





**GAS** XLNC™  
Gas Analysis Software Excellence



# GAS XLNC™ SOFTWARE

Easy to Use Software Designed to Simplify and Standardize Gas Analysis

-  Includes Extensive Range of Report Options and Calculations
-  Users can add and customize Calculations to their Specific Needs
-  High Level of Automation contributes to Optimized Analysis Accuracy and Precision
-  In Compliance with Various Refinery and Natural Gas Standard Test Methods

## WORKFLOW

**Instrument Status and Control**  
Instrument: Instrument 1

Run Abort

Template: Samples Estimated time: Mon, 16:57

Status	Name	Method	Vial	Type	Ref. Sample
	ACGAS501	FASTRGA	1	Calibration	
	Sample	FASTRGA	2	Sample	
	Sample	FASTRGA	3	Sample	
	Reference	FASTRGA	4	Sample	

### INSTRUMENT STATUS AND CONTROL

- Instrument status, creates sequences, and calculates end time for sequence
- Templates for samples/calibrations, LIMS ID

**Calibration browser**

Cal	Calibration Date	Processing Date	Calibration Set	Method
15	15/04/2006 4:47:34 PM	11/07/2011 9:52:20 AM	AC DEFAULT	FASTRGA
16	15/04/2006 4:47:34 PM	11/07/2011 9:52:47 AM	AC DEFAULT	FASTRGABRR

**Components**

CAS	Name	Color	Molar Mass	Sup Cal Val	Inf Cal Value	Summation f	Compressib
87-92-3	Cyclopentane		70.134	3322.19	3100.03	0.2302	0.94
07-83-5	2-methylpentane		86.177	4190.62	3879.59	0.2933	0.91
6-14-0	3-methylpentane		86.177	4193.22	3882.19	0.2881	0.91
5-83-2	2,2-dimethylbutane		86.177	4180.83	3869.8	0.2627	0.93
9-29-8	2,3-dimethylbutane		86.177	4188.6	3877.57	0.2739	0.92
10-54-3	n-Hexane		86.177	4198.24	3887.21	0.295	0.91
91-76-4	2-methylhexane		100.204	4850.32	4494.81	0	
89-34-4	3-methylhexane		100.204	4853.72	4498.19	0	
10-82-7	Cyclohexane		84.161	3956.02	3689.42	0.2864	0.91
42-82-5	n-Heptane		100.204	4857.18	4501.72	0.3661	0.86
92-27-8	2-methylheptane		114.231	5509.49	5109.54	0	
11-65-9	n-Octane		114.231	5516.01	5116.11	0.445	0.80
11-84-2	n-Nonane		128.258	6175.82	5731.49	0.5385	0.7
24-18-5	n-Decane		142.285	6834.9	6346.14	0.645	0.58

### CALIBRATION

- Setup multiple calibration sets
- Add sample uncertainties, track expiration dates

### COMPONENTS FLEXIBILITY

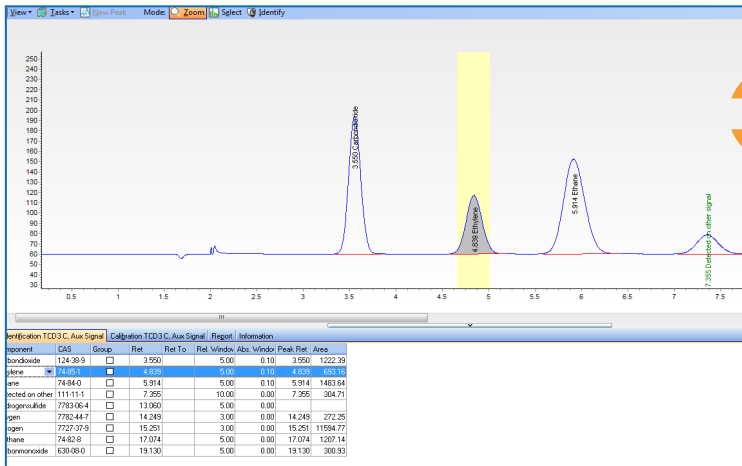
- Add or edit physical properties for each component needed

## ADVANCED OPTIONS

- Calculation for oxygen correction (ISO 6974-3)
- Bridge calculation across system channels
- Advanced Peak Identification for Individual peaks or peak Groups
- Unknowns handling
- Uncertainty Calculations
- Error propagation calculation (ISO 6974-2)

## STANDARD TEST METHOD

- ISO 6974, ISO 6976, ISO 8973
- EN 15984 / DIN 5166
- EN 589
- ASTM D3588, ASTM D2598
- GPA 2172, GPA 2261, GPA 2286



Sample Name	Injection Date	Calculation Date
Demo Calibration on 7890	10/29/2007 11:31:02 AM	11/19/2012 3:23:27 PM

Application	Instrument	Method	Operator	Reviewer	Type	LIMS ID
FAST RGA	Instrument 1	Fast RGA	administrator	admin	Calibration 1	

Component Name	Time [min]	Detector Code	Area	Unnorm Mol%	Mol%	Mass%
Carbonmonoxide	19.1301	TCD3 C, Aux	3.0093E+02	1.000	1.000	0.840
Methane	17.0743	TCD3 C, Aux	1.2071E+03	5.000	5.000	2.404
Unknown	15.6770	FID1 A, Front	3.0318E+01	0.006	0.006	0.018
Nitrogen	15.2306	TCD3 C, Aux	1.1595E+04	38.060	38.057	31.956
Oxygen	14.2495	TCD3 C, Aux	2.7225E+02	1.000	1.000	0.959
n-Pentane	13.9757	FID1 A, Front	8.6365E+03	1.000	1.000	2.162
Isopentane	11.4069	FID1 A, Front	8.5272E+03	1.000	1.000	2.162
1,3-Butadiene	10.0903	FID1 A, Front	2.0636E+04	3.000	3.000	4.864
Cis-2-Butene	9.1392	FID1 A, Front	7.0415E+03	0.990	0.990	1.665
Trans-2-Butene	8.5643	FID1 A, Front	2.0099E+04	3.000	3.000	5.045
Iso-Butylene	7.7696	FID1 A, Front	6.8797E+03	1.000	1.000	1.682
1-Butene	7.3773	FID1 A, Front	1.3447E+04	2.000	2.000	3.363
n-Butane	6.2605	FID1 A, Front	2.7102E+04	4.000	4.000	6.968
Ethane	5.9136	TCD3 C, Aux	1.4836E+03	4.100	4.100	3.695

## ANALYSIS

### Chromatogram View:

- Zoom/select
- Identify modes allow easy sample evaluation

## REPORTING

- Print flexible reports
- Traceable, according to method or customized to need
- Export to file, LIMS

## RELIABLE DATAMANAGEMENT

GASXLNC™ keeps track of all calibrations performed. This traceability allows for any result to be reproduced or recalculated with revised calibration data. Sample analysis results are maintained similarly.

Calibration can be performed in Single point, multilevel and bracketing mode, such as required in ISO6974-2. The calibration browser validates the calibration analysis and can be used to view analyzed calibration sets. The screen displays calibration plot and the calibration analyses results used, allowing calibration results to be approved or removed. Approved results are blocked from further change.

The Trend Analysis function logs calibration/performance data over time, providing tools to the chemist for complying with any QC program.

## SPECIFICATIONS

GAS CALCULATIONS OVERVIEW							
Standard methods and properties	HiSpeed RGA	Fast RGA	ISO 6974	GPA 2261	GPA 2286	Unit	Temperature
<b>ISO 6976</b>							
Compressibility (dry)	✓	✓	✓				15 °C
Molar Mass	✓	✓	✓	✓	✓	g/mol	
Inferior/Superior Cal Value Mol	✓	✓	✓			KJ/mol	15 °C
Inferior/Superior Cal Value Mass	✓	✓	✓			MJ/kg	15 °C
Inferior/Superior Cal Value Vol (Ideal/Real)	✓	✓	✓			MJ/m3	15 °C
Relative Density dry (Ideal/Real)	✓	✓	✓				15 °C
Density (Ideal/Real)	✓	✓	✓			kg/m3	15 °C
Wobbe Index (Ideal/Real)	✓	✓	✓			MJ/m3	15 °C
<b>EN 15984 / DIN 51666</b>							
EN 15984 / DIN 51666 Carbon Content	✓	✓	✓	✓	✓	g/100 g	
EN 15984 / DIN 51666 Heating value Mol	✓	✓	✓	✓	✓	KJ/mol	
EN 15984 / DIN 51666 Heating value Mass	✓	✓	✓	✓	✓	KJ/100g	
<b>GPA 2172</b>							
GPM				✓	✓	Gal/1000 ft3	60 °F
Compressibility (dry/sat)				✓	✓		60 °F
Gross Heating Value (dry/sat gas, dry air)				✓	✓	Btu/ft3	60 °F
Real Gross Heating Value (dry/sat gas, dry air)				✓	✓	Btu/ft3	60 °F
Nett Heating Value (dry/sat gas, dry air)				✓	✓	Btu/ft3	60 °F
Real Nett Heating Value (dry/sat gas, dry air)				✓	✓	Btu/ft3	60 °F
Relative Density dry/sat gas (Ideal/Real)				✓	✓		60 °F
<b>ASTM D 2598</b>							
Relative density liquid				✓	✓	kg/m3	60 °F
Vapor Pressure				✓	✓	psi	100 °F
MON				✓	✓		
<b>EN 589</b>							
MON	✓	✓	✓	✓	✓		
Vapor Pressure -10° / -5° / 0° / 10° / 20° / 40°	✓	✓	✓	✓	✓	kPa	
Density acc ISO 8973	✓	✓	✓	✓	✓	kg/m3	15 °C
<b>ISO 8973Me</b>							
Vapor Pressure 37.8° / 40° / 50° / 70°	✓	✓	✓	✓	✓	kPa	37.8 °C
Density	✓	✓	✓	✓	✓	kg/m3	15 °C
<b>Miscellaneous</b>							
Oxygen correction	✓	✓	✓	✓	✓		
NGL Density	✓	✓	✓	✓	✓	kg/m3	15 °C
CO2 emission factor	✓	✓	✓	✓	✓		
Viscosity	✓	✓	✓	✓	✓		15 °C
Schilling density	✓	✓	✓	✓	✓	kg/m3	15 °C
Superior calorific value	✓	✓	✓	✓	✓	BTU/kg	

Continuing research and development may result in specifications or appearance changes at any time

### ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

### HEADQUARTERS

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Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.



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