



FARO

# Actionable Metrology Software Solutions Just Got Easier

FARO® CAM2® is the brand's powerful, intuitive, and application-focused 3D measurement software platform. Tested and certified by NIST and PTB, CAM2 features a versatile portfolio of software offerings, each one tailored to meet specific manufacturing measurement needs, while enabling users to fulfill their quality assurance and inspection tasks.

This level of modularity means users can avoid the challenges associated with purchasing additional software beyond their workflow requirements. In other words, scanning software for scanning devices and probing software for probing devices. Or a combined probing and scanning software for hybrid devices like the FaroArm® with LLP (Laser Line Probe).

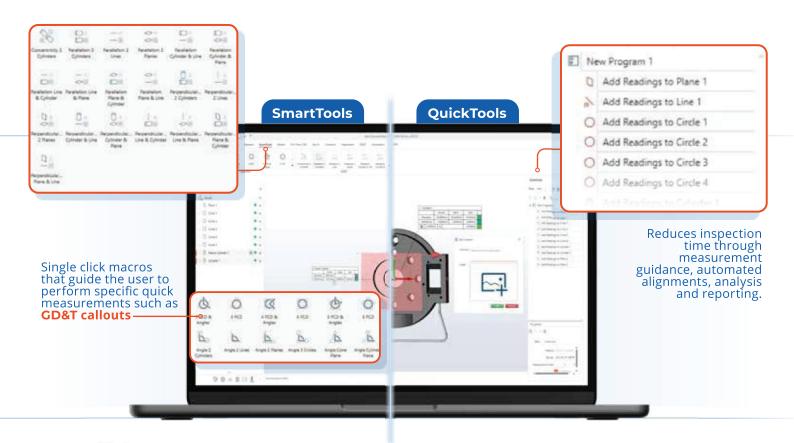
## Satisfy Your Metrology Needs, Streamline Your Applications

CAM2 streamlines industrial metrology applications including: dimensional controls, incoming parts and first article inspections, part-to-CAD comparisons, assemblies, repeat part measurements, and Geometric Dimensioning and Tolerancing (GD&T). CAM2 not only improves and increases the efficiency of measurement routines; it also provides an effective and smooth correlation between quality assurance and production operations, offering a powerful set of tools to fully control and optimize manufacturing processes.

Built around customer application needs and designed to streamline daily measurement operations, CAM2 takes quality assurance (QA), quality control (QC), and inspection software to the next level via optima ease of use, interactivity, flexibility, and targeted, actionable intelligence through the available add-on for Repeat Part Management (RPM).



# **CAM2 Features**



#### **Home Tab**

Each edition has its own unique left to right workflow.

#### **SmartConstruct**

Simplify feature construction by selecting the required features and CAM2 will suggest possible constructions to choose from.

## **Auto-recognize Features**

Reduce time spent interacting with the mouse and software. Simply start probing the features and CAM2 will auto recognize the geometry based upon the number and position of the readings taken. \*Applies to (FaroArms, Laser Trackers, and the 6Probe).

#### **RPM Add-on**

Further enhances the benefit of QuickTools through monitoring of measurement data to calculate statistical process control metrics and process trends so that manufacturing processes can be refined to prevent nonconformant products.

#### What is RPM?

The Repeat Part Management (RPM) add-on comes with Control Station, Control Server and Control Center. Control Station runs the inspection programs (QuickTools) defined in and transferred from compatible editions of CAM2 Probe Professional, CAM2 Scan Professional, and CAM2 Expert. Control Server is the database while Control Center provides insights into data and provides statistical process control (SPC) analysis.



# **CAM2 Editions**



This is FARO's starter edition, designed exclusively for probing arms and intended for QA and 3D inspection tasks. It is compatible with FARO's **Gage** and **FaroArm** series.



This software is intended for probing devices only, and is the advanced probing edition in the CAM2 portfolio. It's ideal for QA and 3D inspection tasks. It supports FARO's **Gage**, **FaroArm** and **Vantage Laser Tracker** with **6Probe** and its uses include guided build, geometry position, and orientation functionalities as well as programming inspection routines. The various supported CAD formats allow the analysis to CAD models. It also supports the ability to combine the Tracker and Arm to a TrackArm solution with no need to leapfrog around a part, ensuring improved line of sight.



This is CAM2's flagship edition that combines the capabilities of CAM2 Probe Professional and CAM2 Scan Professional, compatible with FARO **Gage**, **FaroArms**, **FAROBlu® Laser Line Probes**, FARO **Vantage Laser Trackers**, FARO **6Probe**, FARO **8-Axis** and FARO **Leap ST Handheld 3D Scanner**. Offered as a top-tier software product, Expert allows for easy and intuitive management of QA and 3D inspection tasks for compatible FARO probing and scanning devices. Use Expert for geometry and orientation, press form and trim, analysis to CAD model, and programming inspection routines. It is the go-to software tool when both scanning and probing are required.



This is the software edition designed for scanning devices like the FARO **Leap ST**. Offering fast, accurate point cloud capture. With reliable alignment to CAD, precise feature extraction, powerful analysis tools, and robust reporting, it streamlines inspections and quality control. This solution boosts efficiency, precision, and workflow, enabling users to make data-driven decisions and enhance product quality.



Is ideal for offline programming and analysis tasks. In addition to programming inspection routines and analysis to CAD model, Analyst is also well suited for measurement result review.

# **CAM2 Applications**

CAM2 distinguishes itself as an adaptable market-leading software platform designed to streamline 3D measurement applications and meet customer needs. These applications can be grouped into three applications:

## Press, Form and Trim

Components comprising of freeform surfaces, trimmed, punched, formed, or pierced edges, are typically verified against CAD models. Probing and scanning tools capture both contact and non-contact measurements.

#### **Example applications:**

- Injection Molding / Composites / Cast Components
- Body-In-White / Pressed Panels / Metal Stampings



### **Guided Build** and Confirm

Assembly and inspection of large parts, fixtures, tooling, and set-ups often use inspection devices and software as both an assembly and verification tool. CAD models or 2D drawings are used in this process. In these cases, like GD&T, the FARO Laser Tracker and FaroArm are the most used tools for these applications.

#### **Example applications:**

- Aerospace Wing / **Fuselage Assembly** Fixtures
- Automotive Panel Welding / Assembly **Fixtures**



## **Geometry Position and** Orientation

Components and assemblies with geometric features manufactured through machining or fabrication and verified against 2D drawings or CAD models. The FARO Gage and Quantum X FaroArm are typically used for small-tomedium sized components, and the FARO Vantage Laser Tracker for the larger components and assemblies. Leap ST is designed for larger-sized parts.

#### **Example applications:**

- Machine Components
- Heavy Machinery Components or Assemblies
- Wind Turbine Hubs





# **Hardware Compatibilities**

CAM2 offers multiple software solutions with varying hardware compatibility. Select the CAM2 edition and hardware that best addresses your inspection and measurement tasks.















Edition	Gage FaroArm	FaroArm	8-Axis	Laser Line Probes	Vantage Laser Tracker	6Probe	Leap ST
Probe Essentials	•	•	•	_	_	_	_
Probe Professional	•	<b>~</b>	•		<b>*</b>	•	_
Scan Professional	_	_	_	_	_	_	<b>~</b>
Expert Expert	<b>✓</b>	~	~	<b>~</b>	<b>~</b>	<b>✓</b>	~
Analyst	_	_	_	_	_	_	_

# **Feature Comparison Chart**

Feature	Probe Essentials	Probe Professional	Scan Professional	Expert	Analyst
Single Device Connection	✓	<b>✓</b>	<b>✓</b>	✓	
Multiple Device Connection	_	<b>~</b>	_	*	
Device Relocation	_	<b>~</b>	_	*	_
Basic Feature Probing	✓	<b>✓</b>	_	<b>*</b>	_
Advance Feature Probing	_	<b>✓</b>		<b>*</b>	
Basic Feaure Constructions	✓	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>~</b>
Advanced Feature Constructions	_	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>*</b>
CAD Import	_	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Coordinate Systems	✓	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>*</b>
Feature Alignments	_	<b>✓</b>	<b>✓</b>	*	<b>*</b>
Datum Alignments	_	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>
Point Cloud Capture	_	_	<b>✓</b>	<b>✓</b>	
Point Cloud Alignments	_	_	<b>✓</b>	✓	<b>*</b>
Feature Extraction	_		<b>✓</b>	<b>✓</b>	•
Basic GD&T	✓	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>*</b>
Advanced GD&T	✓	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>~</b>
QuickTools Automations	_	<b>✓</b>	_	<b>*</b>	✓*
Report Generation	✓	<b>✓</b>	<b>✓</b>	<b>*</b>	✓
Repeat Part Management Add-on	_	<b>✓</b>		*	<b>*</b> *

\* denotes 'creation' not' execution'

# **Specifications**

Hardware	Probe Essentials*	Probe Professional**	Scan Professional / Expert / Analyst***		
Processor (Intel Mobile)	12 <sup>th</sup> Gen Low Performance i5 or above	12 <sup>th</sup> Gen Low Performance i7 or above	12 <sup>th</sup> Gen Low Performance i9 or above		
RAM	16 GB	32 GB	64 GB		
Hard Drive	500 GB SSD	512 GB SSD	1 TB NVME		
Graphics - Open CL 1.1 or later	NVIDIA Quadro T500	NVIDIA RTX 2000	NVIDIA RTX 5000		
USB Port	1 (if using portlock license)				
Virtual Machine (VM) Install	Supported				
Remote Desktop Accessibilty	Supported				

<sup>\*</sup>For Point Probe Measurements | \*\* For Point Probe Measurements with Large CAD, Moderate Point Cloud Scanning | \*\*\*For Leap ST / Intensive Point Cloud Scanning | Note: A 4K display monitor is currently not recommended.

Supported NVI	DIA Graphics Cards and Drivers	Win11 x64 / Win10 x64	
Quadro RTX	Quadro		
	P6000, P5000, P4000, P2000, P2200 and P5000		
4000 F000 6000 and 9000	M520, M6000, M5000, M4000, M2000 and M2200	551.52	
4000, 5000, 6000 and 8000	K5200, K4200, K2200, K620 and K420		
	K5000, K4000, K2000 and K6000		
Supported Operating Systems		Languages	

Supported Operating Systems	Languages		
Microsoft Windows® 11	Chinese   English   French   German   Italian		
Microsoft Windows® 10 (v1607 or later)	Japanese   Portuguese   Spanish		

Note: CAM2 supports 64-bit Operating Systems only

## **CAD File Formats**

Vendor	File Type	Extensions	Supported Versions
	IGES	.igs; .iges	Versions 5.1, 5.2, 5.3
	PRC	.prc	All versions
Open Format	STEP	.stp; .step; .stpz	AP 203 E1/E2, AP 214, AP 242
	STL	.stl	_
	VDA-FS	.vda	All versions
	ACIS	.sab; .sat	Up to 2023
	CATIA V4	.model; .session; .dlv; .exp	Up to 4.2.5
	CATIA V5	CATproduct; .CATPart; .CATDrawing; .CATShape; .cgr; .3dxml	Up to V5-V6 R2024
	CATIA V6	.3dxml	Up to V5-V6 R2024
	Solidworks	.sldasm; .sldport	From 97 up to 2024
Autodesk	Inventor	.ipt; .iam	Up to 2024
Autodesk	AutoCAD® 3D	.dwg; .dxf	Up to AutoCAD® 2025
PTC	Creo	.asm; .neu; .prt; .xas; .xpr	Pro/Engineer 19.0 to Crep 10.0
	I-deas	.mf1; .arc; .unv; .pkg	Up to 13.x (NX 5), NX I-deas 6
	JT	.jt	Up to v10.9
	NX	.prt	UG11 to UG18, UG, NX, NX5 to NX12, NX1847 to NX2312
	Parasolid	.x_b; .x_t; .xmt; .xmt_txt	Up to v36.1
	Solid Edge	.asm; .par; .pwd; .psm	V19 - 20, ST - ST10, 2019 to 2024
Rhinoceros	Rhino 3D	.3dm	Versions 4 to 8

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Local operations around the world. Go to **FARO.com** to learn more.

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