Purging Data from QI Analyst Process Database Using the QiaSelectivePurge Utility

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Introduction

QI Analyst 8.x Process Database stores process and configuration data. You can use the QiaSelectivePurge utility to permanently delete data from a Process Database.

One of the main reasons to purge data is to reduce the size of the QI Process database so that it doesn't result in performance problems.

The utility has three different options:

- **Purge by Subgroup**: You can delete data from a specific Subgroup or a range of Subgroups.

- **Purge by Create time**: You can delete data for a specific create time or one time to another.

- **Purge by Purge All**: You can use this option to delete all the data from a data table(s).

> **Notes:**
> • The data deletion will be across all columns in a particular data table(s).
> • QiaSelectivePurge utility is only available for users with the correct rights, as defined in the Admin Controller (Users/Groups/Utilities or Accounts/Groups/Utilities).

WARNING: One major drawbacks to this approach is that you will NOT be able to get back the purged data. This utility is not intended for users other than the QI Analyst Network Administrator. Make sure you take a backup of the QI databases (both Admin and Process DB) before purging the data from Process Database.

Application Versions

- QI Analyst 8.0 SP1 and later

Using the QiaSelectivePurge Utility

1. Close all QI Analyst windows and processes (including any front end application that might be displaying QI Chart of the data table to be purged).

2. Browse to the QI Analyst installation directory. The default location on a 32 bit machine:

- **C:\Program Files\Wonderware\QIAnalyst8.**0
- On a 64-bit machine: **C:\Program Files (x86)\Wonderware\QIAnalyst8.0**

3. Locate **QiaSelectivePurge.exe** and double-click it (Figure 1 below).
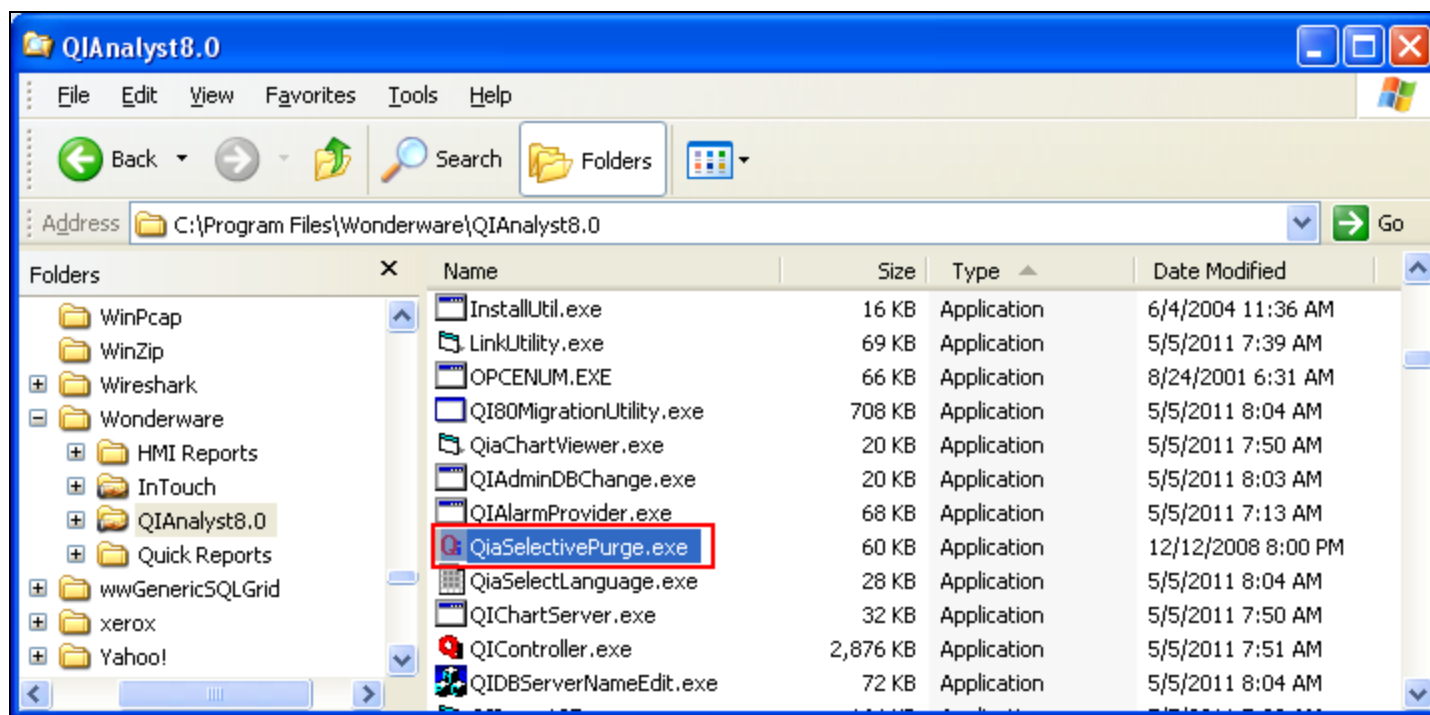

FIGURE 1: DEFAULT QI ANALYST INSTALLATION DIRECTORY

4. Locate **QiaSelectivePurge.exe** and double-click to open it. Type the **admin** and <blank> password at the QIA Selective Purge Login (Figure 2 below) and click **OK**.
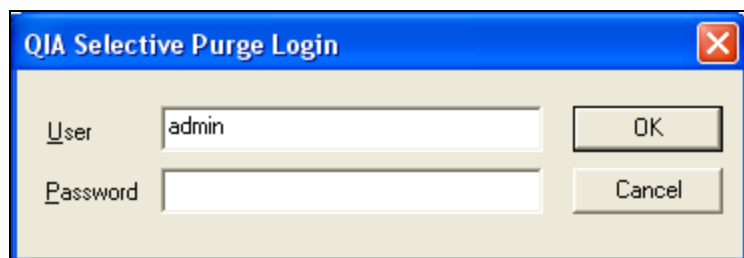

FIGURE 2: QIA SELECTIVE PURGE LOGIN

You will see the following message if it is the first opening QIASelectivePurge utility. Click **OK**.
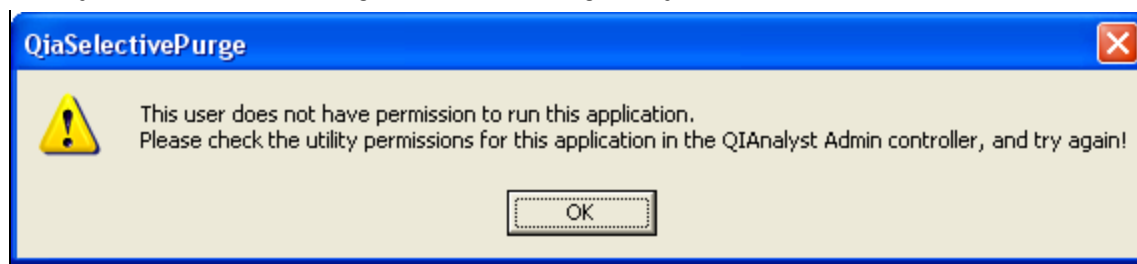
FIGURE 3: USER PERMISSION MESSAGE

5. Open QI Controller as user **admin**.

6. Click Setup/Admin Controller and click the **Groups** tab.

7. Double-click the **AllRights** group to open its Access Rights.

Note: If QI Controller auto logs in using your Windows account, you have to click Setup/Admin Controller/Accounts tab, highlight the row corresponding to that windows account and then click **Edit Account** to open its Access Rights.

8. Click the **Utilities** tab and select **QIASelectivePurge** (Figure 4 below), then click **OK**.
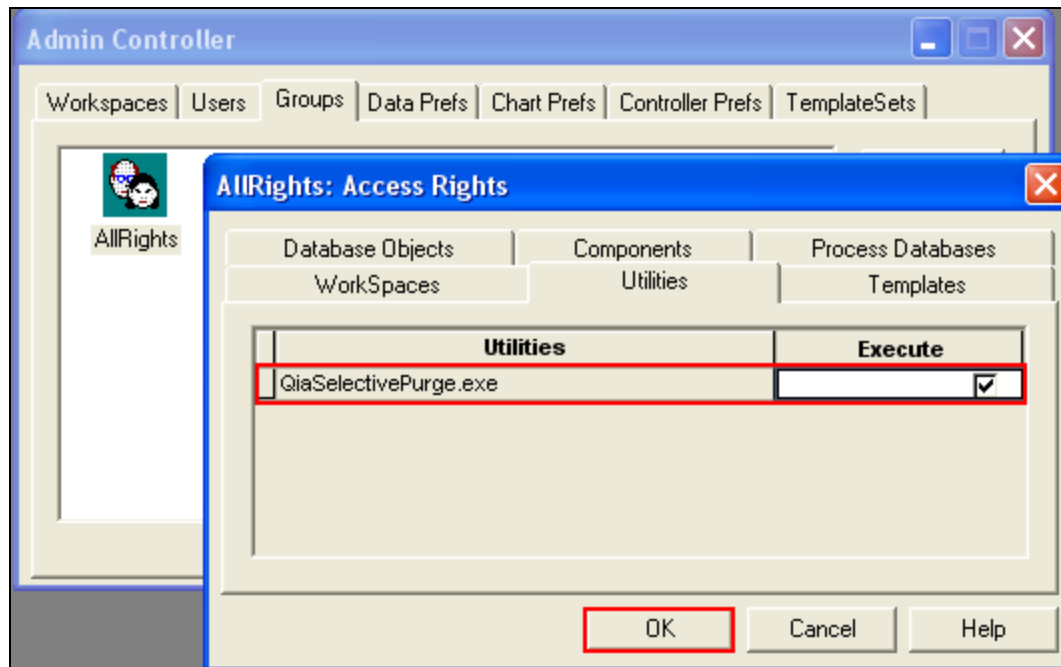
FIGURE 4: ENABLE QIASELECTIVEPURGE

9. Log in to the QIASelectivePurge utility again.

   The **QIAnalyst datatable tree** view displays the list of all the network process databases (Figure 5 below).
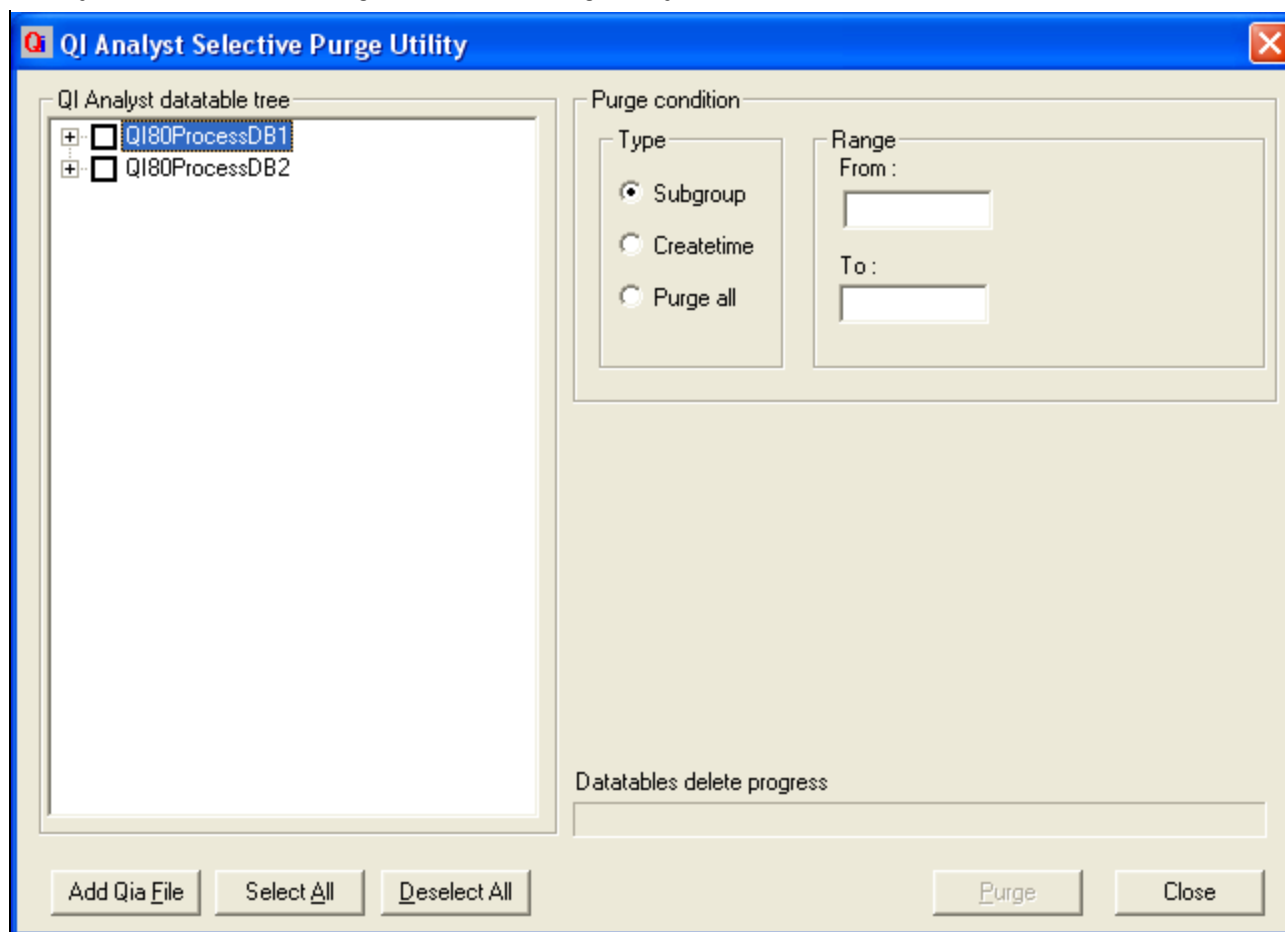
FIGURE 5: QIANALYST DATATABLE TREE VIEW

You can add more process databases (.qia files) by clicking the **Add Qia File** button and selecting the desired qia file from a location.

The qia file (along with the file path) should now appear on the QI Analyst datatable tree at the top of the process databases list (Figure 6 below).
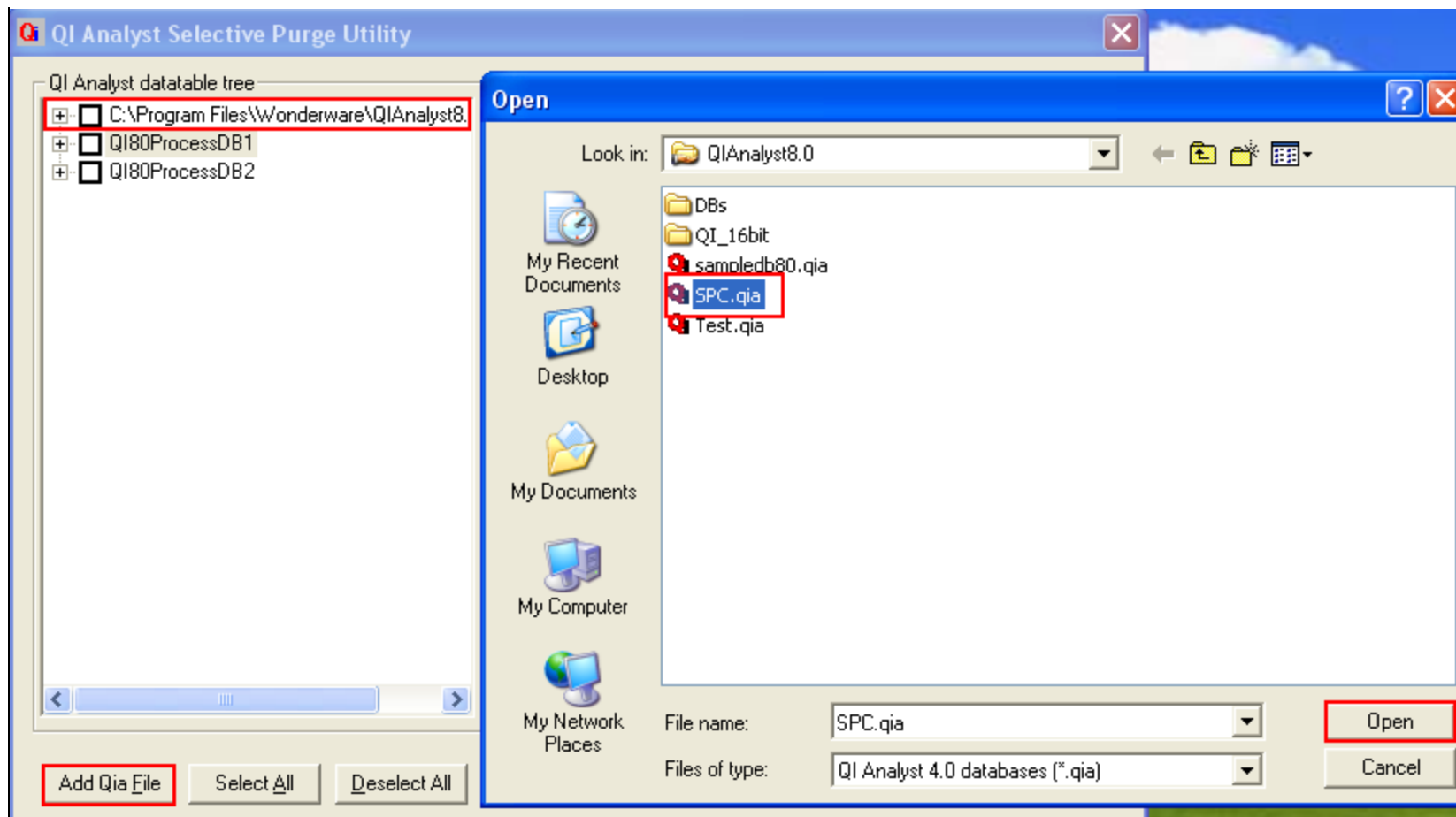
FIGURE 6: ADDING A QIA PROCESS DATABASE

10. Expand the desired process database and select the data table from which the data needs to be purged (Figure 7 below).

    You can also select multiple data tables and process data bases to purge data simultaneously.
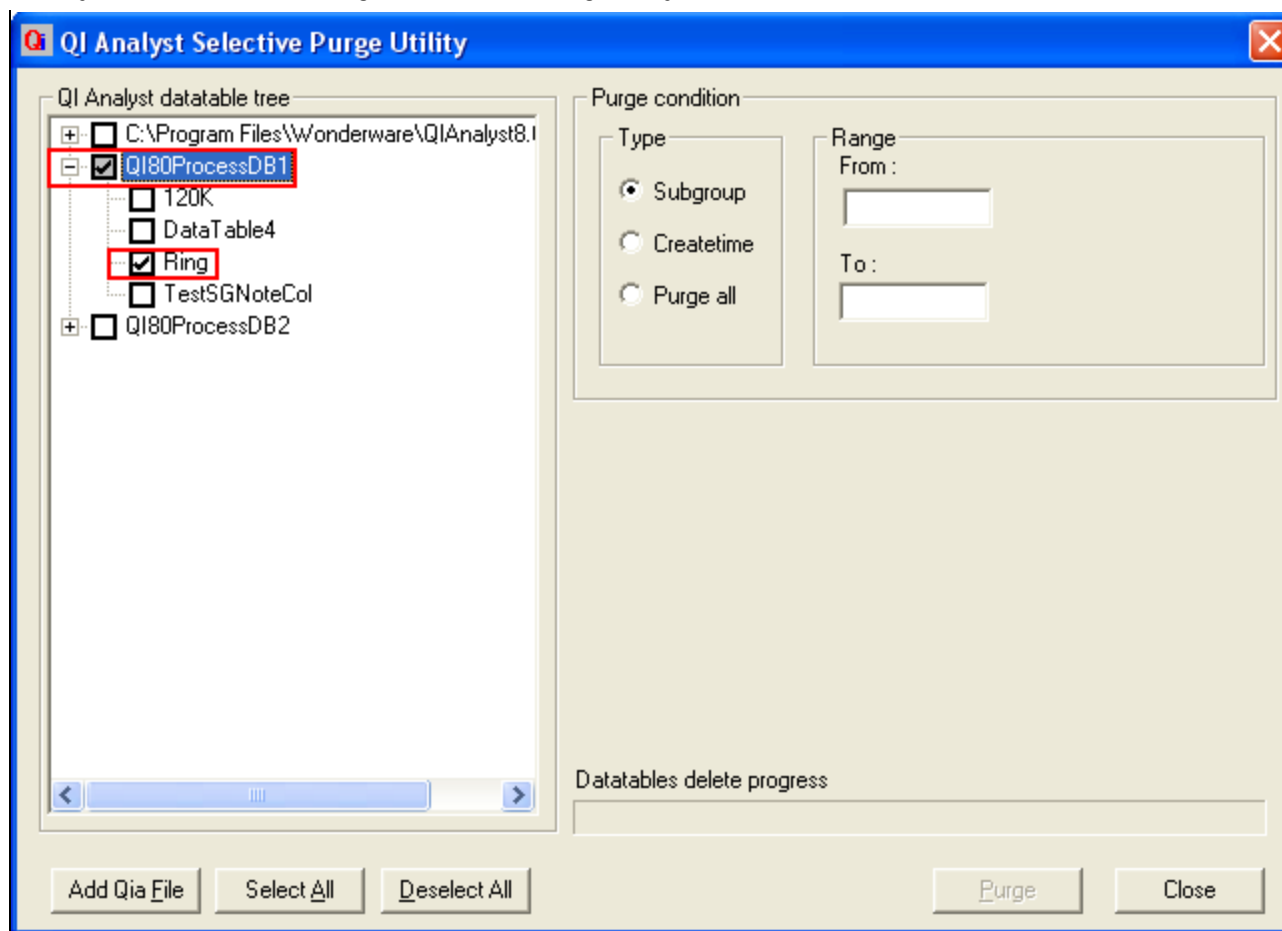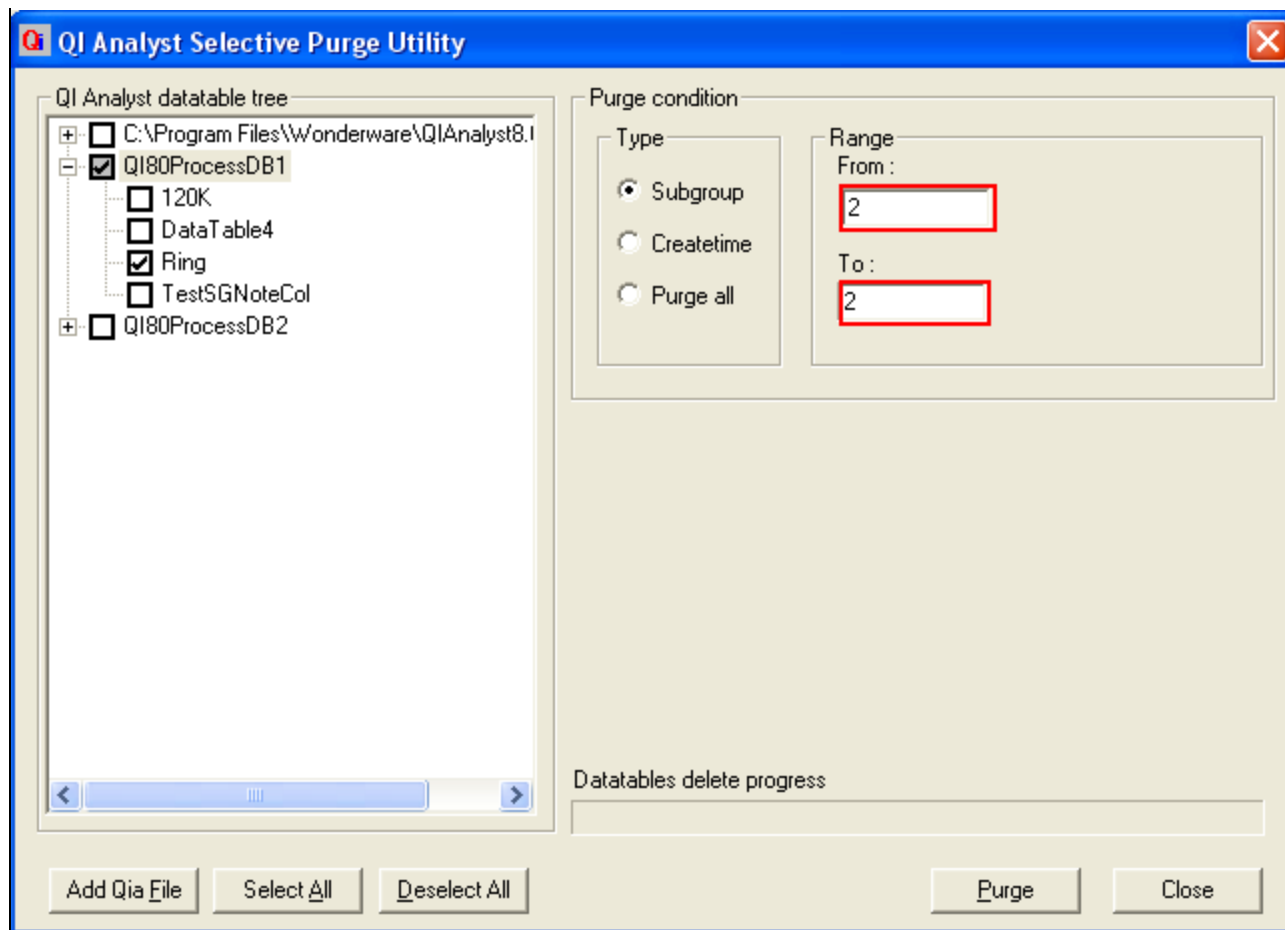
FIGURE 7: PROCESS DATABASE AND TABLE SELECTION

Purge Condition: Type Subgroup

Using this condition, you can delete data from a specific Subgroup or a range of Subgroups.

1. Click the **Subgroup** radio button.

2. Type the Subgroup number in **From** and **To** fields.

   • Example 1: To purge data from Subgroup 2 only, do the following (Figure 8 below).

FIGURE 8: PURGE BY SUBGROUP (EXAMPLE 1)
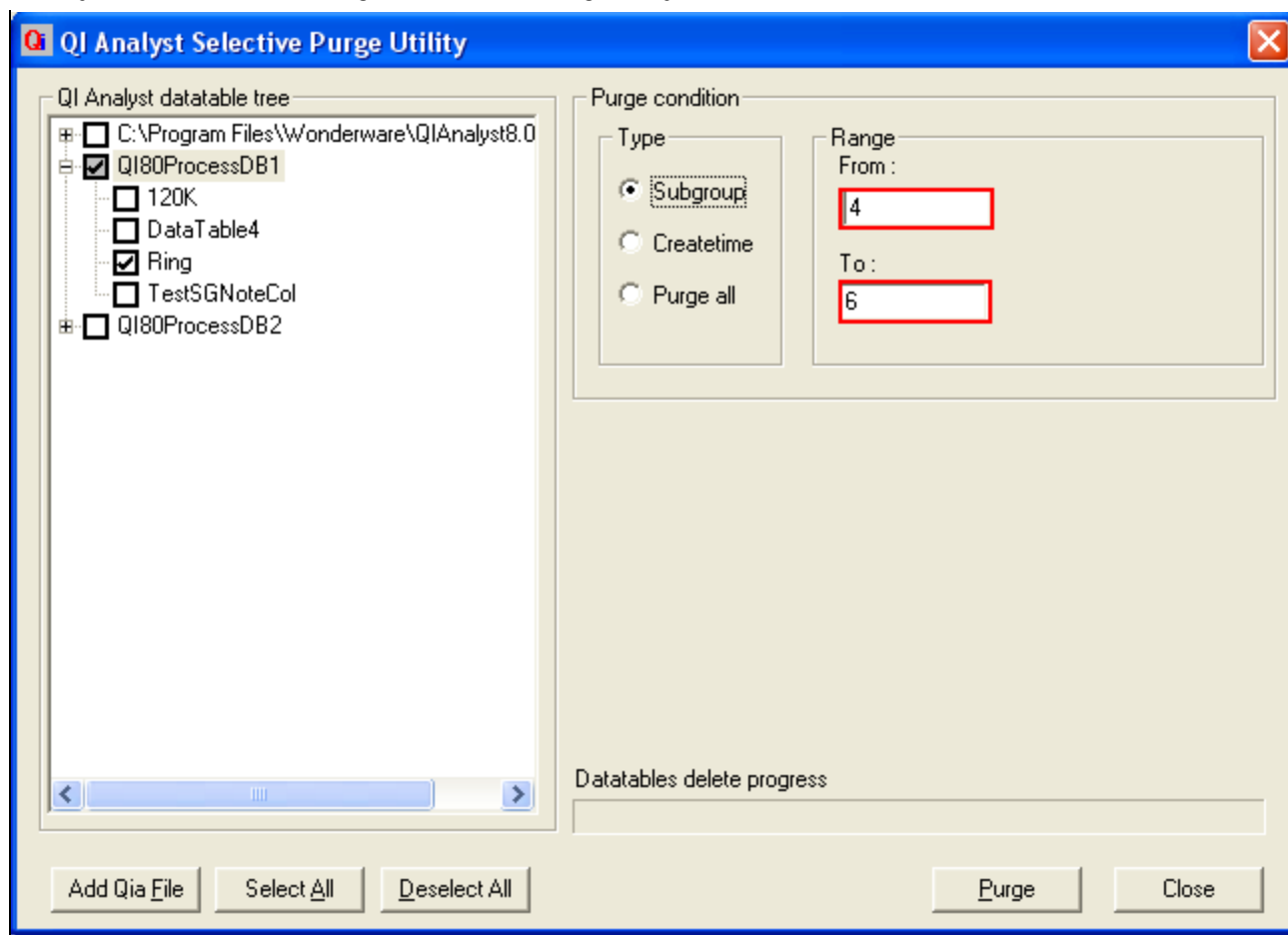
- Example 2: To purge data from Subgroup 4 to Subgroup 6, do the following (Figure 9 below).

FIGURE 9: PURGE BY SUBGROUP EXAMPLE 2

- Example 3: To purge all data from Subgroup 4 (inclusive) onwards, set **From :** 4 and **To:**<blank>
- Example 4: To purge all data until Subgroup 4 (inclusive), set **From :**<blank> and **To:** 4

Purge Condition: Type CreateTime

Using this condition, you can delete data from one createtime to another.

1. Select the **Createtime** radio button.

2. Type the date and time range on **From** and **To** fields.

   • Example: To purge data from 1/28/2014 11:30:00 am (inclusive) to 1/29/2014 12:30:00 pm (inclusive), do the following (Figure 10 below).
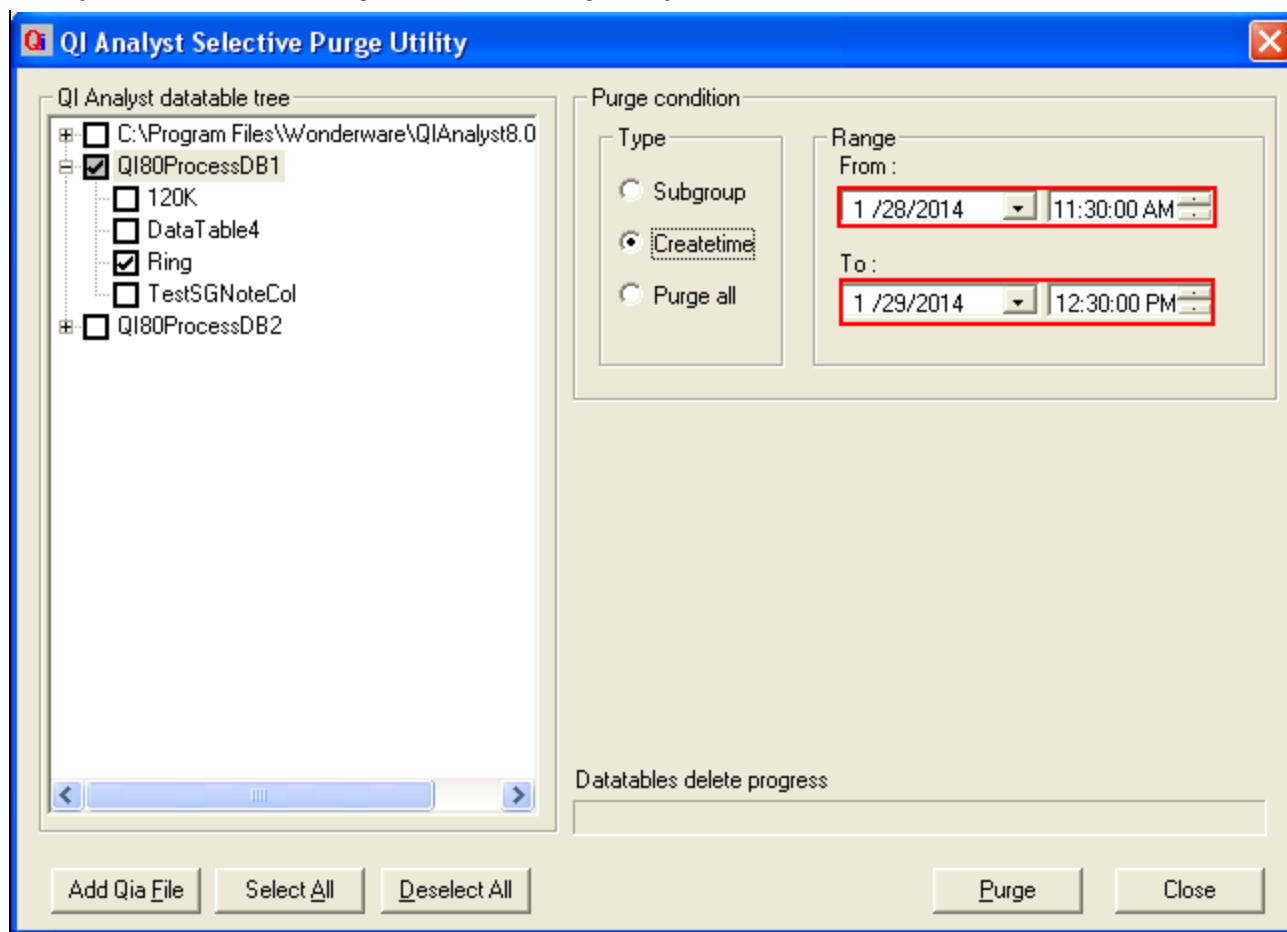
FIGURE 10: PURGE BY CREATETIME EXAMPLE

Purge Condition: Type Purge all

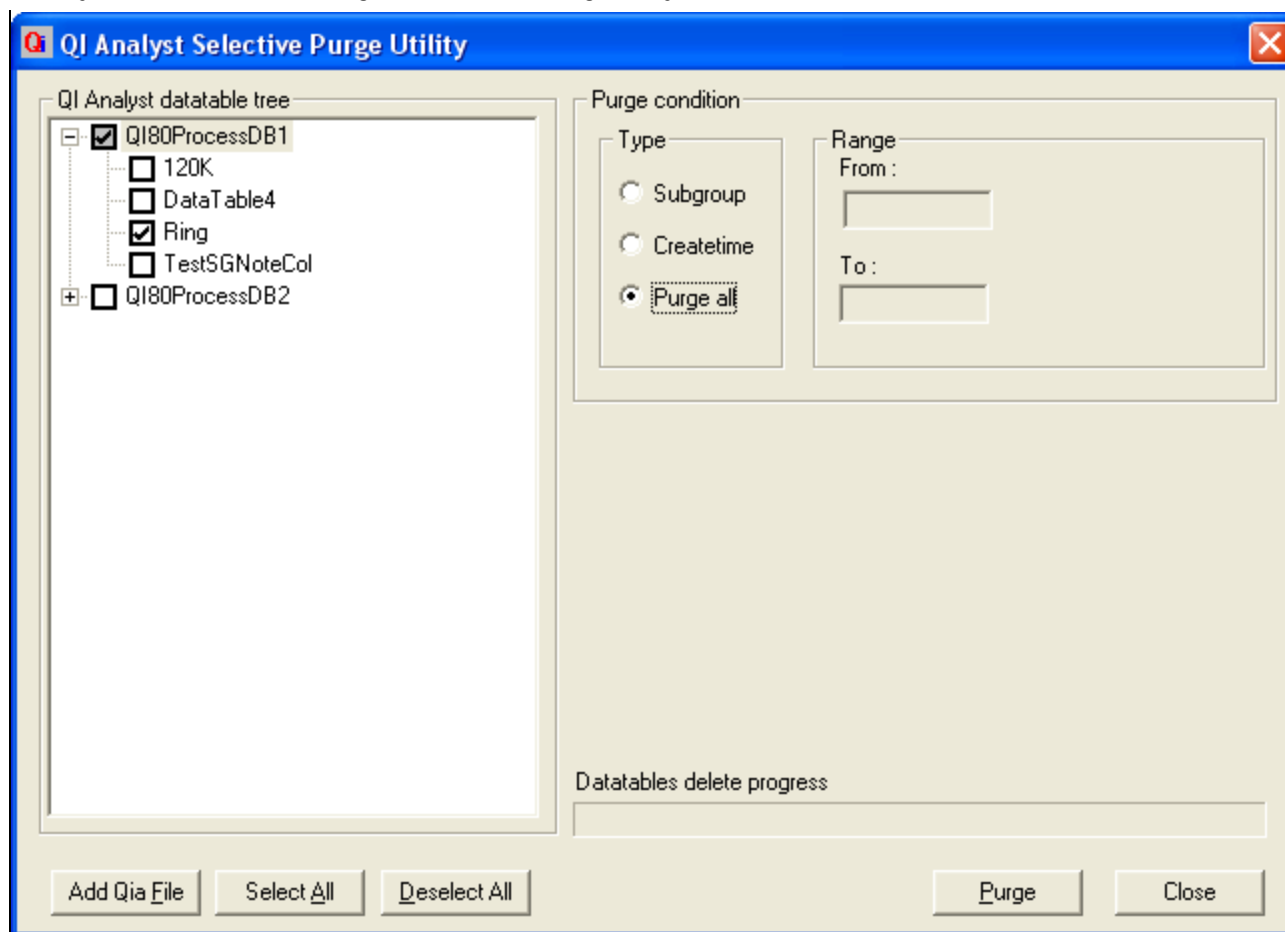Using this condition, you can delete all data from a data table at once.

FIGURE 11: PURGE ALL DATA FROM THE DATA TABLE

1. After selecting the desired Purge condition, click the **Purge** button and one of the following messages will appear based on the purge condition:
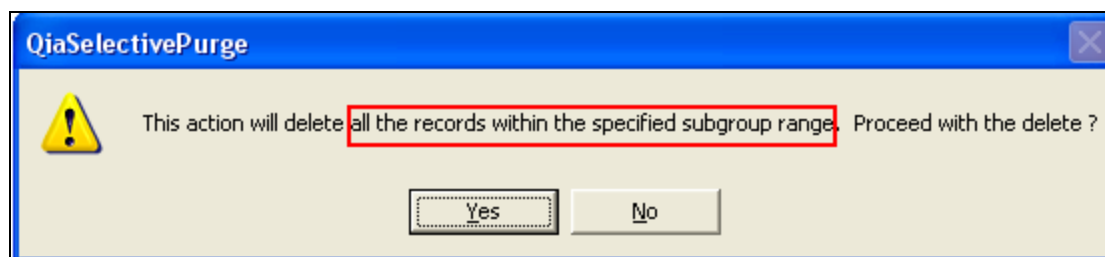
- Purge by Subgroup (Figure 12 below).

FIGURE 12: PURGE BY SUBGROUP ALERT

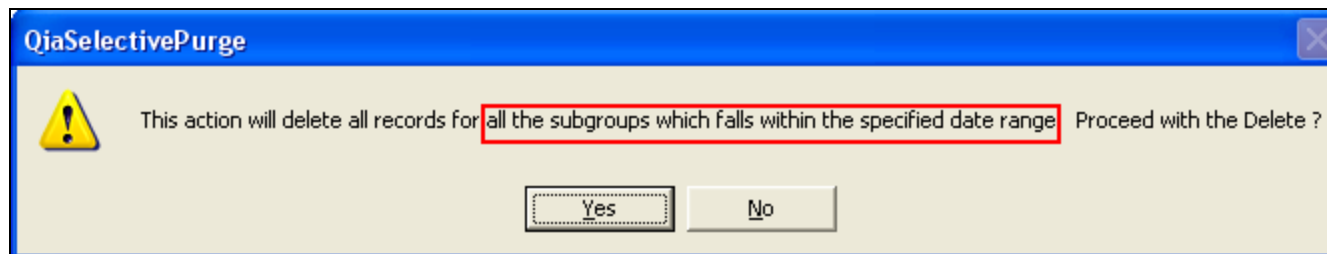- Purge by **Createtime** (Figure 13 below).

FIGURE 13: PURGE BY CREATTIME ALERT

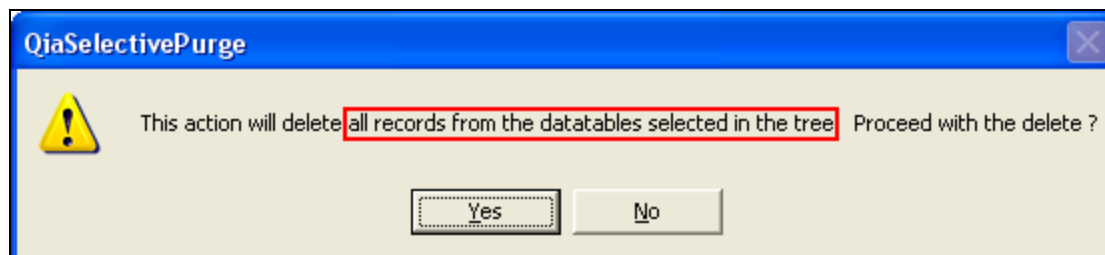- Purge All (Figure 14 below).

FIGURE 14: PURGE ALL ALERT

2. Click **Yes** for the deletion process to continue.

   Clicking **No** cancels the purge and take you back to the QI Analyst Selective Purge Utility window.

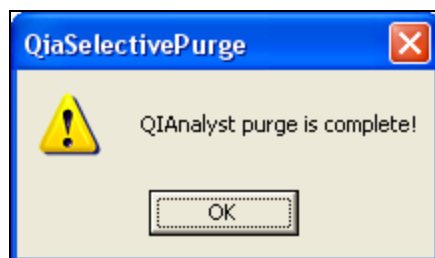   Wait for the **QIAnalyst purge is complete!** message (Figure 15 below).

FIGURE 15: PURGE IS COMPLETE

3. Open QI Controller and go to the appropriate data table.

4. Open the data editor and verify appropriate data has been deleted.

   Here is an example of how the data editor looks after purging data from Subgroup 4 to Subgroup 6. Note that all the records for Subgroups 4, 5 and 6 are deleted (Figure 16 below).

FIGURE 16: DATA IS PURGED - DATA EDITOR VIEW

Archiving and Restoring QI Analyst Data

There is no formal "best practices" document for maintaining the database or utilities for archiving and restoring QI Analyst data.

One approach for archiving/restoring data is to periodically copy the QI Analyst Process & Admin Databases, then use the QISelectivePurge utility (as described in the previous section) to purge the data from the QI Process database.

One major drawback to this approach is that it is not possible to look across (in terms of time span) different Database backups. This restriction can affect control limit values if **Automatic Calculation** of Control Limits is used.

It is important to also back up the Admin Database, because the Process Database uses information from the Admin Database. If you don't also back up the Admin database, then the Admin and Process database will be out of synch and create problems with Workspaces, Data Retrieval and other major functions. Furthermore, renaming the Process Database when restoring it will cause the loss of Workspaces, at a minimum.

This scenario has not been extensively tested, so we can't yet say that we support this manual archiving/restore, but doing the backups will be straightforward.

The following sections explain recommendations.

To Archive Data

- Back up the Process and Admin databases (you can use the backup feature in SQL Server Management Studio to do this if using SQL Server or just make a copy of the .mdb/.qia files if using MS Access database).

Use QISelectivePurge utility to remove the older data from the current Process database.

To Retrieve Archived Data

- Restore both the archived Admin Database & Process Database.

- Use the QIAdminDBChange utility to point to that restored Admin database.

- When you are ready to return to the current Admin/Process Databases, use the QIAdminDBChange utility again to point to the current Admin DB.

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For technical support questions, send an e-mail to **wwsupport@invensys.com**.

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