

FANUC DATA ITEMS

DataXchange Machine Monitoring Data Items

Scytec DataXchange utilizes direct connectivity to acquire data for DataXchange machine monitoring as well as Scytec DXIQ analytics and Vericut CNC Machine Connect. Below you can find the specific data items that can be collected from **Fanuc I series** controllers. Data can then be visualized into useful manufacturing dashboards and charts, used with DXIQ, or by Vericut CNC Machine Connect.

Data Items Collected

Active Tool
Alarm Information
Auto Status
Axis Feed Rate
Current Block
Cycle Status
Emergency Status
Feed Hold Status
Feed Rate Override
Mode Selection
Optional Stop or Program Stop
P Code Macro Variable
Part Count
Part Number
Path Feed Rate
Program Comment
Main Program Number
Active Program Number
Rapid Override
Read PMC Address
Single Block Status
Spindle Load Percent
Spindle Override
Spindle Speed
Macro Variable

Data Items Description

The current active tool number
Alarm information including code and description
Whether a machine is in a RUN, PAUSED, or RESET state
The axis feed rate of the controlled axis
The currently active program block, with/without line number
Whether a machine is idle or cycling
Whether a machine is in an e-stop
Whether a machine is in feed hold
The current feed rate override represented as a percentage
The currently selected controller mode
Determine if a program has stopped due to an M1 or M0 code
The value of the specified p-code macro variable
The current part count from the part counter
The part number from a comment in the header of the NC program
The current path feed rate
Search for a specific comment in the active program
The current main program loaded
The current executing program
The rapid override setting as a percentage
The content of a PMC address range or bit value
Whether single block mode is on or off
The load on the specified spindle as a value or percentage
The active spindle override as a percentage
The current spindle speed as a value or a percentage
The current value held by a specific macro or system variable

Scytec DXIQ and Vericut CNC Machine Connect

Specific data points are pulled from your shop floor equipment by DataXchange for use with Scytec DXIQ analytics and **Vericut CNC Machine Connect**. Below you will find the specific continuous data and the on-demand data that can be collected through the Precheck, CNC Machine Monitoring and Postcheck process in Vericut CNC Machine Connect.

Continuous Data

- Active Alarms**
- Axis Feedrates**
- Axis Positions**
- Block Skip**
- Controller Mode**
- Cycle Status**
- Dry Run**
- E-Stop State**
- Executing Program Name**
- Feed Rate Override**
- Macro Variables**
- Main Program Name**
- Optional Stop or Program Stop**
- Parameters**
- Path Feedrates**
- Program Line**
- Program Stop**
- Rapid Override**
- Running State**
- Single Block**
- Spindle Load**
- Spindle Override**
- Spindle Speed**
- Sub Program Name**
- System Variables**
- Tool ID**
- Tool Offsets**
- Work Offsets**

On-Demand Data

- Axis Positions**
- Individual Parameters**
- Machine Configuration**
- Main CNC Program**
- Parameter File**
- Sub CNC Programs**
- Macro Variables**
- System Variables**
- Tool Offsets**
- Work Offsets**