

# MT-LINKi The Easy Way to Monitor Your Production

MT-LINKi is a PC software that connects machines, robots and peripheral devices in the factory. Data can be collected and visualized to provide more information about manufacturing processes as well as 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-LINKi software is one of the first steps to utilized IIoT functions of manufacturing machines and devices. Using production information presented via MT-Link i, data-driven business decisions can be made to optimize operations.

## MT-LINKi benefits:

- Improve productivity due to detailed machine data
- Detect inefficiencies in machine utilization
- Improve uptime by diagnostic functions
- Save time by automatic custom regular reports
- Have a backup for CNC system and programs



STATUS



PERFORMANCE



OPTIMIZATION

### Easy connectivity

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

### Quick and easy setup and configuration

MT-LINKi 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 visualization 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-LINKi server. The production results of large systems with more than 100 devices can be combined with the MT-LINKi Integration Server.

### Production monitoring

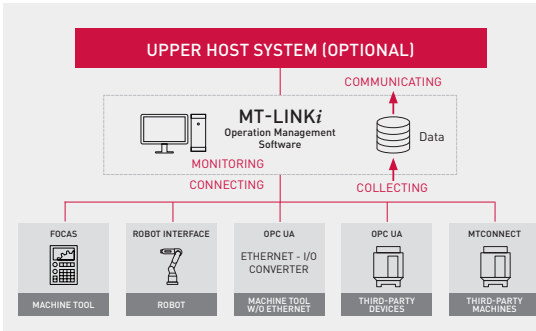
MT-LINKi enables you to monitor live the state of the whole factory at a glance. Recognize abnormal states of the equipment such as alarms quickly, allowing you to start countermeasures immediately.

### Performance overview

MT-LINKi allows you to review the machine's operational results. You can review the production results and compare them against the production plan. You also can check machine utilization and find machines that are underutilized. This enables you to optimize the factory's resource planning.

### Diagnostics

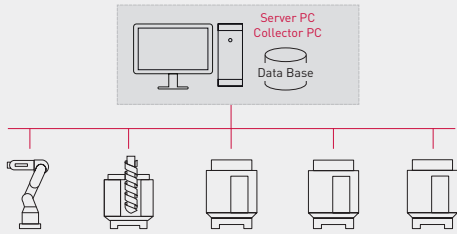
With MT-LINKi, it is possible to view various diagnostic data such as alarm history, program history, signal history and macro value history. With this, you are able to identify bottlenecks and optimize the production process. MT-LINKi also enables you to schedule automatically generated reports in CSV file format. The report templates can be customized 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 MTCconnect protocol

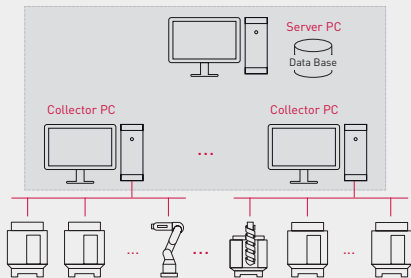
### Small system with few devices



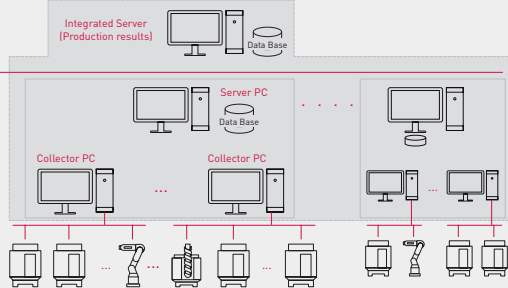
### Scalable system architecture

- 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

### Medium system with up to 100 devices



### Large system with more than 100 devices



## Using MT-LINKi

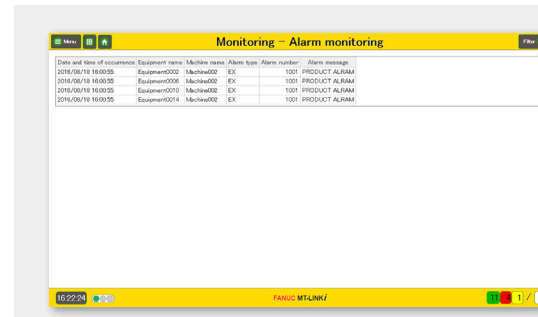
- Web-based user interface
- Supports PCs and tablets



### MT-LINKi FUNCTIONALITY

#### Overview

- Enables you to recognize abnormal states of your machines quickly
- Detailed information available by just clicking on a machine
- Reduce down time by starting countermeasures immediately



### MT-LINKi FUNCTIONALITY

#### Alarm Monitoring

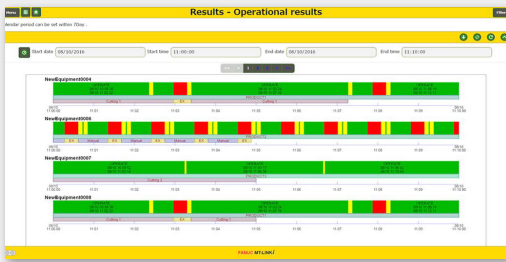
- Enables you to monitor alarm information occurring on your machines live
- Helps you to identify the alarm's cause quickly



### MT-LINKi FUNCTIONALITY

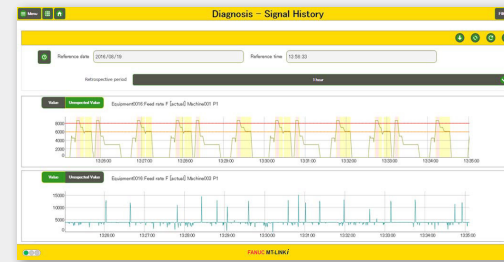
#### Signal Monitoring

- Enables you to monitor signals such as feed rates, spindle/servo load and temperature, override and so on live



## 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 Signal History

- Shows you the signal history of various machine signals
- Data can be output to CSV file
- Allows you to identify correlations between machine signals
- Enables you to check the condition of batteries, fans and motors' leakage resistances based on their signals and replace worn-out components in time



## 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 Macro Value History

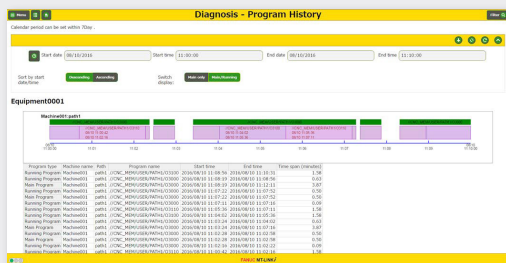
- Shows you stored values of given macro variables from the past
- Data can be output to CSV file
- Can be used to collect and store various kinds of data, e.g. measurement data of tools and workpieces

## MT-LINKi FUNCTIONALITY Alarm History

- Shows you information on alarms that occurred in the past
- Data can be output to CSV file
- Helps you to identify common alarms, analyze alarm causes and eliminate them

## MT-LINKi FUNCTIONALITY Report Output

- Enables you to schedule automatically generated daily, weekly and monthly reports in Excel file format
- Report templates can be customized
- 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 utilization and machine productivity

## MT-LINKi FUNCTIONALITY File Transfer

- Download/upload NC data (NC programs, parameter files etc.) between CNC and MT-LINKi Server PC
- Manage your NC programs efficiently
- Enables you to create backups easily and store the backup data in a central place
- Manages your archived files and shows differences between archived backup versions