



*eluCloud*

Software



### **eluCloud - processing machine data to obtain decision-relevant information**

**eluCloud is the joint "Industry 4.0" solution from elumatec and elusoft for the digitalisation and analysis of machine and production data. Analysis of this data helps optimise production processes and proactively plan maintenance tasks. This allows cost reductions, increased machine availability and improved productivity.**

eluCloud captures machine and production data while systems are in operation. The data is provided in real time, meaning that what is currently taking place in production and what has already been accomplished can be viewed at any time from anywhere. In this way, eluCloud enables deviations from the desired production flow to be recognised quickly. The live display of the current machine status and real-time calculation of current machine efficiency are among the most useful features; problems in production become apparent very quickly as a result, and the data collected helps with structured troubleshooting and analysis. eluCloud also offers an overview of currently running jobs and detailed information on the parts produced, and this data provides the basis for exact analysis of production times and individual optimisations. The eluCloud product group helps send a clear message to potential clients: "We are a reliable and technologically advanced partner."

### **The eluCloud product group**

The eluCloud product group modules allow machine and product data to be collected and analysed. Standardised analysis of this data can then be carried out directly in eluCloud, and the data can also be used for individual analyses, for example in order to process data in individual ERP systems.

### **eluCloud Monitor**

The eluCloud Monitor compiles the machine and product data collected from the local machines, which makes it the key component in the overall eluCloud solution. As the name suggests, its purpose is to monitor the captured data, and modern elumatec machine controllers can capture a wide variety of data types in real time for this purpose. This can include, for instance, information about the quantities of parts produced, error messages or detailed time protocols concerning tool use or spindle run times. One example of how this exact time information helps is in recognising required maintenance intervals in advance, which means they can be planned more efficiently.

### **eluCloud Server**

The eluCloud Server collects all data from the connected machines. It stores all status messages and makes them available for analysis and utilisation. The eluCloud server was specially developed to be integrated into a company's existing IT infrastructure, meaning that, provided that the company has server hardware capacity available, the eluCloud Server can be installed on existing systems with ease. The eluCloud Monitor module and the eluCloud Server form the



basic equipment for customers who wish to use eluCloud.

### eluCloud Analytics

eluCloud Analytics is an additional module for subsequent analysis of product and machine data. It enables detailed analysis of areas such as production utilisation, progress of job processing, processing times for jobs, analysis of individual machines, analysis of the entire machine pool and processing times for individual parts, to name just some. With the processed information and its user-friendly filter options, eluCloud Analytics also supports the optimisation of production times: through the capture and analysis of non-productive times such as clamp positioning operations, tool changes or part orientation changes, the techniques employed in production can be refined and the times can be reduced sustainably. The module also helps with troubleshooting and product costing analysis. Using filter functions allows exact determination of the required production times for a job or a part, knowledge which also serves as a very good basis for costing future jobs. In addition, using this information as a basis allows questions such as "When did which downtimes occur?" and "What was the reason for this?" to be answered easily after the event.

### eluCloud API

A core characteristic of every "Industry 4.0" solution is seamless communication between individual machines or between the machine and the software, which is often referred to as the "Internet of Things". This can be implemented with the help of eluCloud API. The term "API" refers to an interface with which eluCloud can be integrated into existing solutions and linked to other software solutions. The machine data and analysis results which are compiled in eluCloud can be accessed and further processed for this purpose by external programs, such as cost accounting programs and ERP or MES systems.