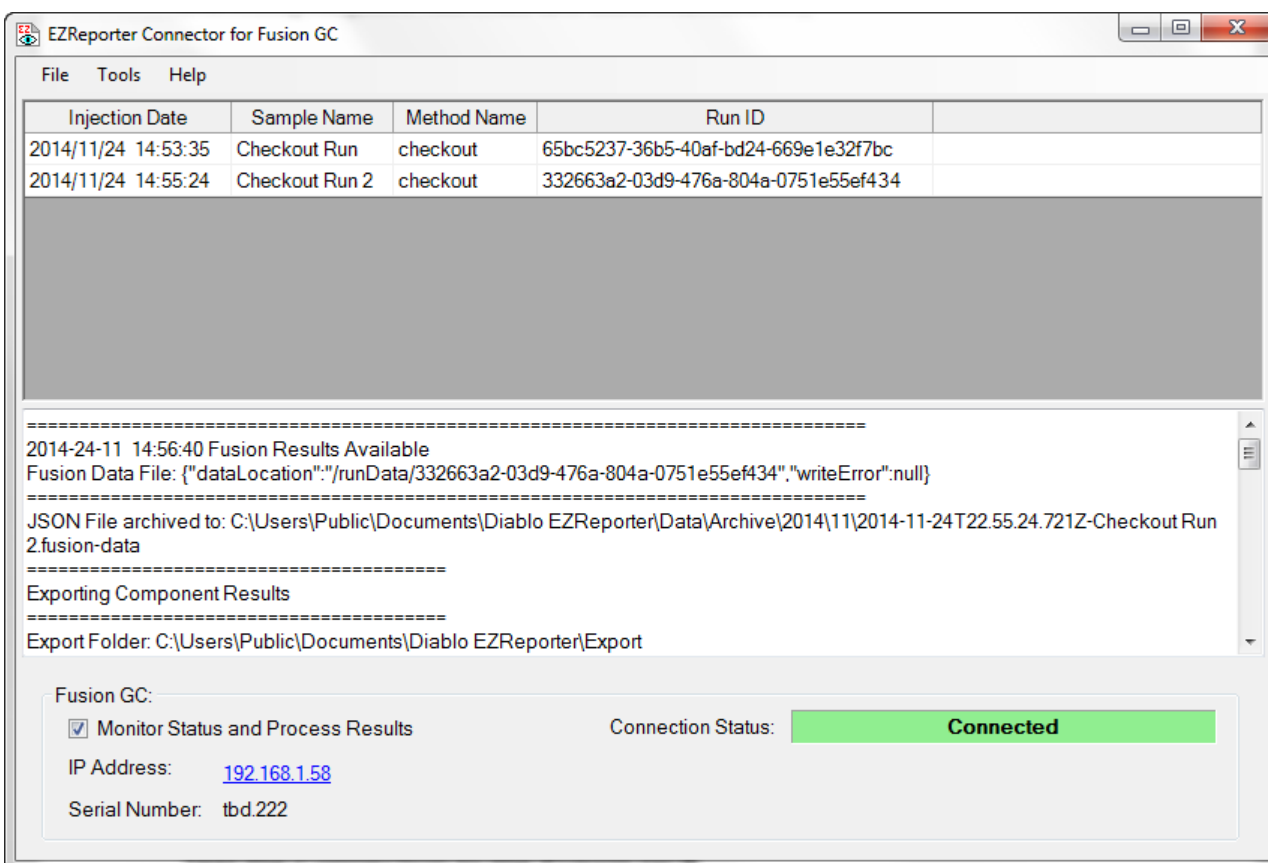


EZReporter Connector for Micro GC Fusion



Diablo Analytical EZReporter Software
EZReporter 3.0 Connector for the INFICON Micro GC Fusion

Copyright 2015, Diablo Analytical, Inc. All rights reserved.

This software and documentation are copyrighted by Diablo Analytical, Inc. All other brands or product names are trademarks or registered trademarks of their respective owners.

Diablo Analytical, Inc.

5141 Lone Tree Way
Antioch, CA 94531

Phone: 925-755-1005

Fax: 925-755-1007

E-mail: support@diabloanalytical.com

Home Page: www.diabloanalytical.com

Manual Revision 20150108-1102

DIABLO ANALYTICAL, INC. SOFTWARE LICENSE AGREEMENT AND LIMITED WARRANTY

LICENSE AGREEMENT

IMPORTANT: Please carefully read the License Agreement below before installing the software. The right to use this software product is sold only on the condition that the customer agrees to the following license. **INSTALLING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE TERMS AND CONDITIONS.**

In return for payment of the one-time license fee for this software product, Customer receives from Diablo Analytical, Inc. (Diablo) a license to use the product subject to the following terms and conditions:

Use: The product may be used one computer or workstation. A separate license agreement and fee is required for each additional computer or workstation on which the product is used. Customer may not reverse assemble, decompile, or modify the software.

Copies: The software product may not be duplicated or copied except for archive purposes, program error verification, or to replace defective media, and all copies made must bear the copyright notices contained in the original.

Ownership: Purchase of this license does not transfer any right, title or interest in the software product to Customer except as specifically set forth in this License Agreement. Customer is on notice that the software product is protected under copyright laws.

Transfer of Rights: This license and the software product may be transferred to a third party, with prior written consent from Diablo, provided the third party agrees to all the terms of this License Agreement and the Customer does not retain any copies of the software product.

Sublicensing and Distribution: Customer may not sublicense the software or distribute copies of the software to the public in physical media or by telecommunication without the prior written consent of Diablo.

Termination: Diablo reserves the right to terminate this license upon breach. In event of termination, Customer will either return all copies of the product to Diablo, or with Diablo's prior consent, provide Diablo with a certificate of destruction of all copies.

Updates and Upgrades: Customer agrees that the software does not include updates and upgrades which may be available from Diablo in a separate support agreement.

Export Restrictions: Customer agrees not to export or re-export the software or any copy in violation of the U.S. Export Administration regulations or other applicable regulation.

LIMITED WARRANTY

Limited Warranty: Diablo warrants that the original disks are free from defects for 90 days from the date of delivery of the software.

No Other Warranties: To the maximum extent permitted by applicable law, Diablo expressly disclaims any warranty for the software product. The software product and any related documentation is provided "as is" without warranty of any kind, either express or implied, including, without limitation, the implied warranties or merchantability of fitness for a particular purpose. The entire risk arising out of use or performance of the software product remains with the customer.

Limitation of Liability and Customer Remedies: Diablo's entire liability and the customer's exclusive remedy under this license agreement shall be, at Diablo's option, either (a) return of the price paid for the software or (b) replacement of the software that does not meet Diablo's Limited Warranty and which is returned to Diablo with a copy of the customer's receipt. Any replacement software will be warranted for the remainder of the original warranty period, or 30 days, whichever is longer. These remedies are not available outside the United States of America.

No Liability for Consequential Damages: To the maximum extent permitted by applicable law, in no event shall Diablo be liable for any damages whatsoever (including, without limitation, damages for loss of business profit, business interruption, loss of business information, or any other pecuniary loss) arising out of the use or inability to use the product, even if Diablo has been advised of the possibility of such damages. Because some states/jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

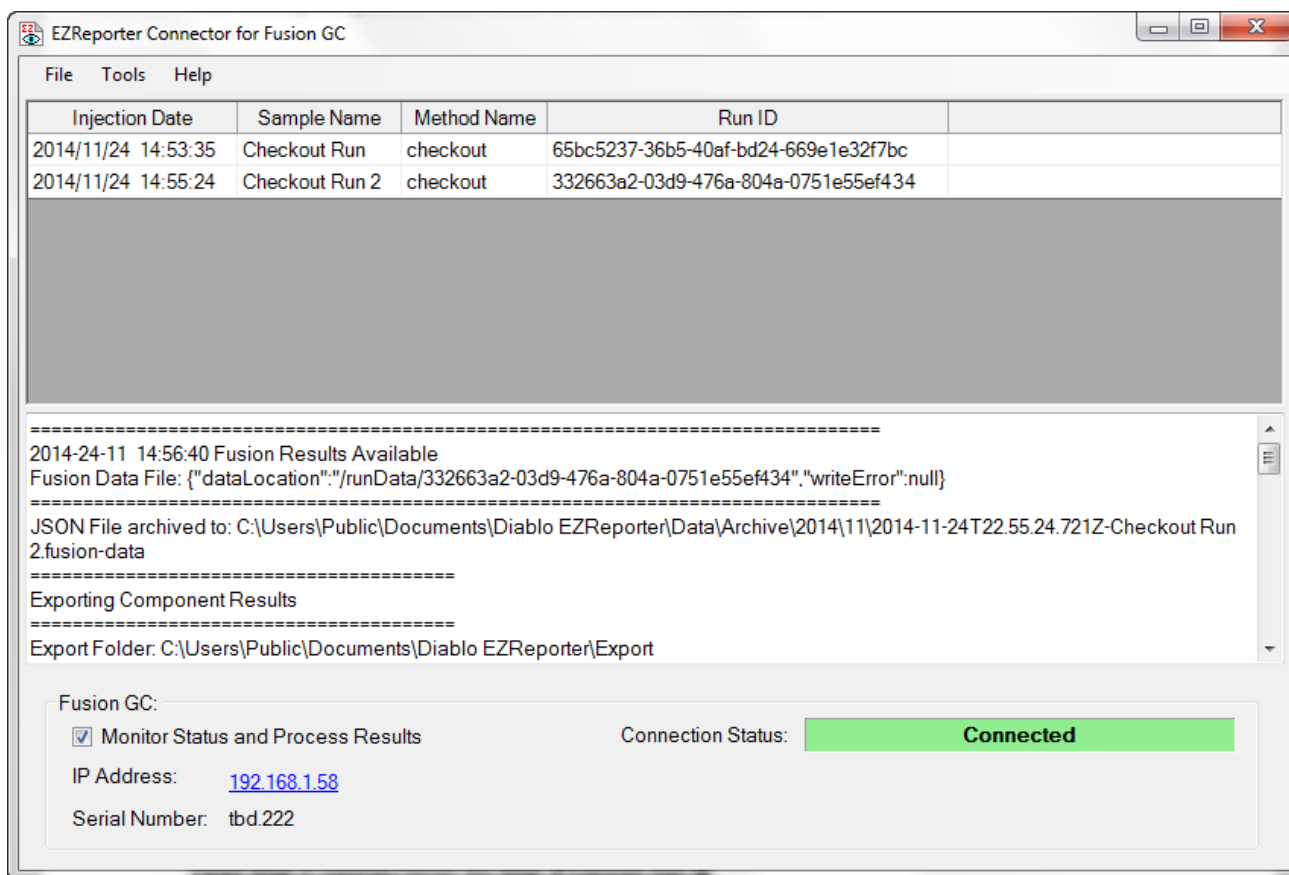
Contents

Introduction	1
Introduction	1
Software Requirements	1
Important Information	2
Installation	2
Technical Support.....	2
Configuring the Software	3
Configuring the IP Address	3
Test the Connection to the Fusion GC.....	4
Other Settings	6
Archive JSON Data Files	6
Start EZReporter Automatically.....	6
Enable Debug Logging.....	6
Running the Software	9
Controlling the Fusion GC.....	9
Monitoring the Fusion GC.....	9
Fusion GC Monitoring Errors.....	9
Processing Results	10
The Sample History Table	11
Loading Saved Fusion Data Files	11
Additional Topics	13
Reporting Fusion Tags in EZReporter	13
System Folders used by the Fusion Connector	15
Index	17

Introduction

Introduction

The EZReporter Connector for the Fusion GC (Fusion Connector) provides status monitoring and automatic downloading and processing of results from the INFICON Fusion Micro GC using EZReporter 3.0.



Software Requirements

The Fusion Connector has the following requirements:

- 1) The Fusion Connector requires Fusion version 1.01 or later. JSON data files created with earlier versions of the Fusion software cannot be loaded and processed.
- 2) Diablo EZReporter 3.0 for EZ IQ must be installed and configured before trying to process results from the Fusion GC using the Fusion Connector.

EZReporter version 3.0.3.3 or later is required to report Fusion tags in custom sample information fields.

- 3) The Full .NET 4.0 Framework must be installed before trying to run the Fusion Connector. The .NET Framework will be installed automatically if necessary when you install the Connector from the distribution CD. You can also download and install the .NET 4.0 Framework from Microsoft using the following link:

<http://www.microsoft.com/en-us/download/details.aspx?id=17718>

Important Information

1. Support for Reprocessing: This release of the software does not detect and automatically load results that have been reprocessed in the Fusion software. In order to process those results with EZReporter you will need to use the Fusion Data Browser to export the JSON file to the hard drive and then load the JSON file into EZReporter.

Installation

The software is installed by running the setup program on the distribution CD or downloaded from our web site. The Fusion Connector setup program is located in the “Fusion Connector” folder on the EZReporter 3.0 for EZ IQ distribution CD.

After installing the Fusion Connector, new shortcut links will be placed on the desktop and in the “Diablo EZReporter\Data System Connectors” program group.

If you run the setup program from the installation CD, then the .NET 4.0 Framework will be installed automatically if it isn't already present on the system. If you download the web-based installer from our web site, then the installation program will attempt to download the .NET 4.0 Framework and install it before installing the Fusion Connector. If for some reason you have problems with either of these methods, you should download and install the .NET 4.0 Framework manually using the following link:

<http://www.microsoft.com/en-us/download/details.aspx?id=17718>

Technical Support

The Fusion Connector is developed and supported by Diablo Analytical, Inc.

Diablo Analytical, Inc.

5141 Lone Tree Way
Antioch, CA 94531

Phone: (925) 755-1005

Fax: (925) 755-1007

Electronic Mail

Use our dedicated support address for e-mail based technical support:

support@diabloanalytical.com

World Wide Web

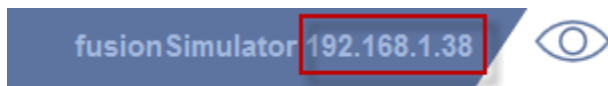
Access online support resources on our web site:

<http://www.diabloanalytical.com/support.htm>

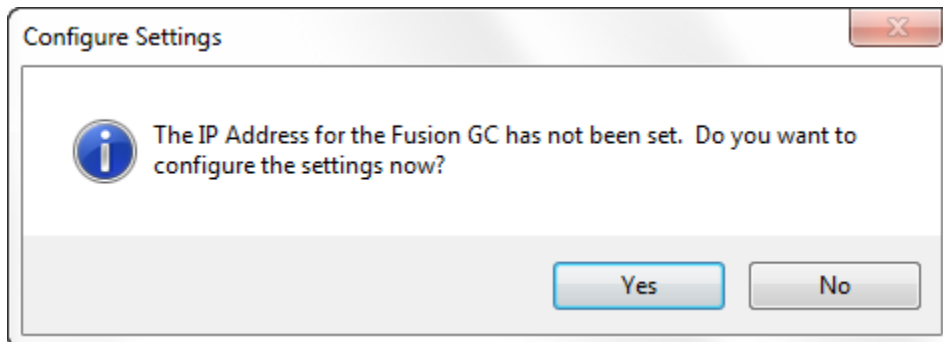
Configuring the Software

Configuring the IP Address

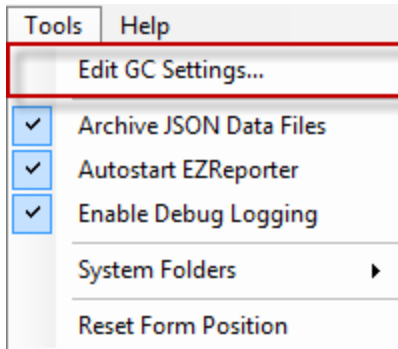
The main configuration setting you need to make is to enter the IP address of the Fusion GC you want to monitor and from which you want to process results. To determine the IP address of the Fusion GC, make sure that the Fusion GC is running, and then connect to the GC using a web browser as you would to start a run. The IP address assigned to the GC is displayed in the upper right corner of the browser window:



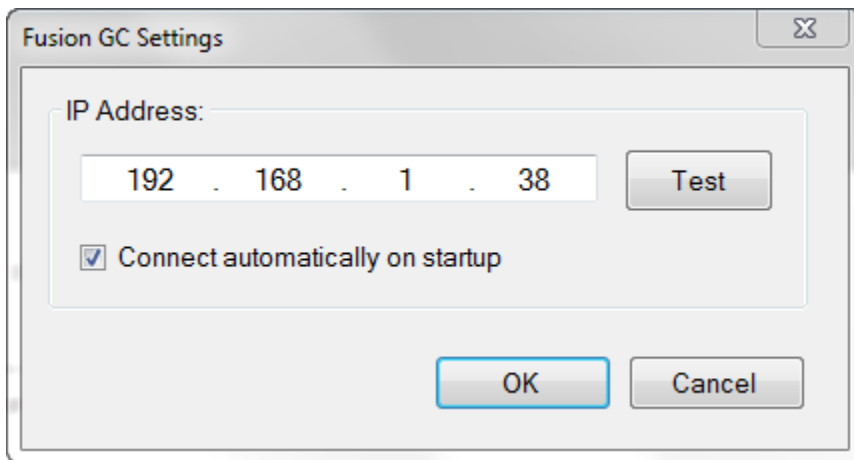
If you are starting the Fusion Connector for the first time you will be prompted to configure the GC and enter the IP address:



Otherwise, you can click the “**Tools > Edit GC Settings**” menu option:



In the resulting configuration window, enter the IP address of the Fusion GC:



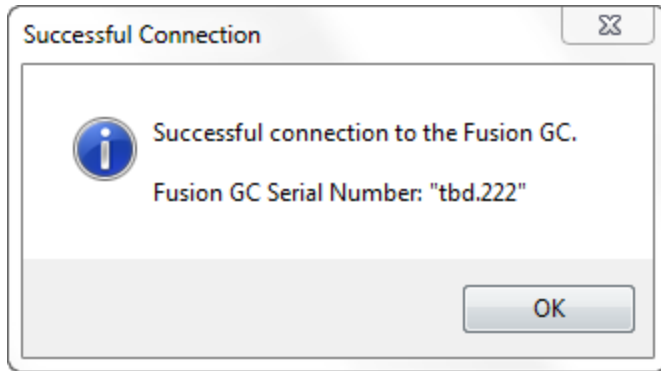
You can also set the option to connect to the Fusion GC and start monitoring and processing results automatically when the Connector starts up by checking “**Connect automatically on Startup**”.

Test the Connection to the Fusion GC

After entering the IP address, you can click the “**Test**” button to confirm that the IP address is correct, and the GC is responding.

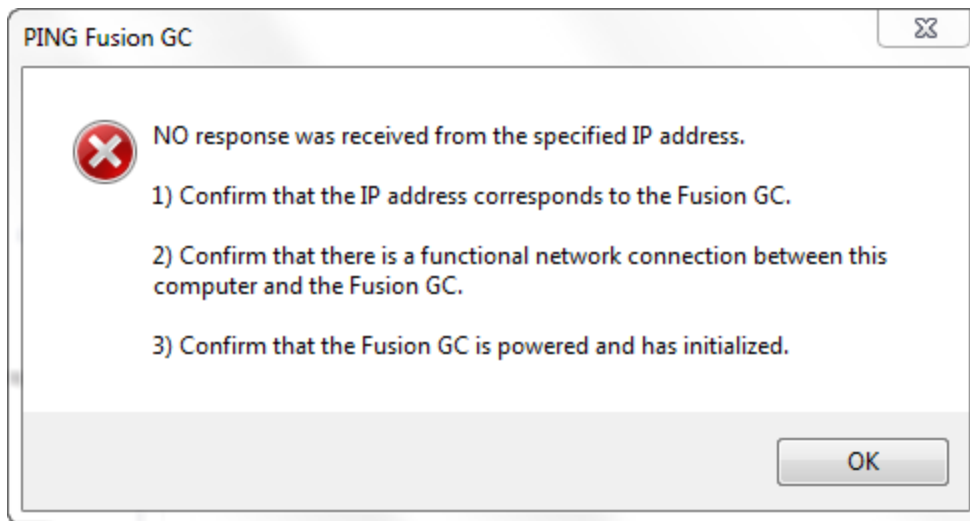
Successful Connection

If the IP address is set correctly, a “Successful Connection” window will be displayed with the serial number of the Fusion GC at the specified IP address:

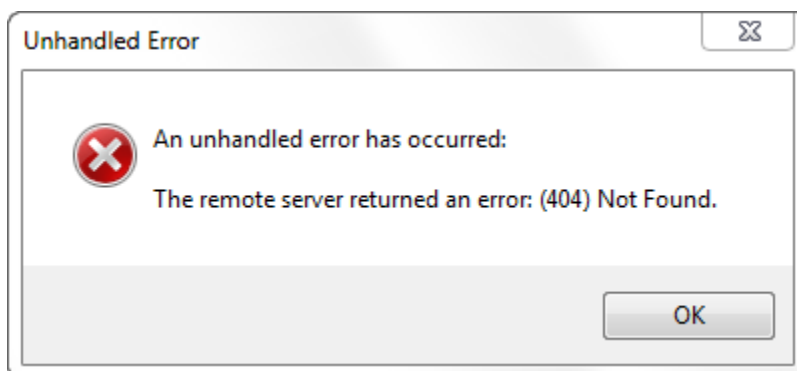


Connection Error

If the IP address is not set correctly, or if the GC is not powered on and initialized, then a warning will be displayed indicating that GC is not responding at the specified IP address:



If the Test responds with a "(404) Not Found" error, then the specified IP address is being used by a device other than a Fusion GC:

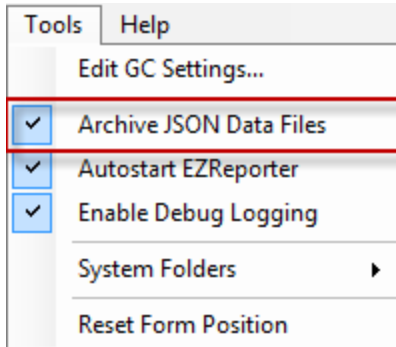


Other Settings

There are a few additional options you may want to enable.

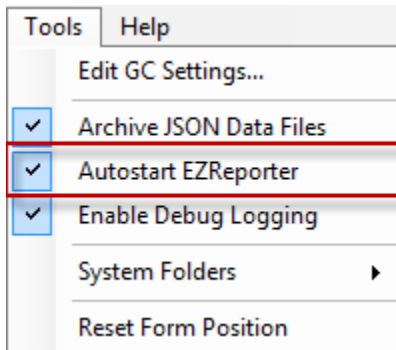
Archive JSON Data Files

To archive the Fusion JSON data files to the local hard drive, check the menu option, "Tools > Archive JSON Files". The JSON files will be stored in the folder, "C:\Users\Public\Documents\Diablo EZReporter\Data\Archive\YYYY\MM", where "YYYY" is the current year, and "MM" is the current numeric month. JSON files are named as "runTimeStamp-sampleName.fusion-data".



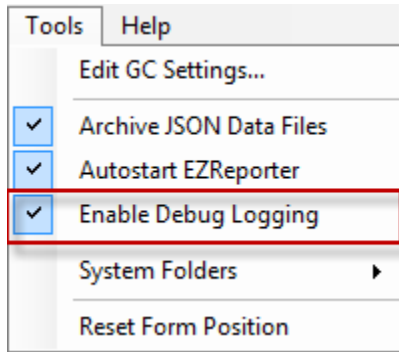
Start EZReporter Automatically

To have the Fusion Connector start EZReporter 3.0 automatically whenever the connector is started, click the "Tools > Autostart EZReporter" menu option so that it is checked. To disable simply click this menu option again so that it is unchecked.

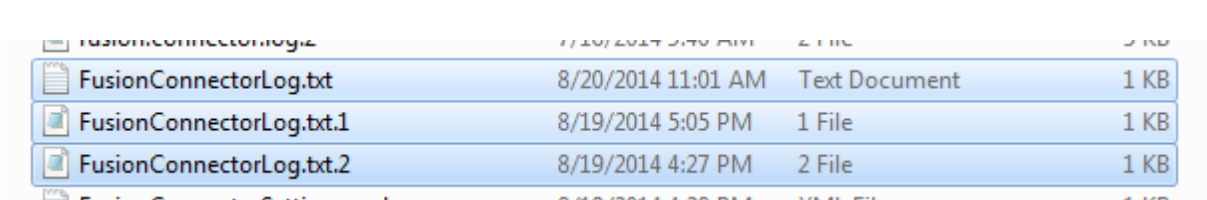


Enable Debug Logging

A debug log can be collected to provide important information when troubleshooting the software. Under normal circumstances you should leave the debug log disabled. However, if you are advised by technical support to enable debug logging, simply click the "Tools > Enable Debug Logging" menu option so that it is checked. To disable debug logging, click this menu option again so that it is unchecked.



The Fusion Connector log files are text files that can be accessed using the “**Tools > Browse Log File Folder...**” menu option. Log files are saved for the last three times that the Fusion Connector was run:



FusionConnectorLog.txt is the log file for the current or most recent session, while the “.1” and “.2” files are from the previous two sessions.

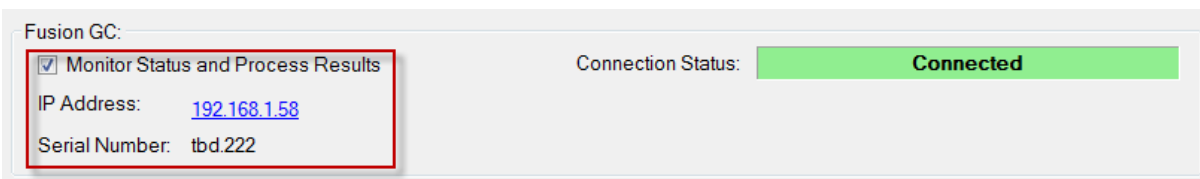
Running the Software

Controlling the Fusion GC

The Fusion Connector software is designed only to monitor the Fusion GC and process results as they become available. You must set up and start runs and sequences using the front panel display on the Fusion GC or the web browser interface. See the documentation for the Fusion GC for more information.

Monitoring the Fusion GC

To begin monitoring the Fusion GC at the specified IP address, simply check “**Monitor Status and Process Results**”:



Fusion GC:

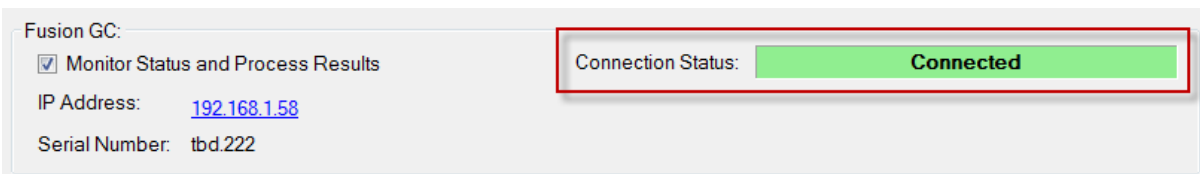
Monitor Status and Process Results

IP Address: [192.168.1.58](#)

Serial Number: tbd.222

Connection Status: **Connected**

The Fusion Connector will attempt to connect to the Fusion GC and if it is successful, the Connection Status will change to “Connected”.



Fusion GC:

Monitor Status and Process Results

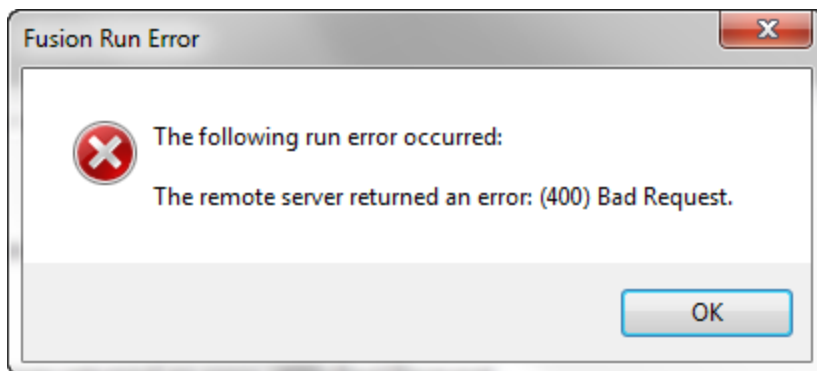
IP Address: [192.168.1.58](#)

Serial Number: tbd.222

Connection Status: **Connected**

Fusion GC Monitoring Errors

If you try to connect to the Fusion GC and start monitoring before it has completely initialized, you may experience errors like, “The remote server returned an error: (400) Bad Request”. If you experience this error, wait for the Fusion GC to finish initializing and then try again.

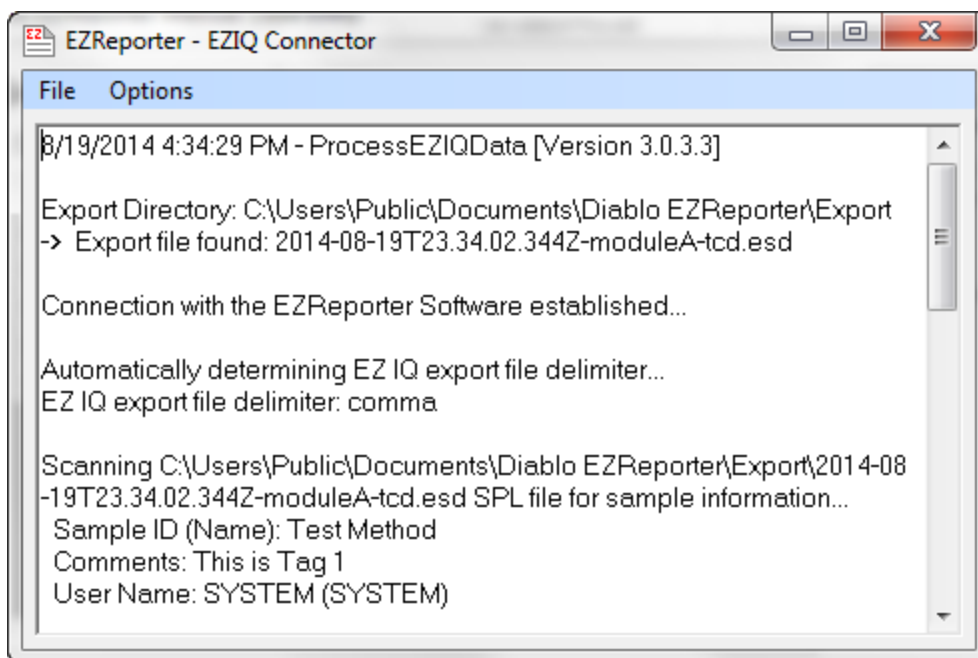


If you experience other errors, then click the “**Tools > Edit GC Settings...**” menu option and then click the “**Test**” button to see if the GC is responding at the specified IP address.

Processing Results

When the Fusion Connector detects that the Fusion GC has completed a run and new data is available for processing, it will automatically download the data from the GC and format it so that it can be processed by the EZ IQ Connector for EZReporter 3.0

As long as you have installed the EZ IQ Edition of EZReporter 3.0 and have an appropriate EZReporter configuration file loaded, you shouldn't have to make any additional configuration changes to process Fusion results to EZReporter. The Fusion Connector will automatically export the Fusion results to a format that can be read by the EZ IQ Connector, and then start the EZ IQ Connector to process the results to EZReporter. You may see the EZ IQ processing window briefly as it opens and closes:



Once the EZ IQ Connector has closed the Fusion results should be displayed in EZReporter and have been processed according to the EZReporter configuration file that is loaded.

The Sample History Table

The last 25 samples processed from the Fusion GC are listed in the sample history table. You can view the processing log for any of the samples by clicking on its entry in the sample history table.

Injection Date	Sample Name	Method Name	Run Data File	
2014/08/19 12:58:12	Test Method	Test Method	/runData/2014-08-19T19:58:12.049Z	
2014/08/19 12:59:42	Sample 1	Test Method	/runData/2014-08-19T19:59:42.309Z	
2014/08/19 13:00:40	Sample 2	Test Method	/runData/2014-08-19T20:00:40.736Z	

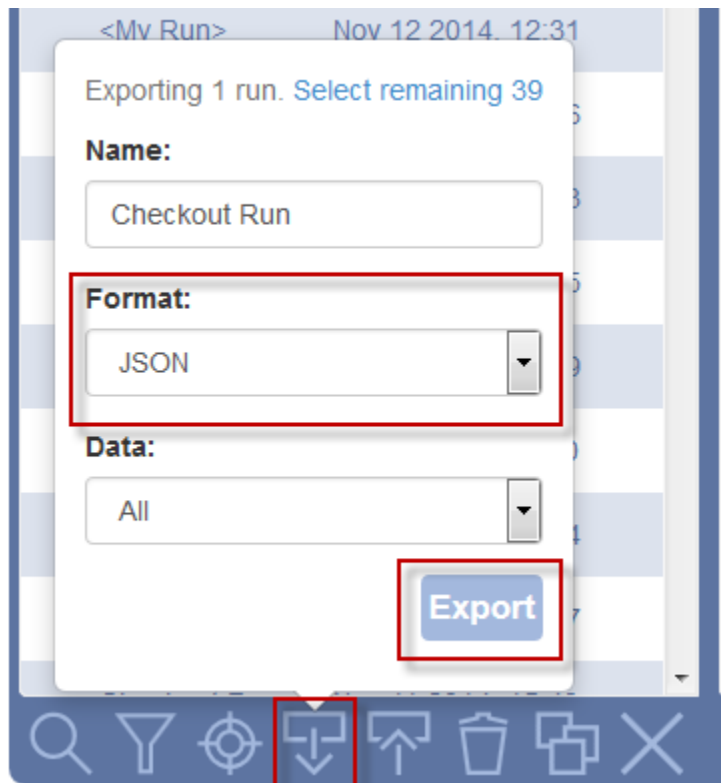
The processing log contains information from the Fusion GC Data file including the raw peak results. This information can be useful when troubleshooting problems or evaluating the calculations.

```
2014-19-08 13:01:07 Fusion Results Available
Fusion Data File: {"dataLocation":"/runData/2014-08-19T20:00:40.736Z"}

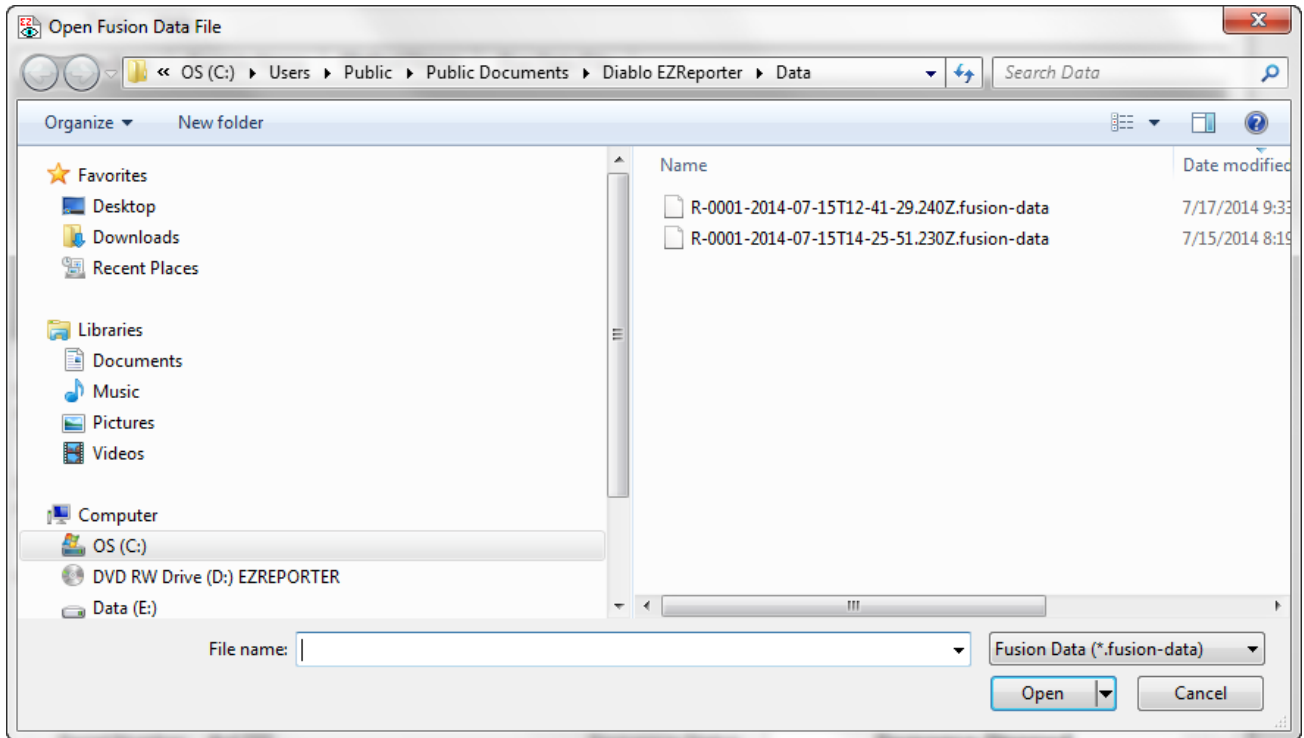
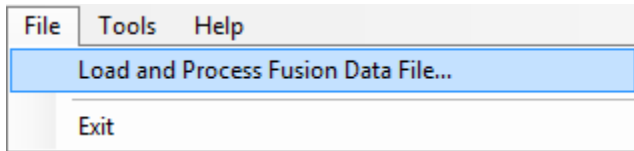
moduleB:tcd
Sample Name:Sample 2
Peak Results:
Exporting results to: 2014-08-19T20:00:40.736Z-moduleB-tcd.esd
```

Loading Saved Fusion Data Files

Fusion JSON data files can be archived automatically to the local hard drive by checking the “Tools > Archive JSON Data Files” menu option. You can also export Fusion data files from the Fusion Data Browser.



Once you have saved a Fusion data file to the hard drive, you can load and reprocess it by clicking the “File > Load and Process Fusion Data File...” menu option.



Additional Topics

Reporting Fusion Tags in EZReporter

The Fusion GC allows you to define additional sample information “Tags” when you start a run. These tags are identified in order starting with “Tag1”. You can display these tags in the EZReporter report by defining them as the default values of Custom Sample Information Fields in the EZReporter configuration editor as follows

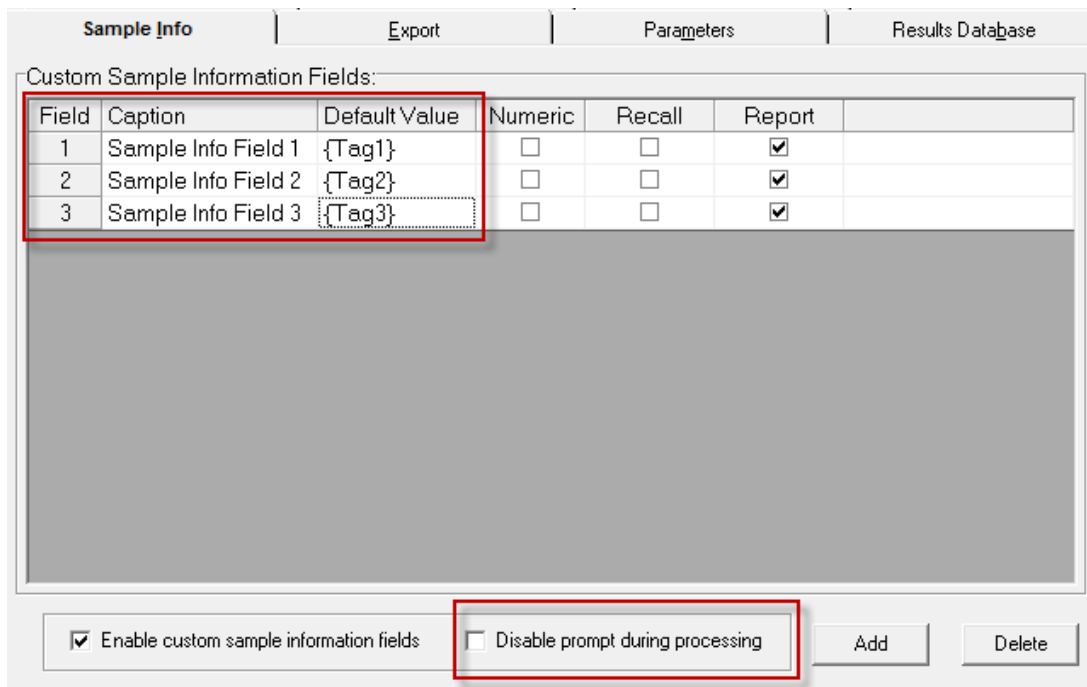
Start by entering the desired tags in the Fusion “Tag run” window:



Note that if Tag1 is present, it will also be defined as the “Sample Notes/Comments field” in EZReporter.

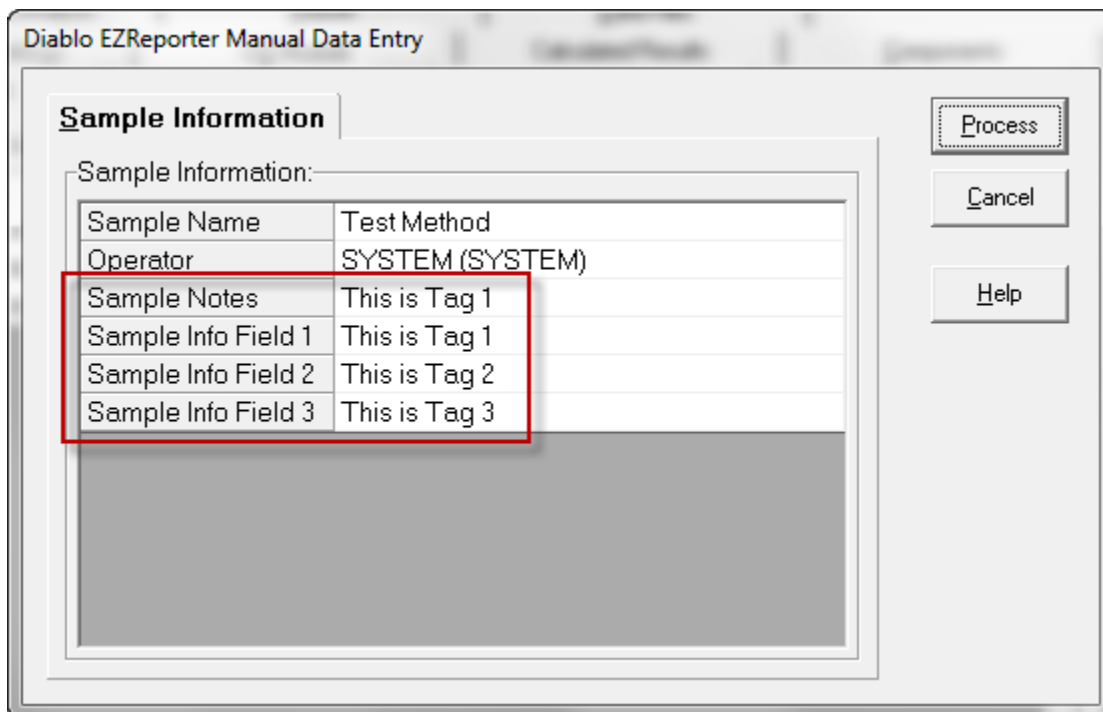
In order to make these tags accessible to EZReporter and to display them in the report, you have to create custom Sample Information Fields in the EZReporter configuration editor (see the EZReporter Reference Manual for details). Place the desired tag labels in curly braces as the default value for the custom sample information fields as shown below.

IMPORTANT: This feature requires EZReporter version 3.0.3.3 or later.



If you have no other custom sample information fields requiring manual entry during processing, you can check, **“Disable prompt during processing”** to bypass the manual entry window since those sample information fields will be filled by the tag values from the Fusion GC.

If you do allow the manual data entry form to be displayed, you will see that the tag labels you placed as the default values for the sample information fields are replaced by the actual tag values that were entered in Fusion when the run was started:



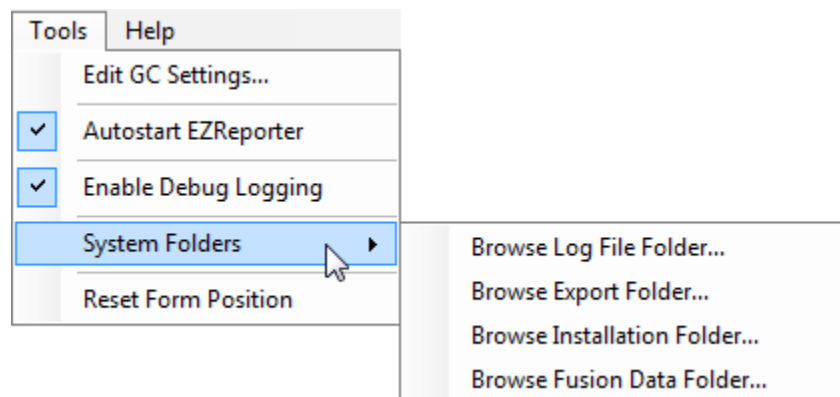
The tag values will then also be displayed in the Sample Information table of the EZReporter report.

Sample Information	
Sample Name	Test Method
Sample Info Field 1	This is Tag 1
Sample Info Field 2	This is Tag 2
Sample Info Field 3	This is Tag 3
Operator	SYSTEM (SYSTEM)
Sample Notes	This is Tag 1
Method Name	Test Method
Injection Date	2014-08-19 16:34:02
-	-

System Folders used by the Fusion Connector

With EZReporter 3.0, the configuration files, data files, log files, and program files are all stored under the EZReporter installation folder. The Fusion Connector uses different system folders for some of these purposes in order to address some of the security requirements of Windows 7

These system folders can be accessed by clicking the “Tools > System Folders” menu option and choosing the desired folder to browse.



Log Files and Settings Files

Fusion Connector log files and settings files are saved in the folder:

C:\ProgramData\Diablo Analytical\EZReporter

The “ProgramData” folder and subfolders are normally hidden. However, you can view this folder by clicking the “Tools > System Folders > Browse Log File Folder...” menu option.

Export Files

The export files created by the Fusion Connector and processed by the EZ IQ connector are saved to the folder:

C:\Users\Public\Documents\Diablo EZReporter\Export

Note: click the “Tools > System Folders > Browse Export Folder...” menu option to view this folder in the Windows File Explorer.

Program and System Files

The program and system files not requiring write access are stored in the traditional location under “Program Files”:

C:\Program Files (x86)\Diablo EZReporter (for Windows, 7-64-bit)

C:\Program Files \Diablo EZReporter (for Windows 7, 32-bit)

Note: click the “**Tools > System Folders > Browse Installation Folder...**” menu option to view this folder in the Windows File Explorer.

Fusion Data Files

By default, Fusion data files are saved to the folder:

C:\Users\Public\Documents\Diablo EZReporter\Data

Note: click the “**Tools > System Folders > Browse Fusion Data Folder...**” menu option to view this folder in the Windows File Explorer.

Index

A

Additional Topics 13
Archive JSON Data Files 6

C

Configuring the IP Address 3
Configuring the Software 3
Controlling the Fusion GC 9

E

Enable Debug Logging 6

F

Fusion GC Monitoring Errors 9

I

Important Information 2
Installation 2
Introduction 1

L

Loading Saved Fusion Data Files 11

M

Monitoring the Fusion GC 9

O

Other Settings 6

P

Processing Results 10

R

Reporting Fusion Tags in EZReporter 13
Running the Software 9

S

Software Requirements 1
Start EZReporter Automatically 6
System Folders used by the Fusion Connector 15

T

Technical Support 2
Test the Connection to the Fusion GC 4
The Sample History Table 11