metrology

ARCOCAD

Measuring Software

...we are metrology

ARCO FAMILY: THE COMPLETE SUITE FOR

ARCOCAD FAMILY
The complete suite for metrology

Coordinate Measuring Machines, articulated arms, laser tracker, laser radar and many other high-precision metrological devices in a single package.

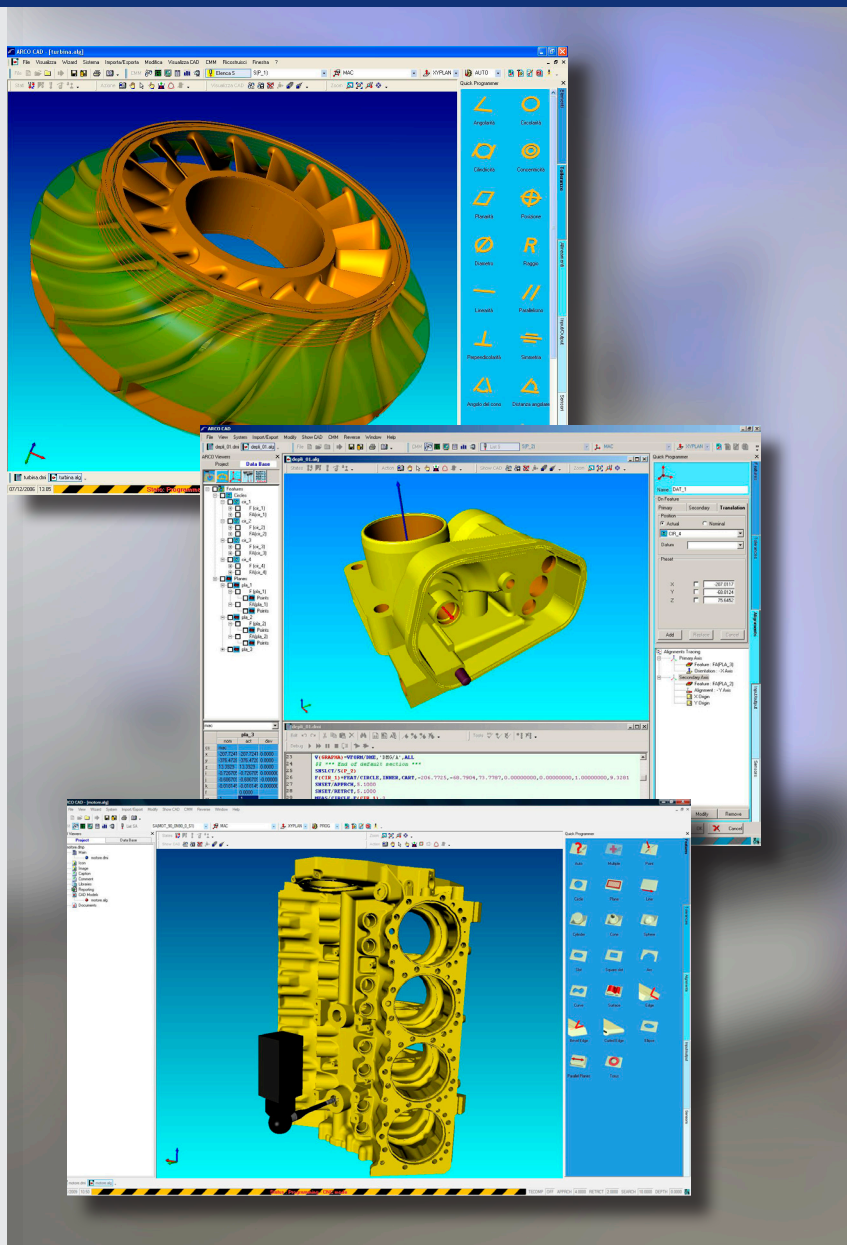
Disponibile nelle versioni seguenti:

ARCOCAD QUICK
simple and fast inspection of prismatic elements

ARCOCAD GRAPHICS
measurements, visualization and analysis of geometric elements

ARCOCAD CAD
geometrical and free-form inspection based on CAD models

ARCOCAD OFFLINE
complete suite for offline part programming

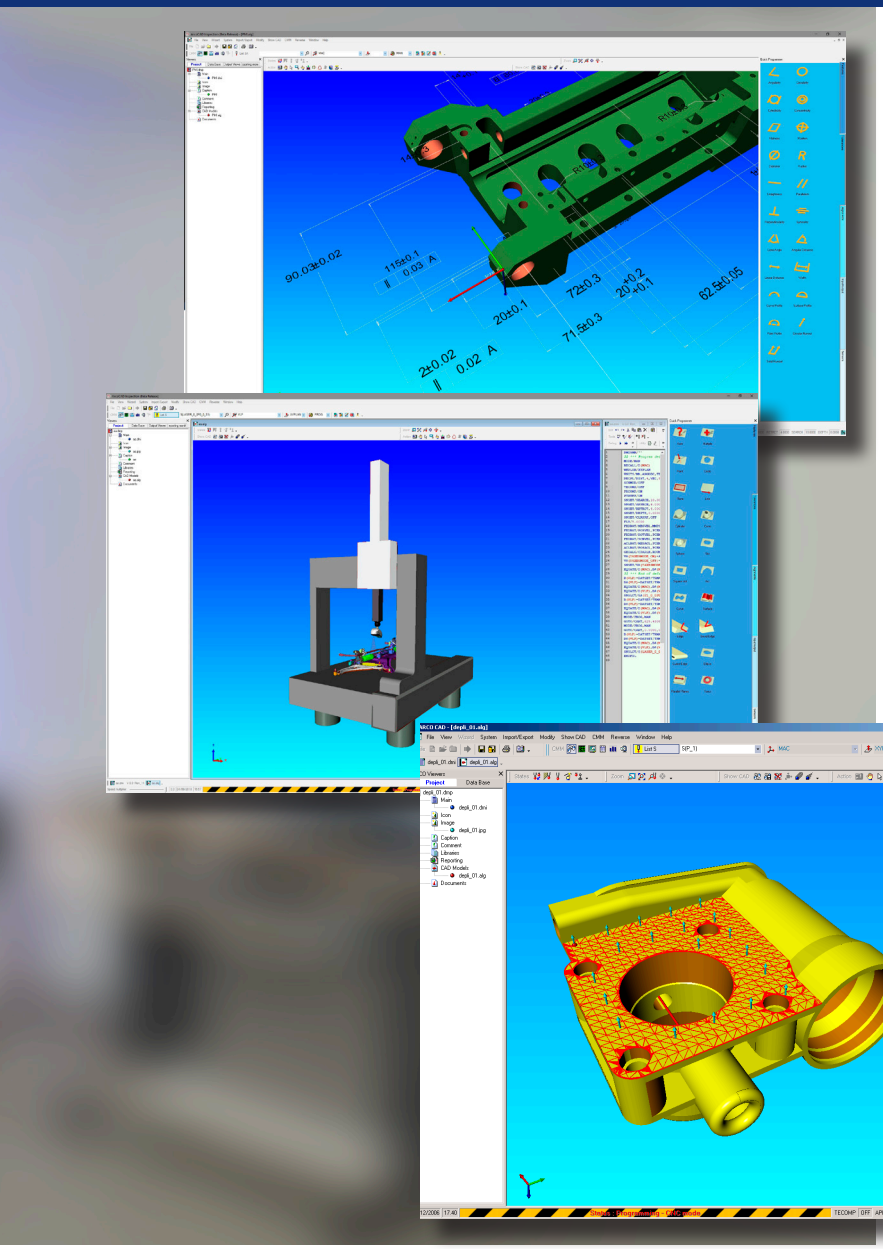


ARCOCAD supports:

Manual Counting Card for CMM
- ENC 7480
- DEVA001
- Renishaw UCC

CNC Controller for CMM
- NMC300
- CC3
- DEVA004
- PANTEC
- Renishaw T and S
- B3C

METROLOGY



ARCOCAD can import CAD data files in IGES format. It can optionally import a series of native CAD formats:

- STEP
- Dassault CATIA V4
- Dassault CATIA V5 *
- Dassault SOLIDWORKS *
- Siemens PLM Software NX (in precedenza Unigraphics NX)*
- CREO PTC *

*PMI available for that format

Graphical Definition of the Probe

ARCOCAD offers the possibility of probe configuring:
trigger – TP2 – TP6 – TP7 - TP20 – TP200
scanning – SP25 – SP8 – SP600
Laser Probe – Nikon – Kreon – Precitrack

The generation of the probe qualification program is made easier by a wizard, which makes it automatic.
All the tool changers are supported as a standard feature.

Graphical Definition of the CMM

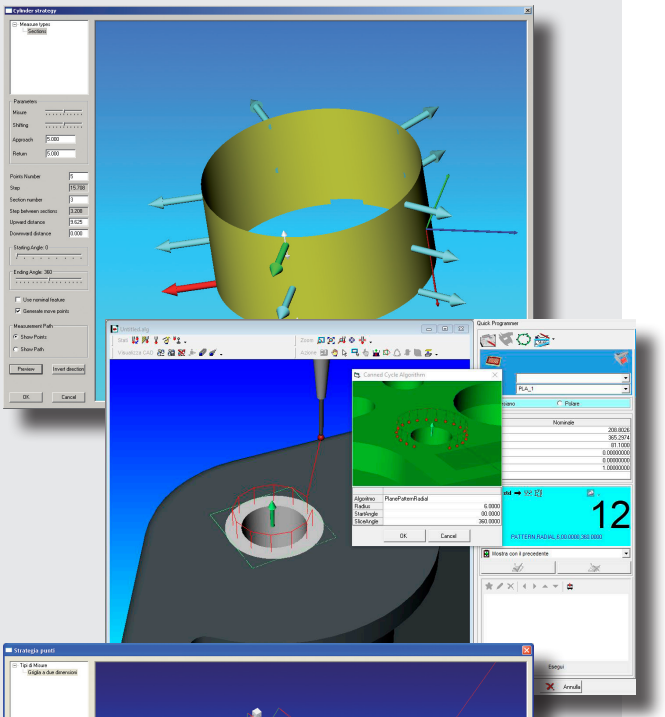
ARCOCAD gives the possibility to show the complete shape of the CMM, available for gantry and horizontal arm CMM.

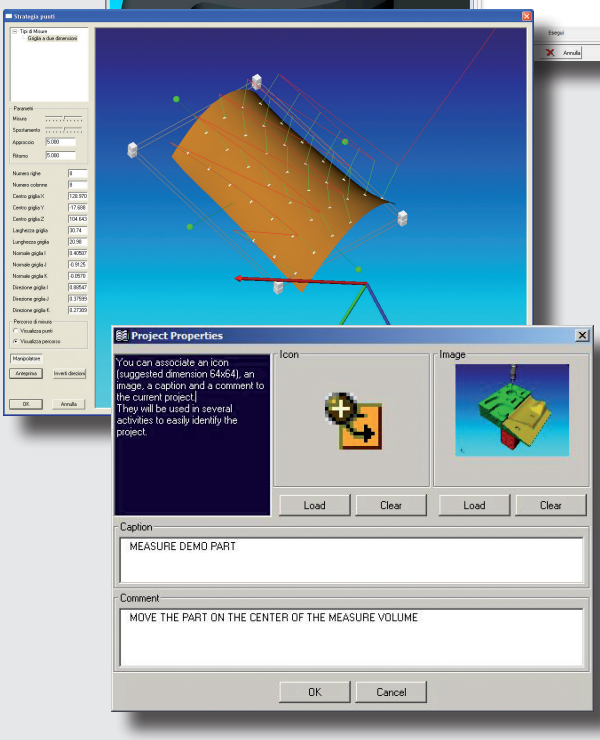
Feature Extraction Click and define. Choose your element, select it from the CAD, set the nominal, measure!

Articulated ARM

- Faro
- Kreon
- Romer
- Tomelleri
- RPS
- LK

A WIDE RANGE OF POWERFUL TOOLS





Self Teach Panel

The inspection task is performed efficiently through few functions:

- Feature Measurement
- GD&T Tolerance
- Part Alignment
- Output mode
- Probe definition

ARCOCAD

Programming

With ARCOCAD the generation of a measure path of a part, even without the CAD model definition, is easy.

Programming from CAD model

ARCOCAD offers a series of useful tools for part programming:

- pick the points on the CAD surface and automatically generate the path inspection program;
- use strategies to easily measure any features;
- in any moment it is possible to switch the status of the CMM from a real measure to an Off-line mode to obtain a complete simulation of the measure cycle.

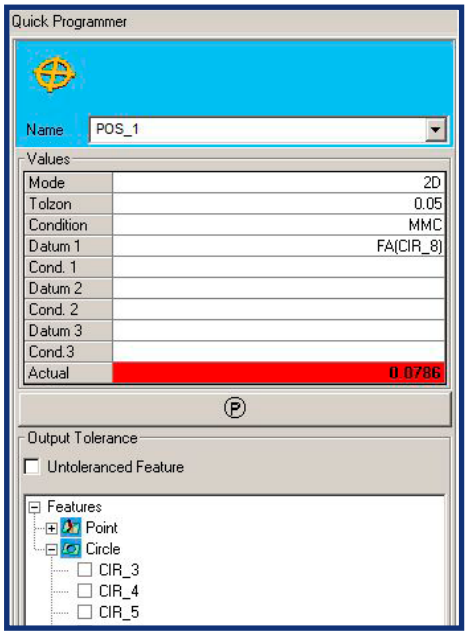
Project properties

It is possible to save in an ARCOCAD Project a complete set of parameters:

- DMIS program
- CAD input data file
- REPORTER choice of the graphical outputs
- ICONS for a quick selection of the program
- IMAGES for part identification
- DESCRIPTION of probe mounting

All these parameters can be saved in the PROJECT, making possible to save and restore it quickly and easily.

ACCORDANCE TO INTERNATIONAL STANDARDS

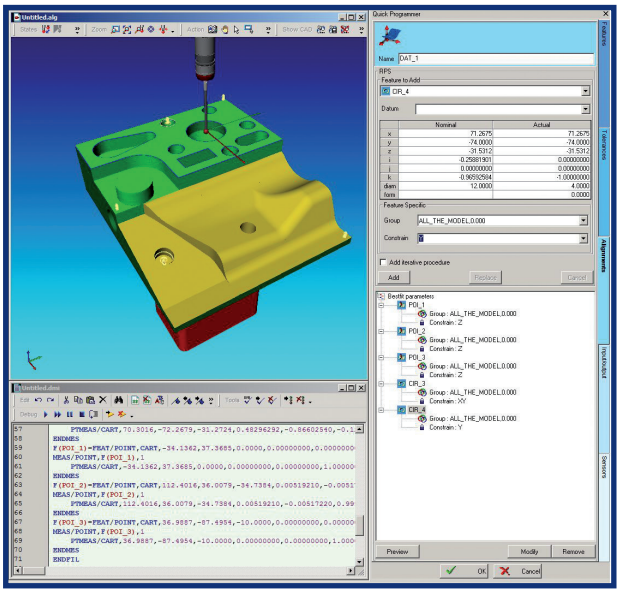


ANSI/ASME GD&T Tolleranze

ARCOCAD allows the application of geometrical tolerances in accordance to international standards.

It is possible to define the data reference frame for each tolerance range by using specific tools to define the minimum and maximum tolerance for each material.

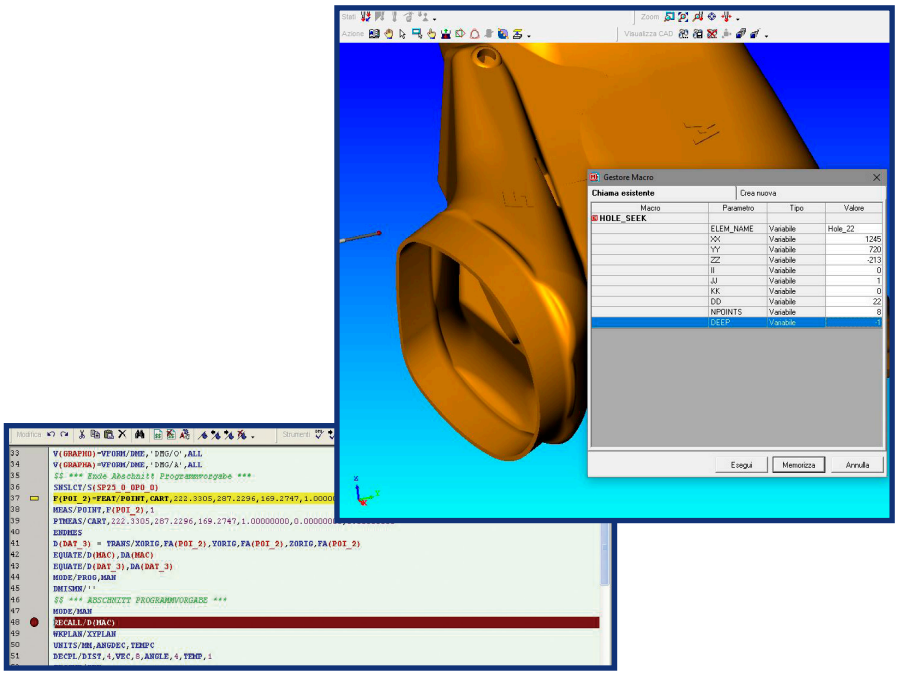
The tolerance data may be directly sent to the program or showed in a preview in order to allow a quick analysis of the part.



Alignment

ARCOCAD offers a variety of options for alignment:

- Alignment of Features
- Translation and rotation
- Best Fit
- RPS
- Rotation matrix - import /export
- Datum Definition
- Plane and 2 holes



DMIS

The ARCOCAD Engine is compatible with the latest version of DMIS standard.

The code is read directly by the software.

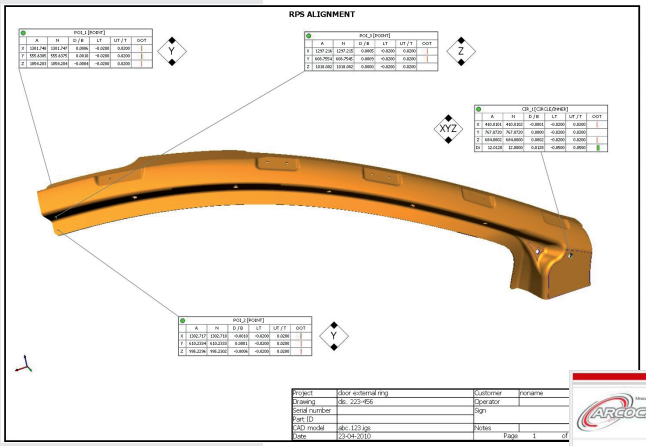
DMIS allows program exchange with other systems.

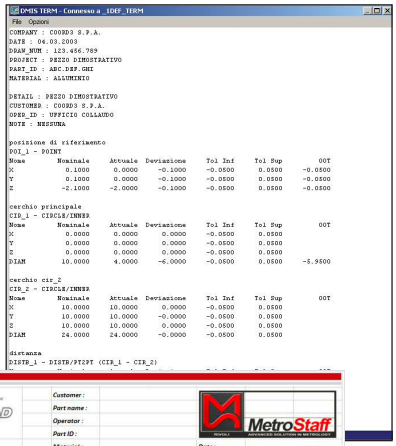
REPORT AND STATISTICAL ANALYSIS

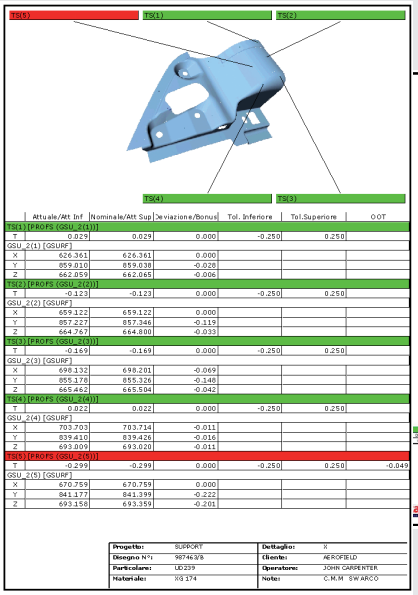
Reporter

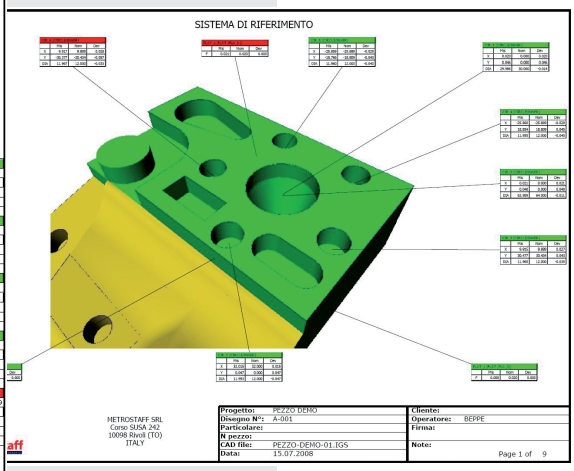
We have introduced new functionalities to make the report definition easier and quicker.

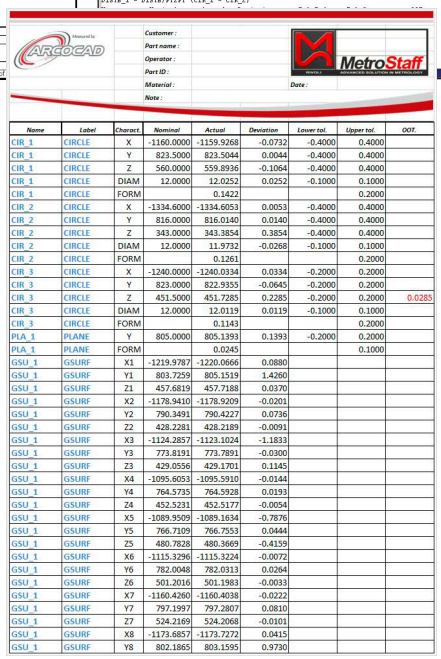
With ARCOCAD it is possible generate different types of reports: textual, graphical, with table and callouts, reports automatically generated in Excel format using a full customized template.

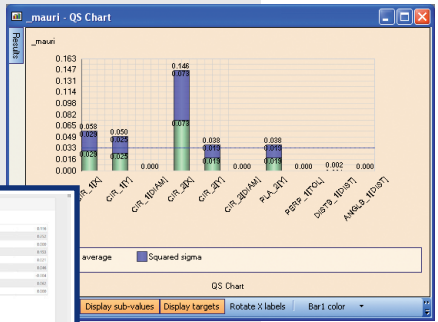


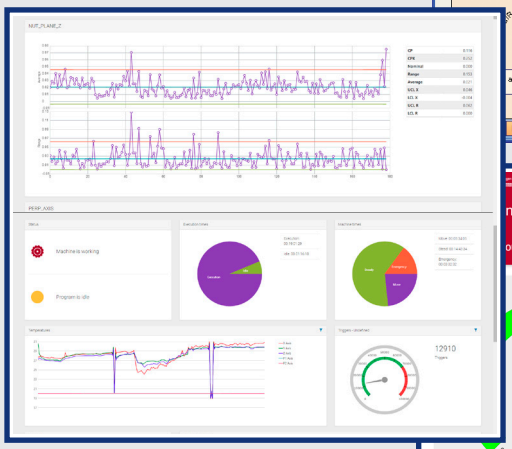


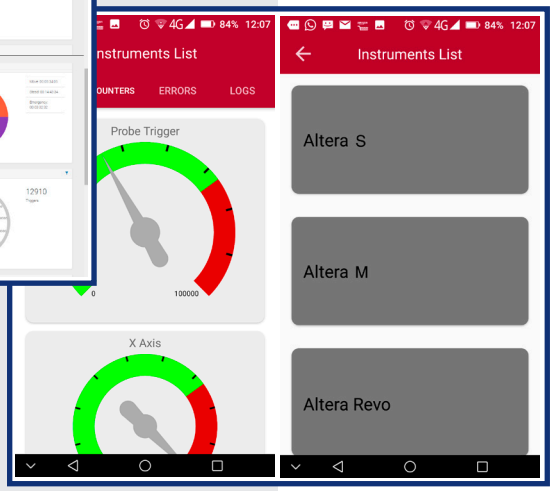












SPC - Metrology Gate

SPC is an option of ARCOCAD.

The versatility of ARCO can be improved with ARCOSTAT, an add-in which allows statistical analyses.

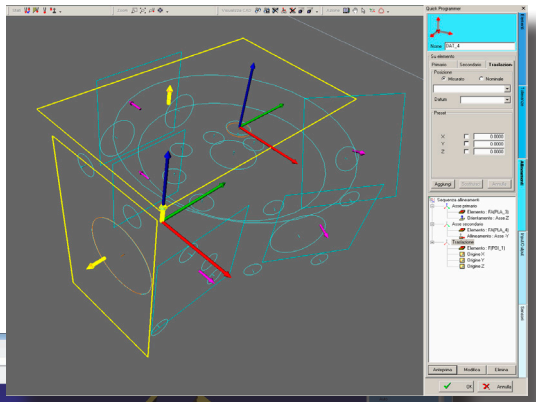
METROLOGY GATE

Metrology Gate has a mission: connect the CMM and the production chain control.

This is an essential tool to integrate a CMM in your INDUSTRY 4.0.

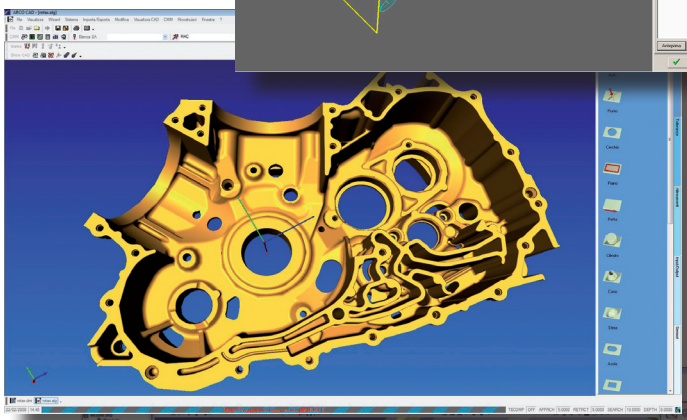
ARCOCAD QUICK

This version is the base product: it allows the measurement of prismatic elements following a guided procedure, and it also allows the execution of complex part programming.



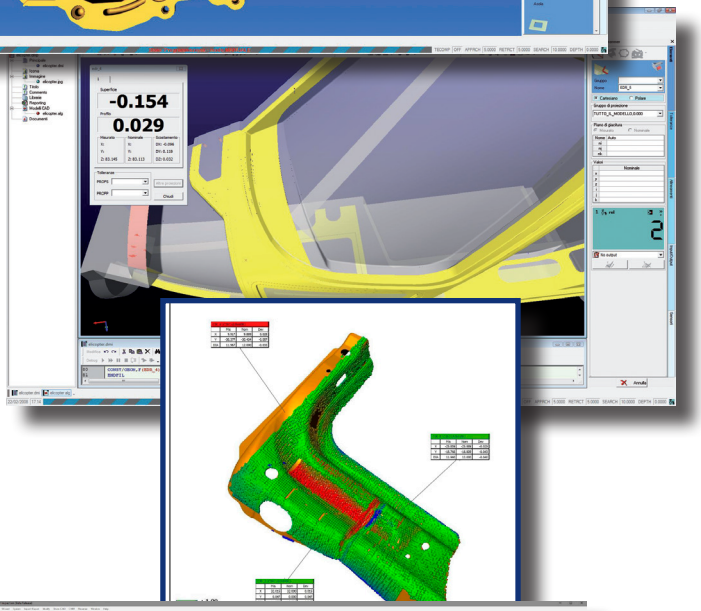
ARCOCAD GRAPHICS

This version consists of the QUICK version with additional graphical tools. It allows a view of the measured element in the graphic area and facilitates the selection of elements for the creation of an evaluation report.



ARCOCAD CAD

This version s the powerful version of the ARCO Family.
Is possible to load the CAD model of the part with a import of the IGES file. ARCOCAD permits to measure all kind of elements: geometrical and surfaces. With the graphics tools the part program generation is fast and easy.

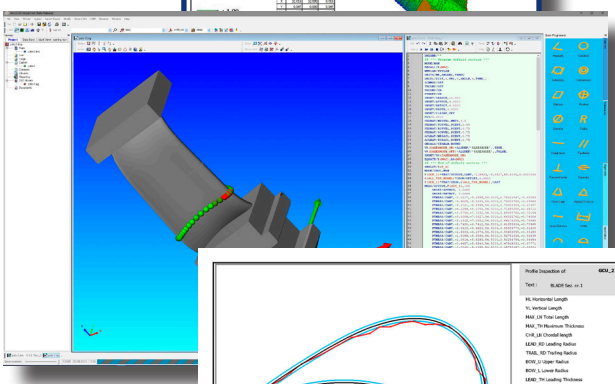


ARCOCAD OFFLINE

This version allows the creation of a complete part program using the CAD DATA of a part, saving time when the part to be measured is not available. It allows the setting of probe configuration, the generation of measure paths, the simulation of a measuring cycle. Once the part is available the time required for measuring is reduced to a minimum.

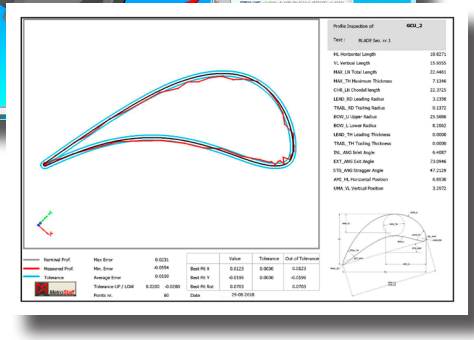
ARCOCAD CLOUD

ArcoCloud allows to extend the use of ARCOCAD to no contact probe, laser probe able to keep big data in a short time.
With this option is possible:
- Evaluate geometrical elements from a points cloud
- Define a colored map able to show in a simply way the error distributions
- Apply some different filters and export the point cloud



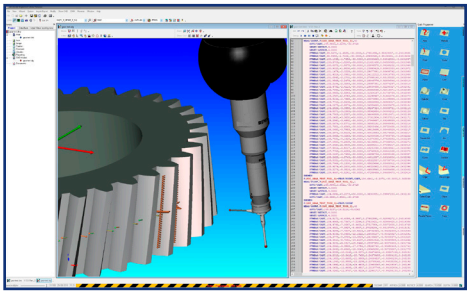
ARCOCAD BLADE

ArcoBlade is an option of ARCOCAD and give the possibility to generate a complete analysis on the turbine blade. A complete analysis of the blade section is performed that includes:
- Chordal length
- Maximum thickness
- Radius of the two sides entrance and exit.



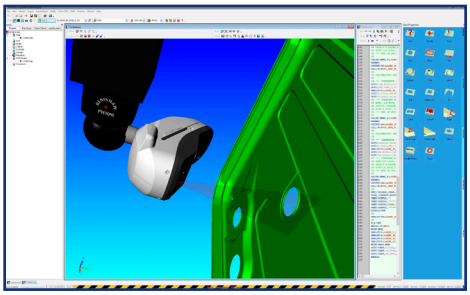
ARCOCAD GEAR

ArcoGear is an option of ARCOCAD and give the possibility to generate a measuring program and a graphical report of the measure done. It is possible to measure:
- Cylindrical gear, external teeth right and helical, internal right teeth
- It is possible to use trigger and continuous scanning probe
- The graphical report is done in according to the DIN3961-3962 standard
- For each controlled characteristic is evaluate a quality IT indicator.



ARCOCAD Multi Arm

With this option ARCOCAD adds the possibility to use multiple arms CMM. The MultiARMS option gives to ARCOCAD the possibility of connecting more measure instruments. It is possible to share and exchange reference system, measured elements, synchronization command. Every part of the system can operate by itself or work connected with others at any time.



	ARCOCAD QUICK	ARCOCAD GRAPHICS	ARCOCAD CAD	ARCOCAD OFFLINE
Manual Measure Misura Manuale	●	●	●	
Point to Point Measure Misura Punto a Punto	●	●	●	
Continuous Scanning Measure Misura con Scansione Continua	●	●	●	
Manual Thermal Compensation Compensazione Termica Manuale	●	●	●	
Automatic Thermal Compensation Compensazione Termica Automatica	●	●	●	
DoubleArm Doppio Braccio	●	●	●	
DMIS Editor	●	●	●	●
Self Teach Part Self Teach di Parte	●	●	●	●
Probe Handling Gestione Tastatore	●	●	●	●
Reference System Sistemi di Riferimento	●	●	●	●
Automatic Measuring Cycles Cicli di Misura Automatici	●	●	●	●
ANSI Tolerance Tolleranze ANSI	●	●	●	●
Advanced Part Program Part Program Avanzato	●	●	●	●
Data Viewer	●	●	●	●
Changers Handling Gestione Cambi Utensili	●	●	●	●
Text - Graphical HMI Output	●	●	●	●
Export IGES of the Measured Elements Export IGES degli Elementi Misurati	●	●	●	●
Graphical view of the volume and the Probe Visualizzazione grafica del volume del CMM e del Tastatore		●	●	●
GD&T in Graphical GD&T in grafica		●	●	●
Graphical view of the measured elements Rappresentazione grafica degli Elementi Misurati		●	●	●
Preview of the Reference System Previsualizzazione dei Sistemi di Riferimento		●	●	●
Use of the strategies during the phase of Programming Uso delle strategie durante la fase di Generazione Programma		●	●	●
Graphical Output with the Measured Element Output Grafico degli Elementi Misurati		●	●	●
Import of the native CAD Import di Parti CAD Nativi			●	●
Handling of CAD layers Gestione dei Layer del Modello CAD			●	●
Handling of Groups Gestione dei Gruppi			●	●
Feature extraction from CAD Data Estrapolazione di Elementi dal Modello CAD			●	●
Generation of Program from CAD Data Generazione del Programma dal Modello CAD			●	●
Part Program Strategies on CAD Data Strategie di Misura sul Modello CAD			●	●
Create Reference System on free forms Creazione Sistemi di Riferimento su forme Libere			●	●
Surface and Edge Measure Misura di Superficie e Bordi			●	●
Identification of Profile from CAD data Identificazione di Profili da Modelli CAD			●	●
Profile Measure Misura di Profili			●	●
Best Fit Reference System Generation Generazione di Sistemi di Riferimento di tipo Best Fit			●	●

LK METROLOGY Ltd.
Argosy Road, East Midlands Airport,
Castle Donington, Derby,
DE74 2SA United Kingdom
Tel: +44 (0)1332 811138
Email: Sales.UK@LKmetrology.com

LK METROLOGY Inc.
29550 W. K. Smith Drive, Unit B
New Hudson, MI 48165
United States
Tel: + 1 (810) 263 6100
Email: Sales.US@LKmetrology.com

LK METROLOGY China Co. Ltd.
Room 401, HuaTeng Building, No. A302,
Jinsong 3rd Zone, Chaoyang District, Beijing,
P.R. of China.
Tel: +86 10 87768860
Email: Sales.China@LKmetrology.com

LK METROLOGY Europe S.r.l.
Corso Orbassano, 402/16
10137 Torino, Italy
Tel: +39 011 0743945
Email: Sales.Italy@LKmetrology.com

LK METROLOGY Benelux
Technologielaan 11,
3001 Leuven, Belgium
Tel: +32 (0)16 387550
Email: Sales.Belgium@LKmetrology.com

LK METROLOGY Gmbh
Siemensstrasse 24,
D-63755 Alzenau, Germany
Tel: +49 6023 9292617
Email: Sales.Germany@LKmetrology.com

LK METROLOGY SAS
1 Rue Guynemer - Bâtiment B6/B8
78114 Magny Les Hameaux (Paris)
Tel: +33 (0)1 77048480
Email: Sales.France@LKmetrology.com

www.LKmetrology.com