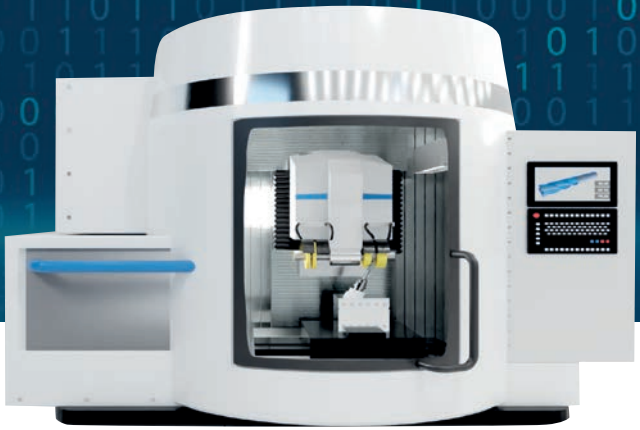
HEIDENHAIN



HEIDENHAIN OPC UA NC Server

The industry standard for machine tools

Application-oriented monitoring and control

HEIDENHAIN OPC UA NC Server

- **Future-ready communication**
- **Efficient process data aquisition (PDA)**
- **Current machine messages**
- **Centralized automation**
- **Versatile extensibility**
- **Virtual testing**
- **Your path to OPC UA applications**

Superior industrial applications

Anyone wishing to digitally network their manufacturing environment needs effective technology with an assured future. Discover the HEIDENHAIN OPC UA NC Server, which provides HEIDENHAIN controls with an interface based on the OPC UA standard. This internationally standardized and widespread communication technology makes it fast and easy to connect machines to your production IT.

Effortlessly connect standard software applications, and save considerable time when implementing your own customized solutions.

Future-ready communication

Efficient and secure digital communication in a machine-tool context requires standardized components, application-oriented information models and adherence to current IT security guidelines.

The HEIDENHAIN Connection Assistant simplifies the process of setting up a certificate-supported connection. Through the authentication, authorization and encryption of communication, the security standard applied meets the recommendations of the German Federal Office for Information Security (BSI).

The OPC UA NC Server lets you connect applications of various operating systems, including Windows, Linux and MacOS to HEIDENHAIN controls.

You also save time when integrating new functions because the application-oriented presentation of information considerably reduces programming and configuration effort.

As an open communication standard, OPC UA is also ideal for translation into other protocols, including MQTT or REST, which can be realized via appropriate protocol gateways.

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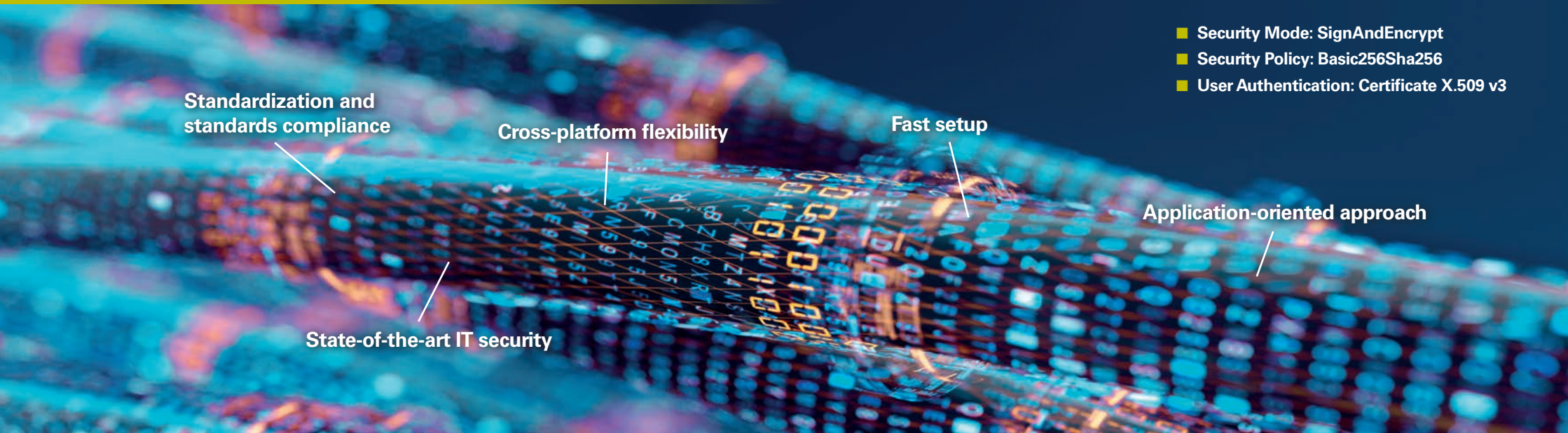


Secure communication

- **Security Mode: SignAndEncrypt**
- **Security Policy: Basic256Sha256**
- **User Authentication: Certificate X.509 v3**

Current machine messages

Stay informed by knowing when to change out a tool at the end of its service life or when to refill critical fluid levels to avoid program interruptions.

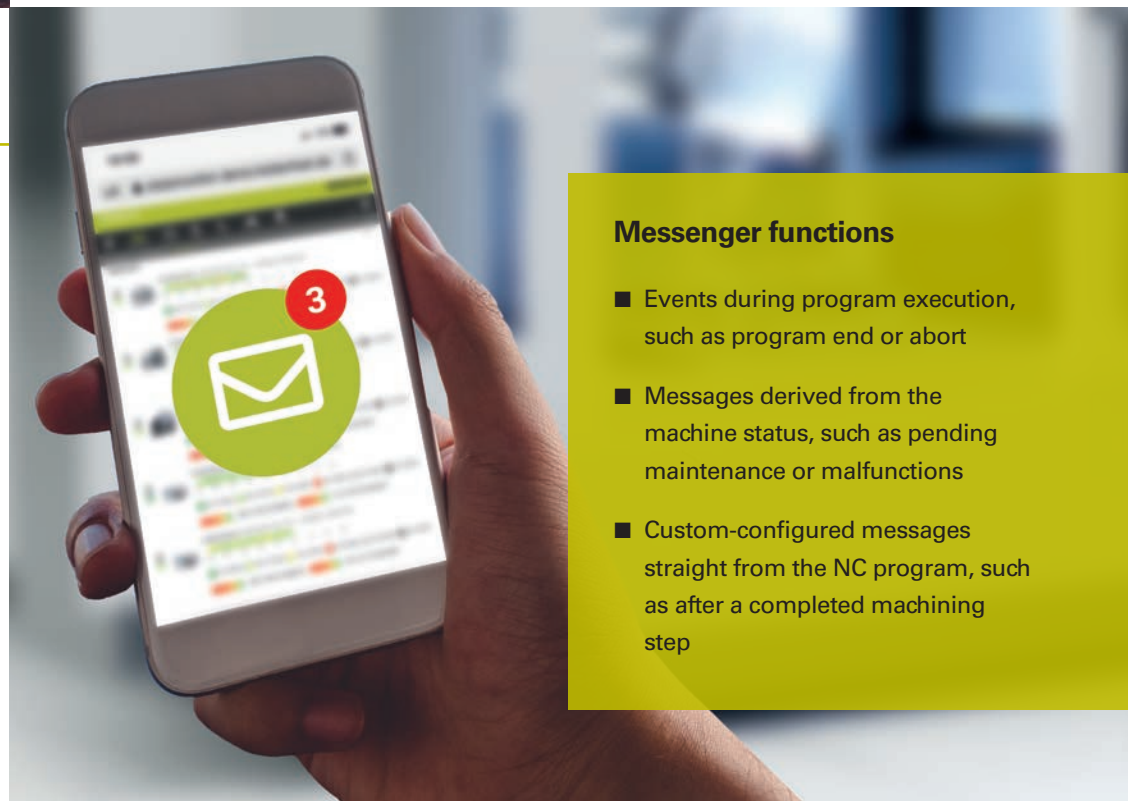
PDA applications use machine messages to notify you of important events within your manufacturing environment. These machine messages are recorded by the HEIDENHAIN OPC UA NC Server and forwarded to the OPC UA application, allowing you to quickly respond to machine downtime or avoid it completely.

Efficient process data acquisition

Software applications for process data acquisition (PDA) provide a real-time view of the production status and productivity of your machines.

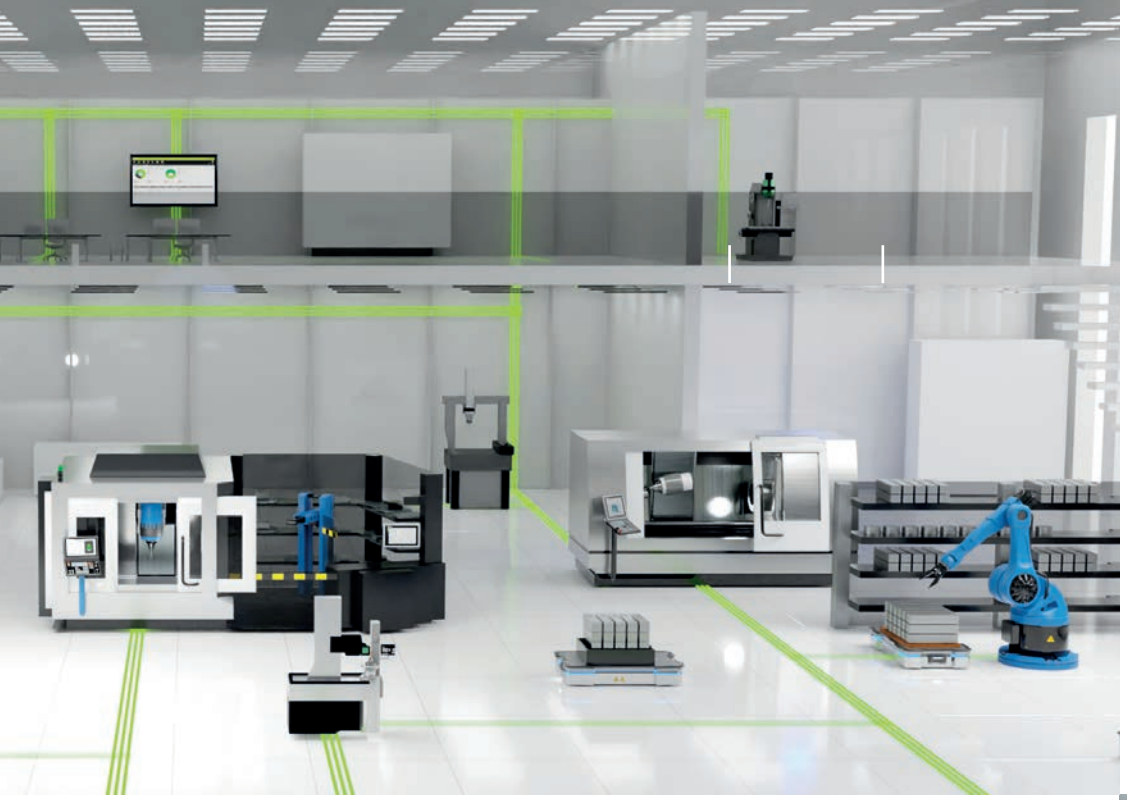
Is the current job still running, or was there an interruption?
How long did it take to run the job?

For questions like these, your PDA application requires information from your machine's CNC control. The HEIDENHAIN OPC UA NC Server reliably delivers the required information, thus providing a foundation for efficient process data acquisition. The analysis and presentation of your production data are key factors in attaining process transparency and optimization.



Messenger functions

- Events during program execution, such as program end or abort
- Messages derived from the machine status, such as pending maintenance or malfunctions
- Custom-configured messages straight from the NC program, such as after a completed machining step



Versatile extensibility

Whether you record your production data, provide maintenance personnel with current machine messages or automate your machine, the HEIDENHAIN OPC UA NC Server provides proven information models to make your job easier.

It's the fast and flexible way to more information. The machine manufacturer can extend the HEIDENHAIN OPC UA NC Server, giving you access to additional sensors, machine subsystems or values from PLC programs. As a result, you can provide your applications not just with raw data, but also with relevant units of measure, limit values, and other information from your machine through OPC UA.

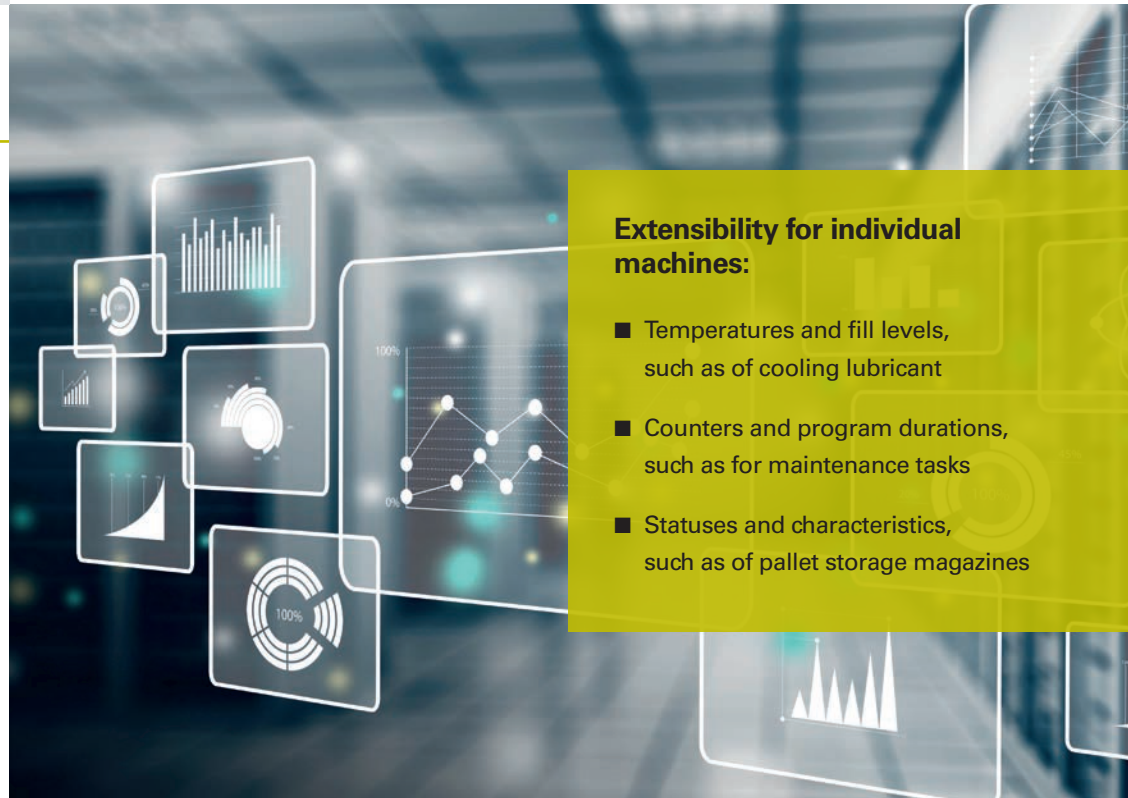
Centralized automation

Efficiently automated machine tools minimize costs and ensure high availability during production. But constant pricing pressure and growing workpiece variety represent huge challenges for automation solutions.

The HEIDENHAIN OPC UA NC Server provides useful functions for every application: easy transfer of NC programs, control of the current program, transmission of tool data and automatic synchronization with a database.

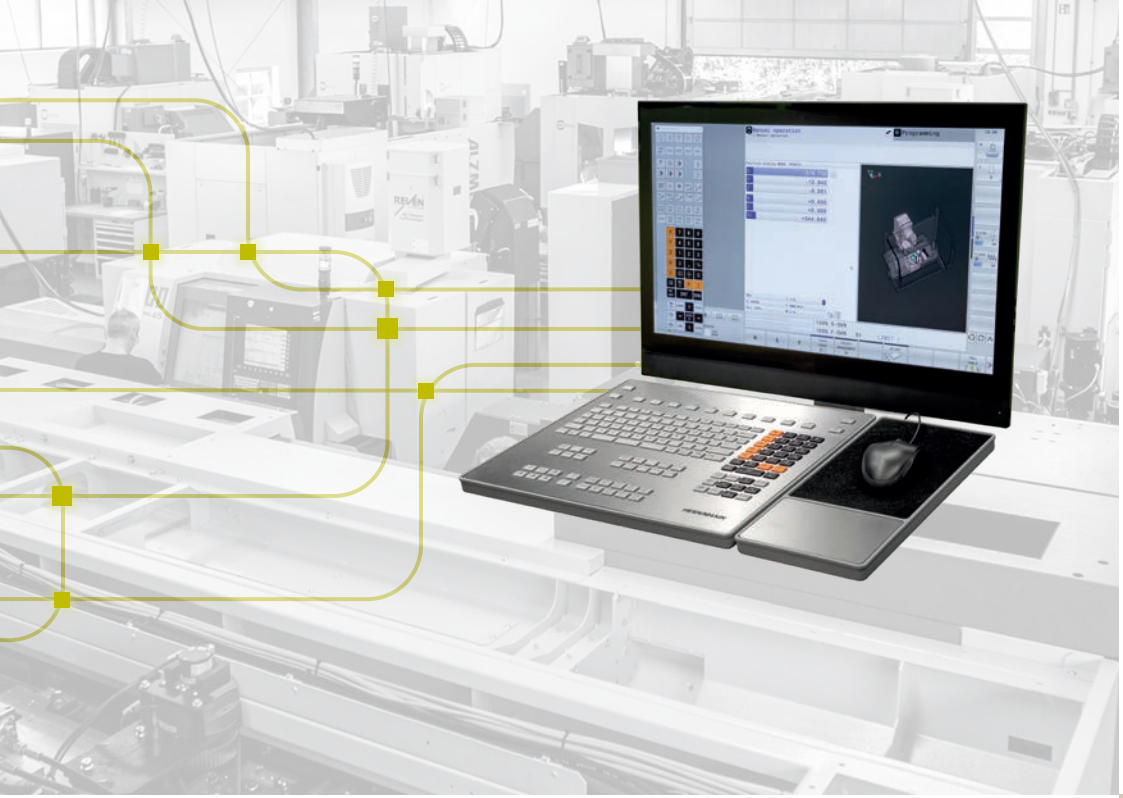
Should the CAM system automatically transfer the program to the machine?
Should the tool presetter automatically send the tool geometry to the machine?

From the smallest function to an extensive network: save time, and increase your process stability by avoiding manual input.



Extensibility for individual machines:

- Temperatures and fill levels, such as of cooling lubricant
- Counters and program durations, such as for maintenance tasks
- Statuses and characteristics, such as of pallet storage magazines



Your path to OPC UA applications

The HEIDENHAIN OPC UA NC Server is available on the following controls:

- TNC7: software version 81762x-16 and later
- TNC 640: software version 34059x-10 and later
- TNC 620: software version 81760x-08 and later

You can connect up to six OPC UA applications, each through one of the software options 56 to 61. With an OPC UA-capable industrial application and a network-connected machine, you can test the software option once for 90 days.

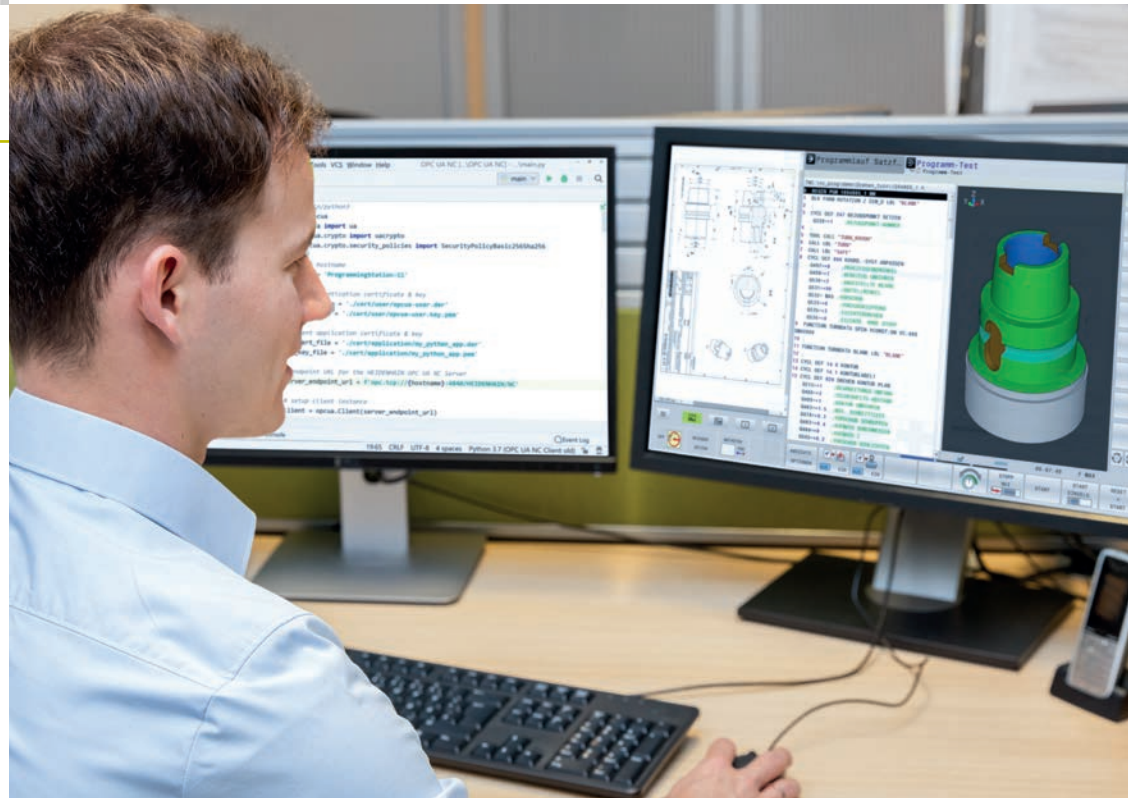
More information:
www.heidenhain.de/opcua-nc-server

Virtual testing

HEIDENHAIN programming stations are based on the same software as the controls. They permit the creation, testing and optimization of programs away from the machine.

Explore the HEIDENHAIN OPC UA NC Server live for yourself, or test new OPC UA applications on a virtual machine such as a HEIDENHAIN programming station. Current versions of the programming station, even the free demo version, feature the full range of OPC UA NC Server functions.

Free download:
www.heidenhain.com/programming-stations



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