



**JETZT  
NEU!**

Besuchen Sie uns!

**Detact.de**

# AI FOR MANUFACTURING PROCESSES


**deTACT**

## Handout: Symate GmbH

Detact® - AI-Infrastructure & Apps –  
Artificial intelligence in process chains

**deTACT**® AI-Infrastructure & Apps



- Manufacturer of the AI-Infrastructure Detact® for automated digitization, structuring and visualization of technology data
- Bundled know-how in mathematics, control engineering and computer science (+20 Employees)
- Founded in 2012 as spin-off of the TU Dresden
- Extensive development partnership with the Dresden Technical University
- Renowned partners such as:  **PEPPERL+FUCHS**

*100+ customers / 300+ connected lines / 20+ active AI-apps*

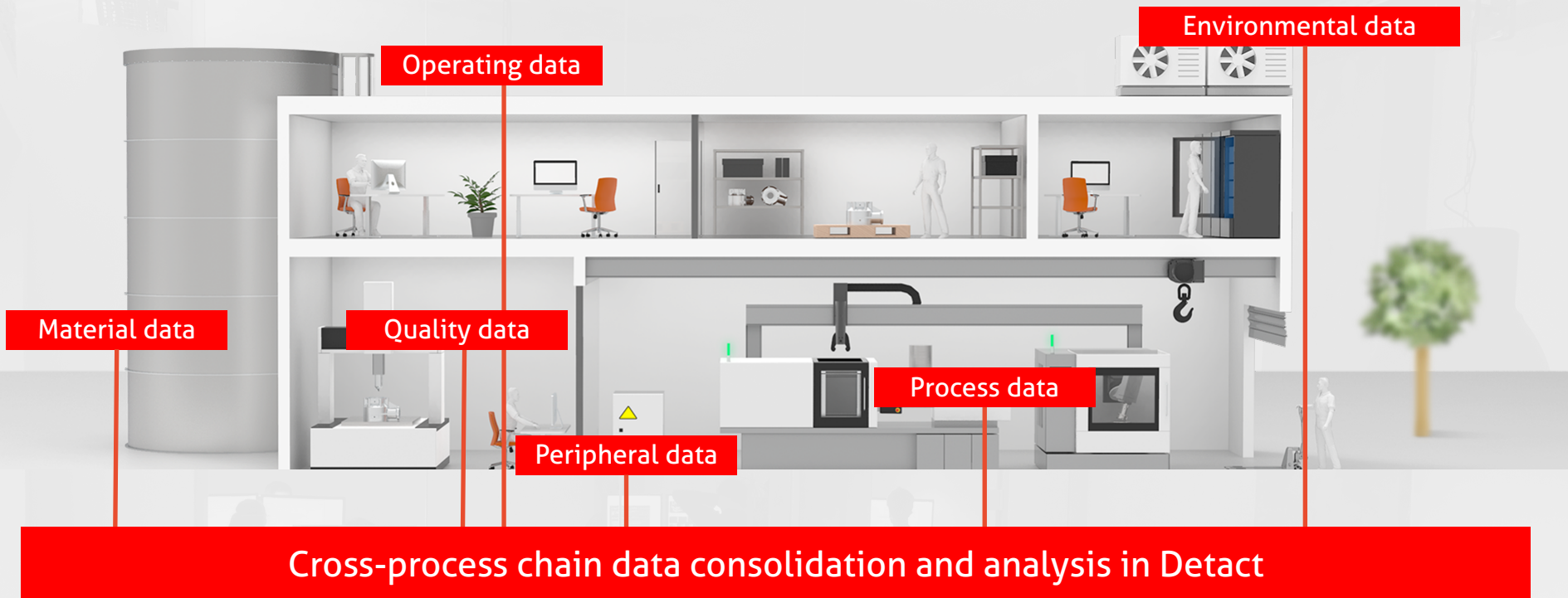




KI-INFRASTRUKTUR &amp; APPS



- # LEADING THROUGH RESEARCH



*Detact is THE tool for the intelligent consolidation of data in manufacturing!*

"Detact brings together all relevant data sources at a higher level and automatically analyzes the information obtained. This is perfect for us! In addition, the results are visualized location-independently and in real time."

**Institute of Construction Materials, TU Dresden**



# For each data source and any number of interfaces

OPC UA/DA

Euromap  
63/77

ENGEL EMI

Beckhoff  
Twincat ADS

Siemens  
S5/S7

LabVIEW

Excel

Customize your own  
Detect Connect Driver

Manual Data  
Collection

+ Mehr anzeigen

*Automated direct connection to your data sources via Detect Connect. Detect captures data volumes that are permanently generated in production. The AI control center even integrates data from physically separate system areas such as machine data, operating data, quality data from measuring and testing devices, peripheral data, environmental data, (Excel) files, data from third-party software such as ERP, BDE or CAQ systems.*

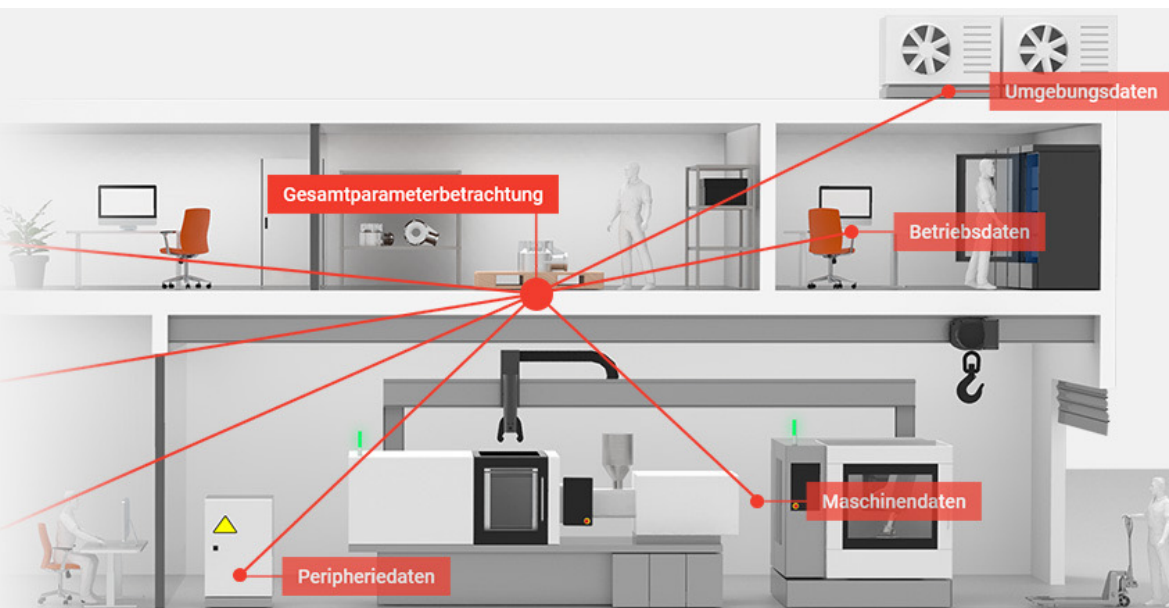
"It's impressive how many data sources Detect can handle."

**Plant management of a Tier 1 automotive manufacturer**



**DATA CONSOLIDATION**

# Automated Data Merging



*A superordinate platform for the holistic evaluation of processes. Detact is the tool for comprehensive data consolidation and analysis! The AI system links manufacturing parameters, product characteristics and quality features.*

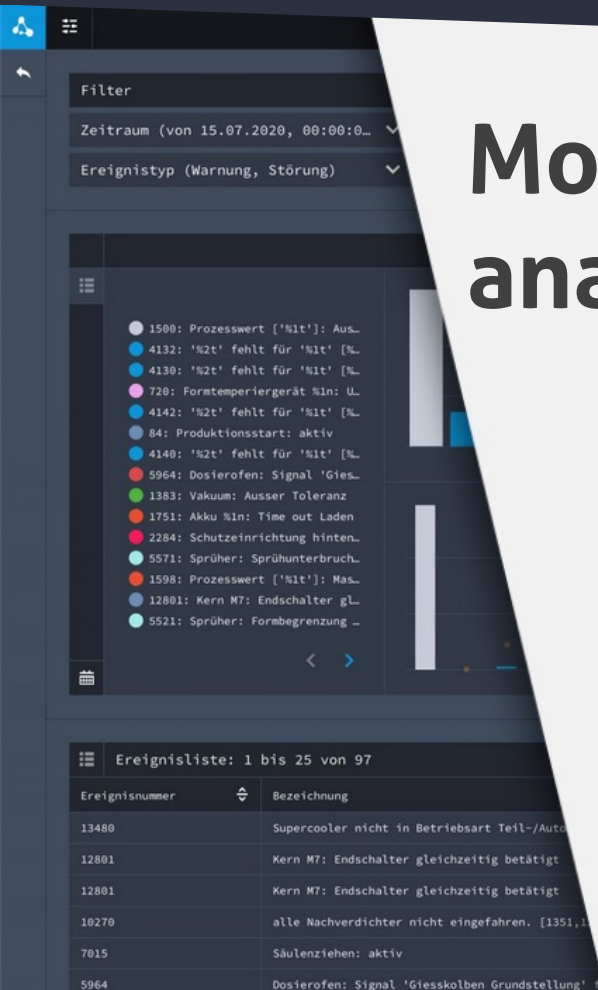
*If required, this can even be done fully automatically and according to your specific specifications.*

# More than 20 browser based analytic and diagnostic Apps

*Detact automates data analysis and makes it intelligent. Herewith the software system was equipped with a multitude of preconfigured apps and artificial intelligence (AI). At the start of the project, users select an individual app package, which they can expand step by step later.*

*"What we appreciate about Detact is the high degree of automation with which the program gives us transparency about the decisive process influences."*

**AUDI AG**



Filter

Zeitraum (von 15.07.2020, 00:00:00...)

Ereignistyp (Warnung, Störung)

- 1500: Prozesswert ['%lt']: Aus...
- 4132: '%2t' fehlt für '%lt' [%...
- 4130: '%2t' fehlt für '%lt' [%...
- 720: Forsttemperiergerät %in: UL
- 4142: '%2t' fehlt für '%lt' [%...
- 84: Produktionsstart: aktiv
- 4140: '%2t' fehlt für '%lt' [%...
- 5964: Dosierofen: Signal 'Gies...
- 1383: Vakuum: Ausser Toleranz
- 1751: Akku %in: Time out Laden
- 2284: Schutzeinrichtung hinten...
- 5571: Sprüher: Sprühunterbruch...
- 1598: Prozesswert ['%lt']: Mas...
- 12801: Kern M7: Endschalter gl...
- 5521: Sprüher: Formbegrenzung ...

Ereignisliste: 1 bis 25 von 97

Ereignisnummer	Bezeichnung
13480	Supercooler nicht in Betriebsart Teil-/Auto...
12801	Kern M7: Endschalter gleichzeitig betätigt
12801	Kern M7: Endschalter gleichzeitig betätigt
10270	alle Nachverdichter nicht eingefahren. [1351,1
7015	Säulenziehen: aktiv
5964	Dosierofen: Signal 'Giesskolben Grundstellung' f...



# Digital assistants for machine operators



*Mobile options for recording feedback on operating orders, shifts, errors, malfunctions, part removals, etc. Artificial intelligence supports decisions and facilitates the work of plant operators!*

„ With the Detact AI system [...], we provide workers with valuable facts with which they can work. It hardly matters in practice what experience the individual employee actually brings with him [...]. In the end, only the data counts!“

**Allit Technologie GmbH**

# More productivity for your process monitoring

*Detact is a superior platform for the synchronization, analysis and visualization of your data! Keep process, quality, peripheral and environmental data in view at all times. Fully automatic!*

"Symate's flexible AI system generates valuable information for us, which we use to optimize the process so that it runs stably and highly efficiently. At the same time, we have a continuous view of the quality of the products and can identify potential influencing factors at an early stage."

**Kunststoff Zentrum in Leipzig gGmbH (KUZ)**

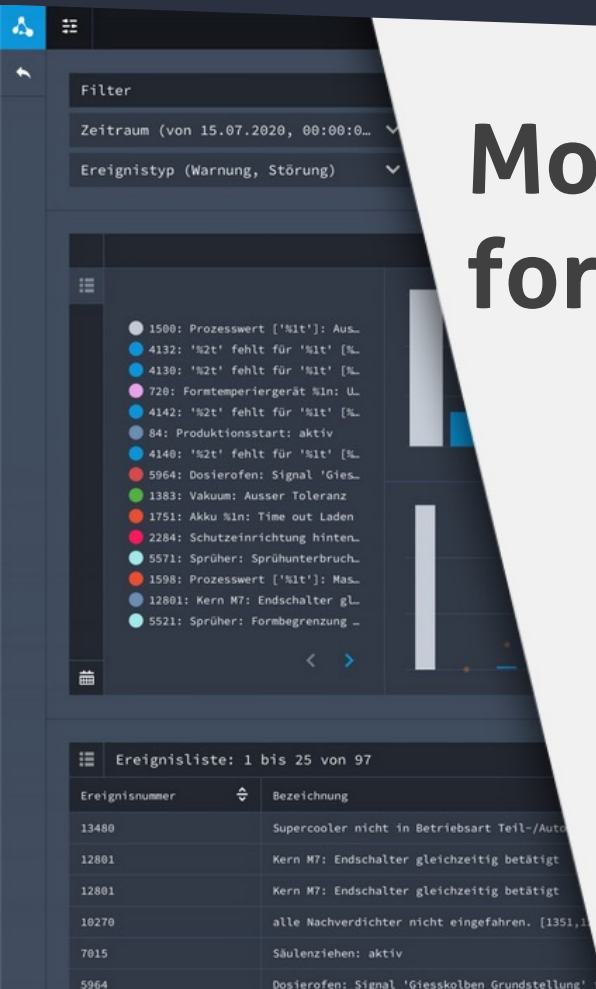


# More decision making reliability for your maintenance!

*Make your decisions quickly and objectively! The Detect apps for Predictive Maintenance and Condition Monitoring, among others, are one step ahead of your processes. You can plan your maintenance work on the basis of reliable data and ensure the quality of your processes on a predictive level.*

"Detect [...] relies on artificial intelligence methods, and we envision the Detect apps providing us with previously unknown insights into our process."

**Weidplas Germany**



The screenshot shows the SYmate software interface. At the top, there's a 'Filter' section with dropdowns for 'Zeitraum' (set to 'von 15.07.2020, 00:00:00...') and 'Ereignistyp' (set to 'Warnung, Störung'). Below this is a list of events with colored circular markers. At the bottom, there's a table titled 'Ereignisliste: 1 bis 25 von 97'.

Ereignisnummer	Bezeichnung
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[illegible]

"We are impressed by the automatic merging of operating and quality parameters for cross-process evaluations."

## QUALITY ASSURANCE

**DETECT**

# Intelligent knowledge management

**Anmelden**

Benutzername oder E-Mail

Passwort

**Anmelden**

*Detact is a superordinate platform that bundles data in a central location. Valuable knowledge becomes available and comprehensible for users. Through intelligent data management and the analysis of interactions, Detact replaces the famous 'gut feeling' of experienced employees with objective information. With Detact you can spread knowledge throughout the organization and provide each employee with exactly the information he/she needs.*

**KNOWLEDGE MANAGEMENT**

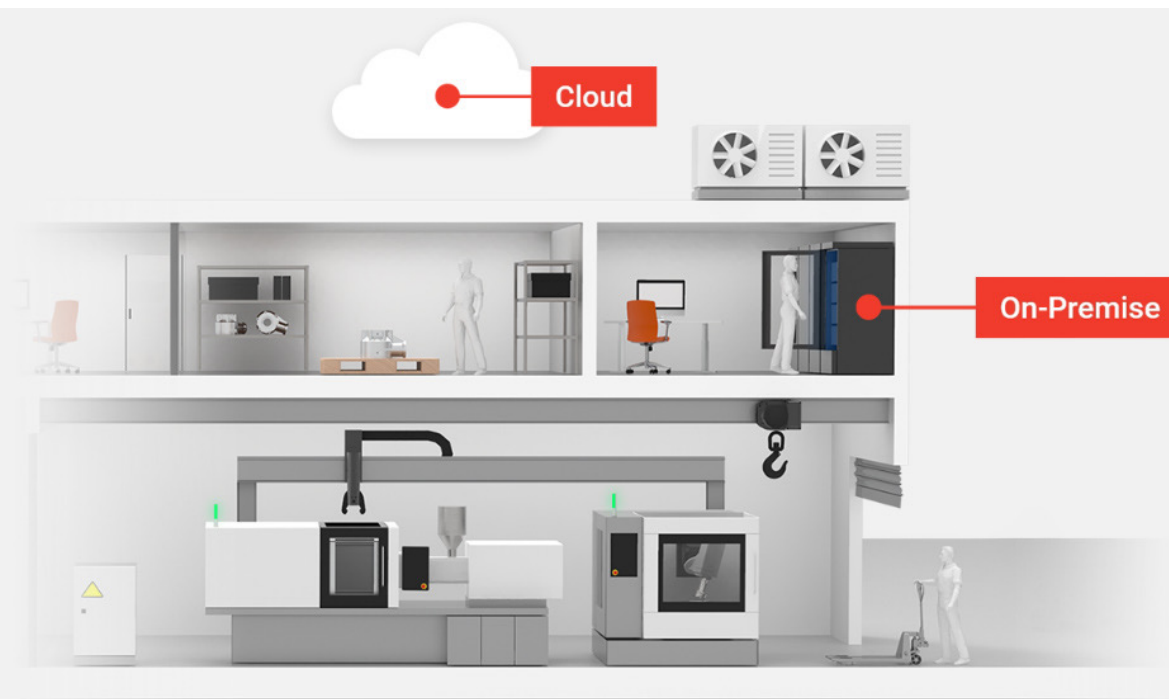


### **Pilot projects**

- Direct connection of selected data sources
- Joint development of representative analysis results
- Development of feasible application scenarios
- Derivation of a productive concept



# Cloud or On-Premises



*Decide for yourself whether you use Detact via the Symate Cloud or on-premises on your own servers!*

*"We are glad that the setup of Detact went so quickly and smoothly. The Symate team handled almost all the tasks remotely and got Detact deployed in no time."*

**Production manager of a renowned specialist for plastics and injection molding technology**

# Single Server vs. Cluster

*Connect your process chains e.g. with a single server solution. If this "small" system convinces you, you can easily expand to any number of servers later. The special architecture of Detact is perfectly suited for Big-Data. The system is highly scalable (clustering) and parallelizable. In contrast to conventional MES and control systems, Detact can record or analyze a large amount of data simultaneously.*

# Open for third-party systems!

*The basic equipment of Detact includes an open programming interface (API). Thanks to this API, Detact can easily communicate at any time with third party systems such as BDE, MES, simulation or ERP, etc.*

*And you gain a decisive advantage: you simply continue to use established software systems and tools and at the same time work with the new data diversity and modern analysis methods of Detact.*





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