

**Description:** Guide to create a new SQL/MSDE database table using ICONICS Data Mining technology.

**OS Requirement:** Win 2000 Pro/Server, XP Pro, Server 2003

**General Requirement:** Genesis32 and MS SQL/MSDE installed.

## Introduction

Although the Data Manipulator items in ICONICS Database (DB) OPC Server allow you to run custom SQL command or stored procedures with parameters, they lack the support of table and column names as parameters. Because of this, we have to use stored procedures to finish the task when trying to use table names or column names as the parameter.

First, you need to create a new stored procedure using the ICONICS MSDE Database Manager. Then, you need to define a new Data Manipulator and call it from GraphWorX32 using ICONICS DBOPCManipulator ActiveX. We will describe the steps necessary in the next section.

## Stored Procedure

We will create a new SQL Stored procedure now. In the procedure, a string representing the requested SQL command is created and then executed.

1. Open the ICONICS MSDE Database Manager from Start menu → Programs → ICONICS Tools → MSDE Manager and connect to the SQL/MSDE server.
2. Browse for your database, right click “Stored Procedures” in its tree and select “New” as shown in Figure 1.

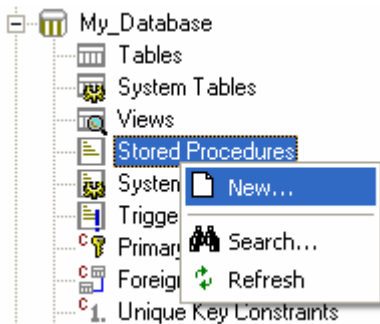


Figure 1 - Creating a New Stored Procedure

3. A “New Stored Procedure” window opens. Modify following code to meet your needs:
 

```
CREATE PROCEDURE [dbo].[c_table]
@par1 NVARCHAR(20),
@par2 NVARCHAR(20),
@par3 NVARCHAR(20),
@par4 NVARCHAR(20)
AS

DECLARE @DBManipultor NVARCHAR(500)

SET @DBManipultor='CREATE TABLE [dbo].['+@par1+'] (
['+@par2+'] int not null identity (1, 1),
[' + @par3 + ' ] char(10) null,
[' + @par4 + ' ] char(10) null )'

EXEC sp_executesql @DBManipultor
```
4. Click the “Run(F5)” button to create the stored procedure called “c\_table”.

## Data Manipulator

1. Open the Data Mining Configurator from Start → Programs → ICONICS Tools → Data Mining Configurator and connect to your SQL/MSDE database.
2. Create a new Data Manipulator, select “Stored procedure” and browse for the “c\_table” procedure. Click “Apply”.

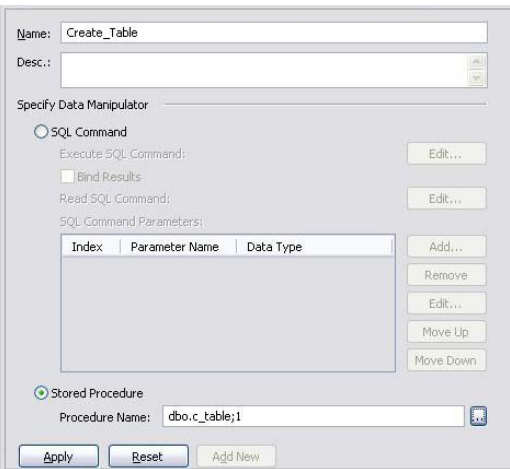


Figure 2 - "Create\_Table" Data Manipulator

## Running the Data Manipulator

- Open GraphWorX by going to Start → Programs → ICONICS GENESIS32 → GraphWorX32 → GraphWorX32.
- Insert the ICONICS DBOPCManipulator ActiveX by going to Edit → Insert New Object or by clicking on  in the ActiveX Tool bar and selecting the DBOPCManipulator in the list as shown in Figure 3.

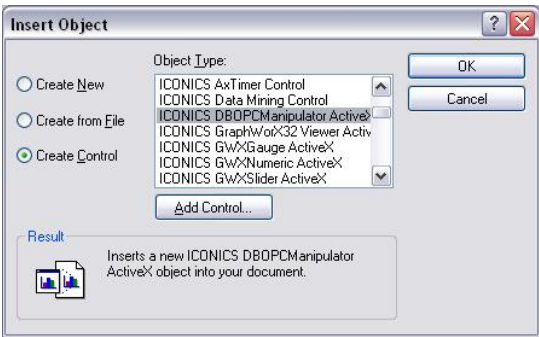


Figure 3 - Inserting DBOPCManipulator ActiveX

- Right click the ActiveX and select “Application Property Inspector”. Write DBManipulator to the “Object Name” field. Click OK.
- Double click the ActiveX. In its properties, browse for the Data Manipulator that you have just created in the DBOPC Server Configurator. Select @@Execute on the right hand side then Click OK until you are out of the Properties dialog.

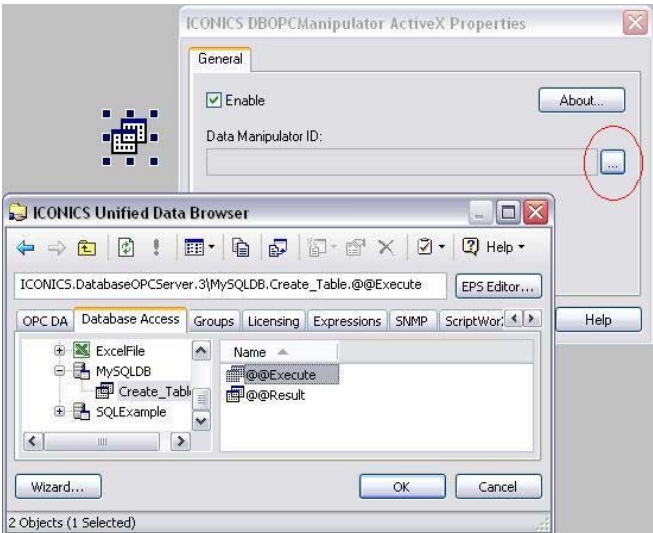


Figure 4 - Browsing for the Data Manipulator

- Insert a button to the display. In its properties, select “Run Script” on the Pick table and create a new VBA script. Insert following code to the button’s sub:

```
Dim Proc As DBOPCManipulatorActiveX
Dim out As Variant

Set Proc =
ThisDisplay.GetVisibleObjectFromName("DBManipulator").GetOLEObject()

out = Proc.Execute(Array(
"MyTableName", "MyColumnName1", "MyColumnName2",
"MyColumnName3"))
```

- Save the display and put it in runtime. Click the button. It can be verified in the MSDE Database Manager, that a new table called “MyTableName” with 3 columns has been created.

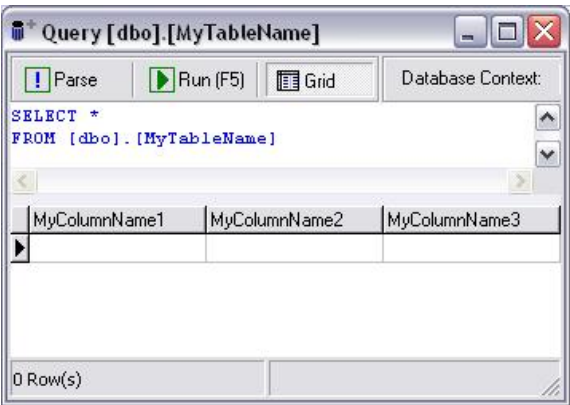


Figure 5 - New Table in the MSDE Database Manager