OpenEnterprise Data Query Monitoring Configuration Reference Guide (V2.83)
Contents

1 Data Query Monitoring Config ................................................................. 1
  1.1 What is Query Monitoring? ................................................................. 1
  1.1.1 The Query Monitoring Tables ...................................................... 1
  1.2 Query Monitoring and the ‘Active Poll List Builder’ ....................... 1
  1.3 Main Dialog .................................................................................... 2
    1.3.1 Source Table List ................................................................. 2
    1.3.2 Add ....................................................................................... 2
    1.3.3 Delete ................................................................................... 2
  1.4 Select Table Dialog ....................................................................... 3
    1.4.1 Table List ............................................................................ 3
    1.4.2 Query Type ......................................................................... 4
    1.4.3 OK ..................................................................................... 4

2 Index .................................................................................................. 5
1 Data Query Monitoring Config

The Query Monitoring Configuration Tool allows the user to enable active query monitoring on virtually any table in the ObjectServer database.

1.1 What is Query Monitoring?

Active query monitoring enables active queries initiated by client applications to be monitored.

Client applications that need to display the most recent data use what are known as active queries. Active queries automatically update the client when values change. There are two types of active query that are used to satisfy clients - SQL (Structured Query Language) and object queries. An SQL query may request data for one or more database objects, but object queries only request data for a single object. For instance, the ObjectServer Alarm and Event OPC Server uses a single SQL query to retrieve the entire current alarm list from the database. On the other hand, the ObjectServer OPC Data Access Server uses a separate object query for each unique tag registered by 3rd party OPC Clients.

Query monitoring enables any table to be monitored for either or both types of active query.

1.1.1 The Query Monitoring Tables

Query monitoring is implemented through two tables:

- DataQueryMonitor
- DataQuery

The DataQueryMonitor table defines what source tables will be monitored for active query activity, and the type of query that should be monitored (SQL, object or both). The database then creates entries in the DataQuery table for each active query made by clients on those defined source tables. An active query on a table derived-from or inherited-from a configured source table will also be recorded in the DataQuery table. Active queries on a view on a source table will also be recorded.

1.2 Query Monitoring and the 'Active Poll List Builder'

The 'Active Poll List Builder' is a server component that uses active query monitoring to create 'Active' data collection templates when OPC clients request OPC data for Bristol RTUs. Active query monitoring enables the 'Active Poll List Builder' to detect when the ObjectServer OPC Data Access Server is running active object queries, so it can create the 'Active' templates in a timely fashion. These 'Active' templates provide the user with more frequent updates for the data they are viewing.

In order to set up query monitoring of the ObjectServer OPC Data Access Server on all Bristol signal types, entries need to be inserted into the DataQueryMonitor table for the nw3000reanalog, nw3000digital and nw3000string tables, requesting object query monitoring. The ObjectServer installation creates these entries automatically.

Other tables can also be enabled for active query monitoring using the Query Monitoring configuration tool.
1.3 Main Dialog

The Query Monitoring Configuration Tool's main dialog displays a list of the source tables that have already been configured for active query monitoring, and the types of query that are being monitored. It also enables users to add new tables to the list and delete existing tables.

1.3.1 Source Table List

This is a list of the source tables and query types that have been selected for active query monitoring.

1.3.2 Add

Selecting this button opens the 'Select Table Dialog', which enables the user to select a source table and query type for query monitoring.

1.3.3 Delete
When enabled, selection of this button deletes the currently selected source table from the list of monitored tables. The user will be asked to confirm the deletion before it takes place.

The button is disabled until a table has been selected from the 'Source Table List'.

1.4 Select Table Dialog

This dialog enables the selection of a table for active query monitoring. The query type must also be selected.

1.4.1 Table List
This list displays the tables which may be selected for query monitoring. The user can scroll up or down to select the required table.

1.4.2 Query Type

A query type option must be selected from this drop-down list. If a query type is not selected when the [OK] button is clicked, the user is prompted to make a query type selection. The options are:-

- **sql** - the rtrdb will monitor the selected table for active sql queries.
- **object** - the rtrdb will monitor the selected table for active object queries.
- **sql and object** - the rtrdb will monitor the selected table for active sql and object queries.

1.4.3 OK

When this button is selected, the selected table and query type are inserted into the QueryMonitor table. The selected table will be added to the 'Source Table List' on the main dialog. From that point, the rtrdb will be monitoring the selected table for active queries of the selected type.

For SQL queries, a single entry will be placed into the DataQuery table for any active SQL query initiated by a client on the selected table.

For object queries, each object queried from the selected table will be inserted into the DataQuery table for the duration of the active query.
2 Index

A
Add................................................................. 4

D
Data Query Monitor Config ................................. 3
Delete............................................................ 4

M
Main Dialog..................................................... 3

O
OK..................................................................... 6

Overview.......................................................... 3

Q
Query Type....................................................... 5

S
Select_Table_Dialog.......................................... 4
Source Table.................................................... 4

T
Table List ........................................................ 5
DISCLAIMER

Bristol, Inc., Bristol Babcock Ltd, Bristol Canada, BBI SA de CV and the Flow Computer Division, are wholly owned subsidiaries of Emerson Electric Co. doing business as Remote Automation Solutions (“RAS”), a division of Emerson Process Management. ROC, FloBoss, ROCLINK, Bristol, Bristol Babcock, ControlWave, TeleFlow and Helicoid are trademarks of RAS. AMS, PlantWeb and the PlantWeb logo are marks of Emerson Electric Co. The Emerson logo is a trademark and service mark of the Emerson Electric Co. All other marks are property of their respective owners.

The contents of this publication are presented for informational purposes only. While every effort has been made to ensure informational accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. RAS reserves the right to modify or improve the designs or specifications of such products at any time without notice. All sales are governed by RAS’ terms and conditions which are available upon request. RAS does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any RAS product remains solely with the purchaser and end-user.

Engineered and supported by:

Remote Automation Solutions,

Blackpole Road, Worcester, WR3 8YB, UK

Registered office: Meridian East, Leicester, LE19 1UX

Registered in England and Wales, Registration No. 00671801

VAT Reg No. GB 705 353 652