



## Diablo EZReporter 1.0 Software

Diablo's EZReporter software is an advanced analysis and reporting solution that processes calibrated peak results automatically from the following Agilent Technologies chromatography data systems:

**Agilent Technologies GC/LC ChemStation • EZChrom Elite/SI • Cerity Chemical**

The screenshot displays the Diablo EZReporter Software interface. It features a menu bar (File, Tools, Help) and a tabbed interface with 'Sample Results' selected. The 'Sample Information' section includes fields for Sample Name, Operator, Sample Notes, Report Date, EZReporter Configuration File, Data Source, and EZReporter Data File. Below this is a 'Component Summary' table with columns for Component Name, Ret. Time, Peak Area, Normalized Mole%, Heating Value, Molar Mass Ratio, and GPM. The 'Results Summary' section provides a detailed breakdown of various gas properties, including Total Unnormalized Mole%, Pressure Base, Water Mole%, Gross Heating Value, Real Relative Density, Gas Compressibility (Z) Factor, and Wobbe Index, with separate columns for 'Dry' and 'Sat.' conditions.

- **Compatible with any instrument controlled by one of the supported data systems**
- **Flexible Reporting and Exporting**
- **Monitor Key Results with High/Low Alarms**
- **Trend/History Plotting**
- **Natural Gas Analysis (Optional)**
- **Local Results Database (Optional)**

### EZReporter Editions

The EZReporter software includes a base reporting module and two optional modules: a Natural Gas Analysis (NGA) calculation and reporting module and a Results Database module. These modules are combined in several different "Editions" of the EZReporter software.

EZReporter Edition	Modules Included
Standard Edition	Base Module Only
Natural Gas Analysis Edition	Base and Natural Gas Analysis Modules
Results Database Edition	Base and Results Database Modules
NGA Database Edition	Base, NGA, and Results Database Modules

The Base module is required for all Editions of the software. You can also license and activate individual modules at a later time if your needs change. The features included in each module are summarized below.

### 30-day Trial Download

You can download a fully-functional, 30-day trial version of the EZReporter software from our web site. This allows you to evaluate the features of all of the modules and determine if they meet your specific needs prior to a purchasing a license: <http://www.diabloanalytical.com/ezr/ezreporter.htm>

## The EZReporter Base Software Module

The Base software module can be licensed by itself or you can add one or both of the optional modules. The Base module can process calibrated peak results automatically from the Agilent Technologies ChemStation, EZChrom, and Cerity data systems. It allows for flexible reporting and exporting, parameter alarms, and history/trend plotting among other capabilities.

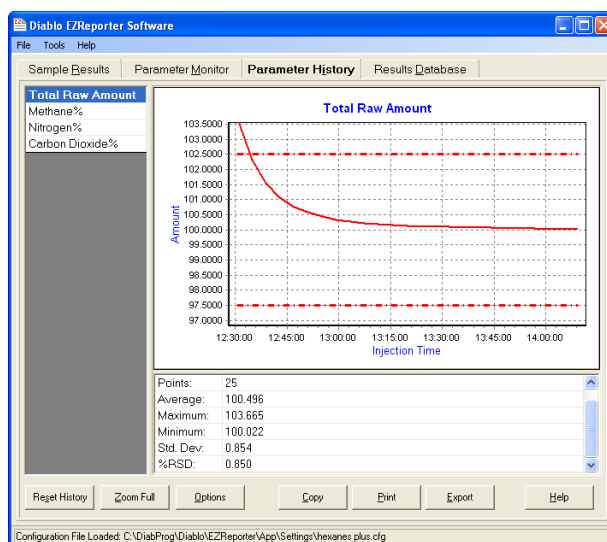
- **Process Results Automatically from ChemStation, EZChrom and Cerity:** Allows completely automated post-run processing of data from the Agilent Technologies GC/LC ChemStation, Cerity and EZChrom Elite or EZChrom SI data systems.
- **Multi-Channel Reporting:** Results from multiple detector channels can be combined into a single report with both raw and normalized amounts (normalized across all channels) displayed.
- **Easily Updated and Customized:** The list of components to process and report is completely customizable. Components can be added to or deleted from the component list.
- **Data Export:** Results can be exported to a text file for transfer to a Laboratory Information Management System (LIMS), Process Control System, or even Microsoft Excel. The format of the text file can be customized easily using EZReporter's flexible *Export Templates*.
- **Include Results from Other Analyzers:** The component list can be configured so that results from other analyzers can be entered manually for specified components and included in the calculations and reports.
- **Custom Sample Information:** You can specify up to ten custom sample information fields to include in the printed report, exported results, and data file.

### Monitor Key Results with High/Low Alarms

Parameter	Value	Upper Limit	Lower Limit
Total Raw Amount	100.0	102.5	97.5
Methane%	83.020	-	-
Nitrogen%	0.32	-	-

The EZReporter Parameter Monitor window showing high/low alarms enabled for a selected parameter.

### Trend / History Plots



The EZReporter Parameter History window showing the trend plot for a selected parameter displayed with high/low alarm lines.

## The EZReporter Natural Gas Analysis Module (Optional)

The optional Natural Gas Analysis (NGA) module is designed to perform Natural Gas/ Refinery Gas heating value and related calculations. The results from these calculations are available for reporting, monitoring, trend plotting, and exporting through the Base module.

- **Standard GPA/ASTM Calculations:** Calculates Dry/Saturated/Wet Gross Heating Value, Real Relative Density, Gas Compressibility factor, GPM value, and Wobbe Index using GPA 2172-09 and ASTM D3588-98 (2003) standard calculations.
- **Physical Properties can be Easily Customized:** The component list is completely customizable. Components can be added to or deleted from the component list, and calculation factors (Heating Value, Molar Mass Ratio, Summation Factor, and GPM Volume Factor) can be updated by the user either manually or using one of the standard physical property tables included in the software.
- **Standard Physical Property Tables:** Standard component physical property tables are provided for the GPA 2145-03 and GPA 2145-09 Standards, and the GPSA Engineering Data Book (12th Edition, 2004).
- **Export to Text File:** You can create custom export templates to save NGA results to text files for import into flow calculators and measurement systems like Flow-Cal and PGAS.
- **Monitor Results with Alarms:** You can use "Monitored Parameters" to set up alarms for critical parameters like the total un-normalized mole%.
- **Disable NGA Module:** The NGA module can be disabled if you want to use the software only for general reporting, monitoring, and exporting of Agilent ChemStation, EZChrom or Cerity analysis results.

Name	Molar Mass Ratio (G)	Heating Value (Hv)	Summation Factor (b)	Vol. Factor (Cu. Ft./Gal.)	Repeatability (Rel %)	Reproducibility (Rel %)
(Ideal gas properties at 60 Deg. F and 14.696 psia)						
1 Helium	0.1382	0	0	98.693	0	0
2 Hydrogen	0.0696	324.2	0	0	0	0
3 Nitrogen	0.9672	0	0.00442	91.128	2	7
4 Argon	1.3793	0	0.0071	0	0	0
5 Oxygen	1.1048	0	0.0072	112.95	0	0
6 Methane	0.5539	1010	0.0116	59.138	0.2	0.7
7 Carbon Dioxide	1.5195	0	0.0195	58.746	3	12
8 Ethene	1.0383	1769.7	0.0238	37.503	1	2
9 Propane	1.5227	2516.2	0.0349	36.404	1	2
10 i-Butane	2.0071	3252	0.0444	30.644	2	4
11 n-Butane	2.0071	3262.4	0.0471	31.794	2	4
12 i-Pentane	2.4914	4000.9	0.0572	27.39	3	6
13 n-Pentane	2.4914	4008.7	0.0603	27.676	3	6
14 Hexanes Plus	3.218	5129.2	0.0883	23.105	10	30
15 Water	0.62202	50.31	0.0651	175.62	0	0

The EZReporter Components Configuration window showing physical property settings for each component.

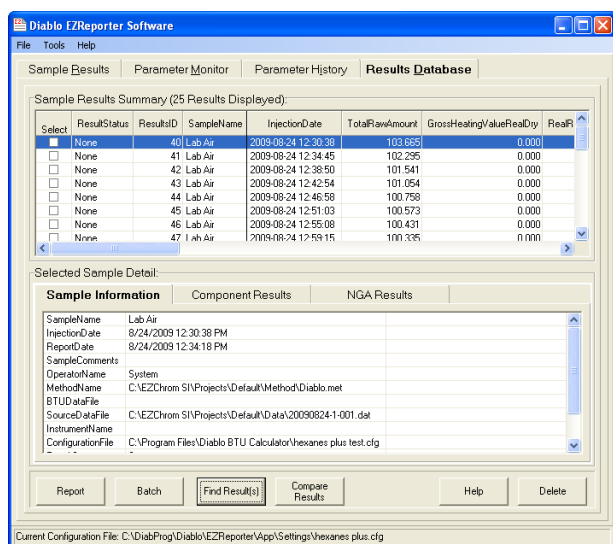
### Notes for Users of the Diablo BTU Calculator Software

The EZReporter Natural Gas Analysis (NGA) Edition is the direct replacement for the BTU Calculator software. Existing licenses of the BTU Calculator can be upgraded to the EZReporter NGA Edition. All future development of Natural Gas Analysis features and functionality will take place in the EZReporter Natural Gas Analysis module.

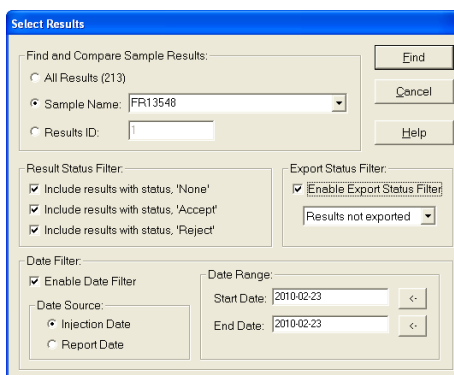
## The EZReporter Results Database Module (Optional)

The optional Results Database module allows you to capture results and save them in a local SQLite database. Results in the database can be searched by sample name and date range and can be batch re-processed for printing, exporting or trend plotting.

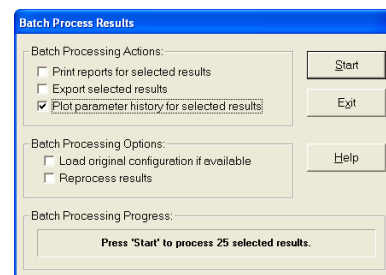
- **Local “Zero Configuration” Database:** Sample results including sample information, individual component results, and calculated natural gas analysis (NGA) results can be added automatically to a results database located on the local computer’s hard drive. Unlike traditional client-server databases, the results database requires no complex configuration by the end user.
- **Search for Results:** You can search the results database for historical results by Sample Name or Results ID. Results can be filtered further by Injection or Report Date and Results or Export Status.
- **Batch Processing:** You can batch reprocess multiple results from the database. Reprocessing options include printing reports, exporting results, and trend plotting results.
- **Statistical Analysis:** Statistics including average, standard deviation, %RSD, maximum, and minimum are calculated and displayed when performing sample name searches.
- **Compare Results:** A results comparison window can be used to compare the component normalized mole% values between two samples using either the GPA 2261 repeatability or reproducibility limits (or any other limits entered by the user).
- **Track Result Status:** Each result in the database has a “Status” field that can be set to “None”, “Accept”, or “Reject” status. The status field can then be used in searches or batch reprocessing to filter which results are selected.
- **Import Results:** In addition to adding results to the database automatically when processed from one of the supported chromatography data systems, you can also import results into the database from a delimited text file.



The EZReporter Results Database window.



The Results Database “Select Results” window.



The Results Database “Batch Process Results” window.



## Diablo EZReporter 1.0 Software Order Form

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**Ordering Information:**

Qty	Part #	Description	Unit Price	Total
	D-EZRSTD-1	Standard Edition (includes Base module only)	\$500.00	
	D-EZRNGA-1	Natural Gas Analysis Edition (includes Base and NGA modules)	\$995.00	
	D-EZRRDB-1	Results Database Edition (includes Base and Results Database modules)	\$995.00	
	D-EZRNGDB-1	NGA Database Edition (includes Base, NGA, and Results DB modules)	\$1490.00	
	D-EZRBTU-1	Upgrade any licensed version of the Diablo BTU Calculator Software to the EZReporter Natural Gas Analysis Edition.	\$250.00	
	D-EZRKIT-1	Ship printed manual and installation CD.	\$20.00	
			Sales Tax (9.25% CA)	
		All prices are for single-computer licenses.	Total:	

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