DATAXCHANGE

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	Data Items Description
Active Tool	The current active tool number
Alarm Information	Alarm information including code and description
Auto Status	Whether a machine is in a RUN, PAUSED, or RESET state
Axis Feed Rate	The axis feed rate of the controlled axis
Current Block	The currently active program block, with/without line number
Cycle Status	Whether a machine is idle or cycling
Emergency Status	Whether a machine is in an e-stop
Feed Hold Status	Whether a machine is in feed hold
Feed Rate Override	The current feed rate override represented as a percentage
Mode Selection	The currently selected controller mode
Optional Stop or Program Stop	Determine if a program has stopped due to an M1 or M0 code
P Code Macro Variable	The value of the specified p-code macro variable
Part Count	The current part count from the part counter
Part Number	The part number from a comment in the header of the NC program
Path Feed Rate	The current path feed rate
Program Comment	Search for a specific comment in the active program
Main Program Number	The current main program loaded
Active Program Number	The current executing program
Rapid Override	The rapid override setting as a percentage
Read PMC Address	The content of a PMC address range or bit value
Single Block Status	Whether single block mode is on or off
Spindle Load Percent	The load on the specified spindle as a value or percentage
Spindle Override	The active spindle override as a percentage
Spindle Speed	The current spindle speed as a value or a percentage
Macro Variable	The current value held by a specific macro or system variable

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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
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

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