Location Aware CPN Tools Simulation Extension – Prototype Architecture Overview

CPN Tools

CPN Tools

communication
(notify CPN of presence of simulation extension)

CPN Tools
Extension Server

updates
registers

Location Aware Simulation Extension

Location Aware Extension (main class)

```
LocationAwareExtension extends AbstractExtension

Extension start(Channel c)
int getIdentifier()
String getName() : "Location Aware Extension"
Object getRPCHandler()
```

inspects /
calls

RPC Handler (object)

```
RPCHandler implements NamedRPCHandler
```

RPC methods are implemented in this class, for example:

```
Boolean equals(String feature1, String feature2)
throws Exception
```

initializes   *utilizes*   *calls / queries*

Utility Classes

Classes helping with loading, graph calculations etc.

Location Pool

Pool of features and feature types.

Geographic Information System

GeoTools Java Library

Map Visualization

Feature Objects

Containing geometry and geometric methods.

calls /
queries /
updates

calls /
queries

updates

updates / refreshes

Background Runner

Background routine to update GIS geometry.

For the prototype, the background runner randomly updates repair team coordinates.