

Tradinco 
Instruments®
The Calibration Company

Calibration made
Simple



Calibration Management Software

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Unique features

Tradinco Instruments, the Calibration Company, has developed a specialist capability in Calibration Management Software. Custom-engineered, this software platform allows the customer to manage and execute their calibrations, compliant to the international standards of metrology.

AutoCal is a powerful management tool for anyone with responsibility for ensuring that devices are calibrated in line with today's quality guidelines such as ISO 9000, environmental standards, systems validation and safety guidelines. It is an unique software package, designed to make the management and execution of calibration and certification of measuring devices fast, simple and error free.

- Tradinco and Non-Tradinco calibration standards
- Both online and offline
- Communication with calibration standards
- Operates with primary pressure standards
- 100% Tradinco product
- Multiple functionality
- Safes time & money



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Versatile Calibration standards

Operates with Tradinco and Non-Tradinco calibration standards

AutoCal is unique as it is a single program which can communicate with a wide variety of instruments used for calibrations.

In addition to the integration of pressure, temperature and electrical calibrators supplied by Tradinco, interfaces are available for third party equipment not manufactured by Tradinco. This offers a large benefit as only one single calibration management program is used resulting directly in considerable savings on investment and training. Also by using a single program, there is a less change of mistakes during calibration.



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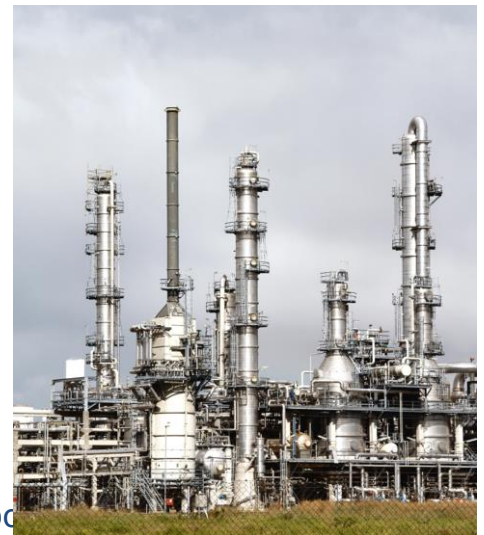


In the workshop and in the plant

Online and offline communication with calibration instruments.

AutoCal is unique as it can interface online with bench mounted calibration standards as well as it can interface with portable field calibrators using IEEE488 or RS232 communication. When using online, you can directly communicate with your standards where the operators are guided easily through the calibration procedures, calibration data can be monitored real-time and results are directly presented allowing the operator to take the necessary action.

In combination with an automatic source for pressure, temperature or electrical signals, full automatic calibrations can be performed without any involvement of technicians. This result in fast and repeatable calibrations, significant time savings as the operator can prepare and set-up the next calibration job and also extensive time consuming temperature calibrations will not require any attendance.



When using AutoCal offline in combination with portable field calibrators, you can easily upload the required calibration procedures into the field calibrator. Once the job is done all saved calibration data can be easily downloaded into AutoCal where the results can be viewed and processed. AutoCal is therefore truly an unique and universal program for optimum use in your workshop as well as for managing your field calibrations

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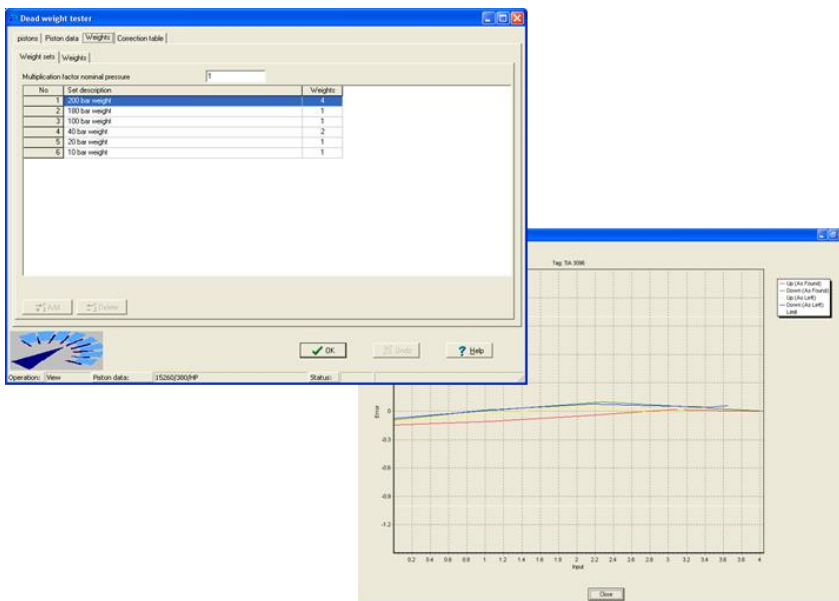
Primary pressure standards

Suitable to operate with Primary pressure standards

AutoCal is unique as it also supports calibrations using primary pressure standards, Deadweight testers.

All technical characteristics from the Deadweight tester, including the weights, can be entered in AutoCal.

AutoCal then prompts the user to select the correct weights to achieve the desired pressure. Correction for gravity, temperature and piston deformation are automatically applied. This feature can also be used when manual data entry is required.



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Digital Interface

AutoCal offers a digital interface for Foundation Fieldbus, Profibus and Hart for communication with the F-Fieldbus and or Profibus and or Hart output of the unit under test. The different bus systems are available individually or together.



The digital interface is fully integrated in the test bench calibration system for communication between AutoCal and the digital output of the instrument under test.

AutoCal automatically retrieves the digital data which is necessary for a calibration, such as serial number, and output quantity, unit, etc.

After completion and verification of all retrieved data from the unit under test, a calibration routine can be created and a complete calibration can be performed.

If necessary, the customer may change the retrieved data(parameterization). In the protected advanced mode and most F-Fieldbus / Profibus parameters can be changed.

Foundation Fieldbus

Profibus

Hart

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100% Tradinco

AutoCal developed by Tradinco in close corporation with the internationally recognized "Accreditation System for Measurement and Calibration for Laboratories", AutoCal was first released in 1989. Since then, the program has been continually developed and upgraded to meet changing calibration requirements within the industries.



AutoCal is a fully supported program; an expert team of software application engineers is available to answer your questions. Software service support contracts are available to ensure that your AutoCal system has all the latest calibration technique features. Updates are available at www.tradinco.com. In order to get you started, a wide range of comprehensive training courses are available.

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Multiple functionality

AutoCal distinguishes itself by its multiple functionality. Multiple calibration of instruments can be carried out simultaneously. For instance a temperature calibration can be carried out fully automatic in the "background" while you are performing a calibration on a pressure instrument at the same time.

Multiple user functionality allows all calibration data, calibration routines, instruments and certificates to be stored on a central server in a network.



Any workstation with AutoCal Multiple licensed installed on the network can access this data, perform calibrations on several locations in the network and can carry out calibrations simultaneously. This powerful feature makes the program plant wide accessible.

Multiple datasets can be configured to keep information relating to a specific site or customer in dedicated directory. AutoCal fully supports this important segregation and retrieval of information.

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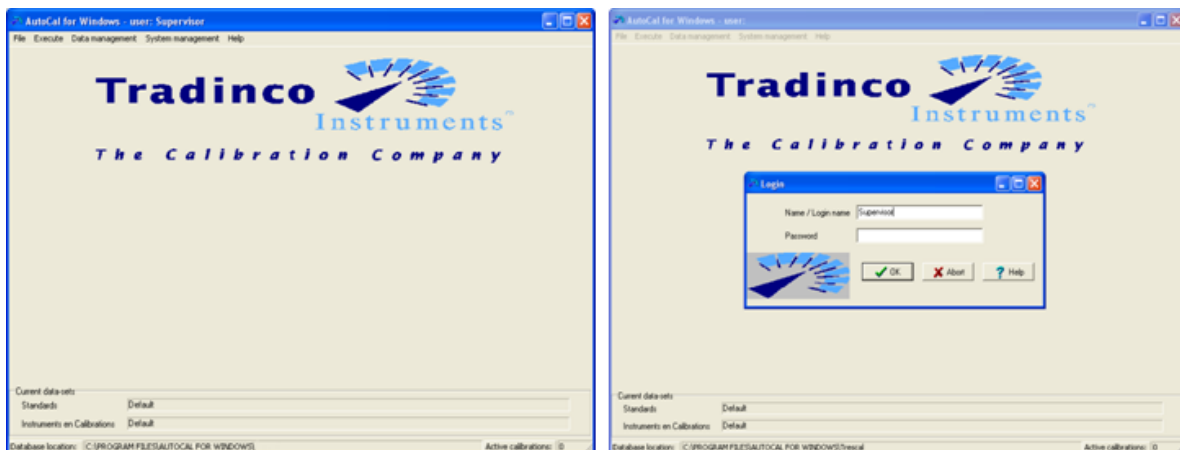
Multiple functionality

AutoCal allows the user to generate multiple formats of the selected reports, meeting the various demands of today's customers, exporting the report in formats such as PDF, Word, Excel, RTF.

Multiple instruments, either manufactured by Tradinco or by other manufacturers can be operated using AutoCal, either through RS232 or IEEE488.

Multiple parameters are available in AutoCal for managing the calibration data of all other commonly used instruments in the industry such as mass, power, force, acidity, conductivity, flow, area, volume, length etc.

Multiple customers in the process industry globally, varying in size from small local companies to large multinationals, who work according to international quality systems, such as ISO 9000, are using Tradinco equipment and systems because they are convinced that these systems are the best available on the market to support their commitment to quality.



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Database

AutoCal systematically records and organises all of the standard data you need to calibrate any transmitter or sensor. In this database Information is stored for all process instruments, reference standards, calibration routines and calibration results.

Highest uncertainty level can be achieved by including the correction factors which apply to specific calibration standards into AutoCal.

Dual input/output standards can be selected

for higher calibration demands such as using two temperature ovens to perform calibration or expand the range ability. AutoCal presents information on all selected reference standards in the calibration report.

With AutoCal one can easily manage all your calibration data, perform calibrations, generate calibration reports, provide information, presented in such ways as: tag- or serial number, manufacturer, plant section, operator, recalibration date, etc.

All data stored in this database can be exported into other applications such as spreadsheets, PDF documents or even to a plant wide administration system such as SAP.

User definable passwords can protect certain functions within AutoCal preventing unauthorised changing of data. This feature is available at all levels within AutoCal; multiple passwords allow flexible but controlled access to the various function.



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Ease of operation

AutoCal guides the user via clear and logic screens through the wide functionality of the program. Data on standards, procedures and instruments need only be entered once. Various calibration data can easily be retrieved at any point in time, selections can be made on the basis of serial number, tag number recalibration date, user, manufacturer, measurement range etc. On line help is available in all screens.

Status information of all actions taken is displayed avoiding errors when setting up calibration routines. Intelligent and simple search paths can be set for the location of all information in the database.

Once the required information is entered in AutoCal, every user can perform a calibration with a simple keystroke, complying to the procedures and international standards.



Calibration report

AutoCal generates calibration reports, fully in accordance with international standard

CALIBRATION REPORT

	Input standard	Output standard	Instrument
Tag number	T254B 2095 HPC (0-250 bar)	T255 Fluke 45 (0-30 mA)	YAP052
Manufacturer / type	Tradinco 2095 PC	Fluke 45	H&B TDE
Description	Pressure calibrator	Multimeter	RCB
Serial number	4.12.005	6155146	727210
Range input	0 - 250 bar	0 - 30 mA	0 - 60 bar
Range output			0 - 20 mA
Accuracy	±0,05 % R	±0,05 % R ±3 Dgt	±0,5 % S
Temperature	20 ± 1°C	20 ± 1°C	20 ± 1°C
Recal. date	14-6-2004	14-6-2004	

As found results

MP.	INPUT UP bar	INPUT DOWN bar	OUTPUT UP mA	OUTPUT DOWN mA	ERROR UP	ERROR DOWN
1	0.13	0.18	0.000	0.002	-0.22 % S	-0.29 % S
2	12.03	11.92	3.949	3.922	-0.31 % S	-0.26 % S
3	23.98	24.03	7.944	7.973	-0.25 % S	-0.19 % S
4	35.96	36.11	11.954	12.017	-0.17 % S	-0.10 % S
5	47.83	47.87	15.930	15.954	-0.07 % S	-0.01 % S
6	59.86		19.957		0.02 % S	

As left results

MP.	INPUT UP bar	INPUT DOWN bar	OUTPUT UP mA	OUTPUT DOWN mA	ERROR UP	ERROR DOWN
1	0.18	0.19	0.001	0.004	-0.29 % S	-0.30 % S
2	12.10	12.02	3.983	3.965	-0.24 % S	-0.21 % S
3	23.89	23.85	7.939	7.935	-0.12 % S	-0.08 % S
4	35.91	36.06	11.965	12.031	-0.03 % S	0.05 % S
5	47.91	48.05	15.987	16.047	0.09 % S	0.16 % S
6	59.99		20.040		0.22 % S	

Customer ref.	Calibrated by	Approved by
Our ref.	Contractor	
Customer	Cal. date : 13-10-2004	Date :
Report number 2001058		

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Notes:

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Distributor: