Connecting, Visualizing, Thinking, and Driving in Manufacturing Field

FIELD system
FANUC Intelligent Edge Link & Drive system
FIELD system  – Connecting together all information for better performance

Overall picture of FIELD system

- **FIELD system Manager**: Located in FANUC, the FIELD system Manager manages whether the FIELD system BOX in the factory is operating normally.

- **FIELD system Store**: Online store where you can purchase FIELD system applications and converters and download them into the FIELD system BOX.

FIELD system support call center: Responds to inquiries from end users, integrators, and application developers.

FIELD system application: Not only FANUC, but application developers and customers who actually use the system can also develop necessary applications and use them on FIELD system.

FIELD system converter: FANUC and production device manufacturers provide communication software applications that support many different communication standards and production devices.

Process a large amount of valuable data from production devices at the production site. Contributes to the improvement of production efficiency by quickly processing site data with rapid response times.

Connect everything

- Ability to connect not only the latest FANUC products (CNCs, Robots, and ROBOMACHINES) but also to existing machinery in the factory.

- General-purpose communication standard, OPC UA, is supported. MTConnect will also be supported.

- FANUC will provide an open development environment where production device manufacturers can create and provide converters for their production devices.

Multilayer defense security

FIELD system is configured with a multilayer defense system that employs multiple security technologies on all the layers, that is, the server, network, and the FIELD system BOX.

- FIELD system installed in the factory controls access to determine whether to permit access to (1) user data, (2) application data, and (3) production device data. In the case where an application fails, data accesses except for predefined ones are blocked.

- Unnecessary access is limited between production devices. The network switch and other devices separate networks in the factory, control paths, and identify production devices.

- FIELD system Manager and the FIELD system Store adopt multiple security technologies such as integrated threat management and security software.
production devices at the manufacturing site to consolidate productivity and nonstop production in the factory.

**iPMA on FIELD**

- iPMA on FIELD is an application to analyze factory operation and improve productivity.
- iPMA on FIELD can monitor the operating status of each production device in real time.
- iPMA on FIELD collects the operation results of each production device including the operating time and alarm time and uses them for factor analysis.
- iPMA on FIELD is helpful in improving the productivity by statistically analyzing collected data and visualizing tendencies and statuses with numerical values and graphs.

PMA : Production Monitoring & Analysis

**iZDT on FIELD**

- iZDT on FIELD is an application to reduce unexpected downtime of production devices.
- iZDT on FIELD monitors the statuses of FANUC CNCs and robots and generates error alerts.
- iZDT on FIELD notifies the user of periodical maintenance and encourages preventive maintenance.
- iZDT on FIELD reduces maintenance costs and the workload of maintenance staff by centrally managing the maintenance statuses of production devices.

ZDT : Zero Down Time

**Applications assisting the manufacturing site**

- FANUC provides an application to manage workers and their operation history records in bulk and an application to predict the processing time of the NC program.
- In addition, not only FANUC but also application developers and customers who actually use the system can develop necessary applications and use them on FIELD system.

**FIELD system Store**

- Once applications and converters to be used on FIELD system pass the review process conducted by FANUC, they are available in the FIELD system Store and can be downloaded and installed from there.
- You can easily check the latest versions of applications and converters and update your current applications and converters.
- You can also check your purchase history or get quotations.

FIELD system Partners WEB  
https://portal.field-system.org/partner/portal/
**System Configuration**

**Small-scale system**  
(Connected to about 30 production devices.)

- FIELD BASE Pro
- Network switch
- Production devices  
  CNCs, Robots, ROBOMACHINEs, sensors, and other devices

**Large-scale system**  
(Connected to about 150 production devices.)

- Cisco UCS C220 rack server
- Network switch
- Production devices  
  CNCs, Robots, ROBOMACHINEs, sensors, and other devices

**FIELD system Hardware Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIELD BASE Pro</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Xeon® 2.8GHz 4 core</td>
</tr>
<tr>
<td>Memory</td>
<td>16GB</td>
</tr>
<tr>
<td>Storage</td>
<td>1TB SSD or HDD up to 2TB (planned)</td>
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**FIELD system Support Call Center**

FIELD system is an IoT system for manufacturers jointly developed with Cisco Systems, Inc., Rockwell Automation, Inc., Preferred Networks, Inc., and NTT Group under an initiative of FANUC.

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