MainView for DB2
Version 11.1.00
September 12, 2014
Tracking number QM001851085: The new Dynamic Trace Facility enables tracing of IBM DB2 IFCIDs by category or by individual IFCID

BMC is announcing an enhancement to the MainView for DB2 product.

Note
BMC previously announced this information in a bulletin dated August 15, 2014. This bulletin replaces the previous bulletin.

Overview of the enhancement
With the new Dynamic Trace Facility, the product can now trace DB2 instrumentation facility component identifiers (IFCIDs) by category or by individual IFCID.

Requirements
This enhancement has the following requirements:

- The BMC MainView for DB2 Data Collector (MVDB2/DC) must be active and connected to the MVDB2 BBI-SS PAS.

- In UBBPARAM (or BMCPARM if RTE is used), the DMRBEX00 member must contain the CDC=ssid parameter (where ssid is the DBC SSID). This parameter must be coded for each DB2 target entry that is defined in BBIJNT00.

Note
If you need to add the CDC parameter, edit the DMRBEX00 member in ISPF and issue the following BBI command in the BBI log to refresh and reload the member:
.E P DMRBEX00
New security resource definitions

To accommodate the new Dynamic Trace Facility, this enhancement adds the following resource definitions to MainView for DB2:

<table>
<thead>
<tr>
<th>Resource name in the SERDEF view</th>
<th>Resource definition and considerations</th>
</tr>
</thead>
</table>
| Dynamic Trace – Table Data       | Can the user access Dynamic Trace table data?  
| Default entity name: BBM.&PRODUCT.&CONTEXT.&INTTABLE.OD  
| Entity name: BBM.MVDB2.targetID.PD900.OD |
| Dynamic Trace – Any Action       | Can the user enter any actions from the Dynamic Trace view?  
| Default entity name: BBM.&PRODUCT.&CONTEXT.&INTTABLE.AO  
| Entity name: BBM.MVDB2.targetID.PD900.AO |
| Dynamic Trace – Start Action     | Can the user enter the Start Trace action from the Dynamic Trace view?  
| Default entity name: BBM.&PRODUCT.&CONTEXT.&INTTABLE.START.OA  
| Entity name: BBM.MVDB2.targetID.PD900.START.OA |
| Dynamic Trace – Stop Action      | Can the user enter the Stop Trace action from the Dynamic Trace view?  
| Default entity name: BBM.&PRODUCT.&CONTEXT.&INTTABLE.STOP.OA  
| Entity name: BBM.MVDB2.targetID.PD900.STOP.OA |
| Dynamic Trace – Print Action     | Can the user enter the Print Trace action from the Dynamic Trace view?  
| Default entity name: BBM.&PRODUCT.&CONTEXT.&INTTABLE.PRINT.OA  
| Entity name: BBM.MVDB2.targetID.PD900.PRINT.OA |

Enabling the enhancement

Complete the following steps to enable the enhancement:

1. Apply PTFs BPD4083, BPD4127, and BPU7060.

2. Recycle the BBI-SS product address space (PAS).

3. Execute the following command to reload the new code for the Data Collector, where $ssid$ is the DB2 Component Services (DBC) SSID:

   `/ssid DOM,REFRESH`
Using the new feature to start a dynamic trace

After enabling the enhancement, you can use the following procedure to trace DB2 IFCIDs by category or by individual IFCID.

Before you begin

Ensure that your system meets the requirements cited in “Requirements” on page 1.

To start a dynamic trace

1. Access the Current Dynamic Traces panel (DYNCT) in one of the following ways:
   - In the EZDBA view, select Traces- DB2 IFCID under the Traces category.
   - In the EZDB2 view, select DB2 IFCID Traces under the Component Features category.
   - Type DYNCT on the COMMAND line at any time using a DB2 Context.

   Note
   You cannot invoke (or execute) the DYNCT view in an SSI Context, such as a Context ALL.

2. In the DYNCT view, hyperlink on the DYNST field.

3. On the Start Dynamic IFCID Trace start screen, enter the following trace information:
   - Start and stop times
     Note
     BMC recommends setting a stop time for the trace.
   - Trace description
   - Filter by qualifier
     You can use filter qualifiers to reduce the number of DB2 IFCIDs that the Data Collector collects. To use filter qualifiers in the trace, specify Y in the Filter by Qualifier field.
Multiple DB2 targets

If the MVDB2 BBI-SS PAS is monitoring multiple DB2 SSIDs, and you want to start traces on several DB2 SSIDs, specify **Y** in the **Multiple DB2 Targets** field.

4 On the Dynamic Trace/DB2 IFCID Categories panel, you can select the IFCID category or individual IFCIDs panel. Select:

- Whether you want to trace IFCIDs by category or individually
  - In the **Individual IFCIDS** field, specify **N** to trace IFCIDs by category, or **Y** to trace IFCIDs individually.

- (optional) A record limit

  **Note**
  BMC recommends specifying a record limit to avoid collecting too many DB2 IFCID records in the Data Collector.

The IFCIDs that you require

In the **Y/N** column, type **Y** next to the category name for the IFCIDs that you want to trace. In the following example, the user wants to trace I/O IFCIDs:

<table>
<thead>
<tr>
<th>Y/N Category</th>
<th>DB2 IFCIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>I/O 6-10,357-359</td>
</tr>
<tr>
<td></td>
<td>SQL 22,53,55,58-66,237,311,324,380-381,499</td>
</tr>
<tr>
<td></td>
<td>LOCK 20-21,44-45,213-214,218,223,335,337</td>
</tr>
<tr>
<td></td>
<td>SCAN/SORT 13-18,26-28,95-96,125,221-222</td>
</tr>
<tr>
<td></td>
<td>AGENTS 46-52,68-69,98-101</td>
</tr>
<tr>
<td></td>
<td>EDM POOL 29-30</td>
</tr>
<tr>
<td></td>
<td>UTILITY 23-25,108-111</td>
</tr>
<tr>
<td></td>
<td>AUDIT 140-145,312,361</td>
</tr>
<tr>
<td></td>
<td>DDF 157-165,167-169</td>
</tr>
<tr>
<td></td>
<td>LOG I/O 32-43,114-120,228-229</td>
</tr>
<tr>
<td></td>
<td>EXITS 11-12,19</td>
</tr>
<tr>
<td></td>
<td>COMMANDS 4-5,90-92,87,201</td>
</tr>
<tr>
<td></td>
<td>CLAIM/DRAIN 211-216</td>
</tr>
<tr>
<td></td>
<td>DATA SHARE 249-251,254-257,259,261-263,267-268,329</td>
</tr>
</tbody>
</table>

5 If you specified **Y** in the **Filter by Qualifier** field (step 3), the Dynamic Traces/Qualifiers panel is displayed.

In the **I/E** column, type **I** (include) or **E** (exclude) next to the qualifiers that you want to include or exclude. The following qualifiers are available:

- **DB2AUTH**
- **DB2PLAN**
- **DB2CONN**
- **DB2OPER**
If you specified Y in the **Multiple DB2 Targets** field (step 3), the Dynamic Trace/Target Selection panel is displayed. Select the DB2 SSIDs on which you want to start traces.

Press **Enter** to start the trace.

The Current Dynamic Traces panel (DYNCT) is displayed.

**8 (optional)** Use any of the following actions to see the details and statuses of your defined traces:

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**Note**
You can stop a trace at any time by typing Z in the CM column next to the trace user ID. Also, the Data Collector will automatically stop a trace upon reaching the trace's defined record limit or stop time.

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<table>
<thead>
<tr>
<th>If you want to</th>
<th>Take this action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display the DYNCTD detail view to see details about a selected dynamic trace</td>
<td>Hyperlink on the trace's user ID.</td>
</tr>
<tr>
<td>Display the filter qualifiers that were specified for a trace</td>
<td>In the DYNCTD view, hyperlink on the <strong>Qualifiers</strong> field.</td>
</tr>
<tr>
<td>Display the number of records collected for each IFCID</td>
<td>Hyperlink on the <strong>IFCID Count</strong> field.</td>
</tr>
</tbody>
</table>
| Request a RECTRACE report                                 | 1 In the DYNCT view, type P in the CM column next to a trace userid.  
An ISPF EDIT panel is displayed with BATCH JCL to run the RECTRACE report by invoking the DOMBRPT1 program.  
2 Specify a valid job card and submit the batch job.  
The RECTRACE report generates a formatted display of each individual IFCID that is currently defined to the DOMBPRT1 program. You can identify the IFCIDS that were traced by looking at the **Field Name** column. |
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