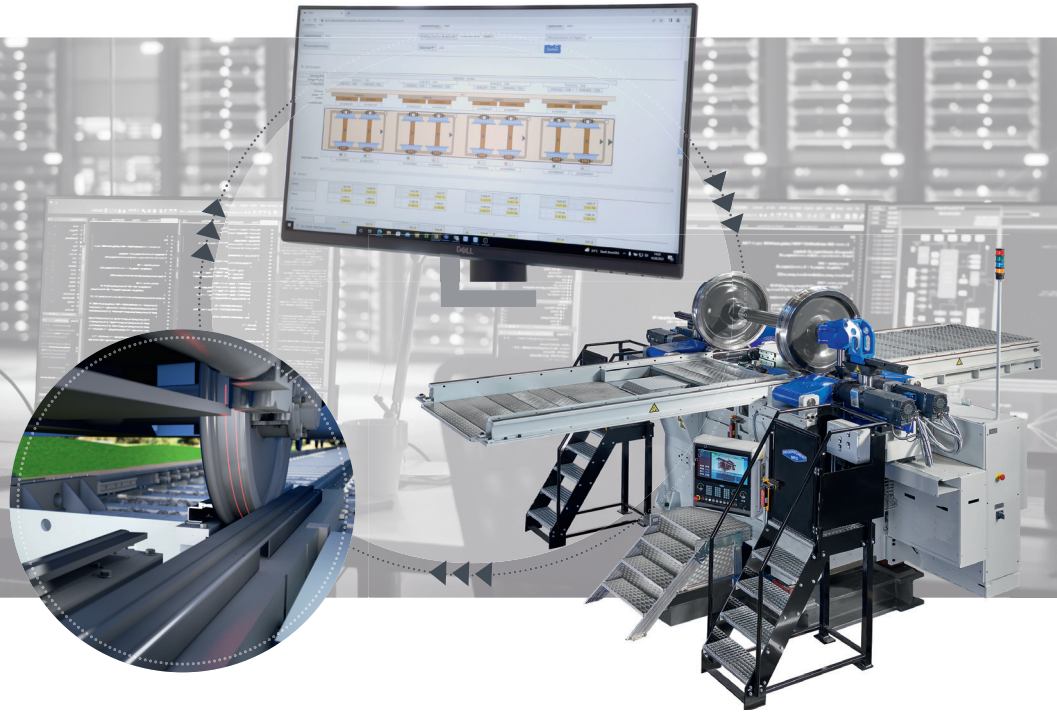




HEGENSCHEIDT



TWM - TOTAL WHEELSET MANAGEMENT

➤ APPLICATION AREAS & USE

Increasing operational requirements and legal framework conditions demand safe and seamless monitoring of fleets and efficient maintenance planning. The TWM - Total Wheelset Management - software developed by HEGENSCHIEDT supports maintenance companies in maintaining a complete overview of data management, maintenance planning and control of all wheelset-related maintenance processes.

TWM is the digital basis for all wheelsets of rail vehicles and complete fleets, regardless of your company size and complexity. A modular software structure makes TWM extremely flexible, so that not only additional modules can be integrated or exchanged, but also customer-specific extensions are possible.

TWM is available in two versions as "TWM Basic" and "TWM Professional" and provides all essential information online and thus completely independent of location. TWM is the digital radar for an optimal condition of your wheelsets.

➤ ADDED VALUE

- Increasing the fleet performance – minimising the maintenance costs
 - Data-based TWM maintenance significantly increases the runtime of your wheelsets
 - Optimising the planning of maintenance work in a more targeted manner with TWM
 - Designing personnel deployment and energy savings in a well-founded manner
- Processing machines, diagnostic systems and TWM from a single source
 - More efficient processing and accurate, data-based forecasting of future maintenance
- Increasing safety
 - Overview of all wheelset states
 - Detecting defects in time
 - Identifying risks of damage
 - Better fulfilment of legal requirements
 - Quality assurance and traceability of all data
- Cost reduction
 - Reducing wheelset-related costs
 - Optimising the planning of maintenance work
 - Optimising warehousing and logistics

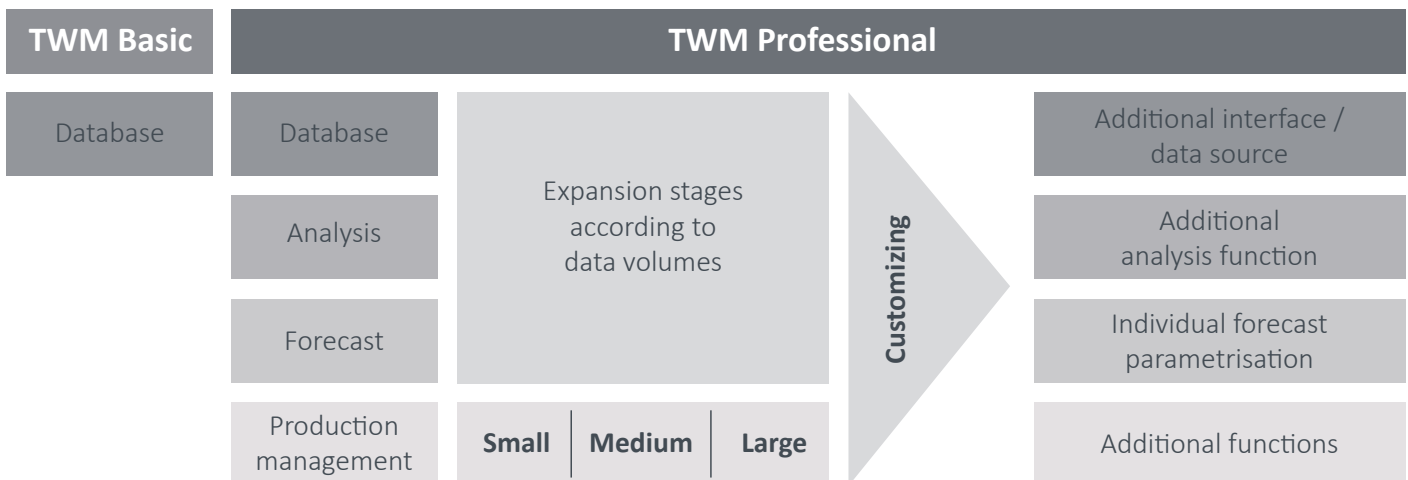


➤ SPECIFICATION

TWM is divided into different variants and editions. The editions determine which data volumes can be processed and which hardware and software licenses are required. From a simple database to a product management system, the TWM modules cover the complete range of functions. The classification can be determined by the number of depots and the fleet size to be included in the TWM. It is always possible to upgrade from a lower edition to a higher edition without data loss.

VARIANT	TWM BASIC	TWM PROFESSIONAL		
Edition		Small	Medium	Large
Number of vehicles		up to 100 vehicles	up to 500 vehicles	up to 1000 vehicles
Number of wheelsets		up to 600 wheelsets	up to 3000 wheelsets	up to 6000 wheelsets
Number of wheelset measurements	up to 50,000 measurements	up to 250,000 measurements	up to 1.25 million measurements	up to 2,5 million measurements
Archiving time	2 years	10 years	10 years	10 years
Required database memory	5 GB	20 GB	100 GB	200 GB
CPU cores	Core i5 (8. Gen.) / 6 cores	Xeon E2xxx / 6 cores	Xeon E21xx / 8 cores	Xeon xxx / 12 cores
Main memory	8 GB	32 GB	128 GB	256 GB
Hard disk	240 GB SSD SATA III	480 GB SATA III / RAID	480 GB SATA III / RAID	1 TB SATA III / RAID
Operating system	Windows 10 IoT Enterprise	Windows Server 2019 Standard (No-CAL/16 Cores)	Windows Server 2019 Standard (No-CAL/16 Cores)	Windows Server 2019 Standard (16 Cores)
SQL Server license	SQL Server 2017 Express	SQL Server 2017 IoT Standard (No-CAL/4+2 Cores)	SQL Server 2017 Standard (No-CAL/4x2 Cores)	SQL Server 2017 Enterprise (No-CAL/12x2 Cores)
Number of measuring devices	1	3	15	30
Number of users (simultaneously)	1	5	25	50
Number of depots	1	1	5	10
Available modules	Database	Database Analysis Forecast Production management	Database Analysis Forecast Production management	Database Analysis Forecast Production management

Data Management Software
TWM – TOTAL WHEELSET MANAGEMENT



HEGENSCHEIDT-MFD GmbH | Hegenscheidt Platz | 41812 Erkelenz | hegenscheidt.mfd@nshgroup.com | + 49 (0) 2431 860

