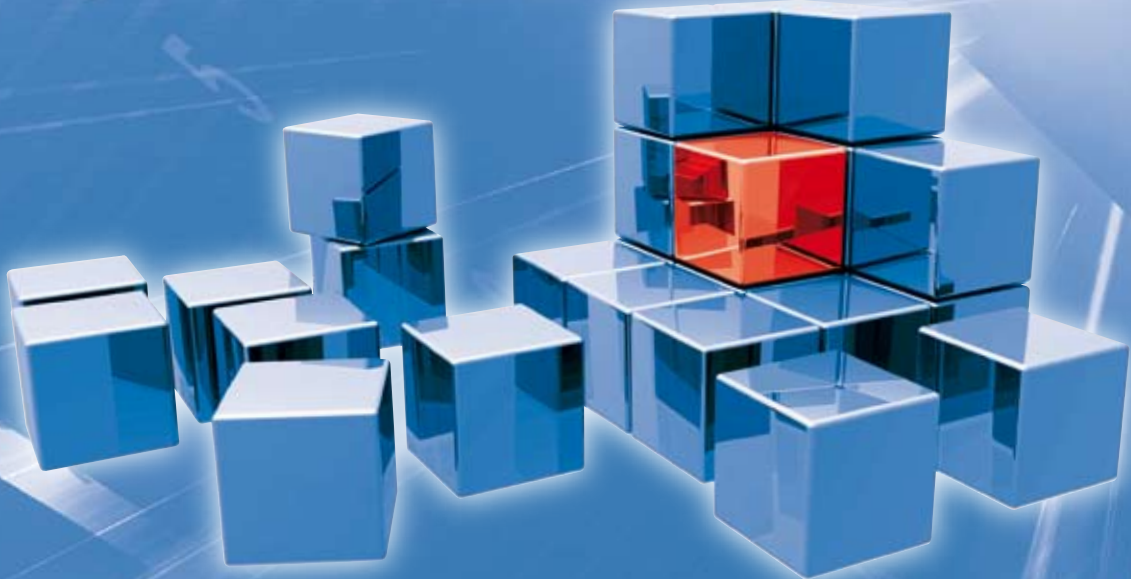


**data** LEXA

*Knowledge secures advantage*



The standard platform of the industry

*Knowledge secures  
your competitive advantage.*

## Your advantage

In an increasingly complex world where the condition of technical equipment can no longer be recorded by a simple glance at the machine or the quality of a component is no longer detectable to the naked eye, we all need support.

Experts, however, are expensive and not available at any time and any place. dataLEXA secures the knowledge of your experts and delivers it to those places in the company where it is required, e.g. to

- Quality assurance
- Support and maintenance
- Manufacturing and production

Knowledge is the intelligent cross-linking of structured information.

*Secure your quality advantage.*

## Quality assurance

Avoid unnecessary interruptions of your manufacturing or production process through in-line expert systems as, for instance, in the area of quality control loops and reworking systems.

Benefit already today from the fully automated detection of manufacturing errors through highly intelligent evaluation processes, also in the areas of image, video, spectrum or multi-sensor processing.

A simple and complete documentation of quality features throughout the complete manufacturing or production process is the basis for the settlement of e.g. warranty cases.

A fast and reliable high-quality incoming inspection is the foundation of solid manufacturing or production processes.



*Secure your advantage  
for support and maintenance.*

## Support and maintenance

Discover faulty equipment conditions in good time in order to avoid cost-intensive damages and production downtimes.

Manage dynamic maintenance and service intervals of all machines and technical equipment in your manufacturing or production process – independent of their manufacturer.

Benefit from your experts' knowledge at any time and any place. Thereby, for instance, reduce the downtime of complex equipment in case of an interruption.

No more time-consuming trainings, seminars or manuals. Support your staff by simple and straightforward instructions and guidelines during the work process.

*Secure your advantage  
for manufacturing and production.*

## Manufacturing and production

At any time and any place, keep track of your manufacturing and production processes through intelligent process cockpits and reliable condition monitoring systems.

Continuous control of the manufacturing and production processes enables the development and maintenance of your zero-defect-strategy.

Connect various distributed systems of the process automation, as for instance production data acquisition (PDA) or machine data acquisition (MDA) in one system.

Consolidate various software suites and software licenses in one manufacturer-independent, secure system for data acquisition, evaluation and visualisation.



*This platform secures your advantage.*

**Why a platform and not a prefabricated standard system?**

## Platform

For more than ten years, this standard platform has proved its profitability, sustainability and flexibility.

One example: Nobody would ask a bridge construction engineer to convert a suspension bridge into a draw bridge – for static reasons alone. Almost every day, however, software engineers are asked to accomplish such a conversion in a software system.

Anyone can comprehend that client adaptations may not change the architecture of the bridge but only its decorating and non-supporting elements.

This, however, is difficult to guarantee in the software architecture environment and in view of the complexity of the various client demands. For that reason, the following problems usually result from customisations of prefabricated standard systems:

- poor usability and consequently a lack of user acceptance within the company
- multiple individual hidden defects due to adaptations leading to a higher total cost for the introduction of the standard system

A platform, on the other hand, provides a multitude of core functions without implementing specific interfaces, as for instance, user interfaces, hardware or software connections. Thanks to this small but decisive difference, the critical parts of a software system (the supporting elements of the bridge) can be individually adapted to the client's requirements. Moreover, you are using a proven standard product for the core functions.

*Connects knowledge  
from different worlds.*

## dataLEXA.Automation

**Simple integration of manufacturing and production processes as well as monitoring and tele-control**

The integration of various distributed systems of the process automation in order to optimise the overall technical manufacturing and production process is one of the easiest tasks for dataLEXA.

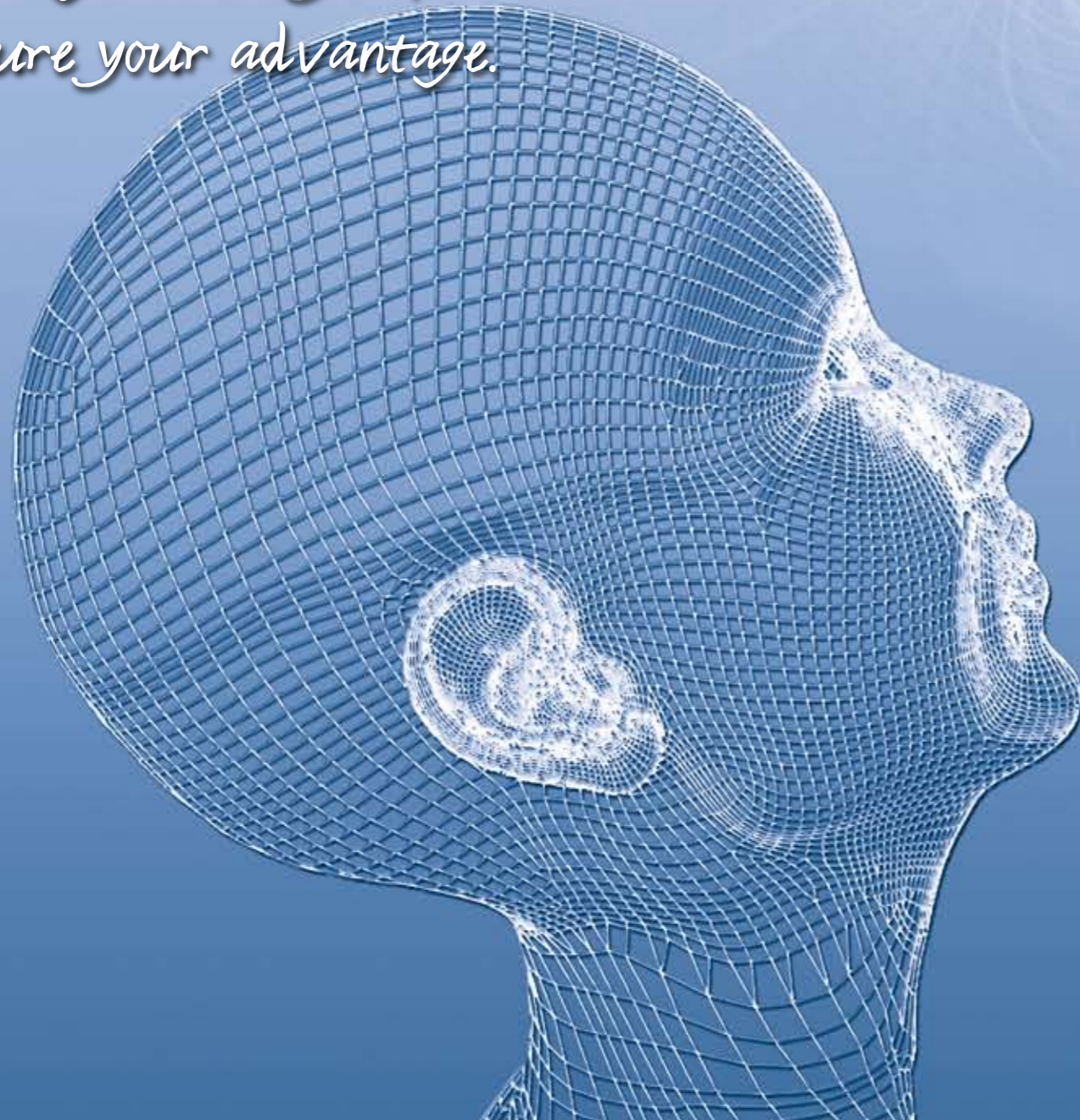
Data acquisition and processing from any system, irrespective of its manufacturer, as, for example, production data acquisition (PDA), machine data acquisition (MDA) or personnel data acquisition (PDA), is the basis for building a structured data warehouse. This data warehouse serves to comprehensively evaluate the collected data and enables you to directly access the various worlds of your company at a glance.

Thanks to its high level of flexibility, dataLEXA enables you to consolidate different systems and to thereby maximise your return-on-investment as well as to increase the efficiency of your IT.

Moreover, dataLEXA enables the building of intuitive and user-friendly cockpits for the desktop, websites or smartphones in order to be able to monitor your manufacturing and production processes at any time and any place.

Integrated condition monitoring enables you to compile simple bodies of rules and regulations for different conditions and combinations that are connected with an independent message system, as, for instance, e-mail, SMS, etc.

*Intelligent analysis procedures  
secure your advantage.*



## dataLEXA.Analysis

### **Real-time analysis and visualisation**

In most cases, the high-performance acquisition of measured data already is a complex subject. dataLEXA, however, takes this one step further.

The analysis of multivariate data from camera images, spectrometers or different sensors, even in real time, has already been realised in a number of projects, for instance by means of intelligent pattern recognition or classification procedures.

dataLEXA recognises manufacturing errors in camera pictures in good time or controls machines for the sorting of structural elements. dataLEXA learns correlations between laboratory values and NIR spectra and can then generate instructions in-line in the production process.

Moreover, dataLEXA enables a completely customised design of all interfaces, even for complex 2D or 3D visualisations to the point of real-time animation of client-specific data.

*Valid key figures and simple reporting  
secure your advantage.*



## dataLEXA.Intelligence

### **Business and production intelligence as well as reporting**

The simple and user-friendly development and evaluation of high-performance key data models without database skills is a basic requirement of the dataLEXA intelligence functionalities. Consequently, evaluations or reports, for instance on machine utilisation, availability, throughput time or product yield are available at any time and any place.

Over the past years, it has become clear, that company-wide intelligence and reporting functionalities have a direct impact on the competitive capability. Better decision-making quickly gains in importance when resources run short.

Meaningful key figures as well as an improved and simpler communication in reporting are the basis for all strategic and long-term corporate decisions.

dataLEXA will show you that the introduction of a business, production intelligence and reporting system will represent significant added value for your company.



*Knowledge secures advantage.*

## dataLEXA.Knowledge

### **Information and knowledge management**

Thanks to an intelligent information management system, dataLEXA is able to store and retrieve information of any kind in a targeted and structured way.

For this purpose, dataLEXA surpasses the functional range of normal document management systems by far.

The objective for dataLEXA was the development of a knowledge management, which means that not only well-structured information needs to be managed, but knowledge. This knowledge is generated by the interconnection of the diverse information or by connection to external event sources.

That way, dataLEXA can, for instance, generate personnel instructions in case of machine breakdowns and, after evaluation of those results, automatically offer improved instructions for the next incidence. Thereby, faults even in complex installations, can be discovered faster and downtimes are substantially reduced.

The strategy of interconnecting information eliminates the search for documents or information during everyday work and thus saves you and your staff much time and money.



*Knowledge secures advantage*

AW-SYSTEMS GmbH

Am Exer 10 d · 38302 Wolfenbüttel  
Fon +49 5331 882690 · Fax +49 5331 8826931

info@aw-systems.net · www.aw-systems.net