

[Tech Note 1002](#)

Accessing InBatch Materials Inside of System Platform Using Material Automation Server (Object hosted to Batch Server Node)

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Introduction

This *Tech Note* demonstrates the syntax used for the Material Object creation/release in a .NETFramework environment.

In this scenario, a platform deployed to InBatch Server Node and the object containing script for accessing InBatch Materials Data hosted to this platform. The other functionality on reading/writing to the InBatch Material Database is documented in the InBatch COM Guide.

Versions

- InBatch 9.x & 10.x
- System Platform 2012 R2 (for prior versions, you have to manually build the object)

Prerequisites

- A platform must be deployed to the InBatch Server Node.

Procedure

1. From the Archestra IDE menu, select Galaxy\Import\Script Function Library and import the file **MaterialSrv.exe** located at **C:\Program files(x86)\Wonderware\inBatch\Bin** on the InBatch Server Node.
2. [Download and unzip the InBatchMaterialDBAccess.zip](#) file.
3. Import the **\$InBatchMaterialDBAccess template.aaPkg** file into the IDE.
4. Create an instance of this object and host it to the Platform\AppEngine\Area that is running on the InBatch Server Node.
5. Deploy the newly-created instance object and set the trigger attribute (**me.Trigger**) in ObjectViewer for this object.
6. Check the messages in the Archestra Logger for successful connectivity, query of materials and release of the material object.

Figure 1 (below) shows the screen snapshots of the template object editor, Archestra Logger and the text in the script body. Figure 2 (below) shows the messages in the Archestra Logger.

Archestra IDE

Galaxy Edit View Object InBatch Window Help

\$InBatchMaterialDBAccess

Field Attributes Object Information Scripts UDAs Extensions Graphics

Script name: QueryMaterials [Configure execution order](#)

Scripts:

Name	St	On	Ex	Of	Sh
QueryMaterials			x		

Aliases:

Declarations:

```
Dim oMaterialDB AS wwMaterialLib.IMaterialDB;
Dim iMaterials AS wwMaterialLib.IMaterials;
Dim iMaterial AS wwMaterialLib.IMaterial;
DIM iConnected AS Integer;
Dim i AS Integer;
```

Scripts:

Execution type: Execute

Basics

Expression: me.Trigger

Trigger type: OnTrue

Trigger period: 00:00:00.0000000

Deadband: 0.0

Historize script state

Runs asynchronously

Timeout limit: 60000 ms

Report alarm on execution error

Priority:

```
'script globals
me.Trigger = false;
iConnected = 0;
i = 0;

-----
'Material Automation Server - localhost
-----

LogMessage("***Material Automation Server*** [localhost]");
oMaterialDB = new wwMaterialLib.wwMaterialDB();

'Object creation test
IF oMaterialDB == NULL THEN
    LogMessage("oMaterialDB create failed");
```

Inherited scripts:

Name	St	On	Ex	Of	Sh
------	----	----	----	----	----

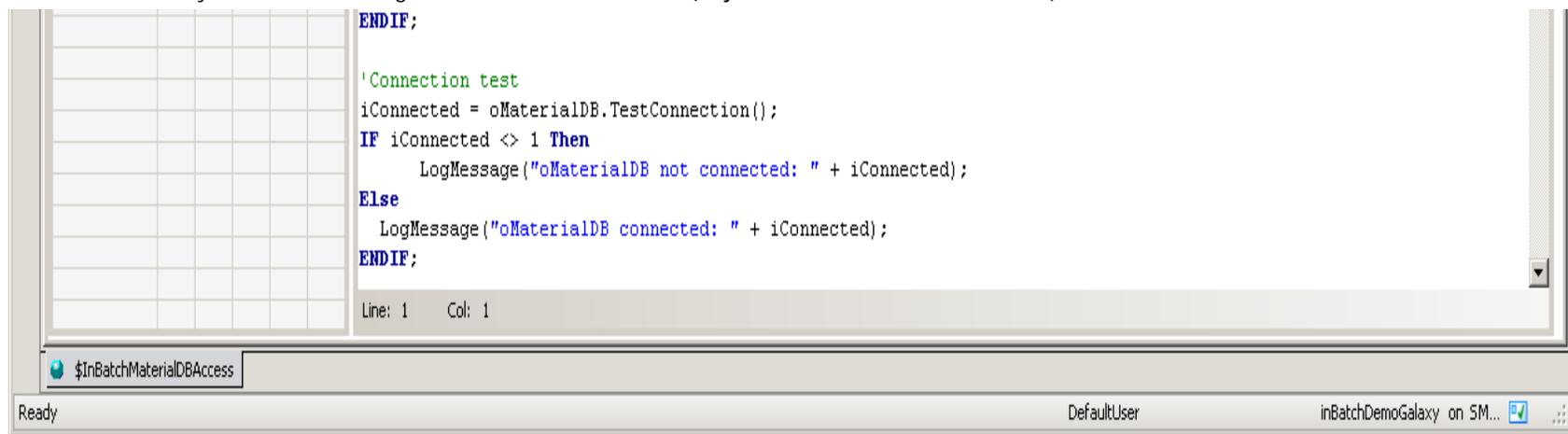


FIGURE 1: ENSURE THAT THE SCRIPT RUNS ASYNCHRONOUSLY

Script

If you are using a version prior to System Platform 2012 R2, copy the following text and paste it to your object, then declare variables in declaration section as shown in Figure 1 (above).

```

'script globals
me.Trigger = false;
iConnected = 0;
i = 0;

'-----
'Material Automation Server - localhost
'-----

LogMessage("***Material Automation Server*** [localhost]");
oMaterialDB = new wwMaterialLib.wwMaterialDB();

'Object creation test

IF oMaterialDB == NULL THEN
LogMessage("oMaterialDB create failed");
ENDIF;

'Connection test
iConnected = oMaterialDB.TestConnection();

IF iConnected <> 1
THEN
LogMessage("oMaterialDB not connected: " + iConnected);
ELSE LogMessage("oMaterialDB connected: " + iConnected);
ENDIF;

'Sample script on Query Materials Ids
oMaterialDB.QueryMaterials();
iMaterials = oMaterialDB.Materials;

FOR EACH iMaterial in iMaterials
i = i + 1;

LogMessage(" Material[" + i + "]: " + iMaterial.Id);
NEXT;
LogMessage("***Material Automation Server*** release");
'note - despite release, material server does not shutdown but it is reused

IF oMaterialDB <> NULL
THEN
System.Runtime.InteropServices.Marshal.ReleaseComObject( oMaterialDB );
oMaterialDB = NULL;

```

ENDIF ;

No:	Date	Time	Process ID	Thread ID	Log Flag	Component	Message
813500	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: ***Material Automation Server*** [localhost]
813501	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: oMaterialDB connected: 1
813502	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[1]: CB1000
813503	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[2]: CS102
813504	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[3]: Flour100
813505	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[4]: PB1000
813506	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[5]: PS102
813507	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: Material[6]: Salt200
813508	12/6/2013	11:38:27 AM	9412	10048	Info	ScriptRuntime	InBatchMaterialDBAccess_002.QueryMaterials: ***Material Automation Server*** release

FIGURE 2: ARCHESTRA LOGGER MESSAGES

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