# 52°North' OX-Framework

INTERGEO 2006

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OX-Framework

- = OGC Web Service Access Framework

- Software-Framework that enables:
  - *Access* to OWS
 - *Integration* of provided data
  - *Visualization* of geodata

OX-Framework

- ## Addresses developers
  - *customizable* and *extendable* system of **cooperating** classes
  - reusable design
  - applicable for *client* **and** *server* applications

- ## Primary objective:
  - architecture has to be so much *flexible* and *extendable* that **all** kinds of OGC Web Services can be accessed
  - queried data can be *visualized* and *processed*

Architecture
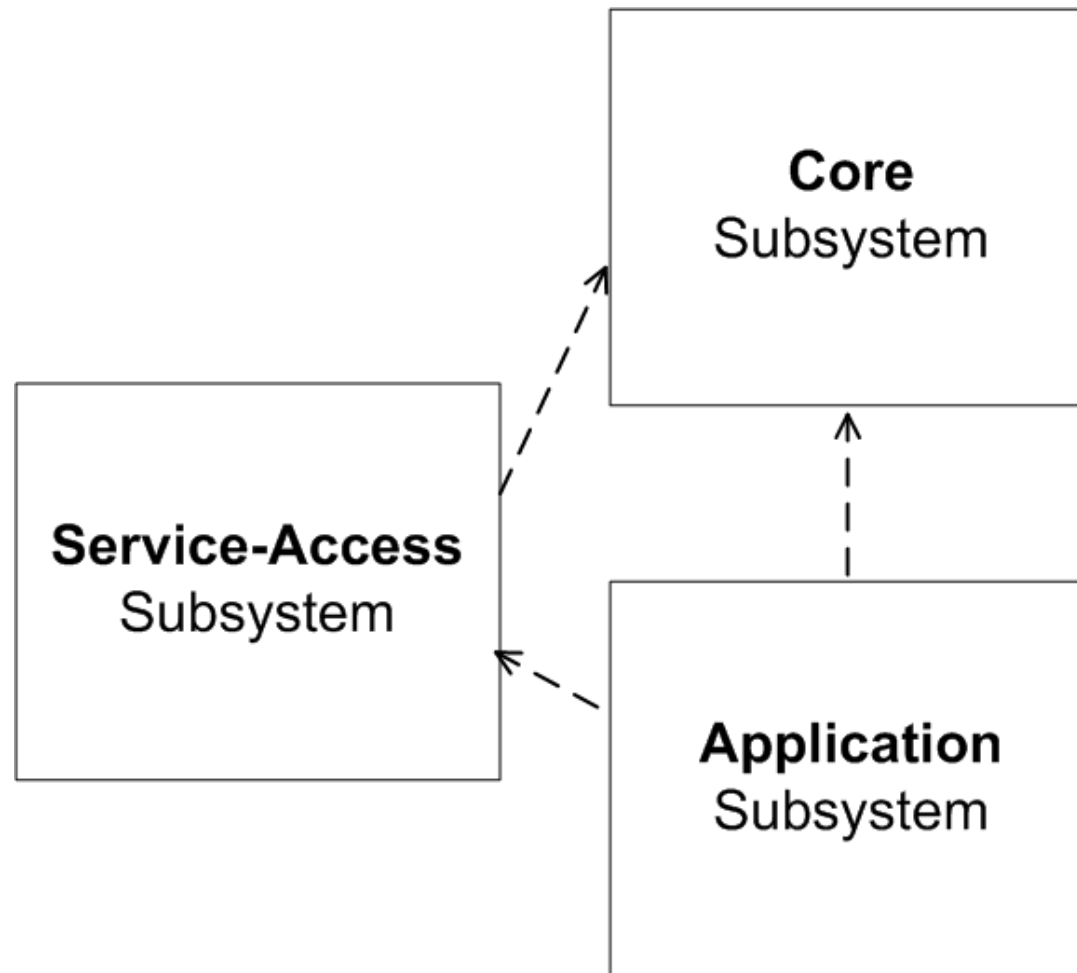
Core Subsystem
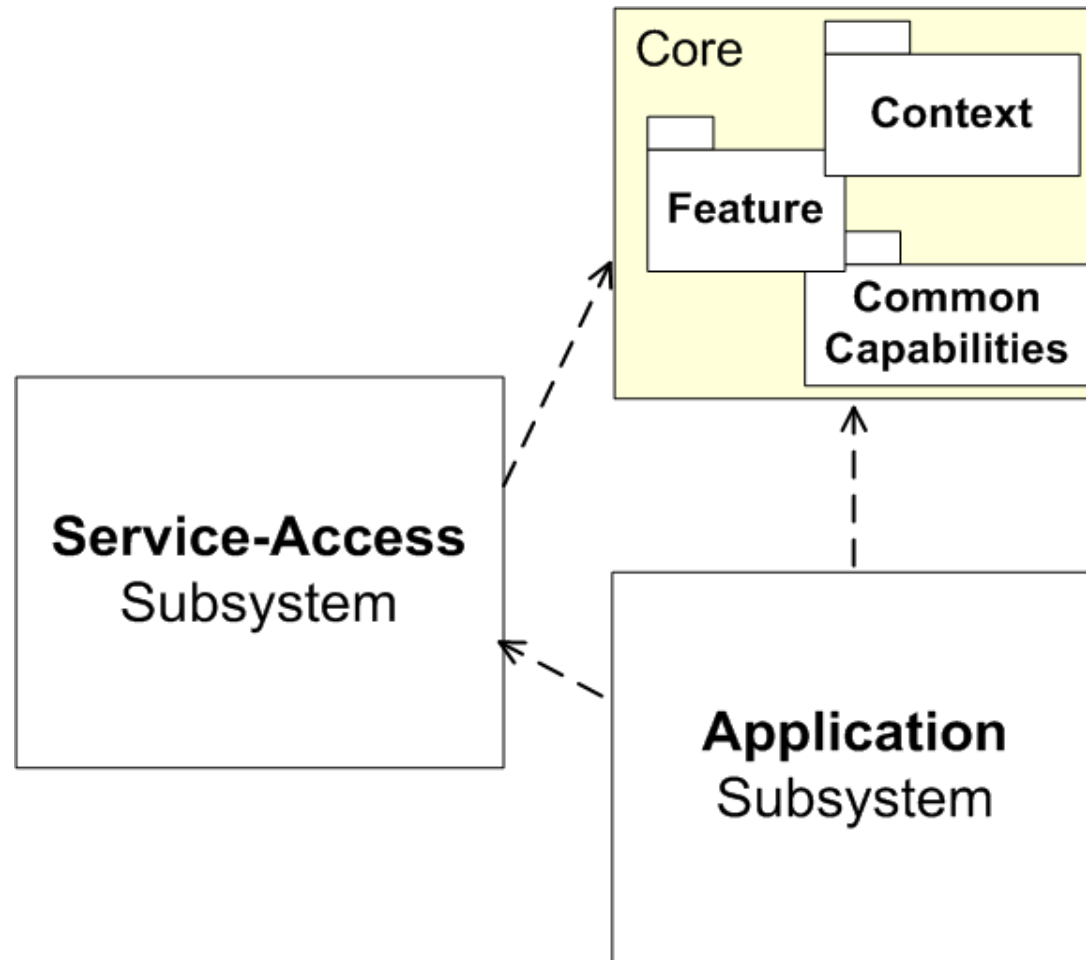
Core Subsystem

1. Common Capabilities Model

–uses the *OWS Common Specification*

- defines main parts of *content* & *structure* of Capabilities document
- already referenced by WMS, WCS, SOS …

➜ unmarshal capabilities of various service types

Core Subsystem

2. Feature Model

- uses *OGC Abstract Topic 5* and *GML*

- allows feature schemas of arbitrary complexity

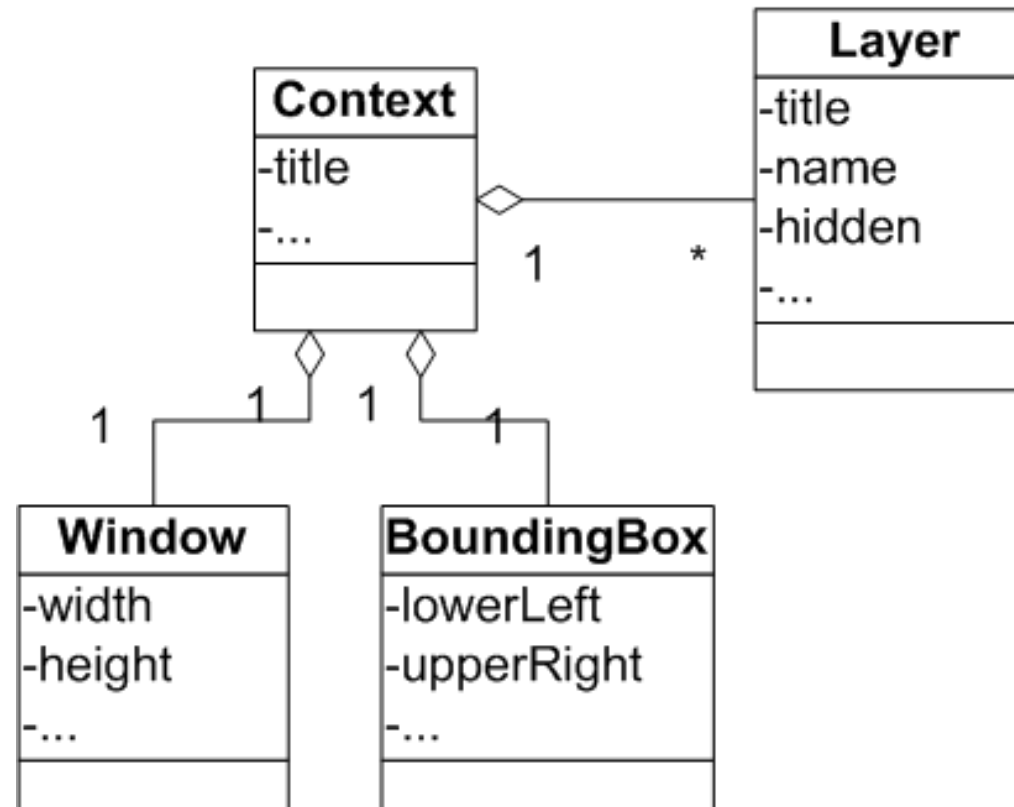- received features can be unmarshalled into these classes

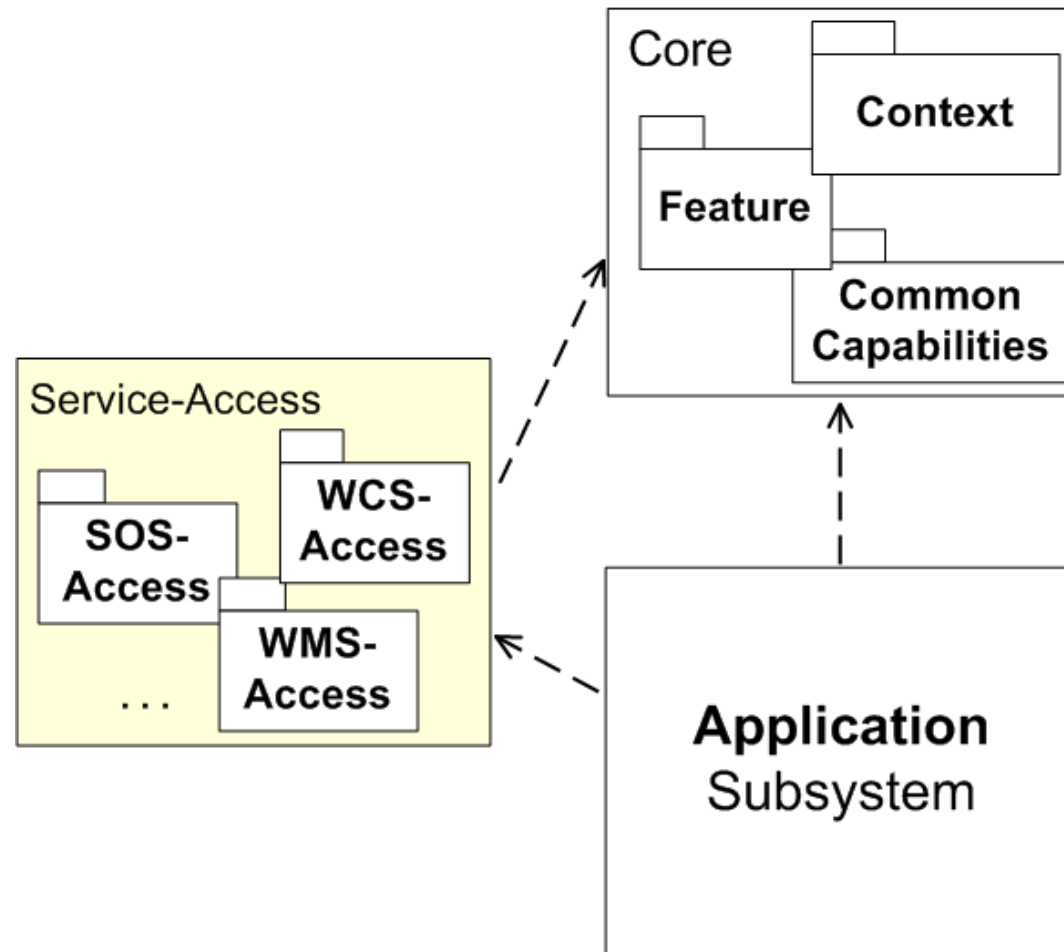# Core Subsystem

3. Context Model

- –implements the *Web Map Context Specification*

- –manages the *current state* ($\rightarrow$ "Context") of an application

- –enables *persistence*- and *exchange*-functionality
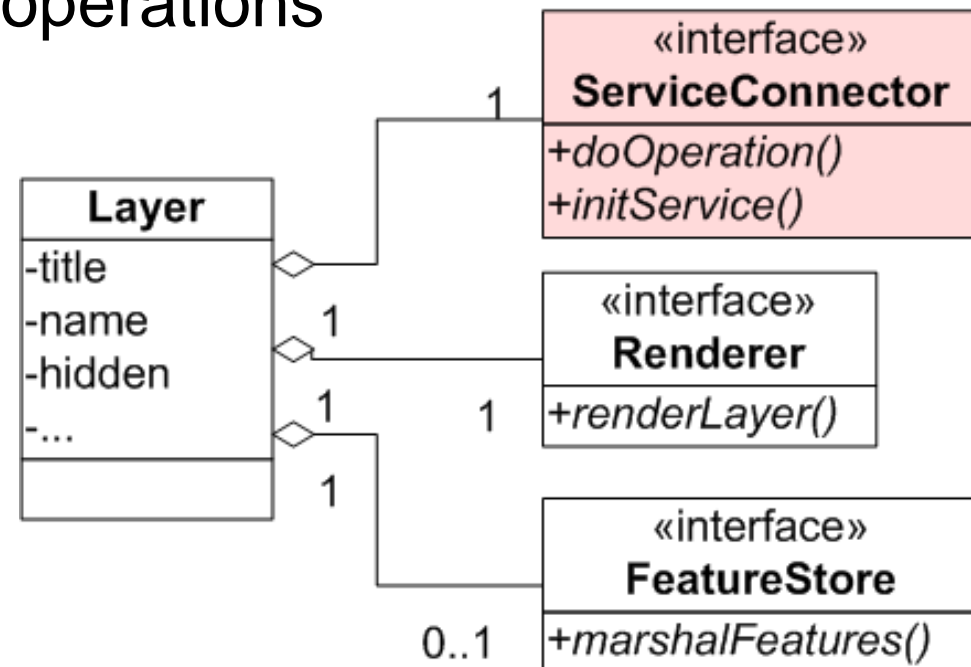
Core Subsystem

3. Context Model

Service-Access Subsystem
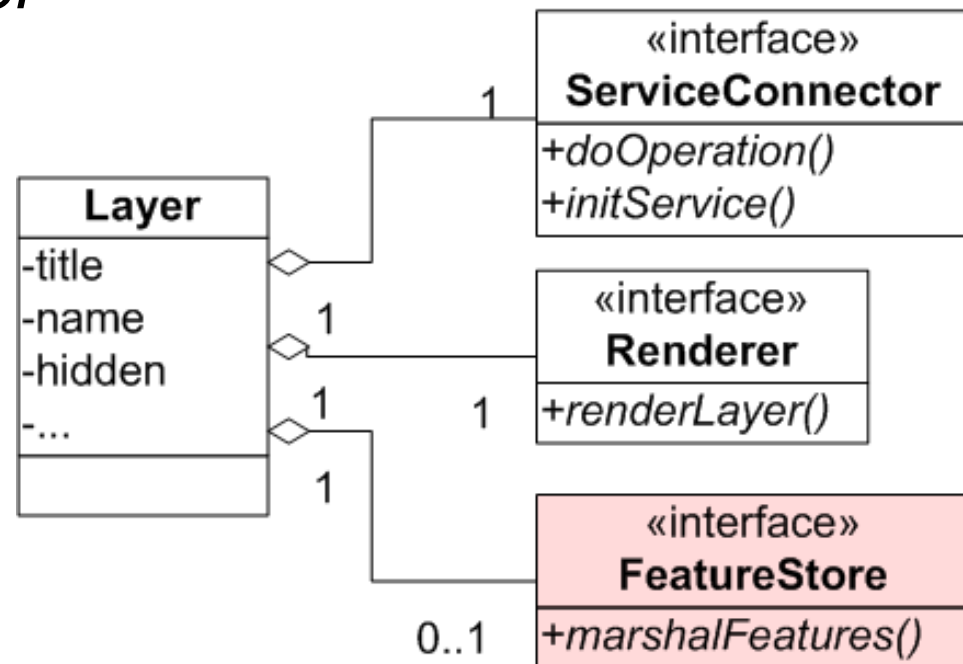
Service-Access Subsystem

1. Service-Connector

- – initializes *Common Capabilities Model*
- – executes service operations

Service-Access Subsystem
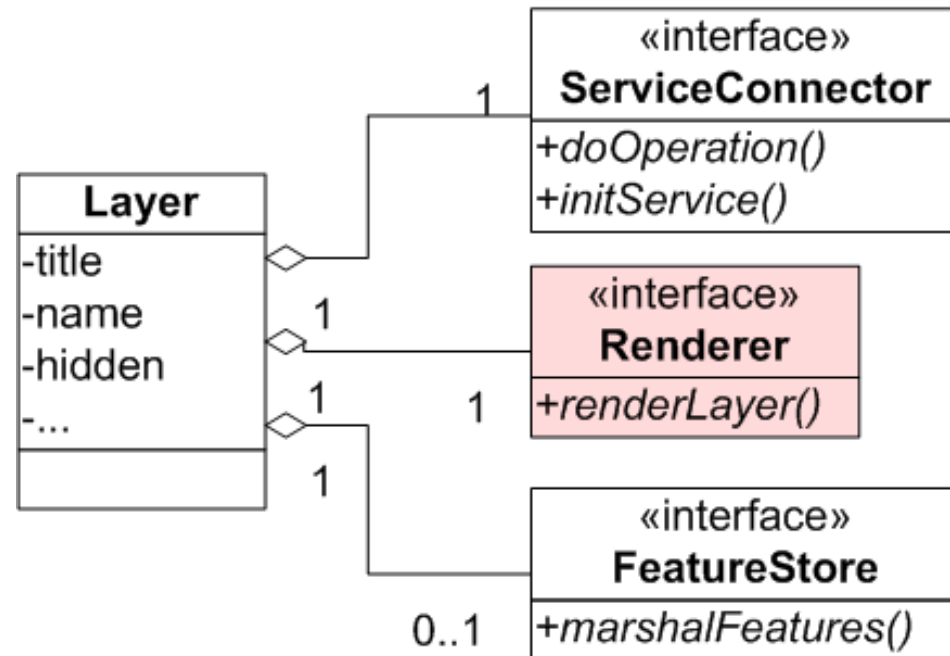
2. Feature-Store

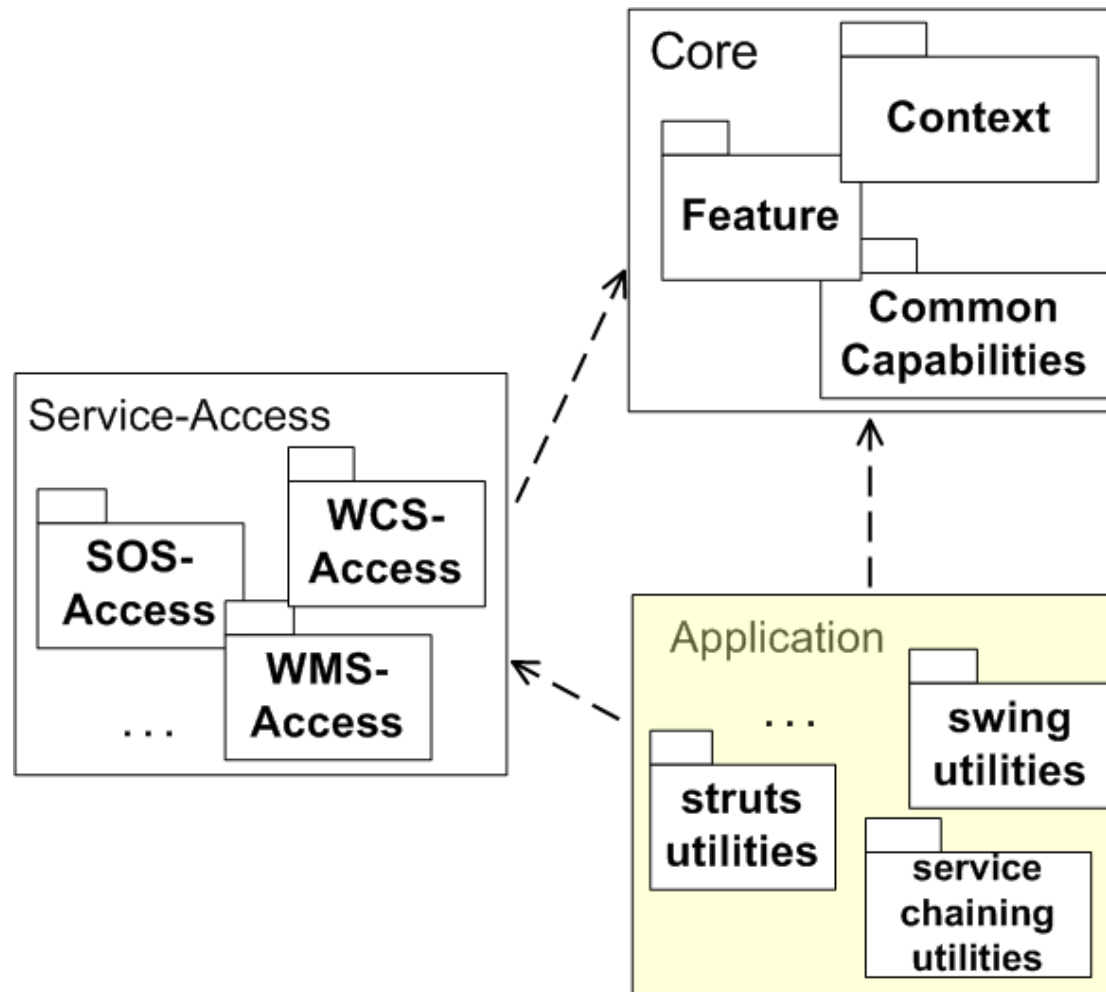- – marshals received features into
  the *Feature Model*

Service-Access Subsystem

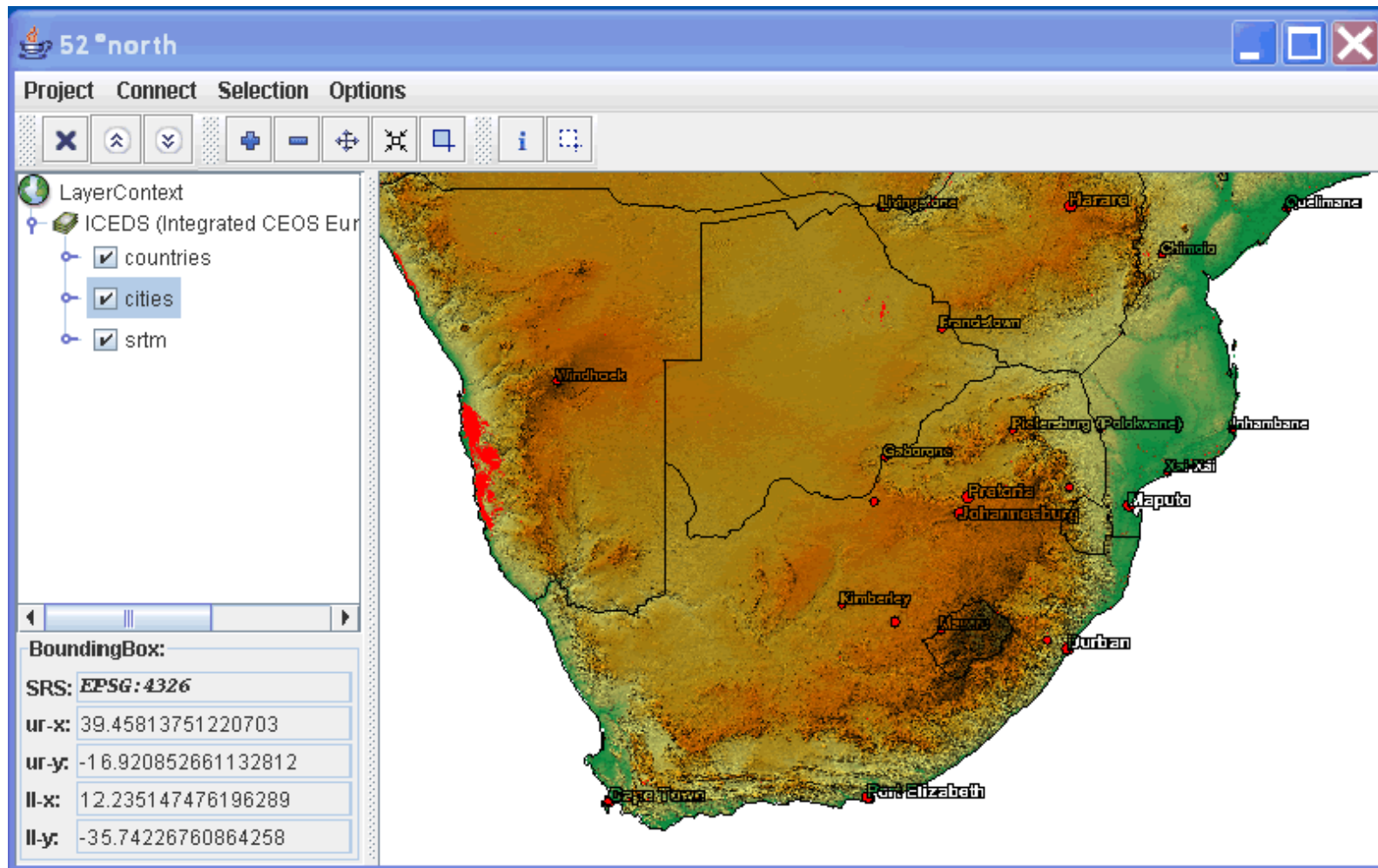## 3. Renderer

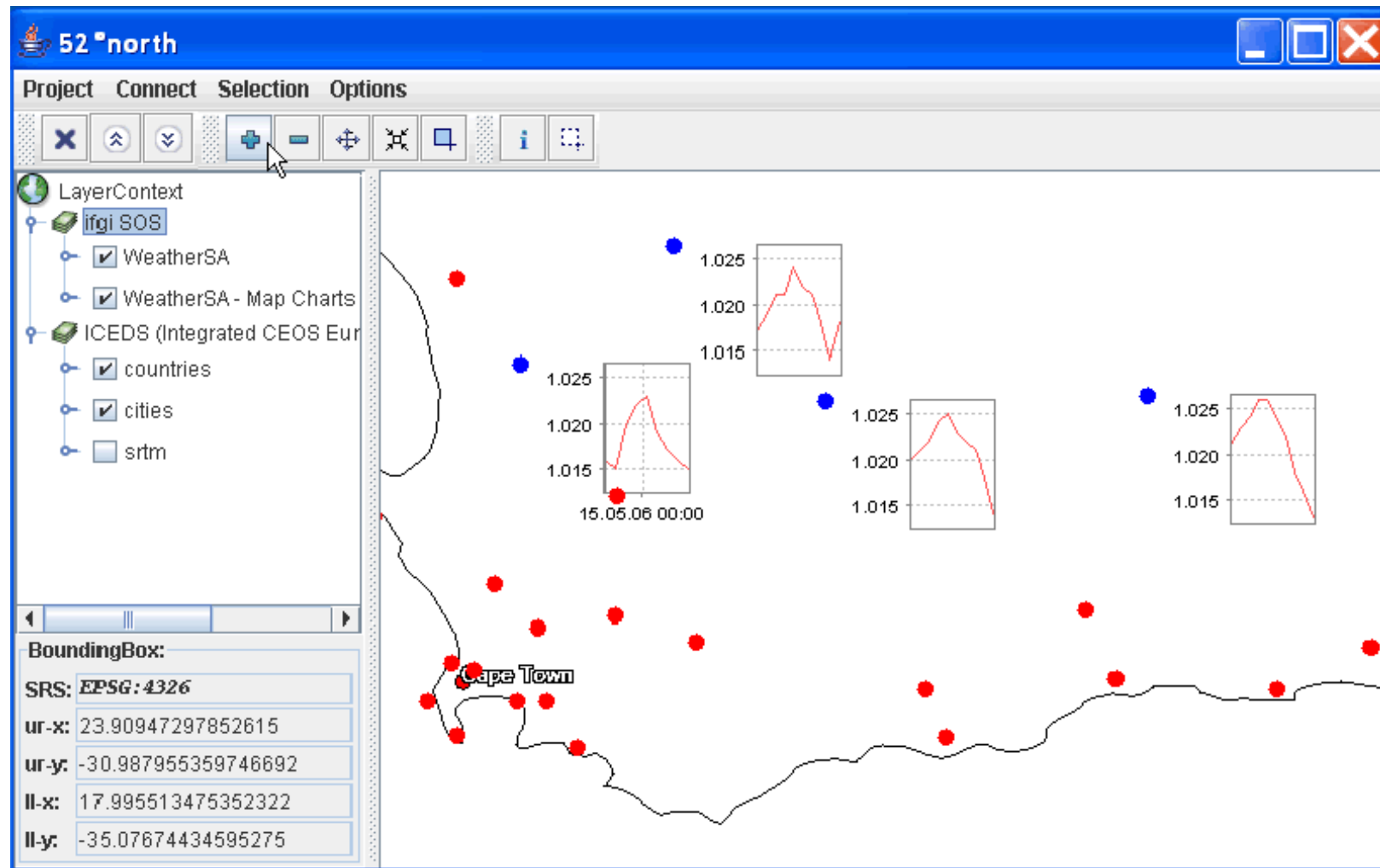– converts data to graphical representation

Application Subsystem

SWE Visualization Client

- based upon the **OX-Framework**

- enables access to: *SOS, WMS, WCS*
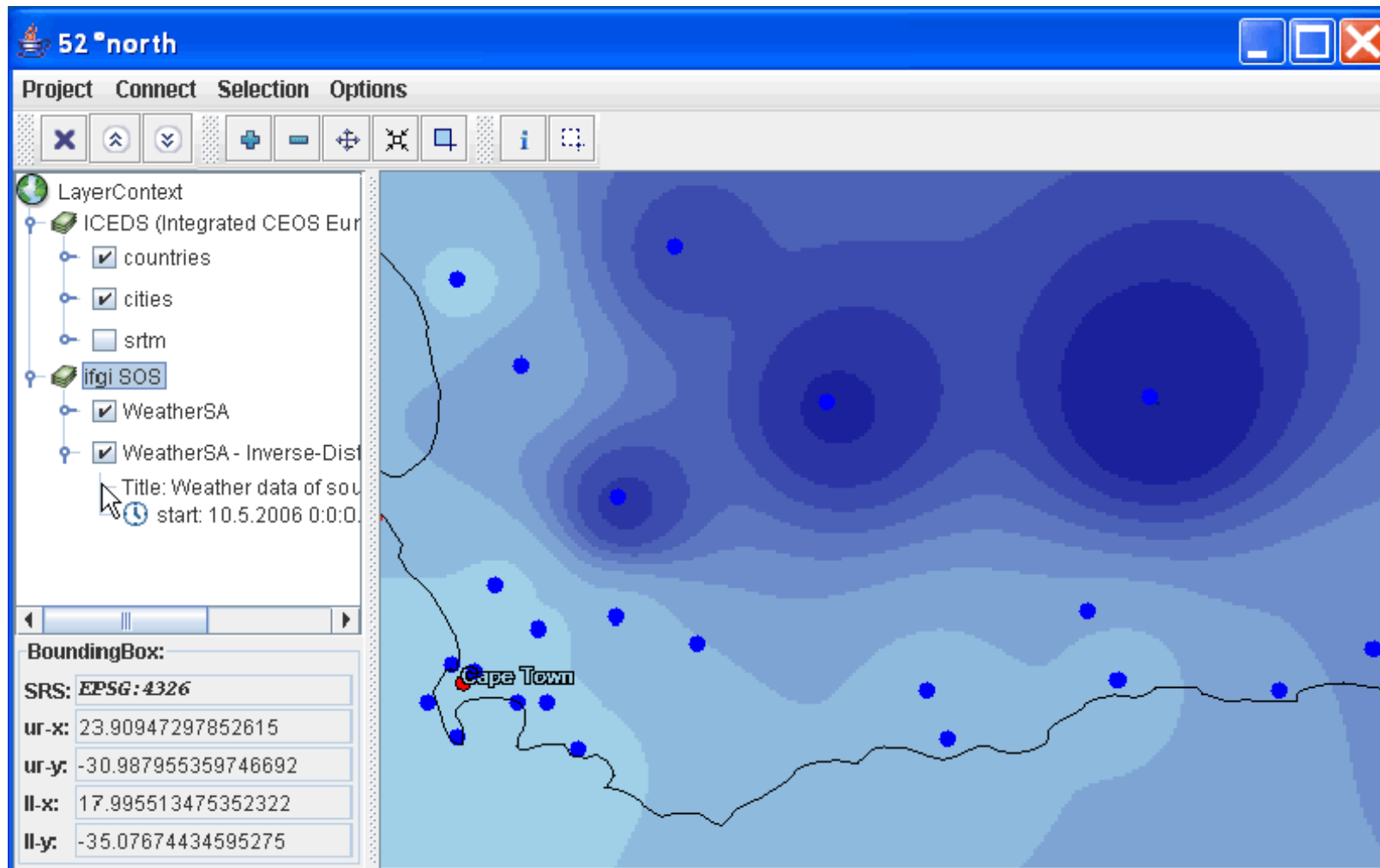
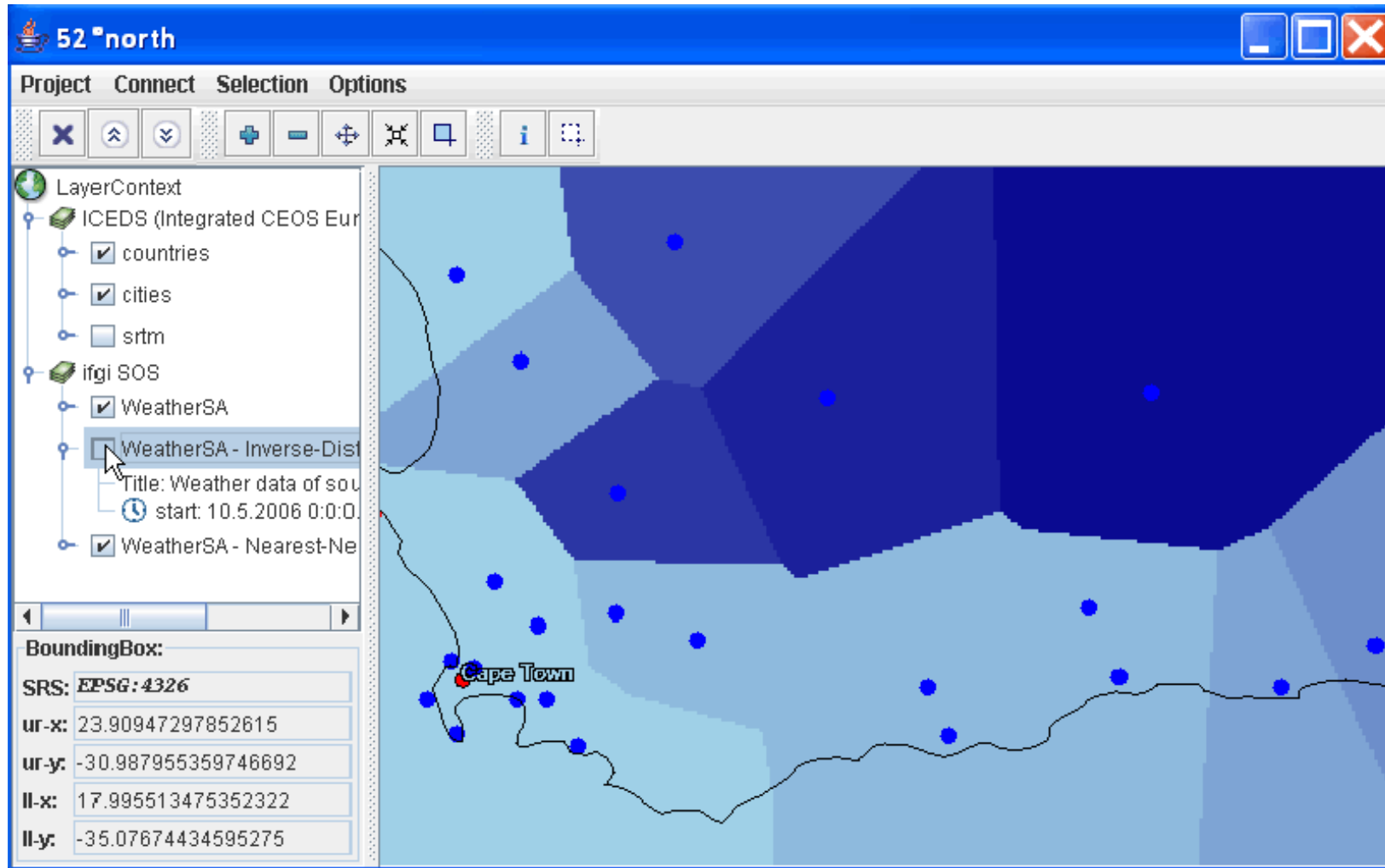- Visualization of O&M-encoded sensordata

SWE Visualization Client
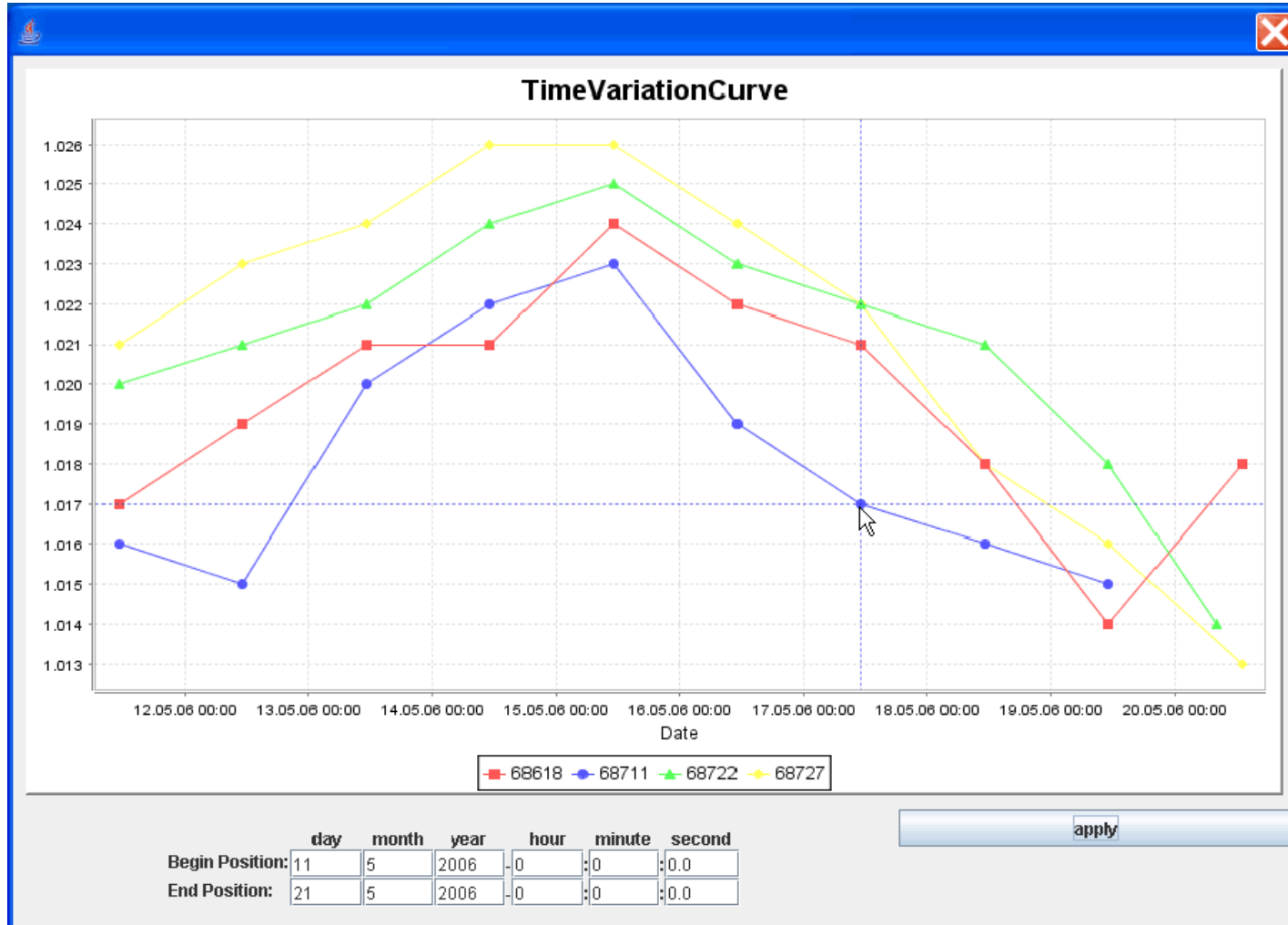
SWE Visualization Client

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