**DatabaseIO.cs**

*Version 437*

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| **Original Author** | Nathan Horn | **Date** |  |
| **Author** | Nathan Horn | **Date** | 4/25/2011 |
| **File Name** | DatabaseIO | **File Version** | 437 |
| **File Location** | \SharedCode\DatabaseIO.cs | | |
| **File Uses** | Class to control all database interactions. | | |
| **File Used By** | SQL\_Queries.cs | | |
| **Reason for Editing** |  | | |

| **Method** | **Line #** | **Purpose** | **Pre-Condition** | **Post-Condition** |
| --- | --- | --- | --- | --- |
| setupConnection | 39 | Checks for a valid connection string and tries to establish a connection to the database. If the connection fails the user is given an opportunity to enter a new connection string. | Retrieves connection string from registry. If a connection cannot be established, user is prompted for new connection info. | There is now a valid connection string. |
| checkConnection | 55 | This method will check for a valid connection string and try opening a new connection. | Retrieves connection string and attempts to open and close a connection. | If successful true is returned otherwise false is returned to the calling method. |
| GetConnection | 77 | Creates the SQLConnection object "conn" which is used throughout the rest of the databaseIO methods. | The sql connection object conn is not initialized. | Conn is now initialized and ready to use. |
| createNewConnection | 111 | Creates and returns a connection string key in the computers registry. | There is no connection string defined in the registry. | Connection string is written to the registry and returned to the calling method. |
| RetrieveConnectionString | 125 | Attempts to read the connection string from the computers registry. If it doesn't exist a new key is created. | Method assumes there is a connection string in the registry and attempts to read it. If one cannot be found then the createNewConnection method is called. | Connection string is returned to the calling method. |
| ExecuteQuery | 142 | Method will execute a non query SQL statement and return the number of rows affected. | A valid sql non query statement needs to be executed on the database. | The query is executed and number of rows affected returned. |
| errorCheck | 167 | Method is used to help centralize and customize database error messages. | An error has occurred in the databaseIO class. | The error is displayed to the user in a message box. |
| getDataSet | 177 | This method will allow you to retrieve a dataset containing the data from the executed query. | A valid sql select statement needs to be executed on the database. | Query is executed and a dataset of the results is returned to the calling method. |
| getAggDataString | 202 | Method used when executing an sql query that is retrieving aggregate data. | A valid sql select statement with aggregate data needs to be executed on the database. | Query is executed and the a string with the aggregate data is returned. |
| CloseConnection | 226 | Closes the connection if it is open. | Checks for an open connections. | All open connections are closed. |
| CheckForRows | 245 | This method allowed you to determine if an sql statement will return any rows. | A valid sql select statement to check for returned rows. | If there are rows from the select statement the method returns true else a false is returned. |
| GetRows | 267 | This method will allow you to determine how many rows will be returned from an sql query. | A valid sql select statement to check for the number of returned rows. | An integer is returned for the number of rows in the sql statement. |