

THE FACTORY AUTOMATION COMPANY

FANUC

# MT-LINK<sup>i</sup>

## The easy way to monitor your production

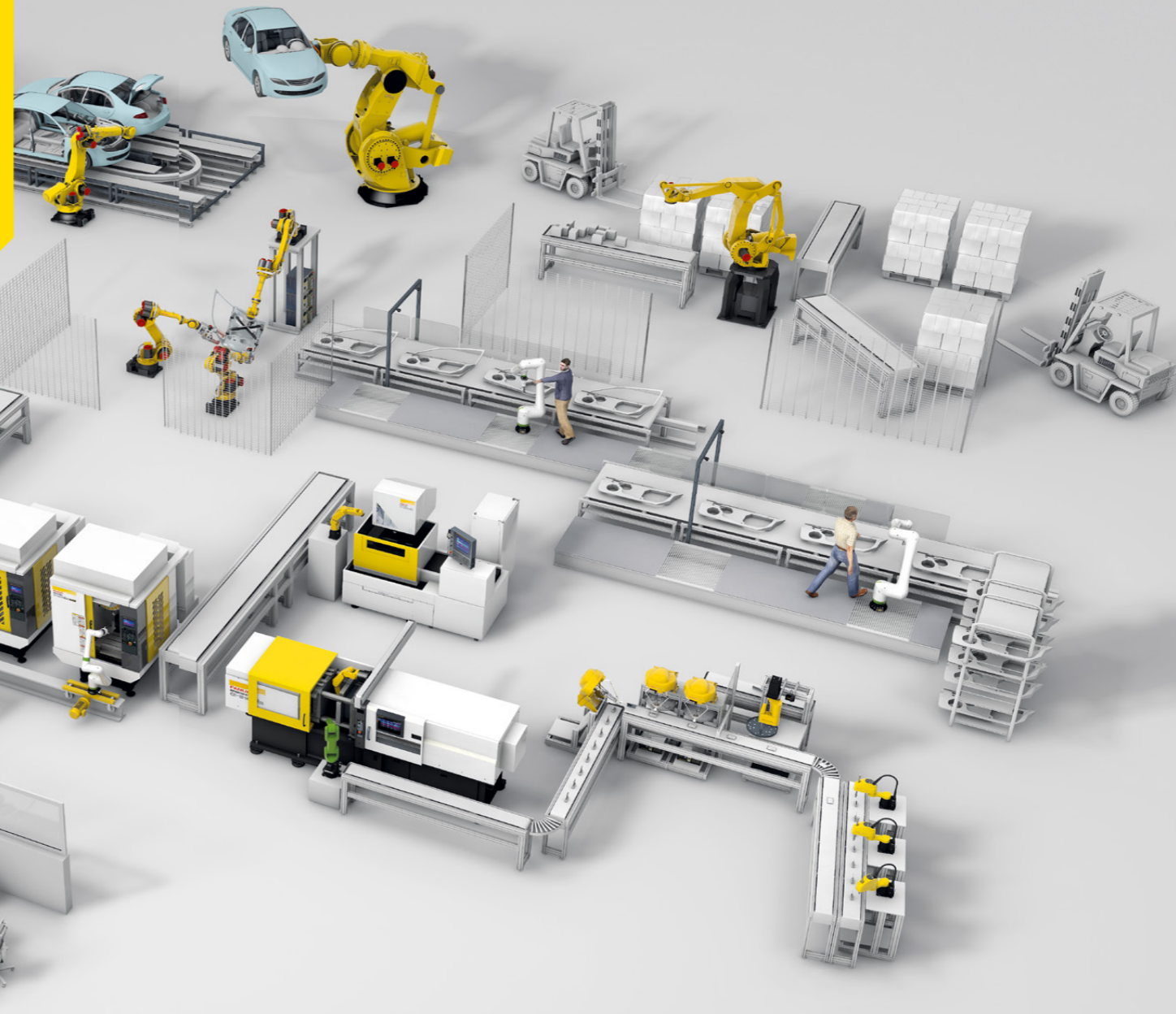
Operation management software running on standard PCs.  
Collect data and monitor the status of your factory's production equipment.



# MT-LINK*i*

MT-LINK*i* is a PC software that connects machines, robots and peripheral devices in the factory. Data can be collected and visualised to provide more information about manufacturing process and historical data.

Not only machines equipped with FANUC CNC or FANUC robots can be connected, but also machines or robots from other manufacturers as well as PLCs or sensors. MT-LINK*i* software is one of the first steps to utilise IoT functions of manufacturing machines and devices. Based on data collected and presented in MT-LINK*i* customers can improve their productivity and processes.



## MT-LINK*i* benefits:

- Improve productivity thanks to detailed machine data
- Detect inefficiencies in machine utilisation
- Improve uptime with diagnostic functions
- Reduce costs by monitoring power consumption
- Save time with automatic custom regular reports
- Ensure that you have a system and program backup



STATUS



PERFORMANCE



OPTIMIZATION

### Easy connectivity

MT-LINK*i* makes it easy to access and transfer data from factory equipment such as machine tools with CNCs, robots and PLCs over a network. MT-LINK*i* allows you to also connect third-party equipment via OPC UA and MTConnect.

### Quick and easy setup and configuration

MT-LINK*i* is easy to set up and has a scalable system architecture. The data acquisition is managed by a dedicated Collector PC software, whereas the data is stored on a Server PC software. The Server PC also provides a web-based user interface for data access and visualisation that can be accessed from any PC or tablet on the network with a browser. For small systems with only few devices, Collector PC software and Server PC software can run on a single standard personal computer. Up to 100 devices can be handled by one MT-LINK*i* server. The production results of large systems with more than 100 devices can be combined with the MT-LINK*i* Integration Server.

### Production monitoring

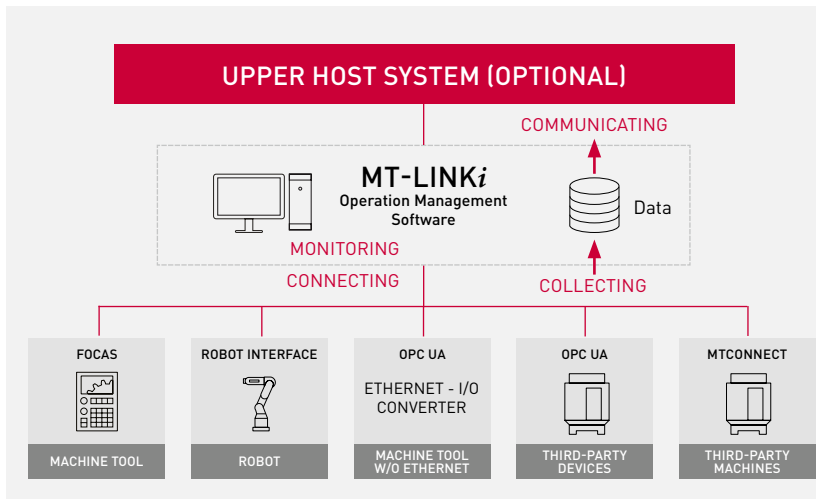
MT-LINK*i* enables you to monitor live the state of the whole factory at a glance. Recognise abnormal states of the equipment such as alarms quickly, allowing you to start countermeasures immediately.

### Performance overview

MT-LINK*i* allows you to review the operational results on machine level. You can review the production results and compare them against the production plan. You also can check machine utilisation and find machines that are underutilised. This enables you to optimise the factory's resource planning.

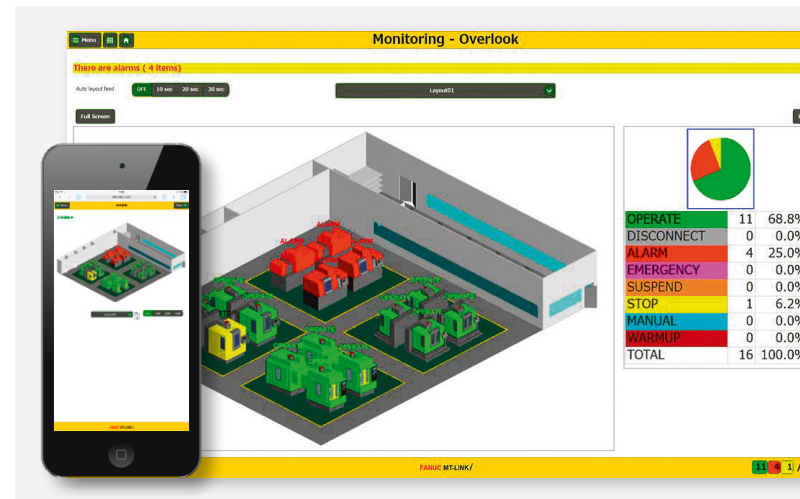
### Diagnostics

With MT-LINK*i*, it is possible to view various diagnostic data such as alarm history, program history, signal history and macro value history. With this, you are able to identify bottlenecks and optimise the production process. MT-LINK*i* also enables you to schedule automatically generated reports in CSV file format. The report templates can be customised to suit your needs.



## Connecting MT-LINKi

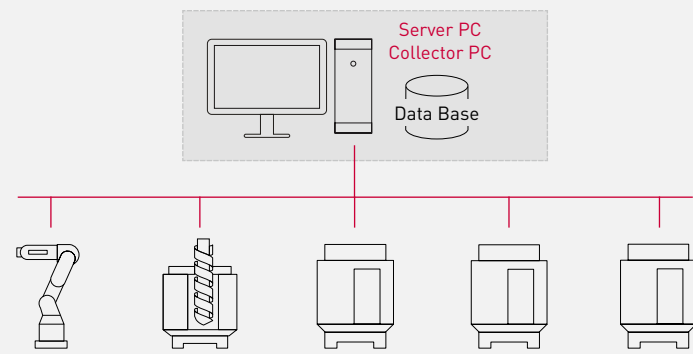
- connect machine tools with FANUC CNC via FOCAS
- connect FANUC robots via Robot Interface
- connect machines without Ethernet via Ethernet I/O converter
- connect third-party devices via OPC UA protocol
- connect third-party machines via MTConnect protocol



## Using MT-LINKi

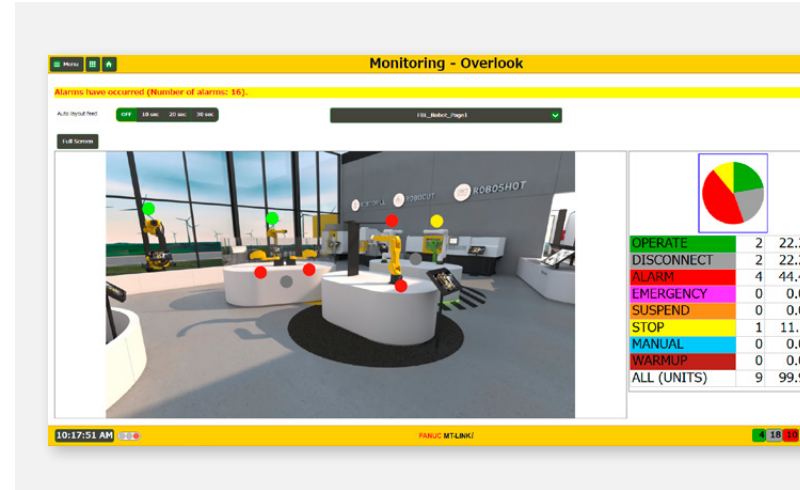
- web-based user interface
- supports PCs and tablets

### Small system with few devices



## Scalable system architecture

- for small systems with less than 25 devices only one PC is required
- in MT-LINKi up to 100 devices are considered as a medium system where multiple collector PCs provide all machine data to one central server PC
- large systems with more than 100 connected devices can be centralized using the MT-LINKi Integration Server

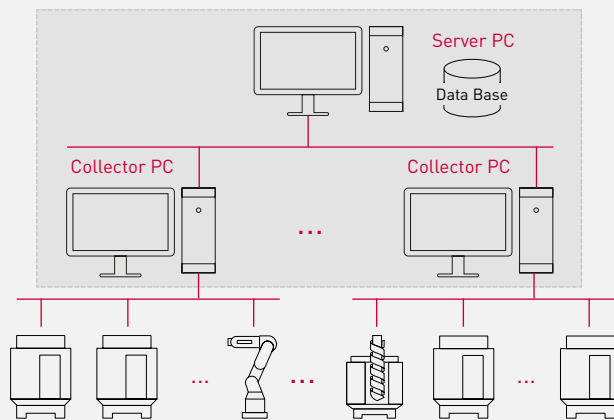


### MT-LINKi FUNCTIONALITY

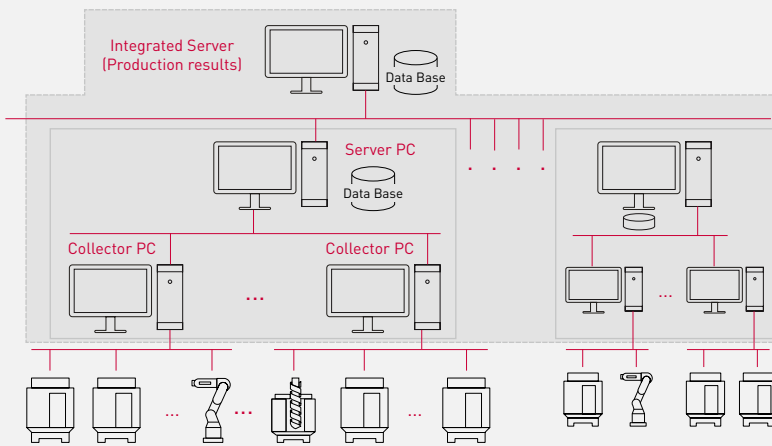
## Overlook

- enables you to recognise abnormal states of your machines quickly
- detailed information available by just clicking on a machine
- reduce down time by starting countermeasures immediately

### Medium system with up to 100 devices



### Large system with more than 100 devices



### MT-LINKi FUNCTIONALITY

## Alarm Monitoring and History

- enables you to monitor alarm information occurring on your machines live
- helps you to quickly identify the cause of alarms
- shows you information on alarms that occurred in the past to identify causes
- data can be output to CSV file



### MT-LINKi FUNCTIONALITY

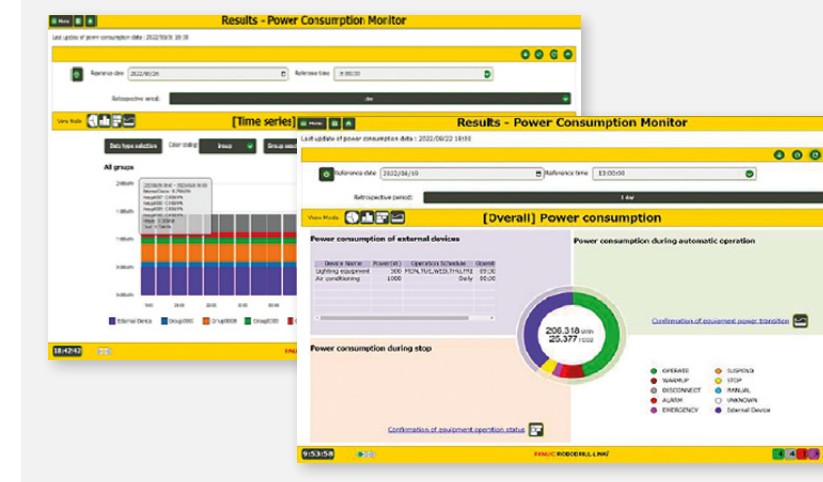
## Signal Monitoring and History

- enables you to monitor live signals such as feed rates, spindle/servo load, temperature, overrides, and more
- shows you the signal history of various machine signals and enables you to check the condition of batteries, fans and motors' leakage
- data can be output to CSV file



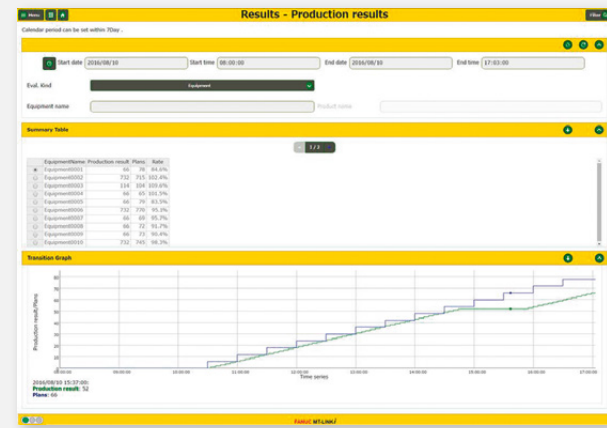
## MT-LINKi FUNCTIONALITY Operational Results

- provides you with graphs displaying the machines' operational states such as OPERATE, ALARM or STOP
- data can be output to CSV file
- helps you to check machine utilization and detect unused production capacity



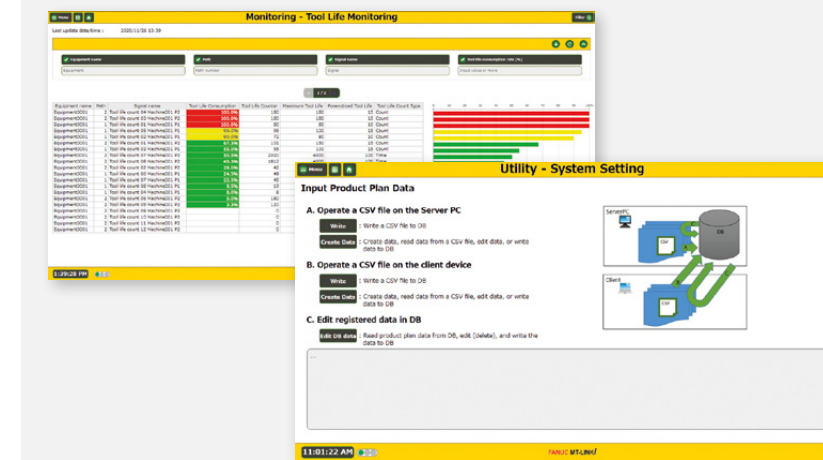
## MT-LINKi FUNCTIONALITY Power Monitoring

- power consumption monitoring indicates the potential for power savings
- read power consumption of FANUC motors without additional hardware
- monitor power consumption of peripheral machine components (calculated)
- display of CO<sub>2</sub> emission based on adjustable emission factor



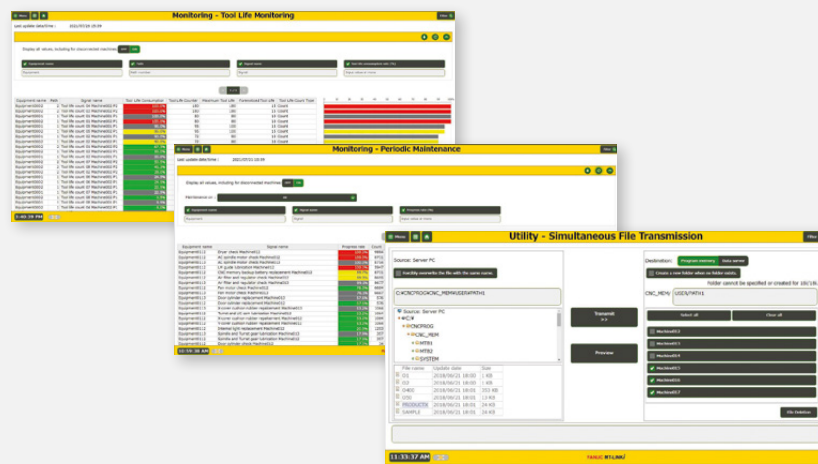
## MT-LINKi FUNCTIONALITY Production Results

- shows you the production results and production plans of your machines
- data can be output to CSV file
- allows you to easily identify deviations from the production plans



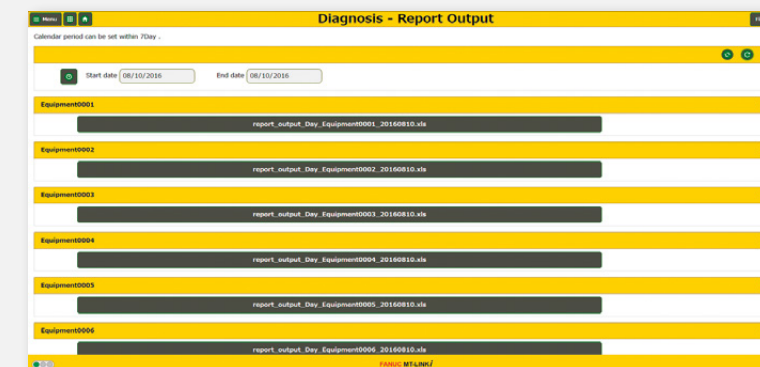
## MT-LINKi FUNCTIONALITY Add-ons (Option)

- tool life monitoring
- additional WEB UI for editing production planning
- read diagnosis data - useful signals for machine condition monitoring



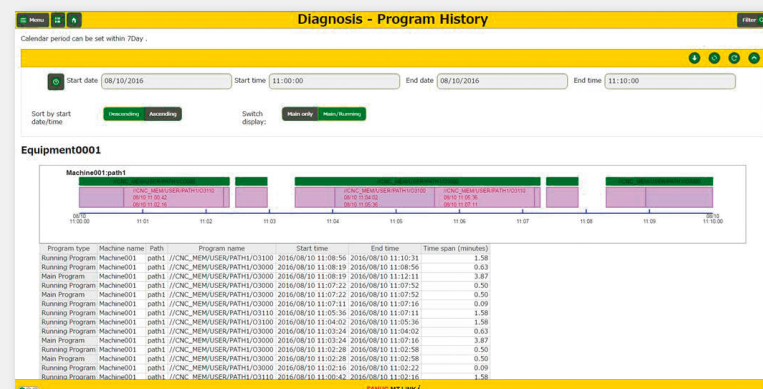
## MT-LINKi FUNCTIONALITY ROBODRILL Functions (Option)

- enables you to collect signals from ROBODRILL machines
- NEW real-time charts available:
  - tool life monitoring
  - periodic maintenance
- NEW Simultaneous File Transmission function available



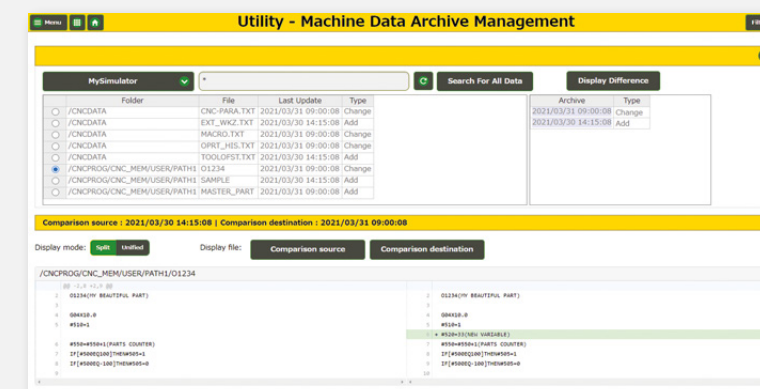
## MT-LINKi FUNCTIONALITY Report Output

- enables you to schedule automatically generated daily, weekly and monthly reports in Excel file format
- report templates can be customised
- allows you to save time with automatic reports



## MT-LINKi FUNCTIONALITY Program History

- shows you information on programs that ran in the past
- checks the cycle time of your programs
- data can be output to CSV file
- helps you to check machine utilisation and machine productivity



## MT-LINKi FUNCTIONALITY File Transfer

- data download/upload (programs, parameter files, etc.) between machines with CNC, Robots and the MT-LINKi Server PC
- manages your programs efficiently
- creates backups easily and store the backup data in a central place
- manages your archived files and shows differences between archived backup versions

# One common servo and control platform – Infinite opportunities THAT'S FANUC!



## **FA**

CNCs,  
Servo Motors  
and Lasers

## **ROBOTS**

Industrial Robots,  
Accessories  
and Software

## **ROBOCUT**

CNC Wire-Cut  
Electric Discharge  
Machines

## **ROBODRILL**

Compact  
CNC Machining  
Centres

## **ROBOSHOT**

Electric CNC  
Injection Moulding  
Machines

## **IoT**

Industry 4.0  
solutions