

The page features a decorative design with several overlapping blue circles of varying sizes and shades, connected by thin blue lines that form a large, abstract shape on the right side of the page. The circles are arranged in a way that suggests a path or a sequence, with the largest circle at the top right and the smallest at the bottom right.

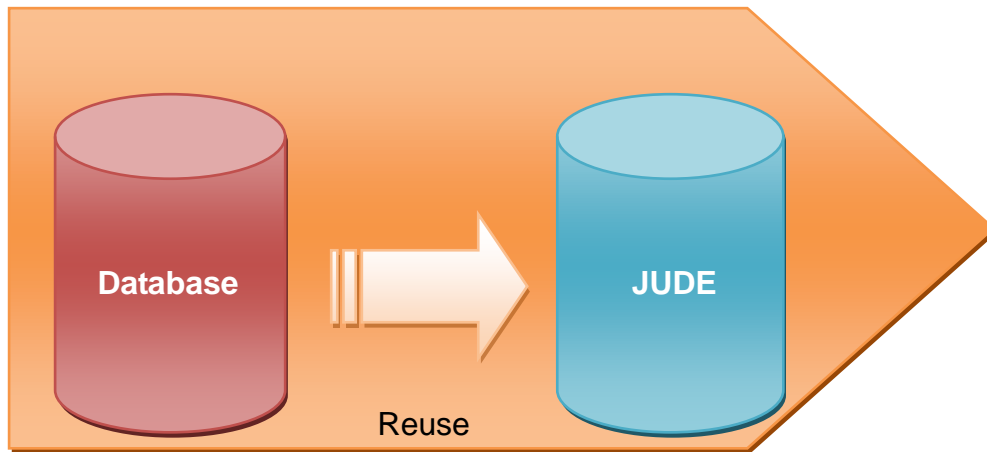
# JUDE Database Reverse Tool Tutorial

JUDE/Professional 5.3

Change Vision, Inc.  
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Sample tool “JUDE DB Reversing Tool” has been created by using the edit function of JUDE API, particularly API of ER models. By using this tool, you can connect to the database and import the content of database tables into JUDE/Professional.



## 1. Before you start

### 1.1. [ API\_sample\_program\_license\_agreement-e.txt ]

Read the “License Agreement for JUDE API Sample Programs”

(“API\_sample\_program\_license\_agreement-e.txt”, which is stored in JUDE install folder.)

### 1.2. JDBC driver

A JDBC driver needs to be installed in advance to use this JUDE DB Reversing tool to convert table data of database into JUDE models. Please download an appropriate JDBC driver and set up by yourself.

## 2. Creating a Database

This step will guide you how to create a database and tables using the HSQLDB that we used for our test. If you already have an existing database that contains tables you want to import, skip to next step.

### 2.1. Download HSQLDB

Download the latest version of HSQLDB from the following URL.

<http://hsqldb.org/>

### 2.2. Install the HSQLDB database

Install the required J2SE first, then open the hsqldb\_1\_8\_0\_9.zip file.

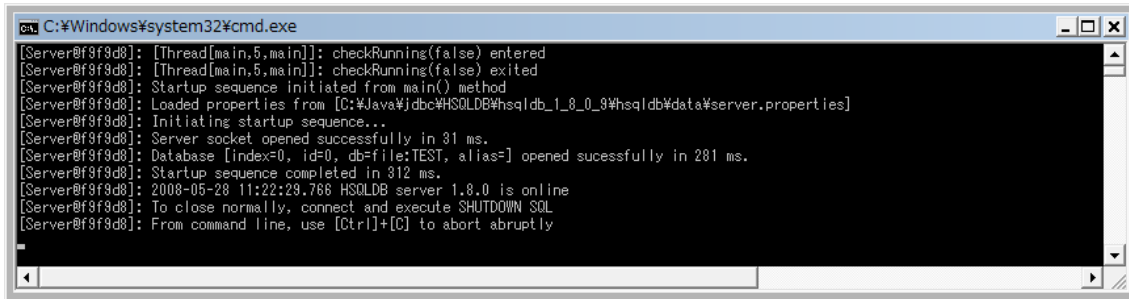
(\* In this step, we open the files under “C:¥hsqldb\_1\_8\_0\_9”)

### 2.3. Running HSQLDB from command prompt

Open a command prompt and type as below.

```
cd C:\%hsqldb_1_8_0_9%hsqldb\data
java -cp ..\lib\hsqldb.jar org.hsqldb.Server -database TEST
```

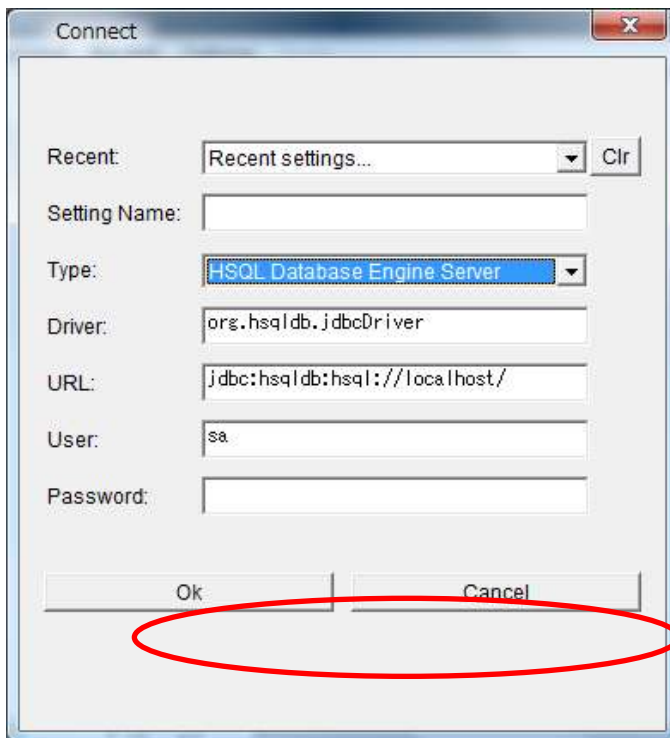
When it works successfully, a dialog as shown below will appear.



### 2.4. Running HSQLDB Database Manager from command prompt

Open a command prompt and type as below.

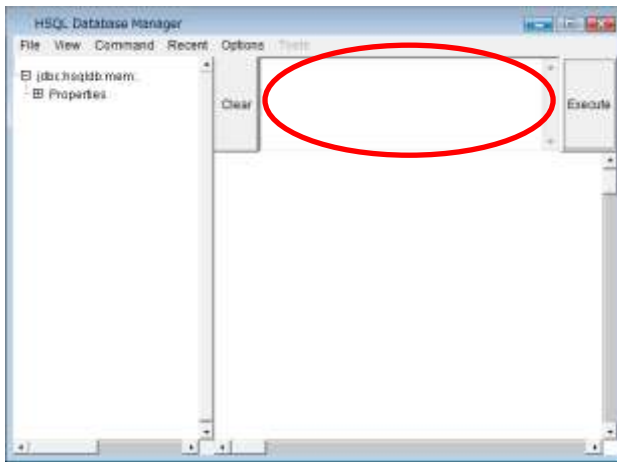
```
cd C:\%hsqldb_1_8_0_9%hsqldb\data
java -cp ..\lib\hsqldb.jar org.hsqldb.util.DatabaseManager
```



Change the Type to “HSQL Database Engine Server” then click [OK].

## 2.5. Executing SQL statement from HSQLDB Database Manager

Type SQL statements as described below in the right text area of next dialog.



```

DROP TABLE A IF EXISTS;
DROP TABLE B IF EXISTS;
DROP TABLE C IF EXISTS;

CREATE TABLE A (
  ID INT NOT NULL PRIMARY KEY,
  Name VARCHAR(10)
);

CREATE TABLE B (
  ID INT NOT NULL PRIMARY KEY,
  Name VARCHAR(10),

  FOREIGN KEY (ID) REFERENCES A (ID)
);

CREATE TABLE C (
  ID INT,
  Name VARCHAR(10),

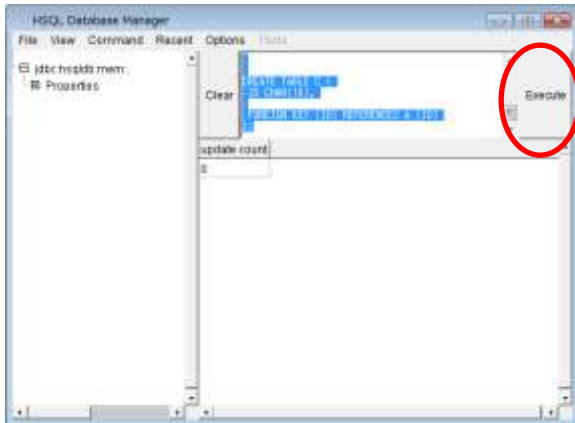
  FOREIGN KEY (ID) REFERENCES A (ID)
);

CREATE TABLE C (
  ID CHAR(10),

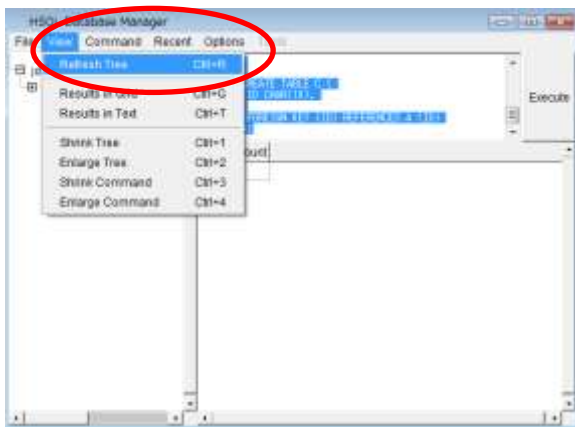
  FOREIGN KEY (ID) REFERENCES A (ID)
);

```

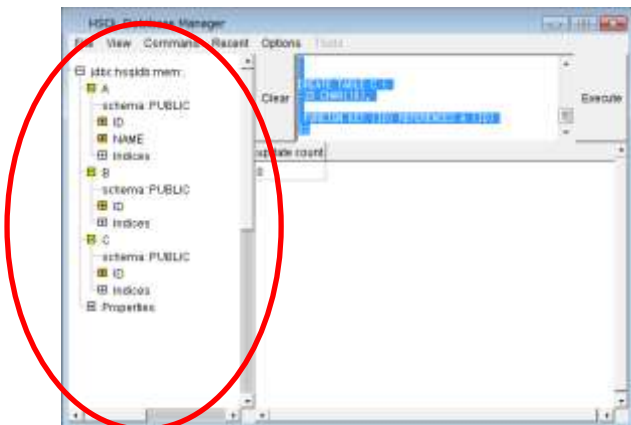
Press [Execute] button, then a dialog as shown below will appear.



Select [View] - [Refresh Tree] from Main Menu.



You see that Table A, B and C are created.



## 2.6. Close HSQLDB Database Manager

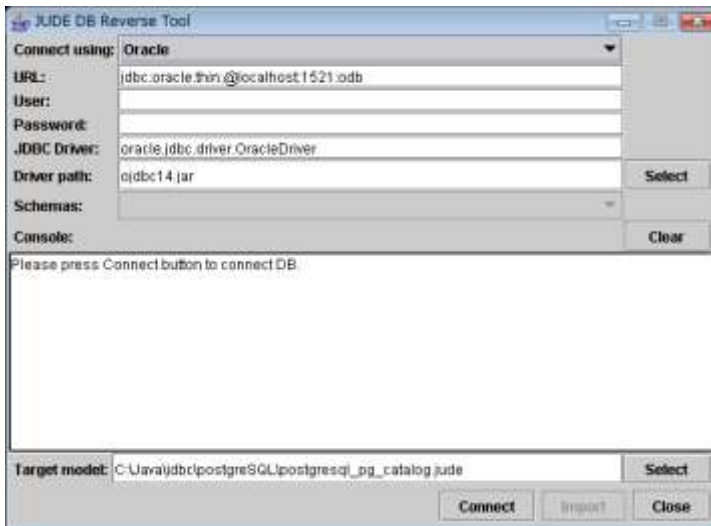
Close HSQLDB Database Manager window.

### 3. Importing Database

#### 3.1. Running JUDE DB reversing tool

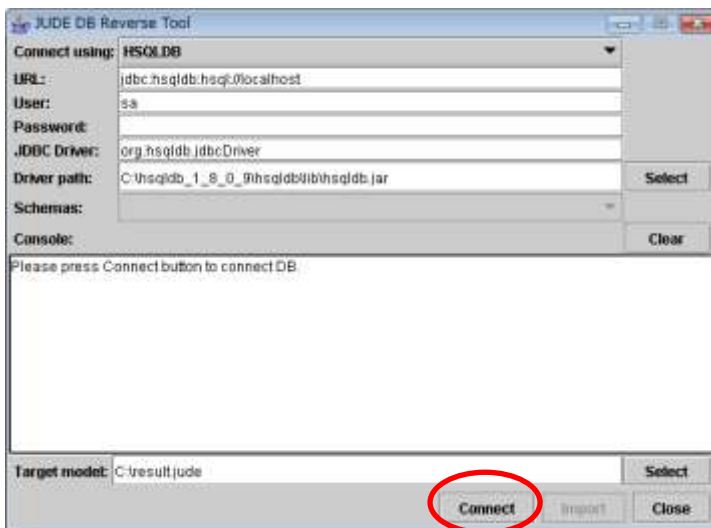
Double-click the “JUDE Install Folder\api\sample\db\_reverse\run.bat” file to run JUDE DB reversing tool.

(i.e. C:\Program Files\JUDE-Professional\api\sample\db\_reverse\run.bat)



#### 3.2. Setting up the information

Fill in the required information for the connection, and then click [Connect].

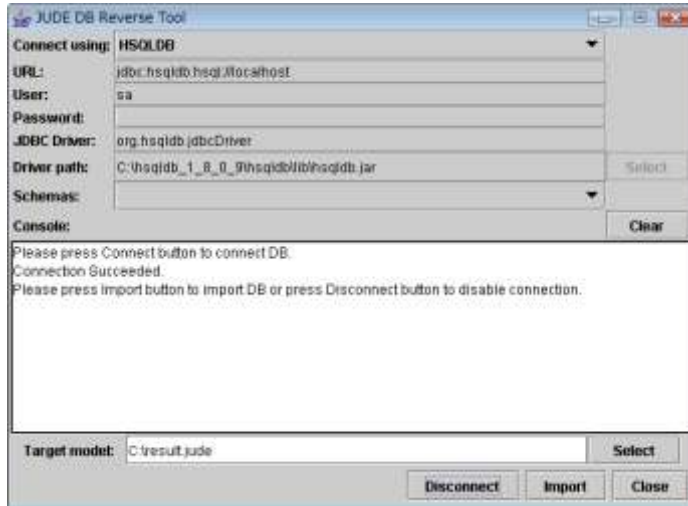


<b>[URL]</b>	jdbc:hsqldb:hsq://localhost
<b>[User]</b>	sa
<b>[Password]</b>	
<b>[JDBC Driver]</b>	org.hsqldb.jdbcDriver
<b>[Driver path]</b>	C:\hsqldb_1_8_0_9\hsqldb\lib\hsqldb.jar
<b>[Target Model]</b>	C:\result.jude

### 3.3. Connecting to Database

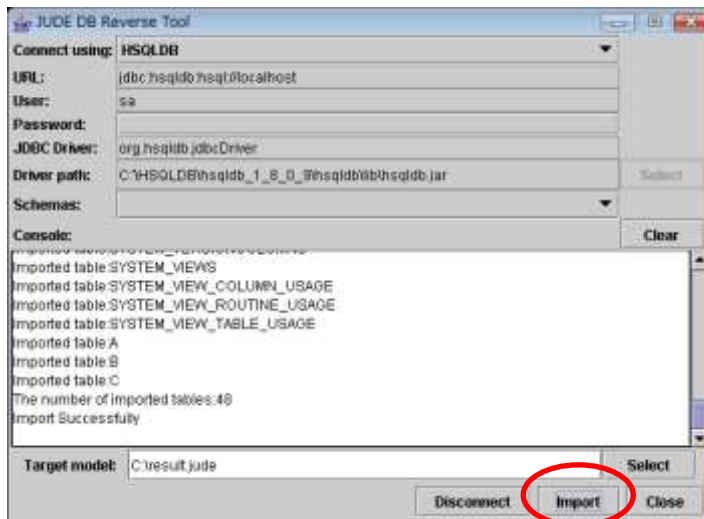
Press the [Import] button.

[Import] button will be available once the connection to the database is established completely.



### 3.4. Importing database tables into JUDE

A message [Import Successfully] will appear when the database reversing is completed successfully.

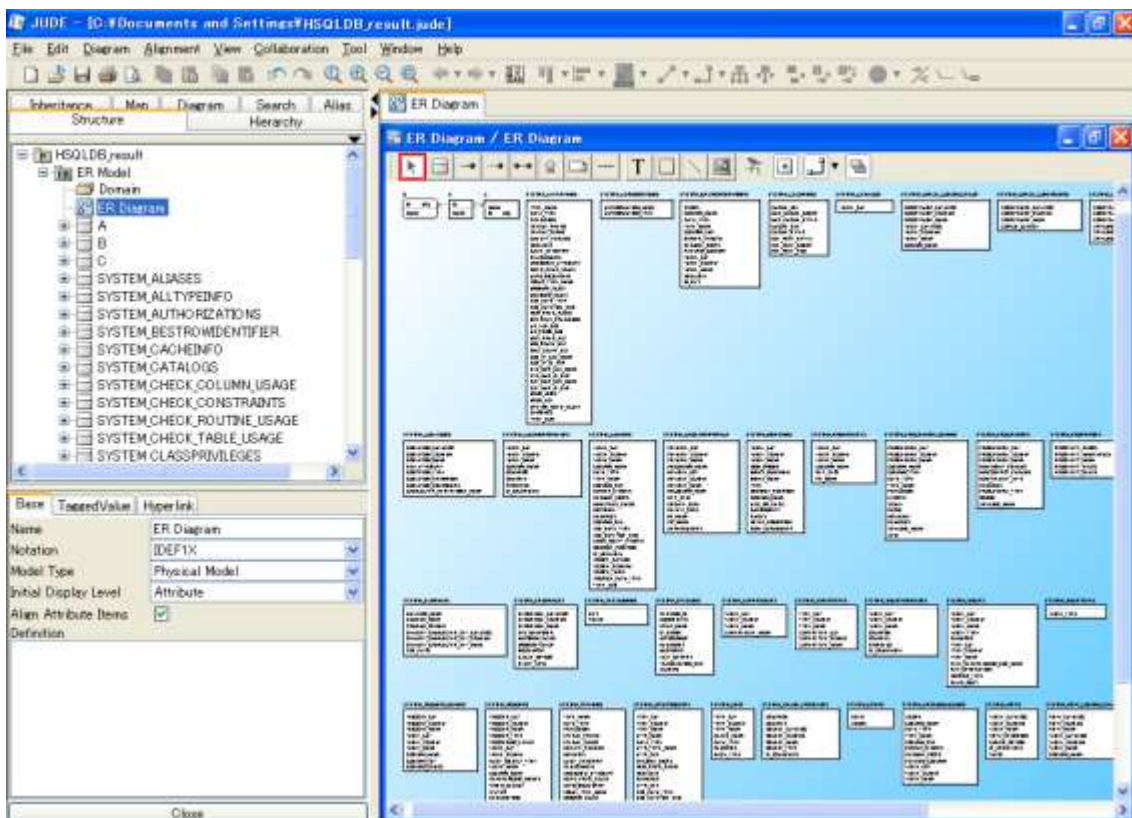
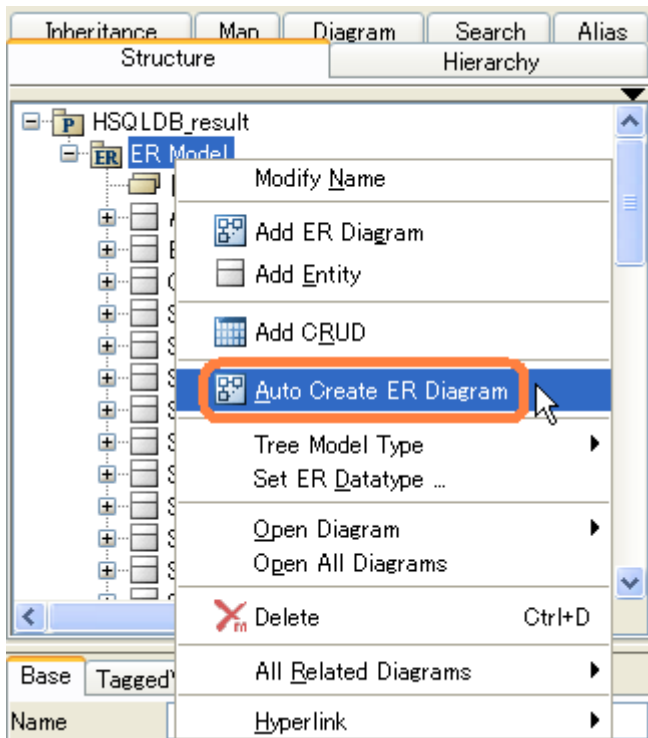


## 4. Opening .jude file in JUDE/Professional

### 4.1. Run JUDE/Professional and open the .jude file that is created

#### 4.2. Create ER Diagrams with all reversed tables

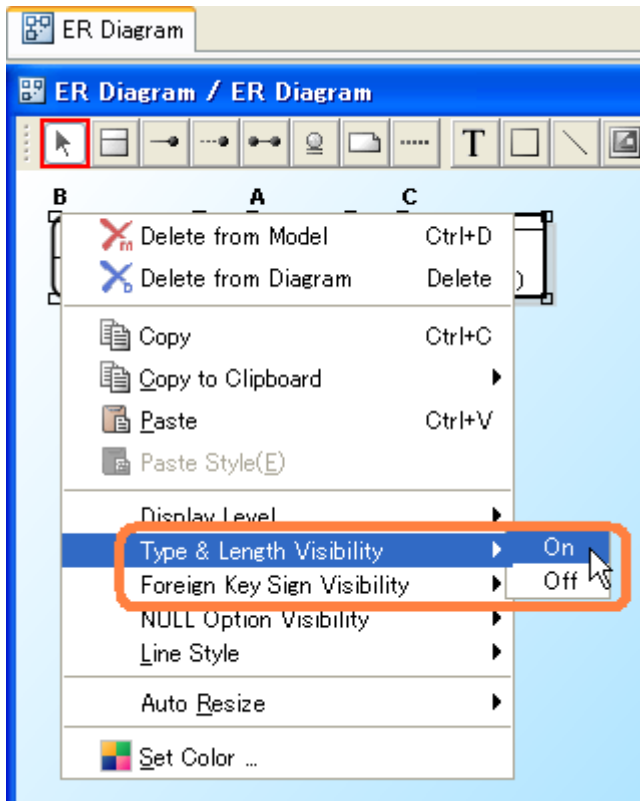
Click on the [ER Model] in the Structure Tree then select [Auto Create ER Diagram] from its Pop-Up Menu.



If you want to create ER Diagrams with certain ER Entities only, create a new ER Diagram then drag and drop ER Entities you want to show from the Structure Tree onto the new ER Diagram.

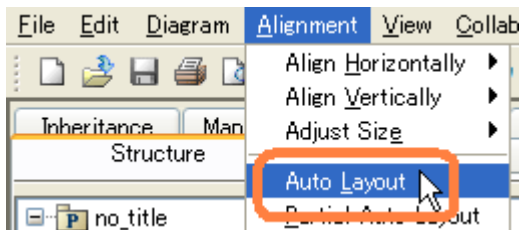
### 4.3. Show Type and Length of Tables in the Diagram

Press [Ctrl + A] to select all tables in the Diagram then select [Extended Visibility] – [Type & Length Visibility] from its Pop-Up Menu. Table and Length will appear in each tables.



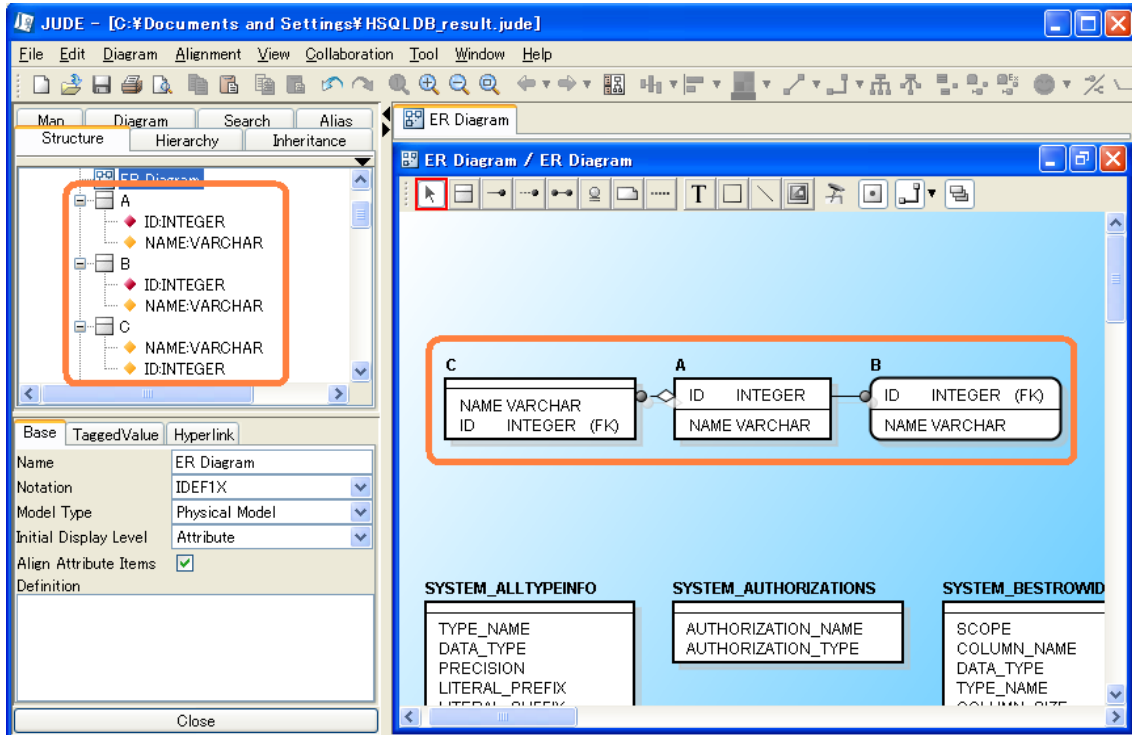
### 4.4. Re-arrange Layout

Select [Alignment] – [Auto Layout] from Main Menu to rearrange the model layout.



#### 4.5. Zoom in

Let's zoom in to see the Table A, B and C in the Diagram. You can see primary keys, Attributes, Identifying Relationships and Non-Identifying Relationships are created properly in the Diagram.



## 5. Modifications on JUDE DB reversing tool

### 5.1. Read the License Agreement for JUDE API Sample Programs

Before you modify the tool, read the “License Agreement for JUDE API Sample Programs” (“API\_sample\_program\_license\_agreement-e.txt”, which is stored in JUDE install folder.)

### 5.2. Where source codes are stored

Source codes written in Java and JUDE API of JUDE DB reversing tool re stored at :

JUDE Install folder¥JUDE-Professional¥api¥sample¥db\_reverse¥\*.java

(i.e.: C:¥Program Files¥JUDE-Professional¥api¥sample¥db\_reverse¥\*.java )

### 5.3. Making Modification to source code

As referred in the License Agreement for JUDE API Sample programs, users are able to modify the source code of the JUDE DB reversing tool to fit their purposes, however all copyrights and applicable rights to intellectual property with respect to the JUDE DB reversing tools will belong to the Change Vision, Inc. For more details, read the License Agreement for JUDE API Sample Programs.

### 5.4. Compiling by using Batch file

Compiling is available by double-clicking the batch file stored at JUDE Install folder¥JUDE-Professional¥api¥sample¥db\_reverse¥compile.bat

(i.e.:C:¥Program Files¥JUDE-Professional¥api¥sample¥db\_reverse¥compile.bat)

### 5.5. Compiling by using Eclipse and other applications

Since JUDE DE reversing tool is designed with JUDE API, in order to compile by using Eclipse and other applications, you need to set up the “jude-api.jar” to the ClassPath.

jude-api.jar is stored at : JUDE Install folder¥JUDE-Professional¥ jude-api.jar

(i.e.:C:¥Program Files¥JUDE-Professional¥jude-api.jar)

Also to launch the application, you need to set up jude-pro.jar to the Classpath.

jude-pro jar is stored at : Install folder¥JUDE-Professional¥ jude-pro.jar

(i.e.:C:¥Program Files¥JUDE-Professional¥jude-pro.jar)