

OPC-Server

**The standard in process communication.
The KUKA OPC Server for robots and systems.**



BRIDGING THE GAP IN DATA EXCHANGE.

Experience the advantages of the KUKA OPC Server in the visualization, optimization and monitoring of processes.

What is OPC technology? OPC is an open interface standard – it means “OLE for Process Control”. Building on the Windows-based OLE, COM and DCOM technologies, OPC makes simple, standardized data exchange possible between the production area, monitoring, and planning.

In concrete terms, OPC makes it easier to connect automation components from different manufacturers to PC applications, such as visualization systems.

Thanks to OPC, data can be exchanged between devices and applications from a wide variety of suppliers via a common interface.

The KUKA OPC Server is a software option for the KUKA controller which makes it possible to access system and user variables of the controller externally from anywhere in the network. It defines the exchange of position data, operating modes, program parameters and control messages between the KUKA OPC Server and the user-integrated OPC client – for example, a control system, a visualization component such as InTouch from Wonderware or a Visual Basic application.



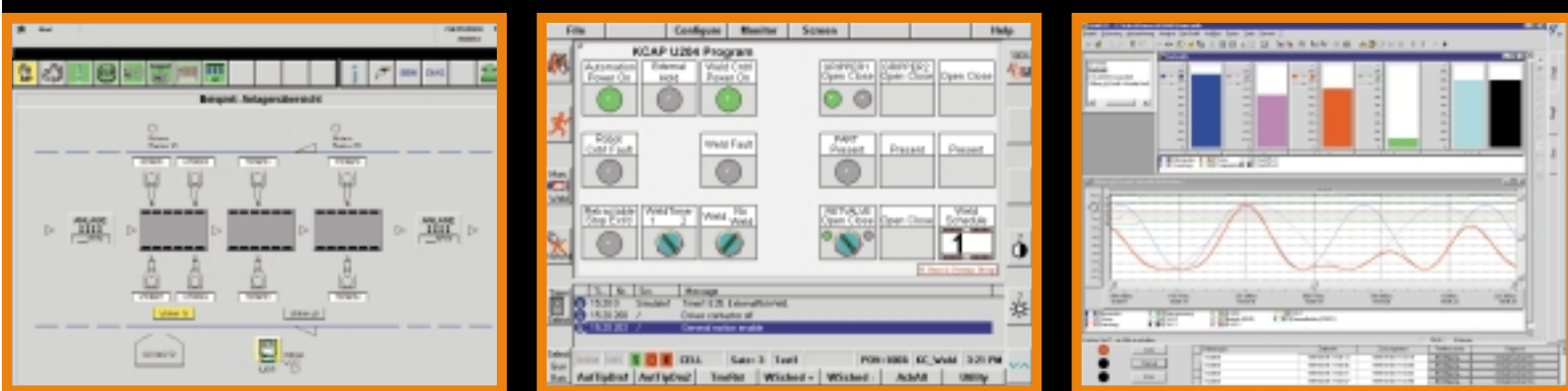
Data variables are transferred within your local network to a client computer which serves as a higher-level diagnosis or visualization system.

The PC-based user interface of the KUKA Control Panel can be used as a production screen for the robotic cell.



GET YOURSELF FEATURES AND FUNCTIONS WHICH PAY.

The KUKA OPC Server connects your KUKA robot to higher-level network systems.



Its features in detail:

- Up to 10 clients at one time.
- Fastest refresh rate for updating variables is 200 ms.
- Security function prevents access to the OPC Server by unauthorized persons.
- User privileges are configurable.
- Configuration files and user privileges can be changed online, without rebooting.

Services that provide more.

- Reading of system variables from the controller (synchronously/asynchronously), such as robot position, path acceleration, path velocity and timer functions. "Synchronously" means that the client receives immediately on request the current values of the variables. "Asynchronously" means that the client receives updated values only if they have changed inside the controller.
- Reading and writing of user variables in the controller (synchronously/asynchronously). These can be freely selected by the user, e.g. welding schedules.
- Communication of error and notification messages from the controller.
- Browsing of values configured in the controller; the client can obtain a current list of the required variables on request.
- The OPC Server is only suitable for transmitting data which have no real-time significance.

OPTIMIZE YOUR PROCESSES JUST THE WAY YOU WANT THEM.

Use the OPC communication as an interactive interface, and close the gap between production and the desktop world.

Complete visualization for complete monitoring.

The KUKA OPC Server can use a visualization tool (InTouch from Wonderware or a Visual Basic application, for instance) to visualize and monitor the sequences in an entire robotic cell (even with multiple robots). The physical location of the monitoring computer is irrelevant. All the controller data are transferred over the network to a remote computer, and visualized there.

With our analysis, so much becomes clear.

The RAMSES process data analysis software from LP Elektronik, for example, can be used to collect production data. Access to process and production data is possible at any time.

Installation is one thing – optimization is quite another.

Production processes can be optimized using the analysis results as a basis. Parameters like the velocity of the robot can be changed. Another use is the employment of the KCP as a control panel for the robotic cell.

The KUKA OPC Server connects production to the PC world. All important production data are available from anywhere in the network.



The independent OPC Foundation has set itself the task of establishing OPC as a standardized interface and industry standard for process and factory automation.



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