



## SENSE&ACT

### A SIMPLE AND FLEXIBLE WAY TO INTERCONNECT MANUFACTURING

Sense&Act enables to create individual rules for interconnecting information in manufacturing. The Sense&Act system executes the rules, monitors sensor events and automatically initiates pre-defined actions.

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#### Interconnecting manufacturing in a simple and flexible way

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As well as having to keep to delivery schedules, today's manufacturing companies increasingly need to take customer demands into consideration. Paired with economic requirements, such as stock reduction and shorter throughput times, this creates a complex problem for the production process: Demands change constantly with the pressure to optimize rising steadily at the same time. Routine tasks need to be automated and digitization possibilities fully exploited. However, when it comes to putting things into practice, there's a complication: Today's IT

systems are inflexible. Adaptions, extensions and interfaces are both costly and time-consuming. The gap between manufacturing requirements on the one hand and IT implementation on the other is widening. With its innovative concept of rule-based manufacturing, this is where Sense&Act comes into play.

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#### The missing link for Industrie 4.0

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With Sense&Act, the user can create rules following the paradigm "if a sensor recognizes a defined event, then a pre-defined action is triggered". Sensors may be physical, such as electric current sensors to detect equipment malfunctions, or virtual, to monitor stocks in ERP systems. On the execution side, a wide range of actuators can be addressed: anything can be linked simply and at low cost, from email or text messaging, right up to robots.

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The potential fields of application are extensive: manufacturing control, intralogistics, maintenance and logistics disposition are just a few examples. Sense&Act can also be implemented to advantage in indirect areas as a tool to model interface processes, such as automatically informing the sales department about completed customer orders.

### Easy and intuitive to use

The rules can be created and configured directly by the user in the web-based user interface. To add a rule, firstly a sensor is selected and, if applicable, parameters (e.g.

for filtering) specified. Then an actuator and, if required, a configuration is chosen, such as the input of an email address to which the desired message should be sent. The rules created can be shared with other users, which also gives them the opportunity to evaluate or comment on them. This allows helpful rules to be adopted without the need for configuration; these can even be implemented as standard rules for the entire company. To ensure security and data privacy, Sense&Act can be run locally within a company so that no data leaves the company network. An authorization concept enables sensors and actuators to be accessed at user or user group level.

### Sense&Act and Virtual Fort Knox

Besides the internal, local company solution, Sense&Act can also be operated in a cloud: the secure federative platform "Virtual Fort Knox" for service-based manufacturing applications offers software solutions which can be linked either via Sense&Act or via existing company software and hardware components.

Please contact us to discuss potential application scenarios in your company.

If (sensor)... ...then (actuator)!

The screenshot shows the Sense&Act user interface with a rule configuration. The interface is divided into two main columns: 'Available Sensors' and 'Available Actors'. The 'Available Sensors' column contains five sensor options: 'If material reaches warehouse...', 'GPS Device', 'QR Universal', 'iBin', and 'RFID Fault Logging'. The 'Available Actors' column contains four actuator options: 'E-Mail Send', 'SAP Outgoing Goods', 'SAP Goods Movement', and 'Database'. A green box highlights the 'If material reaches warehouse...' sensor and the 'SAP Outgoing Goods' actuator, with a green arrow pointing from the sensor to the actuator. The text '...check in into ERP-System!' is written next to the 'SAP Outgoing Goods' actuator. The interface also includes a navigation bar at the top with options like 'Home', 'Sensors', 'Actors', 'Create', 'View Rules', 'Explore', 'Settings', and 'Log Out admin'.

User interface of Sense&Act



Virtual Fort Knox

[www.virtualfortknox.de](http://www.virtualfortknox.de)