GX series systems@ Industry 4.0

Built-in OPC-UA Server for quick integration into Industry 4.0 setup

OPC-UA Client

Corporate Cloud

Line #1

Plant Database

Line #8

Digital Twin

Other Plant Inputs
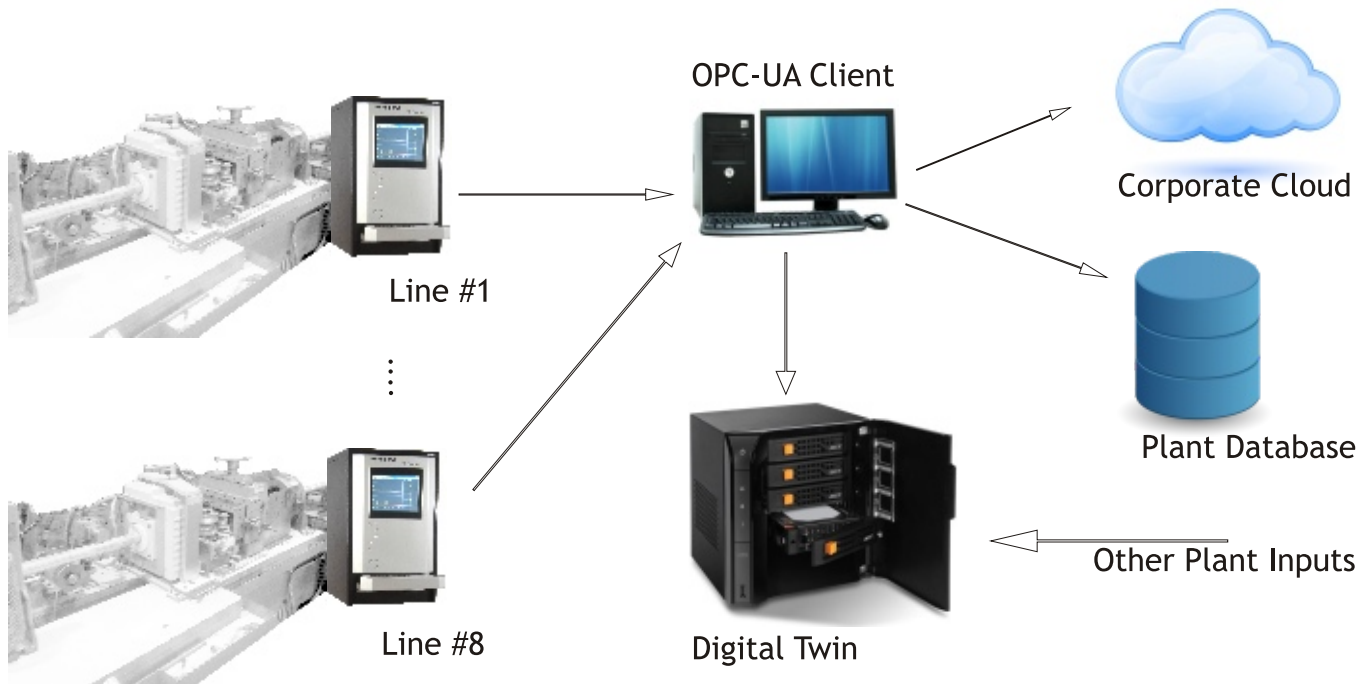
TECHNOFOUR GX systems implement an integral OPC-UA server listening on port 4840.   The server can accept connections from one or more OPC-UA clients on local network. Several tags are defined on the server. These tags are of type string, integer and arrays of integers. Clients can subscribe to these tags and receive updated values as and when available.   Servers are implicitly located in a secure environment, and only implement anonymous logins.

String tags include a fixed tag "NDT Manufacturer" with value "Technofour", so that the client can be sure that they have connected to a Technofour system.   Other string tags include Machine ID, User Name, Line Name etc.

Eddy current parameters and settings such as frequency, gain, phase, thresholds, filters, evaluation modes etc are available as an array of integers. So is the Record tag, which contains a serial number, statistics and a 'strip chart' of test signal with a time stamp. Any change in parameters is also captured with user name and a time stamp.

Technofour can also supply an optimized OPC Client running on Windows platform that can connect with multiple Flawmark-GX and/or Multifect-GX systems, collect data from those and store it locally in an SQL database. Thereafter other applications can connect to the SQL server and process the data for local analysis or onward transmission to corporate cloud.   The data can also be used as one of the key inputs to any digital twin implemented in the plant.

Technofour can make available formats of all tags used, so that third-party clients can also connect to OPC-UA server if required.   Ethernet connections can be either CAT cable or optical fiber. Break in connection is sensed at server as well as client for appropriate alarms and action.

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