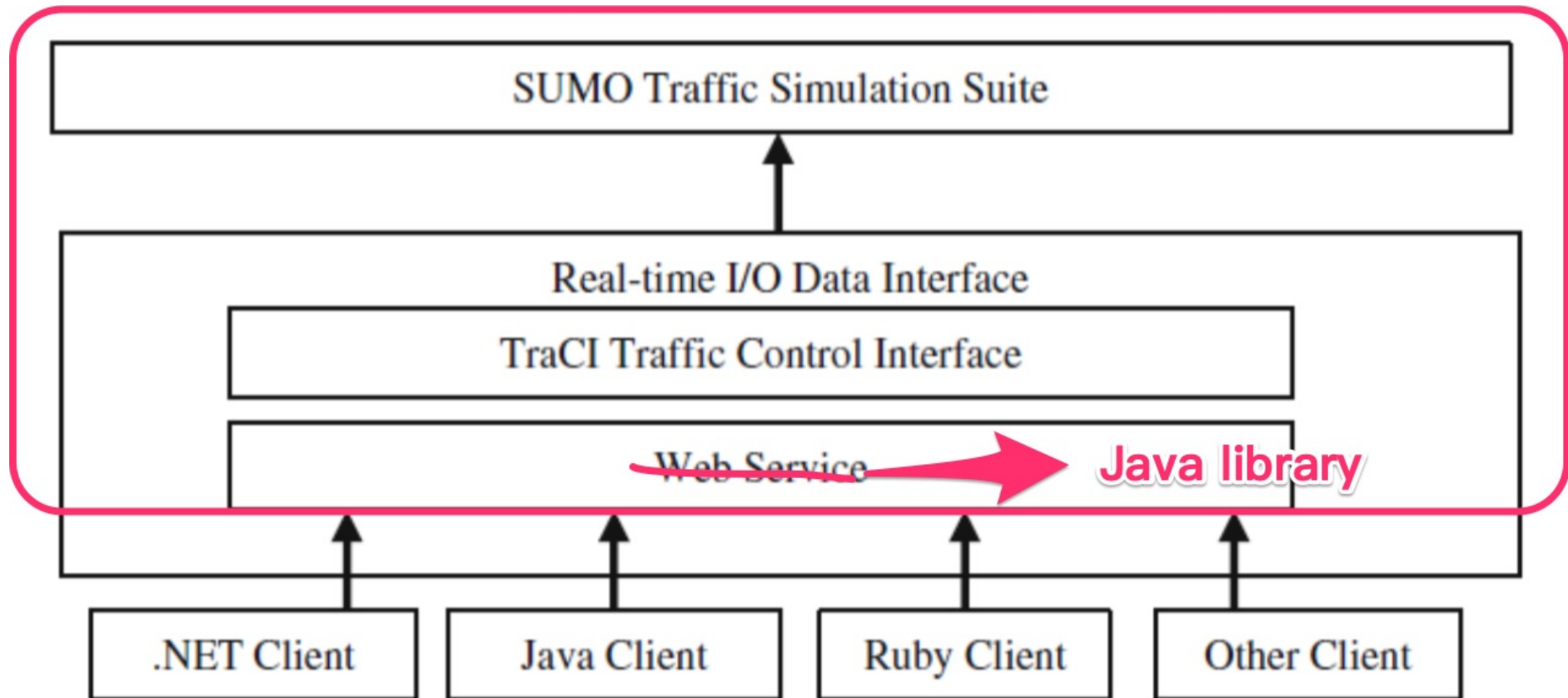


Meeting report

2019-04-11(四)

Local Connection



JDBC

```
Main.java
24 // Eclipse SUMO, Simulation of Urban MObility; see https://eclipse.org/sumo
19 import it.polito.appeal.traci.SumoTraciConnection;
25
26 public class Main {
27
28     static String sumo_bin = "sumo-gui";
29     static String config_file = "simulation/config.sumo.cfg";
30     static double step_length = 0.1;
31
32     public static void main(String[] args) {
33
34         try{
35             SumoTraciConnection conn = new SumoTraciConnection(sumo_bin, config_file);
36             conn.addOption("step-length", step_length+"");
37             conn.addOption("start", "true"); //start sumo immediately
38
39             //start Traci Server
40             conn.runServer(8080);
41             conn.setOrder(1);
42
43             for(int i=0; i<360000; i++){
44
45                 conn.do_timestep();
46                 conn.do_job_set(Vehicle.addFull("v"+i, "r1", "car", "now", "0", "0", "max", "current", "max", "current", "", "", "", 0, 0));
47                 //
48                 double timeSeconds = (double)conn.do_job_get(Simulation.getTime());
49                 int tlsPhase = (int)conn.do_job_get(Trafficlight.getPhase("gneJ1"));
50                 String tlsPhaseName = (String)conn.do_job_get(Trafficlight.getPhaseName("gneJ1"));
51                 System.out.println(String.format("Step %s, tlsPhase %s (%s)", timeSeconds, tlsPhase, tlsPhaseName));
52                 /*
53                 SumoVehicleData vehData = (SumoVehicleData)conn.do_job_get(Inductionloop.getVehicleData("loop1"));
54                 for (SumoVehicleData.VehicleData d : vehData.ll) {
55                     System.out.println(String.format(" veh=%s len=%s entry=%s leave=%s type=%s", d.vehID, d.length, d.entry_time, d.leave_t
56                 }
57             }
58             conn.close();
59
60         }catch(Exception ex){ex.printStackTrace();}
```

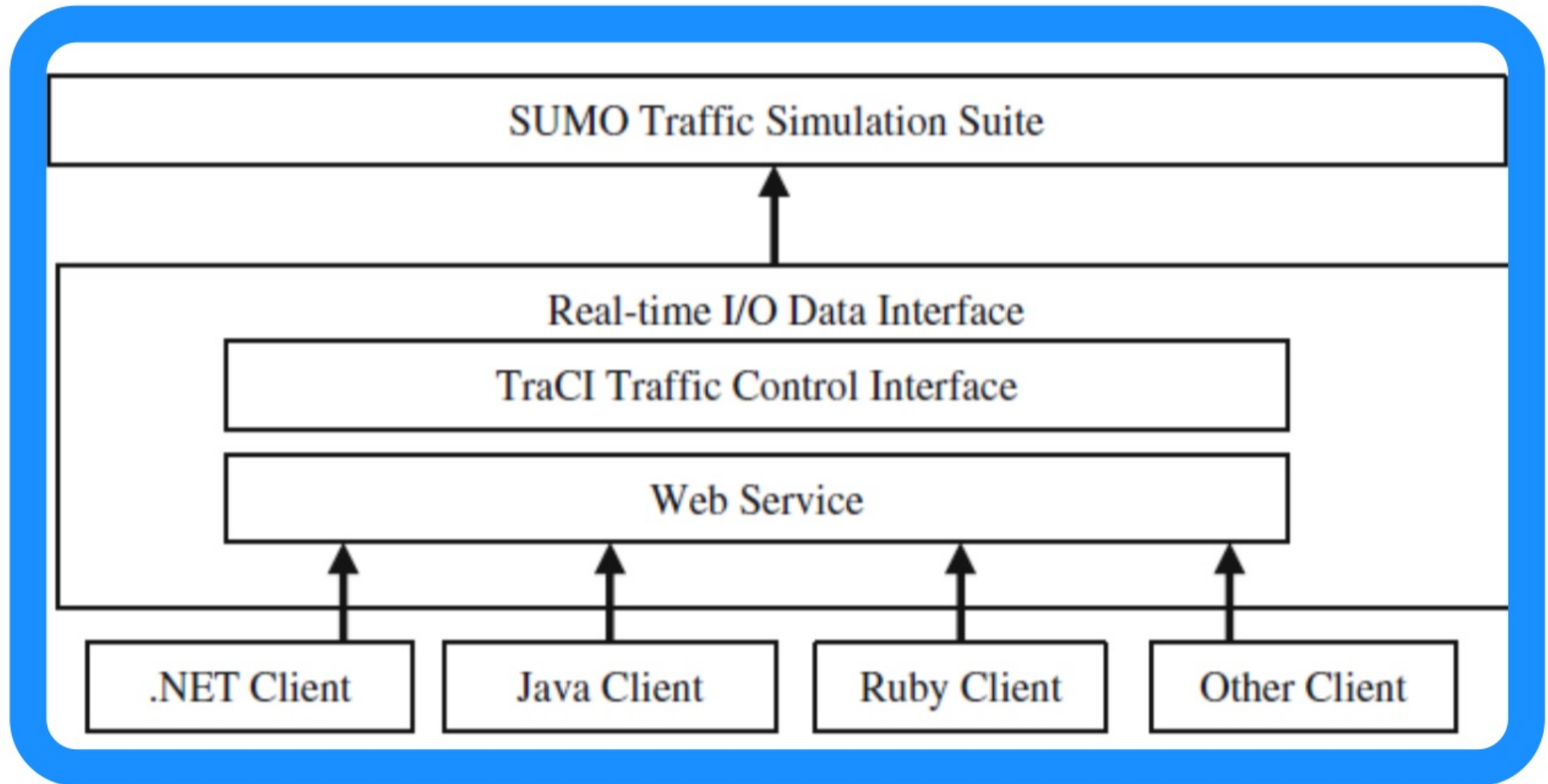
port=8080

Add cars

Get Car Information

Demo of Local Connection

Web Service



JDBC

Server Side of Web Service

The screenshot shows an IDE with four tabs: Config.java, Sumo.java, WebService.java, and ServiceImpl.java. The WebService.java file is active, displaying the following code:

```
32 public class WebService
33 {
34     static Config conf;
35     static Log logger;
36
37     public static void main (String args[])
38     {
39         conf = new Config();
40         if(args.length == 1) conf.read_config(args[0]);
41
42         logger = conf.logger;
43         logger.write(conf.name + " is going to start", 1);
44
45         Service server = (Service) new ServiceImpl(conf);
46         logger.write("The webservice (Version "+server.version()+") is available under " +
47             //start webservice
48             Endpoint.endpoint = Endpoint.publish(conf.get_url(), server);
49             ShutdownHook shutdownHook = new ShutdownHook();
50             Runtime.getRuntime().addShutdownHook(shutdownHook);
51
52             while( shutdownHook.isshutdown() != true )
53             {
54                 System.out.println("listening...");
55                 try{Thread.sleep(1000);}
56                 catch (Exception e){logger.write(e.getStackTrace());}
57             }
58
59             try{endpoint.stop();}
```

A red box highlights the while loop in the code, which is responsible for the "listening..." output seen in the console. A red arrow points from this box to the console output.

The console output at the bottom shows the following messages:

```
<terminated> WebService [Java Application] C:\Program Files\Java\jre1.8.0_202\bin\javaw.exe (2019年4月11日 上午8:55:33)
Sumo Webservice is going to start
The webservice (Version 1.1) is available under http://127.0.0.1:37875/TRAAS_WS?wsdl
listening...
listening...
listening...
listening...
listening...
```

A blue box highlights the URL `http://127.0.0.1:37875/TRAAS_WS?wsdl` in the console output. A blue arrow points from this box to the word "Url" written in blue text below it.

Browser

Server

```
32 public class WebService
33 {
34     static Config conf;
35     static Log logger;
36
37     public static void main (String args[])
38     {
39         conf = new Config();
40         if(args.length == 1) conf.read_config(args[0]);
41
42         logger = conf.logger;
43         logger.write(conf.name + " is going to start", 1);
44
45         Service server = (Service) new ServiceImpl(conf);
46         logger.write("The webservice (Version " + server.version() + ") is available under " +
47             //start webservice
48             Endpoint endpoint = Endpoint.publish(conf.get_url(), server);
49             ShutdownHook shutdownHook = new ShutdownHook();
50             Runtime.getRuntime().addShutdownHook(shutdownHook);
51
52             while( shutdownHook.isshutdown() != true )
53             {
54                 System.out.println("listening...");
55                 try{Thread.sleep(1000);}
56                 catch (Exception e){logger.write(e.getStackTrace());}
57             }
58
59             try{endpoint.stop();}
```

Console

```
<terminated> WebService [Java Application] C:\Program Files\Java\jre1.8.0_202\bin\javaw.exe (2019年4月11日 上午8:55:33)
Sumo Webservice is going to start
The webservice (Version 1.1) is available under http://127.0.0.1:37875/TRAAS_WS?wsdl
listening...
listening...
listening...
listening...
listening...
```

127.0.0.1:37875/TRAAS_WS?ws

127.0.0.1:37875/TR...

文章 NCKU English Output Official Doc Search 其他書籤

```
wss-wssecurity-utility-1.0.xsd" xmlns:wsp="http://www.w3.org/ns/ws-policy"
xmlns:wsp1_2="http://schemas.xmlsoap.org/ws/2004/09/policy"
xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:tns="http://ws.tudresden.de/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="http://schemas.xmlsoap.org/wsdl/"
targetNamespace="http://ws.tudresden.de/" name="TraasWS">
<types>
  <xsd:schema>
    <xsd:import namespace="http://ws.tudresden.de/"
      schemaLocation="http://127.0.0.1:37875/TRAAS_WS?xsd=1"/>
  </xsd:schema>
</types>
<message name="start">
  <part name="parameters" element="tns:start"/>
</message>
<message name="startResponse">
  <part name="parameters" element="tns:startResponse"/>
</message>
<message name="stop">
  <part name="parameters" element="tns:stop"/>
</message>
<message name="stopResponse">
  <part name="parameters" element="tns:stopResponse"/>
</message>
<message name="version">
  <part name="parameters" element="tns:version"/>
</message>
<message name="versionResponse">
  <part name="parameters" element="tns:versionResponse"/>
</message>
<message name="addOption">
  <part name="parameters" element="tns:addOption"/>
</message>
<message name="addOptionResponse">
  <part name="parameters" element="tns:addOptionResponse"/>
</message>
```

Client

```
30 public static void main(String[] args) {  
31     System.out.println("ready to getServiceImplPort");  
32     //Start your webservice with the bash or the cmd!  
33     ServiceImpl ws = new TraasWS().getServiceImplPort();  
34     System.out.println("hi");  
35     //optional  
36  
37     ws.setSumoBinary(sumo_bin);  
38     ws.setConfig(config_file);  
39  
40     ws.addOption("start", "");  
41     ws.addOption("step-length", step_length+"");  
42  
43     ws.start("user");  
44  
45     for(int i=0; i<36000; i++){  
46         System.out.println("in the loop");  
47         ws.doTimestep();  
48         if(i%10==0) {  
49             ws.vehicleAdd("v"+i, "car", "r1", i, 0, 13.8, (byte) 1);  
50         }  
51     }  
52  
53     ws.stop("user");
```

execute

Start

Add cars

Demo of Web Service

Question

- 1.若是車子的地點資訊傳入client，再傳給SUMO-gui顯示，會不會有失真
- 2.若是從SUMO-gui 傳出car-info給外界，會不會失真？