

2. Query flow time series from a database and use it in the river model as a boundary condition

Summary

Data are queried from a database using component that accepts query string as input data and produces time series as output.

```
Database
  QueryString (input) = "select Time, Flow from measurement table where LocationID = 155"
  FlowTimeSeries (output) = { (t0, v0), (t1, v1), ... }

RiverFlowModel
  FlowBoundaryCondition (input) = { (t0, v0), (t1, v1), ... }
```

Database component can **process** query and generate values in resulting table.

Model can **compute** flow in the river for a specified time step(s).

How to address in Version 1

Not possible or possible with big performance overhead since OpenMI 1.0 can only address array of values in the IValueSet interface. Another way is to transfer it as IVectorSet but in this case it is semantically incorrect since vector is defined as a set of values for each component (x, y, z) and not as a *Time (argument) -> Flow (function)* relation.

How to address in Version 2

... to be done.