Introduction

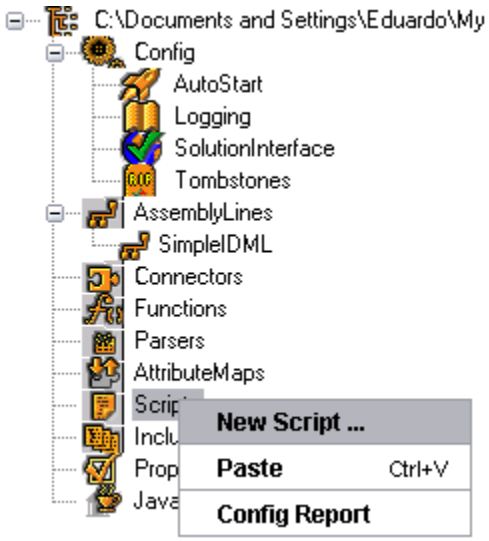
This document describes how to use the JavaScript code deltaEngine.js to determine changes in the data source.

This document extends the tutorial Creating IDML Books using Tivoli Directory Integrator (DLA Tutorial), describing how to create a Discovery Library Adapter. Certainly, the deltaEngine can be used in any Assembly Line, and the use in the DLA process is just an example.

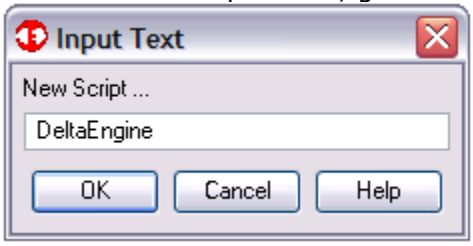
Configuration of deltaEngine.js

The component deltaEngine.js can be obtained from Lotus Quickr Place. Copy this file to your TDI solution directory. Then follow these steps to configure it:

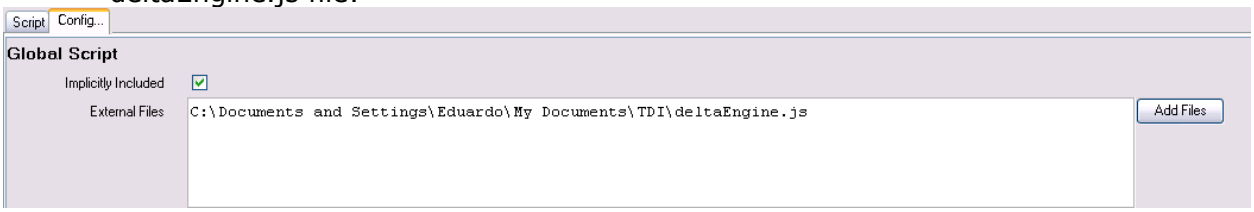
- Right-click Scripts and click New Script



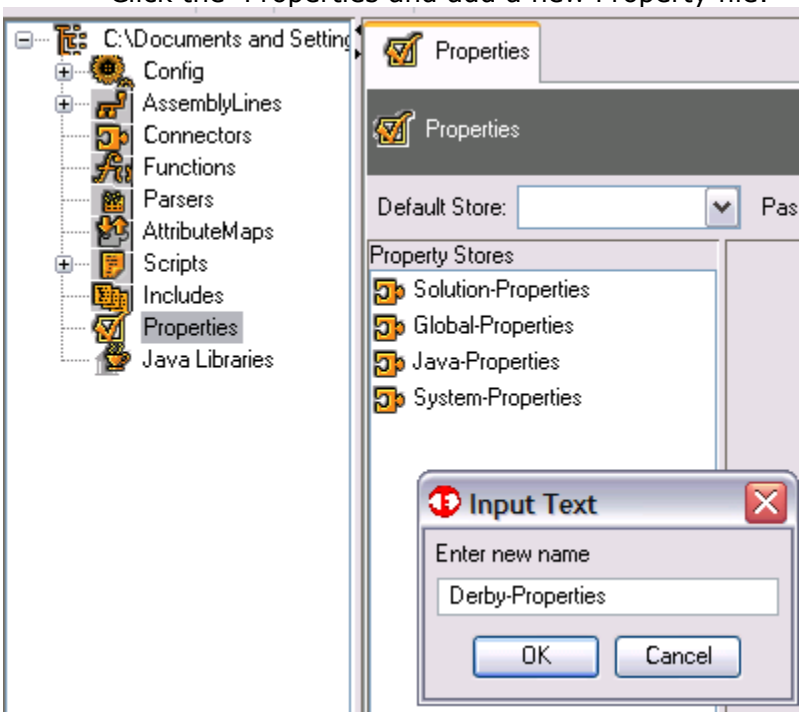
- In the Input Text, give the Script a name and click OK:



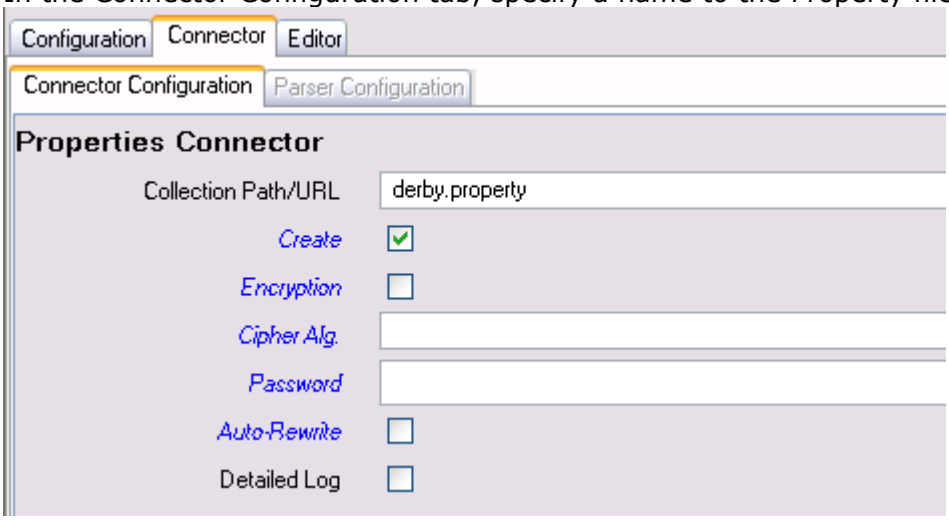
- Click the Config... tab, select the Implicitly Included checkbox and the add the deltaEngine.js file:



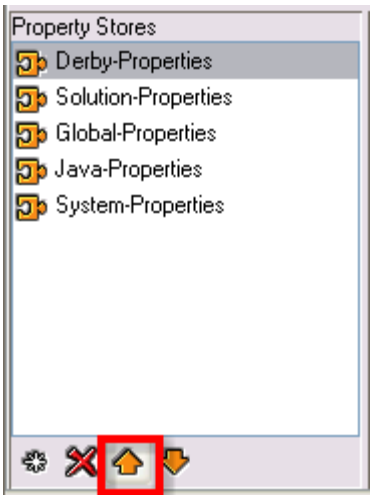
- Click the Properties and add a new Property file:



- In the Connector Configuration tab, specify a name to the Property file:



- In the Property Stores list, move the Derby-Properties to the top of the list:



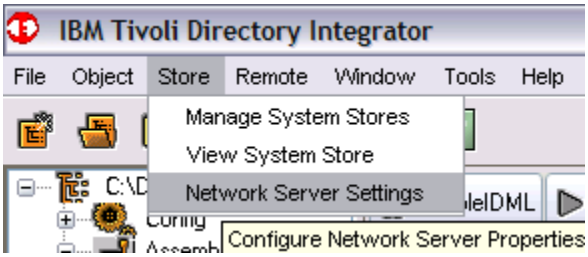
- In the Editor tab, define the properties below, adjusting the com.ibm.di.store.database property according to your TDI solution directory:
-

Name	Protect	Value
com.ibm.di.store.database	☐	jdbc:derby://localhost:1527/C:\Documents and Settings\Eduardo\My Documents\TDI\TDISysStore;create=true
com.ibm.di.store.jdbc.driver	☐	org.apache.derby.jdbc.ClientDriver
com.ibm.di.store.jdbc.password	☐	APP
com.ibm.di.store.jdbc.user	☐	APP

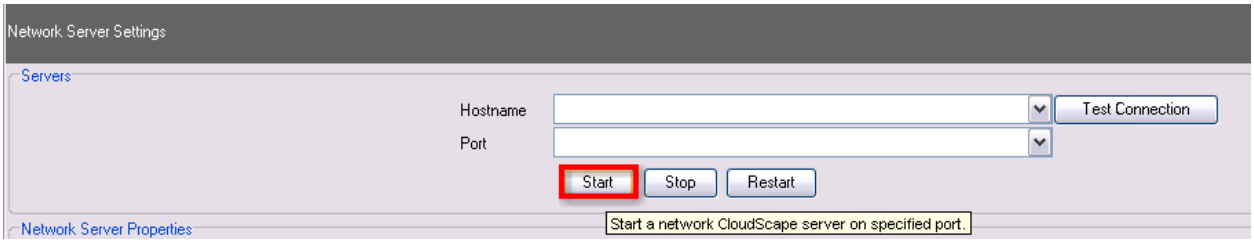
Configuration of the System Store

Before we can use the TDI System Store, we need to start it. Follow these steps to start it:

- Click Store -> Network Server Settings:



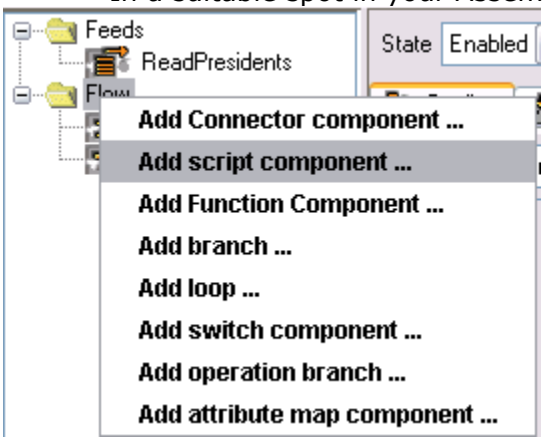
- Click Start:



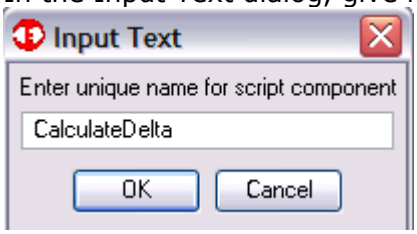
Using the deltaEngine Script

This section describes the procedure to use the deltaEngine in an Assembly Line:

- In a suitable spot in your Assemby Line, add a Script



- In the Input Text dialog, give it a name and click OK:



- Type the following script in the CalculateDelta:

```
deltaEntry = deltaEngine.computeDelta (work, "machine");

task.logmsg ("deltaEntry: " + deltaEntry.getOperation ());
```

- Run your Assembly Line. The first time you run the Assembly Line, it shows the deltaEntry operation as add, indicating the records should be added. The subsequent runs show the operation as generic, indicating there was no change to the entry:

```
11:54:20
11:54:20  @@Old snapshot: [machine:troosevelt.my.com]
11:54:20  @@Commiting snapshot changes...
11:54:20  @@finished
11:54:20  deltaEntry: generic
11:54:20
```

- Assuming we want to skip the entries that have no change, add the following code to CalculateDelta script:

```
deltaEntry = deltaEngine.computeDelta (work, "machine");

task.logmsg ("deltaEntry: " + deltaEntry.getOperation ());
```

```
if (!deltaEntry.getOperation().equals ("add")) {
    task.logmsg ("Skipping entry: " + work.getString ("machine"));
    system.skipEntry ();
}
```

- Now, the Assemby Line will skip the records that are not new to the data source.

Conclusion

This tutorial showed how to use the deltaEngine.js to determine changes in the data source. With a few steps, it's possible to leverage the internal TDI System Store to store a snapshot of the data source and skip records that have been processed.