HEXAGON

Brochure

eMMA

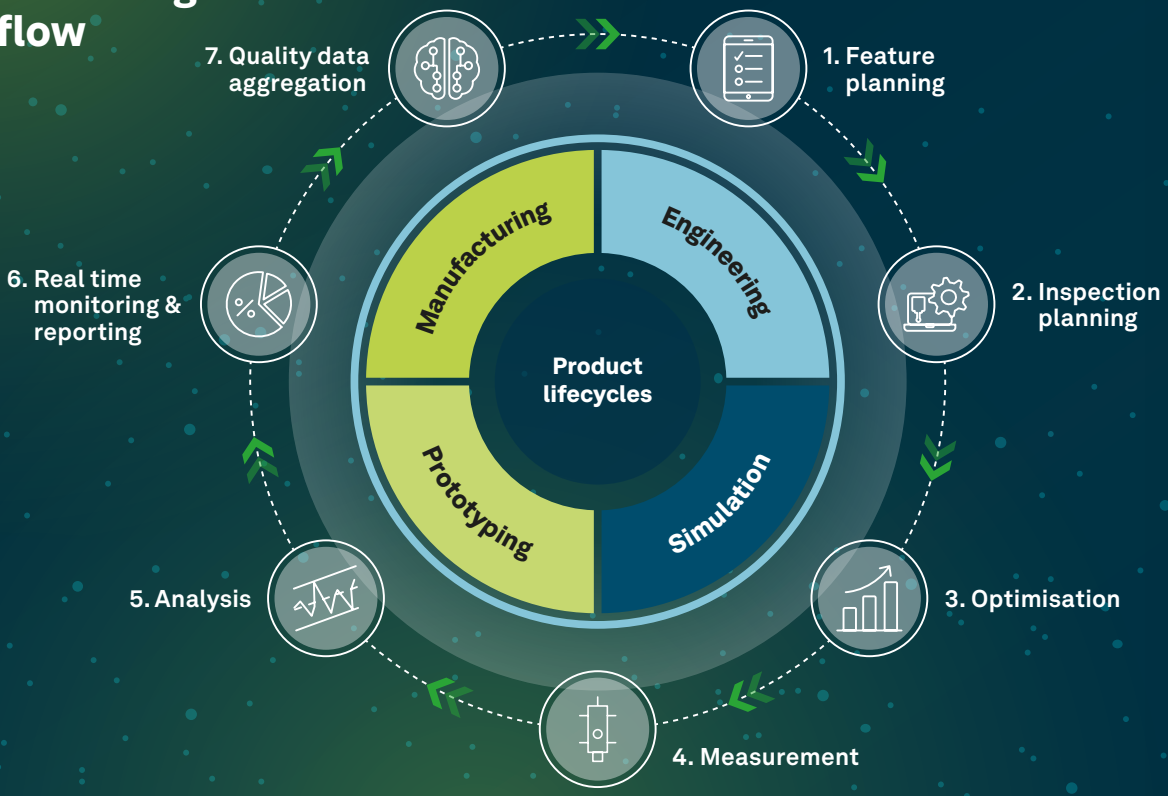
Enhance your productivity with 3D Data Analysis — data-driven insights boost your productivity through informed decision-making



eMMA

Q-DAS eMMA software provides an integrated data management system for the entire 3D measurement process, from planning 3D features and their tolerances along the assembly processes to monitoring quality in the production processes.

3D data management workflow





- Controlled and structured access to all 3D quality data
- Data analysis
- Data visualization
- Real-time monitoring
- Quality data aggregation
- Fast report creation

With a wide range of modules, the eMMA software suite supports the quality monitoring process across the entire production lifecycle — from planning (eMMA Planner, eMMA Illustrator) and analysis (eMMA Analyst, eMMA Inspector, eMMA Assembler) through to monitoring (eMMA Reporter, eMMA Q-Board).



Server/Client

As an agnostic tool, eMMA MDM brings data from various measurement systems together in a single platform for further analysis and monitoring.

- Consistency from the individual part to the finished assembled product
- Controlled and structured access to all 3D quality data
- User management with role-based access rights

Planner

The eMMA Planner module makes the management of measurement plans easier, both for individual parts and for assembly structures.

- Configuration of tolerances and characteristic attributes
- Creation of linked characteristics (distance, angle, etc.)

Inspector

eMMA Inspector is used to analyse tactile and visual measurement results of individual parts.

- Heatmap colour visualisation technologies for quick identification of problematic areas
- Strong compression of large visual data sets

Illustrator

eMMA Illustrator module creates report templates and exports PDF reports in all eMMA modules.

- Creation and management of report templates
- Reusable templates for all eMMA modules

Analyst

eMMA Analyst analyses tactile measurement results of individual parts.

- It provides a 3D environment for interactive analysis of tactile measurement results individually or as a group
- Seamless integration with the qs-stat-Engine for statistical analysis
- On-the-fly generation of PDF reports

Assembler

eMMA Assembler is the top analysis module that enables joint analysis of tactile and visual data and enables virtual assembly of components.

- Contains all functions of eMMA Analyst and eMMA Inspector
- Virtual analysis of assembly structures and matching parts (flush and gap analysis)
- Different types of alignment such as 3-2-1 and Best-Fit are supported

Reporter

eMMA Reporter is a web-based tool for monitoring the quality of the production line through detection of tolerance deviations in real time and identification of the cause of these deviations.

- Real time monitoring tool that is updated with the latest available measurements
- Optional e-mail alarm notification of automatic quality control of the production line

eMMA extends its application possibilities through the new browser based module eMMA Fusion

New browser based module eMMA Fusion delivers a user-friendly approach to 3D data analysis, empowering informed decision-making. Its intuitive design ensures ease of learning, catering to the needs of both small companies and large enterprises.

Revolutionize your data exploration with our groundbreaking 3D Data Analysis software. Navigate your assembly sequence from single parts to complete assemblies. Analyse optical and tactile measurements at the same time and for multiple parts.

For the first time, eMMA Fusion Essentials allows you to start your analysis immediately, with almost no setup time and little requirements. With a local installation, it is perfect for small projects with single-part or single-assembly products that need to be monitored and reported on. Our advanced 3D view allows in-depth error analysis, real-time monitoring, and the generation of on-the-fly and customizable PDF reports. All directly on your CAD geometry. Identify problems where they appear and communicate them to your team.

Use eMMA Fusion to access your data from any computer with no client installation. Create sessions and reports directly in your browser and share them with your team as easily as sending a link.

Use eMMA Enterprise to prepare your inspection plans and assemble your finished products from single parts. Analyse them in-depth at every step of the way using our specialized modules. Create advanced virtual assemblies, align your components, and see the results in real time. In this environment, eMMA Fusion is your fast partner, available everywhere, to analyse and view your measurements, while our specialized modules allow for even more in-depth analysis.

Benefit



User-friendly

Simplify access, flattening the learning curve of users.



Cost-effective

Save on IT resources and expenses associated with client installations, as browser-based applications reduce the need for individual device setups.



Scalability

Suitable for businesses of all sizes, from small enterprises to large corporations.

Use cases

eMMA Fusion Essentials



Who needs it?

SMBs:

- CMM Programmer
- Quality Inspector
- Quality Engineers

Pain point:

I need a solution to analyse and monitor single parts or assemblies without complex setup and configuration. I need to identify problems and find them on the part directly, without searching through all the PDF files saved by the CMM. I want to see CMM and optical measurements together.

Solution:

eMMA Fusion Essentials monitors measurements locally and updates your analysis view directly. The advanced 3D view allows for in-depth error analysis of both optical and tactile measurements. It is simple to install with almost no setup time and a user-friendly interface.

eMMA Fusion Professional



Who needs it?

SMBs:

- Quality Managers
- Quality Engineers

Pain point:

I need a simple way where I can manage the inspection plans of all the parts produced. I need to track changes to the inspection plans with changing requirements. I need to easily navigate my projects and assemblies and identify them. I need to access my data from any PC within the company network.

Solution:

eMMA Fusion Professional centrally manages all inspection plans, projects and assembly sequences in an easy to navigate structure. Track changes through versioning and stay on top of changing requests. Access the data from everywhere, automate reporting and analyze measurements with our specialized modules.

eMMA Enterprise



Pain point:

I have complex assembly structures that need to be organized and updated, across multiple plants and departments.
My production needs to be monitored in real time and I need in-depth analysis of all measurement results. The inspection plans need to be imported from a PLM system and I need specialized information about the data.

Solution:

eMMA Enterprise allows the use of all our advanced tools and modules. Enterprise customers can connect to PLM systems and get individualized metadata fields. The eMMA Reporter allows for real-time monitoring. Standardize your reports with the eMMA Illustrator or do specialized reports with virtual assemblies and alignments with the eMMA Analyst or Assembler.

eMMA Essentials	eMMA Professional	eMMA Enterprise
Single-user solution for small and medium-sized companies: • Quick and easy installation • Automated import of tactile and optical measurement results • Single computer: store all measured data without the need of a server • Import inspection plans in different formats • Import CAD geometries in different formats	**Multi-user solution for medium-sized companies:** • Network solution • User management and detailed access control • Inspection plan management • Organize your data in projects and parts and version them • Share data with different sites or customers • Easily access and analyse data from everywhere within the company network	**Multiple sites solution for large companies:** • Interfaces with PDM / PLM systems • UI customisation (context) • Virtual assembly • Creating templates for reports • Quality dashboard

Data agnostic

eMMA imports data from all measurement devices and software, independent of the software or hardware vendor. This way, eMMA integrates with your current setup is and ready to grow with you. Import optical data as POL, G3D or STL files, and CMM data as DMI, DFQ, DMO, and many other. Using these formats, eMMA integrates directly with PC-DMIS, Inspire and other Q-DAS modules.
Use your CAD data from any source: eMMA supports virtually all formats, including CATIA, STP, IGS and JT.

The advanced 3D analysis tools, eMMA Analyst, Assembler, and Inspector, interface with your Q-DAS installation to automatically generate graphics for reports.



Function	eMMA Essentials	eMMA Professional	eMMA Enterprise
Import inspection plans in different formats	✓	✓	✓
Import CAD geometries in different formats	✓	✓	✓
Import optical measurements in different formats	✓	✓	✓
Import tactile measurement data in different formats	✓	✓	✓
Surface based optical measurement analysis	(✓)	(✓)	(✓)
Analyze tactile measurements	✓	✓	✓
Create custom PDF reports	✓	✓	✓
Analyze multiple inspection plans together	✓	✓	✓
Feature based analysis of tactile measurements		✓	✓
View your data everywhere (comp. network) and share your current work		✓	✓
Centralized storage of all measurement-related data		✓	✓
Share your current work		✓	✓
Feature based analysis of optical measurements		✓	✓
Create your assemblies directly in eMMA		✓	✓
Create/remove features in inspection plans directly		✓	✓
Create reusable templates		✓	✓
Access control and change history		✓	✓
Interfaces with PDM / PLM systems (Teamcenter Integration)			✓
Use templates for real-time monitoring (Reporter)			✓
Use templates to create dashboard structure with daily updates (Q-Board)			✓
In-depth analysis of aligned virtual assemblies (Assembler)			✓
Detailed and specialized evaluations for tactile measurements (Analyst)			✓
UI Customizations (Context)			✓



Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.

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