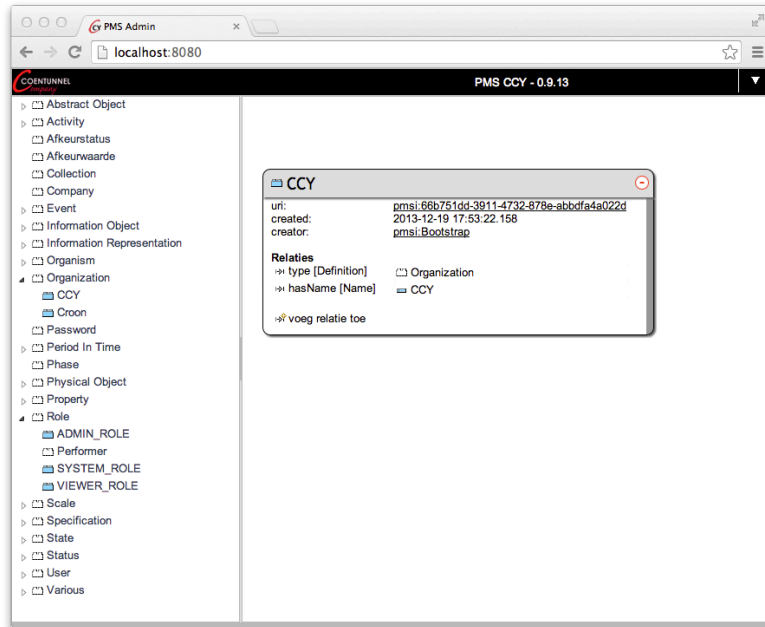
Architecture PMS



Deployment



Deployment



Data model

cy PMS Admin

localhost:8080

COENTUNNEL company PMS CCY - 0.9.13

- Abstract Object
- Activity
 - Afkeurstatus
 - Afkeurwaarde
- Collection
- Company
- Event
- Information Object
- Information Representation
- Organism
- Organization
 - CCY
 - Croon
- Password
- Period In Time
- Phase
- Physical Object
- Property
- Role
 - ADMIN_ROLE
 - Performer
 - SYSTEM_ROLE
 - VIEWER_ROLE
- Scale

information object in pmsi-namespace:
<http://pms.coentunnelcompany.nl/instance#>

CCY

uri: pmsi:66b751dd-3911-4732-878e-abbdfa4a022d
 created: 2013-12-19 17:53:22.158
 creator: [pmsi:Bootstrap](#)

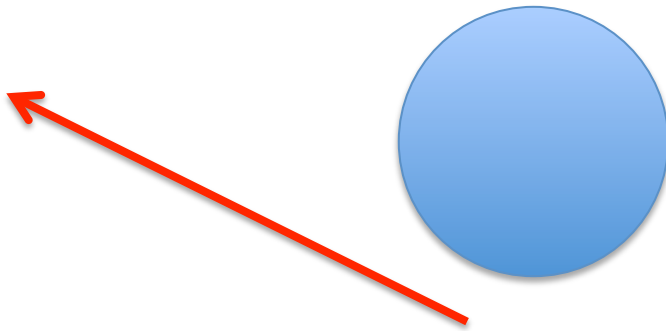
Relaties

- type [Definition] Organization
- hasName [Name] CCY

voeg relatie toe

information class in pms-namespace:
<http://pms.coentunnelcompany.nl/rdl#>

Data model



Data model

COENTUNNEL company PMS CCY - 0.9.13

localhost:8080

Abstract Object
 Activity
 Afkeurstatus
 Afkeurwaarde
 Collection
 Company
 Event
 Information Object
 Information Representation
 Organism
 Organization
 CCY
 Croon
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 Period In Time
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 created: 2013-12-19 17:53:22.158
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Relaties

↳ type [Definition] Organization
 ↳ hasName [Name] CCY
 ↳ voeg relatie toe

information class in pms-namespace:
<http://pms.coentunnelcompany.nl/rdl#>

Data model

The screenshot shows a web browser window titled "Cy PMS Admin" with the address bar set to "localhost:8080". The page header includes the "COENTUNNEL" logo and the version "PMS CCY - 0.9.13". A left sidebar lists various entities: Abstract Object, Activity, Afkeurstatus, Afkeurwaarde, Collection, Company, Event, Information Object, Information Representation, Organism, Organization, and CCY. The main content area displays the details for the "CCY" entity, which is highlighted with a red box. The details include:

- uri: pmsi:66b751dd-3911-4732-878e-abbdfa4a022d
- created: 2013-12-19 17:53:22.158
- creator: pmsi:Bootstrap

Under the "Relaties" section, there are two relationships highlighted with red boxes:

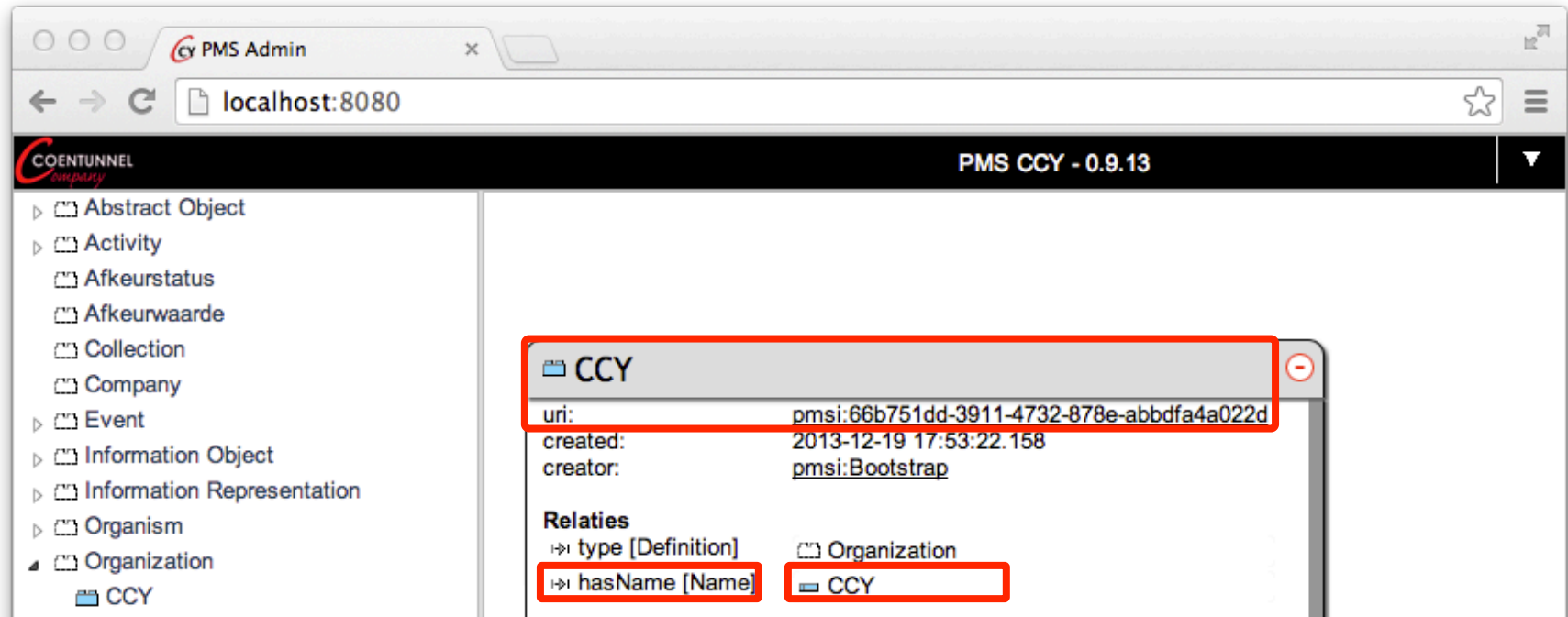
- type [Definition] Organization
- hasName [Name] CCY

pmsi:66b7...

rdf:type

pms:Organization

Data model



pmsi:3fef...

pmsi:66b7...

rdf:type

pms:Organization

pmsi:7119...

pmsi:66b7...

pms:hasName

"CCY"^^xsd:string

Data model

graph name

pmisi:7119ce33-724f-4766-ac67-d78c46388963

uri: [pmisi:7119ce33-724f-4766-ac67-d78c46388963](#)
 created: 2013-12-19 17:53:22.159
 creator: [pmisi:Bootstrap](#)

Content

subject: [pmisi:66b751dd-3911-4732-878e-abbdfa4a022d](#)
 predicate: [pms:hasName](#)
 object: [CCY](#)

Relaties

voeg relatie toe

meta data

pmisi:7119ce33-724f-4766-ac67-d78c46388963	pmisi:66b751dd-3911-4732-878e-abbdfa4a022d	pms:hasName	CCY
pmisi:7119ce33-724f-4766-ac67-d78c46388965	pmisi:7119ce33-724f-4766-ac67-d78c46388964	pms:created	2013-12-19 17:53:22.16
pmisi:7119ce33-724f-4766-ac67-d78c46388966	pmisi:7119ce33-724f-4766-ac67-d78c46388965	pms:creator	pmisi:Bootstrap

pmisi:7119...

pmisi:66b7...

pms:hasName

"CCY"^^xsd:string

Data model

🔗 pmsi:7119ce33-724f-4766-ac67-d78c46388963 ⊖

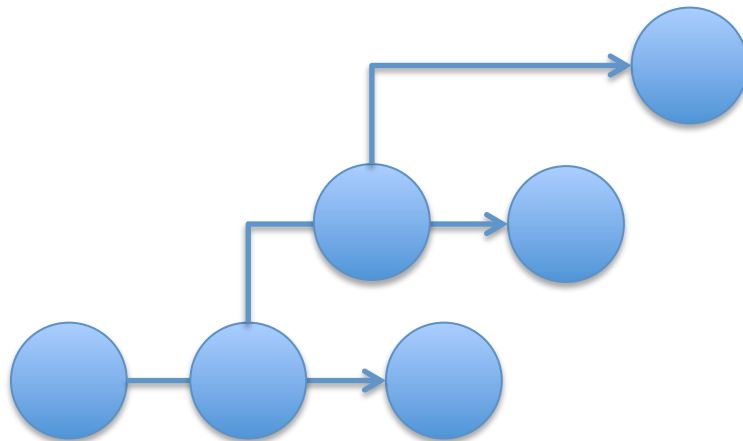
uri: [pmsi:7119ce33-724f-4766-ac67-d78c46388963](#)
 created: 2013-12-19 17:53:22.159
 creator: [pmsi:Bootstrap](#)

Content

subject: [pmsi:66b751dd-3911-4732-878e-abbdfa4a022d](#)
 predicate: [pms:hasName](#)
 object: [CCY](#)

Relaties

➔ voeg relatie toe



ISO 15926

ISO TC184/SC4/WG3 (T25) N2589

Date: 2014-04-02

Supersedes: version 2012-11-01

**Industrial automation systems and integration —
Integration of life-cycle data for process plants including oil and
gas production facilities —**

**Part 11: Methodology for simplified industrial usage of reference
data**

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ISO 15926

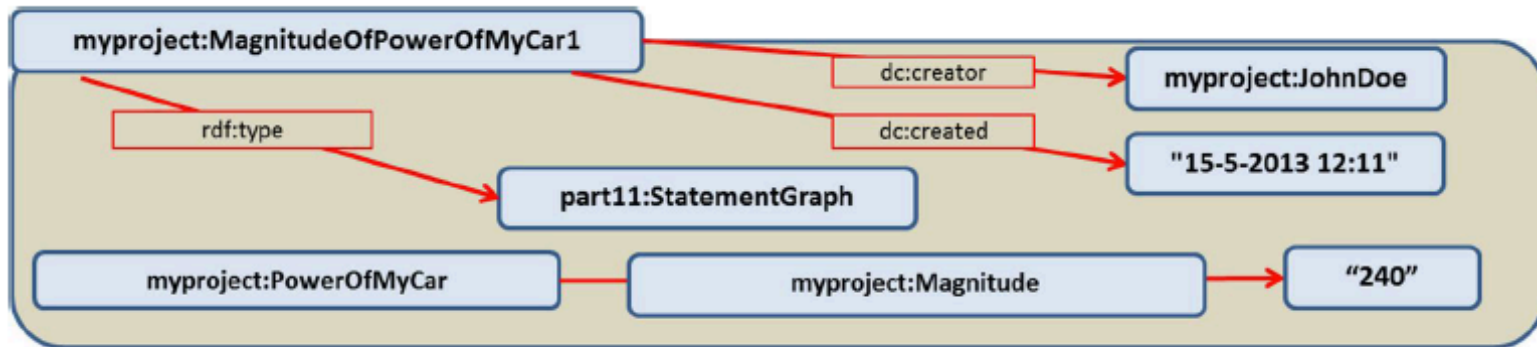
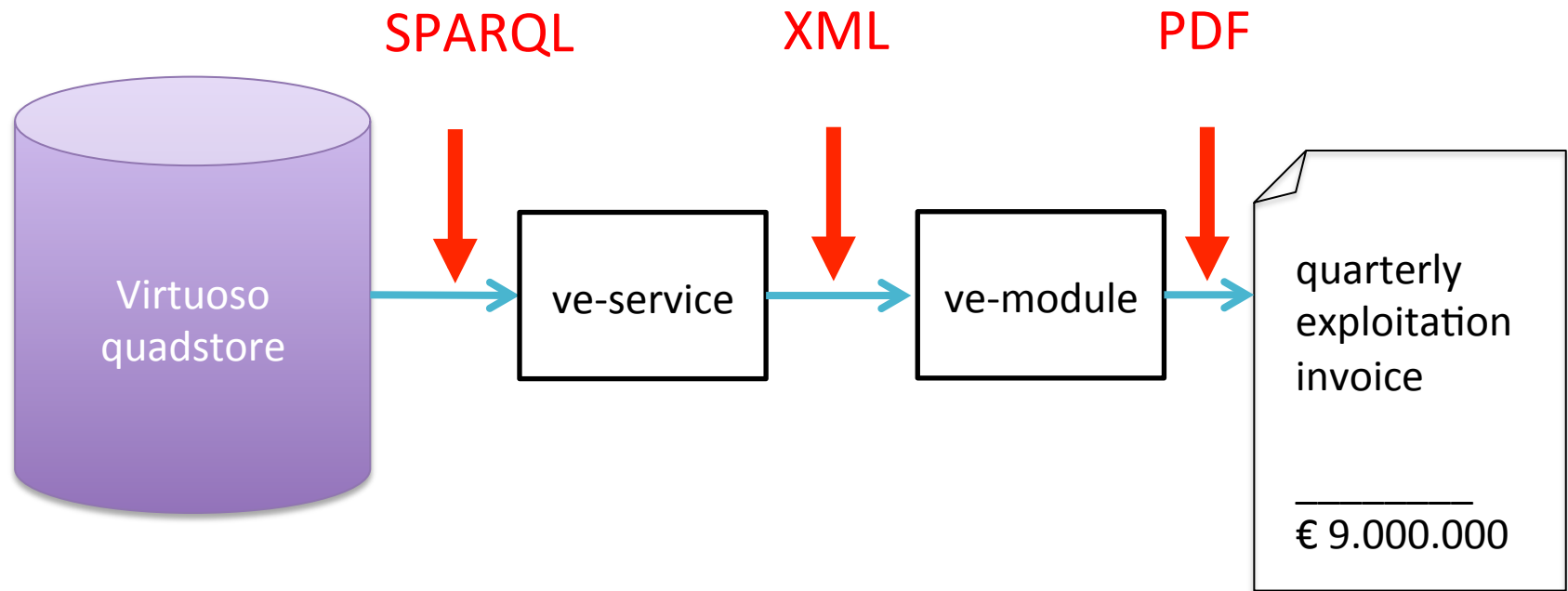


Figure 35–RDF Named Graph stating that the statement that the property PowerOfMyCar has a magnitude of 240

Querying data



Querying data

```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX pmsi: <http://pms.coentunnelcompany.nl/instance#>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX pms: <http://pms.coentunnelcompany.nl/rdl#>
```

```
SELECT DISTINCT ...
```

```
WHERE
```

```
{ GRAPH ?A
  { ?instance rdf:type pms:Melding }
  GRAPH ?B
  { ?instance pms:hasProperty ?momentId }
  ...
```

```
GRAPH ?momentGraph
  { ?momentId pms:hasValue ?moment }
MINUS
  { GRAPH ?D
    { ?newer pms:replaces ?momentGraph }
  }
```

Query data

```
<?xml version="1.0" encoding="UTF-8"?>
<Report>
  <InMeldingen>
    <Melding id="http://pms.coentunnelcompany.nl/instance#54046e21-1f7d-
e311-93f7-d89d67255006" moment="2014-01-14 08:33:00.0">
      <Tijd tijd="08:33"/>
      <Datum datum="2014-01-14"/>
      <Status status="NOK"/>
      <Waarde waarde=""/>
      <Constatering constatering="BrandblusFunctioneetestBK15Resultaat"/>
      <Event event=""/>
      <Individual individual="">
        <LocatieRijstrook locatieRijstrook="R2H">
          <LocatieSubtrace locatieSubtrace="T05S13"/>
        </LocatieRijstrook>
      </Individual>
    </Melding>
```


Virtuoso DB

at the **Second Coentunnel**

the first implementation of the
Performance Measurement System
(PMS)

Bastiaan Bijl MSc