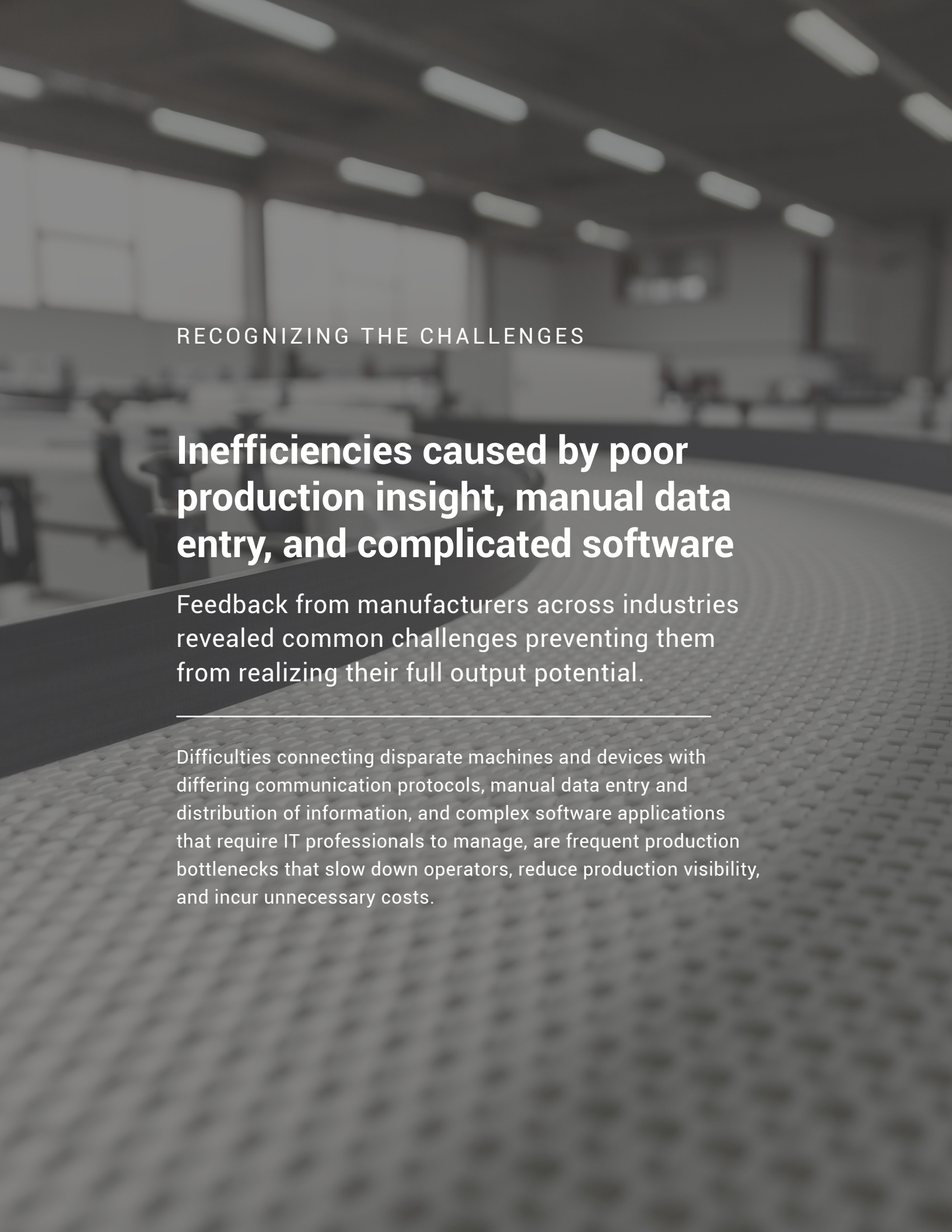
DAQuery™
BY PROCESS SOLUTIONS

Machine Monitoring Platform

Real-Time Production Data & Insights



RECOGNIZING THE CHALLENGES

Inefficiencies caused by poor production insight, manual data entry, and complicated software

Feedback from manufacturers across industries revealed common challenges preventing them from realizing their full output potential.

Difficulties connecting disparate machines and devices with differing communication protocols, manual data entry and distribution of information, and complex software applications that require IT professionals to manage, are frequent production bottlenecks that slow down operators, reduce production visibility, and incur unnecessary costs.

UNLOCKING THE SOLUTION

Optimize your systems with real-time production data from a simple application

Effortlessly connect disparate devices, visualize production performance, and make data-driven decisions all from one easy to use interface.

Data is already flowing out of your machines, carrying insights into production performance and where inefficiencies are occuring in your systems. With machine monitoring software, that data can be captured and used to make better informed decisions to help improve your systems and your bottom-line.

DAQUERY OVERVIEW

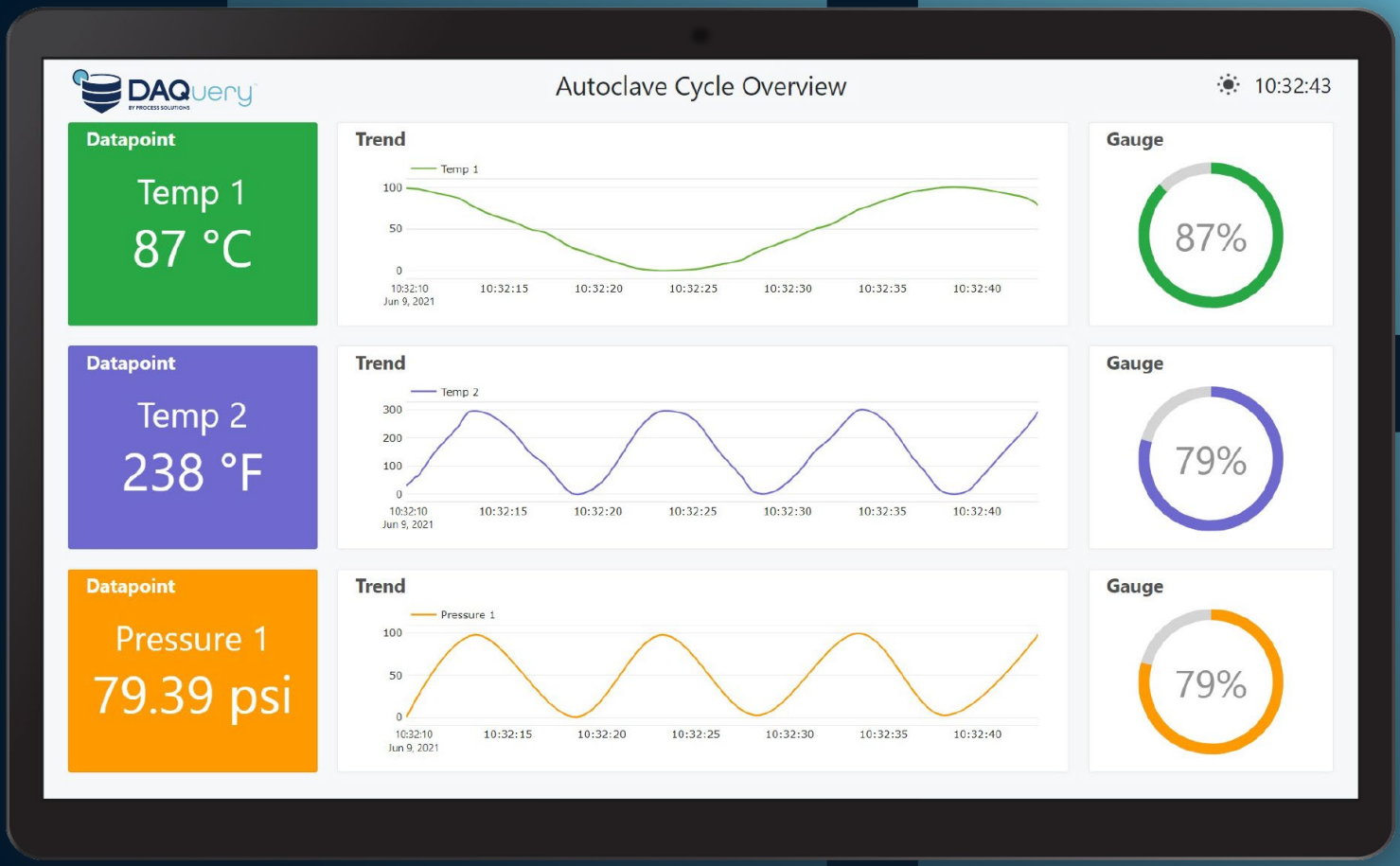
Data collection made easy so you can focus on making production improvements

Gain insight into every level of your manufacturing process with powerful reports and dashboards.

DAQuery is a machine monitoring platform that seamlessly connects to PLCs and industrial devices to collect real-time data and provide insights into system health and performance. With pre-built production, batch, KPI, and downtime reports, as well as customizable dashboards and trending tools, you will have insight into every level of your manufacturing process.

DAQuery is designed to be easy for anyone to use. This means no specialized training is required and operators dont need to be an IT professional or SCADA Engineer to use DAQuery. Once DAQuery is connected to a data source, *you* can build your own custom trends dashboards, and reports from start to finish.

To keep you informed on the status of your operations where ever you go, DAQuery's flexible browser-based application can be accessed from any internet capable device and displayed on multiple screens across your facility. Once displayed, DAQuery's simple and intuitive interface helps you focus on your data while maintaining the power and capability needed for in-depth production analytics.


DAQuery
BY PROCESS SOLUTIONS
Autoclave Cycle Overview
10:32:43
Datapoint
Temp 1
87 °C
Trend
Temp 1
100
50
0
10:32:10
Jun 9, 2021
10:32:15
10:32:20
10:32:25
10:32:30
10:32:35
10:32:40
Gauge
87%
Datapoint
Temp 2
238 °F
Trend
Temp 2
300
200
100
0
10:32:10
Jun 9, 2021
10:32:15
10:32:20
10:32:25
10:32:30
10:32:35
10:32:40
Gauge
79%
Datapoint
Pressure 1
79.39 psi
Trend
Pressure 1
100
50
0
10:32:10
Jun 9, 2021
10:32:15
10:32:20
10:32:25
10:32:30
10:32:35
10:32:40
Gauge
79%

HOW IT WORKS

Connect, Select, Collect

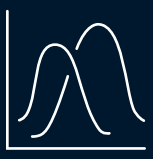
You're just a few simple clicks aways from analyzing your manufacturing data with self-install software.

Connect to a Data Source

DAQuery connects to your Network via Ethernet, and automatically finds and display all connected PLCs and devices, along with their corresponding data tags. Devices can also be connected manually as needed.

Select Data Tags

With your devices and their corresponding data tags displayed in DAQuery, you can now select the tags you want to monitor, give them a new display name, and configure their logging conditions.



Collect & Analyze Real-Time Data

Now that you have selected data tags to monitor, you are ready to begin analyzing real-time production data using DAQuery's various tools, including trends, custom dashboards, pre-built production reports, and configurable alarm notifications.

KEY BENEFITS

Meet and exceed your production goals with machine monitoring

Machine monitoring helps manufacturers meet and exceed their production goals by removing any guesswork and providing actionable information to drive improvements at every level of the manufacturing process.

- No Special Training Required to Set-up and Operate
- Real-Time Production Insights
- Improve Manufacturing Efficiency and Reduce Waste
- Detect Problems Immediately and Reduce Downtime
- Bring all Your Machine Data Together in One Place
- Make Smarter Decisions Backed by Reliable Data
- CFR 21.11 Compliance for Traceability and Auditing

Quickly and seamlessly connect to your network and equipment with the included DAQuery edge device.

CONNECTIVITY & DATA SECURITY

Bring all your manufacturing data together into a secure, always on-premises solution.

Ensuring greater privacy and security by always keeping your data on-premises.

Using communication protocols such as OPC UA, Ethernet/IP, and Modbus, DAQuery can automatically connect to all your equipment, allowing you to monitor data from multiple sources simultaneously within a single interface - even if each machine is using a different protocol.

Once connected, DAQuery will never send your data outside of your network or to a cloud database. Instead, DAQuery uses SQL Server databases to log and store your machine data.

Overall, DAQuery eliminates the need for multiple programs to communicate with disparate devices and provides a secure solution for storing your production data.

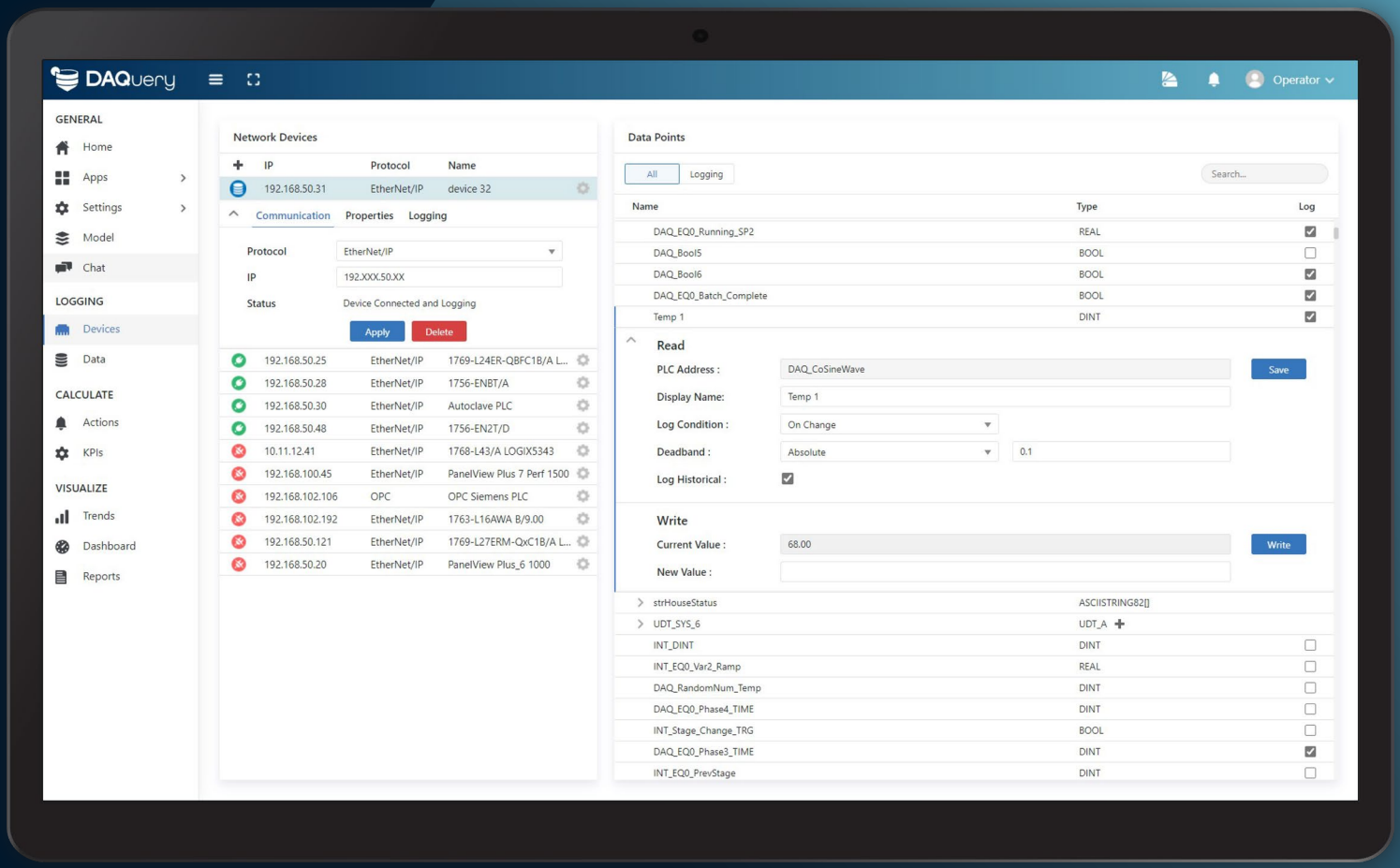
DEVICES & TAGS

Select your devices and tags to monitor and analyze data

View and add connected machines, select available data tags, and adjust their names and recording properties.

Quickly connect, view, and select devices in the Network Devices menu within DAQuery's interface. Most Ethernet/IP devices will automatically populate in the Network Devices menu upon connecting DAQuery to your network. If a particular device does not automatically populate, manually connecting a device is as simple as selecting the necessary communication protocol and entering the device's IP address.

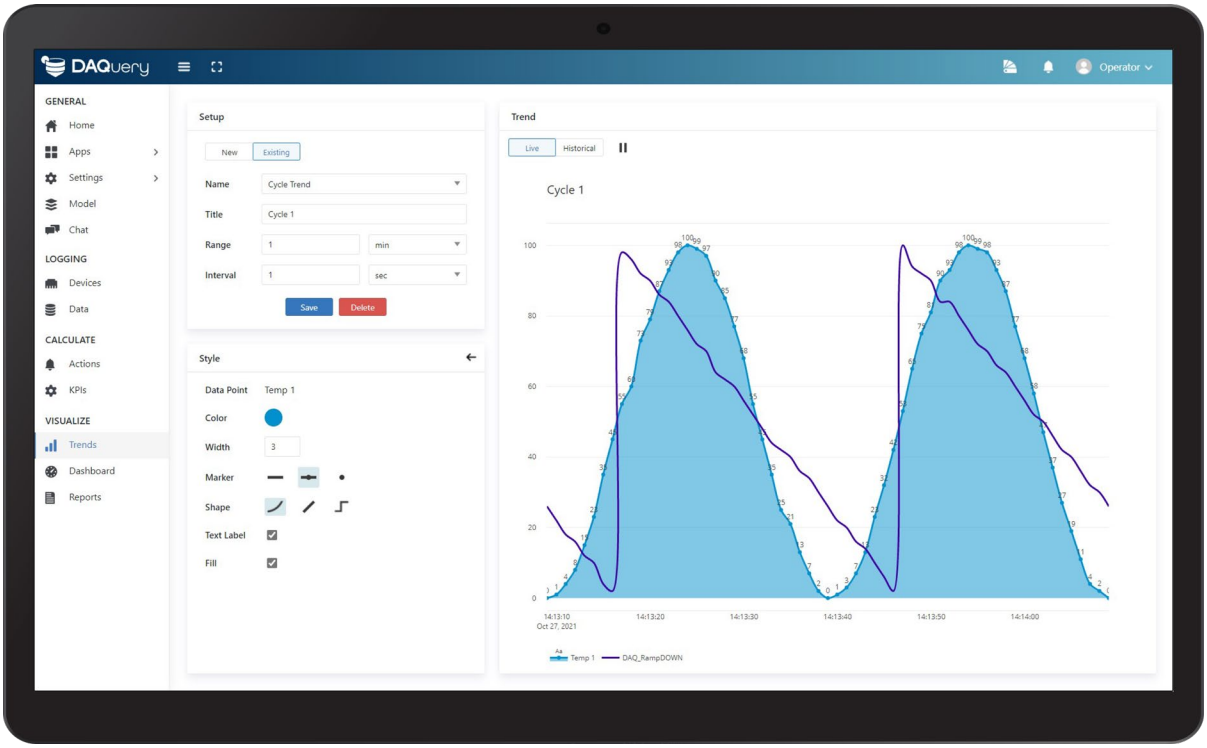
Once a device is connected to DAQuery, the corresponding data tags can be viewed by clicking on the device's name. With all available data tags displayed, simply check the box at the end of each tag's row to begin logging data. Additionally, clicking anywhere within a data tag's row will expand the line revealing options for changing the tag's display name and configuring the logging conditions and deadband values.


DAQuery
Operator
GENERAL
Home
Apps
Settings
Model
Chat
LOGGING
Devices
Data
CALCULATE
Actions
KPIs
VISUALIZE
Trends
Dashboard
Reports
Network Devices
IP
Protocol
Name
192.168.50.31
EtherNet/IP
device 32
Communication
Properties
Logging
Protocol
EtherNet/IP
IP
192.XXX.50.XX
Status
Device Connected and Logging
Apply
Delete
192.168.50.25
EtherNet/IP
1769-L24ER-QBFC1B/A L...
192.168.50.28
1756-ENBT/A
192.168.50.30
Autoclave PLC
192.168.50.48
1756-EN2T/D
10.11.12.41
1768-L43/A LOGIX5343
192.168.100.45
PanelView Plus 7 Perf 1500
192.168.102.106
OPC
OPC Siemens PLC
192.168.102.192
1763-L16AWA B/9.00
192.168.50.121
1769-L27ERM-QxC1B/A L...
192.168.50.20
PanelView Plus_6 1000
Data Points
All
Logging
Search...
Name
Type
Log
DAQ_EQ0_Running_SP2
REAL
DAQ_Bool5
BOOL
DAQ_Bool6
BOOL
DAQ_EQ0_Batch_Complete
BOOL
Temp 1
DINT
Read
PLC Address :
DAQ_CoSineWave
Save
Display Name:
Temp 1
Log Condition :
On Change
Deadband :
Absolute
0.1
Log Historical :
Write
Current Value :
68.00
Write
New Value :
strHouseStatus
ASCIISTRING82[]
UDT_SYS_6
UDT_A
INT_DINT
DINT
INT_EQ0_Var2_Ramp
REAL
DAQ_RandomNum_Temp
DINT
DAQ_EQ0_Phase4_TIME
DINT
INT_Stage_Change_TRG
BOOL
DAQ_EQ0_Phase3_TIME
DINT
INT_EQ0_PrevStage
DINT

DAQUERY FEATURES & CAPABILITIES

Manufacturing Data Visualized, Performance Optimized

DATA VISUALIZATION

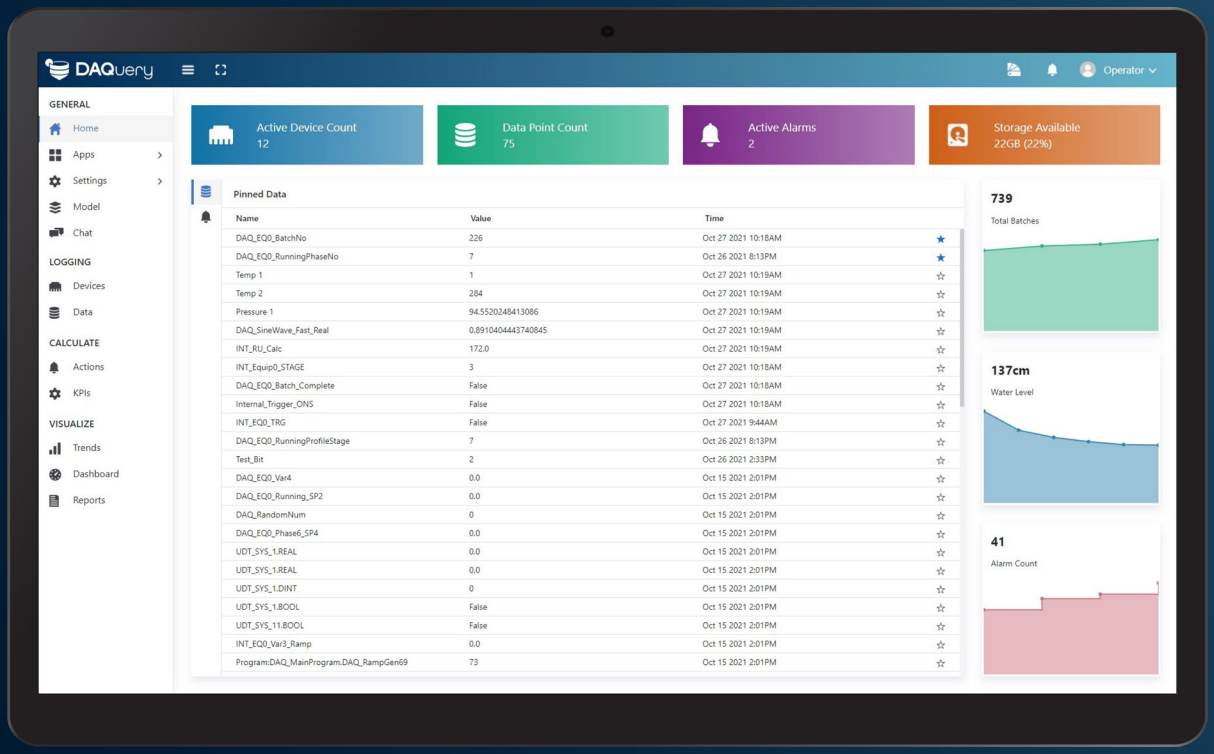


Live Trending

Create, view, and save live and historical data trends to gain insights into production performance.

Build informative trends measuring live and historical data and events with the custom trend builder. Configure the viewable time range and plotting interval for more focused analysis, and stylize your trends with custom line colors, widths, markers, and labels for clearer visualization. Any trend and its settings can be saved for use across DAQuery's other tools or to be quickly reloaded at a later time. Trends can also be downloaded as a .PNG file for sharing or to embed in other programs.

REAL-TIME INSIGHTS



Live Data

Analyze live data and stay informed on the overall status of your systems.

DAQuery transmits real-time data feeds directly from integrated equipment and PLCs using open database connectivity (ODBC) and transmission control protocol/internet protocol (TCP/IP). DAQuery can also integrate with 3rd party software to acquire and log an array of device data.

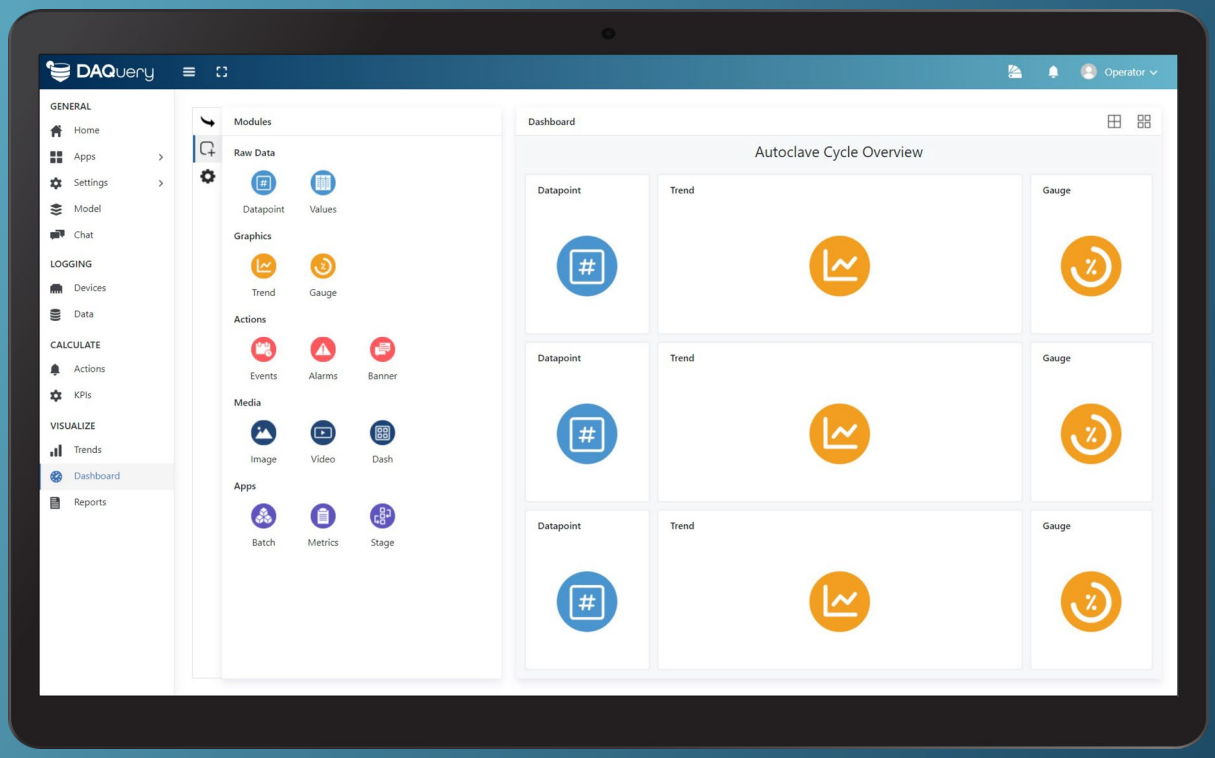
NOTIFICATIONS

Events & Alarms

Be notified immediately and reduce machine downtime when abnormal system conditions occur.

Configure custom event and alarm triggers to send email or SMS notifications whenever abnormal system conditions occur. With alarm notifications, operators can be alerted to take immediate action to diagnose issues and reduce machine downtime. Events and alarm triggers can be assigned to notify the right person for each situation.

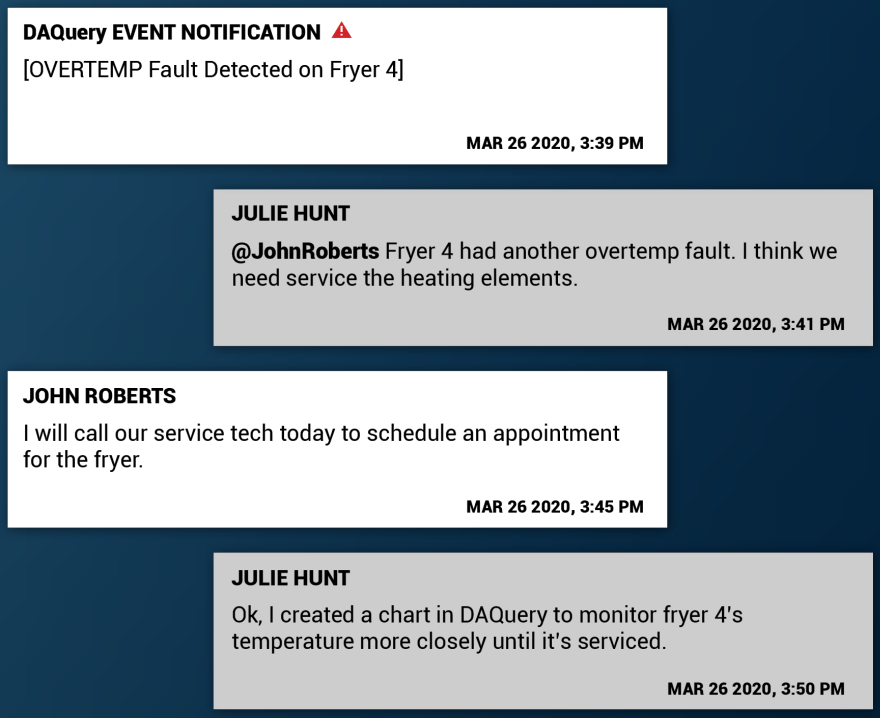
PRODUCTION VISIBILITY



Custom Dashboards

Create unlimited unique browser-based dashboards to increase overall production visibility and equip operators with the data they need to make better informed decisions.

Monitor every aspect of your operation with DAQuery's custom dashboard builder. Add up to 16 dashboard modules to view events, alarms, charts, metrics, and equipment status together in one display. Ready to launch your newly created dashboard? Click the create button and a link to your browser-based dashboard is instantly generated and can be accessed via computer, phone, tablet, television screen, or HMI.

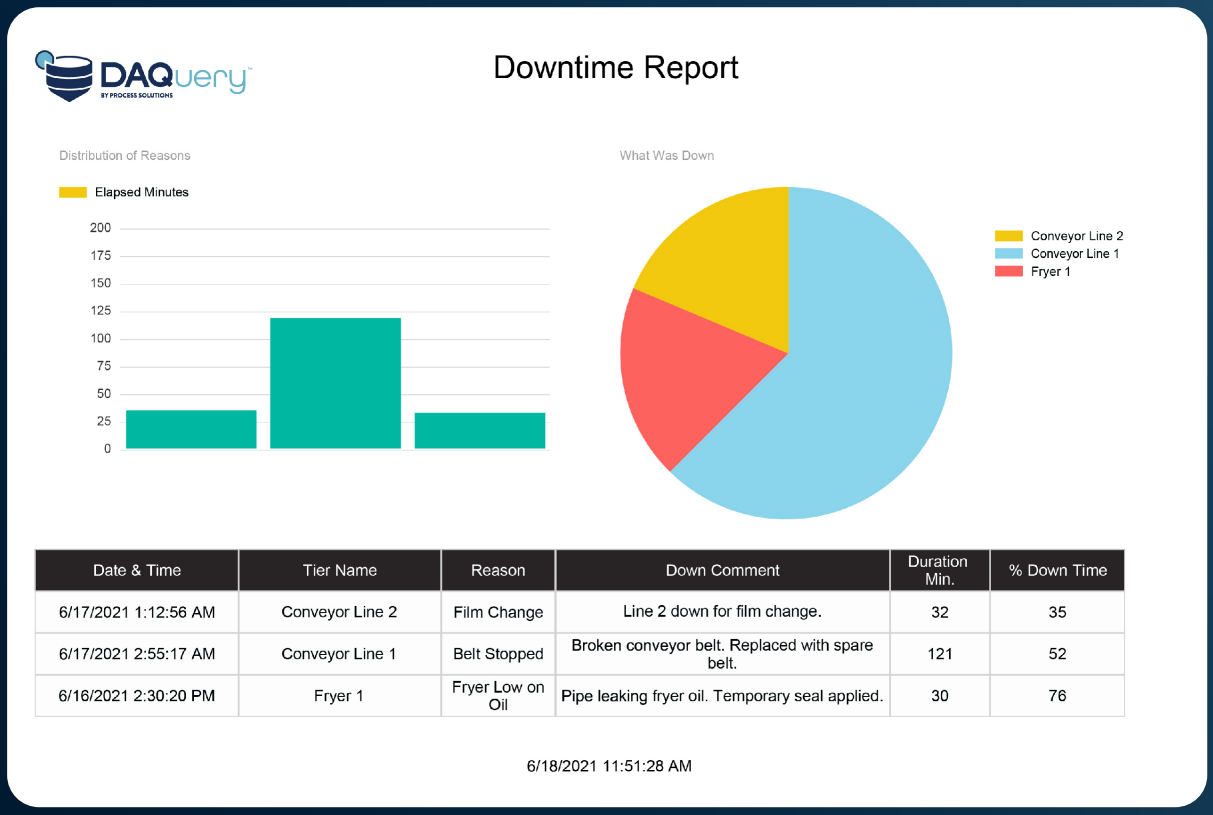


Instant Chat

Collaborate to solve issues, create a historical log of all events and machine maintenance, and keep your workforce informed with improved communication.

The built-in public and private chat function allows for instant communication with team members to collaborate on tasks and solve problems. Because all data is stored in the included SQL database, the chat function can be set-up to act as a historical log to note when service has been performed on a machine and also record events and downtime.

ANALYTICS

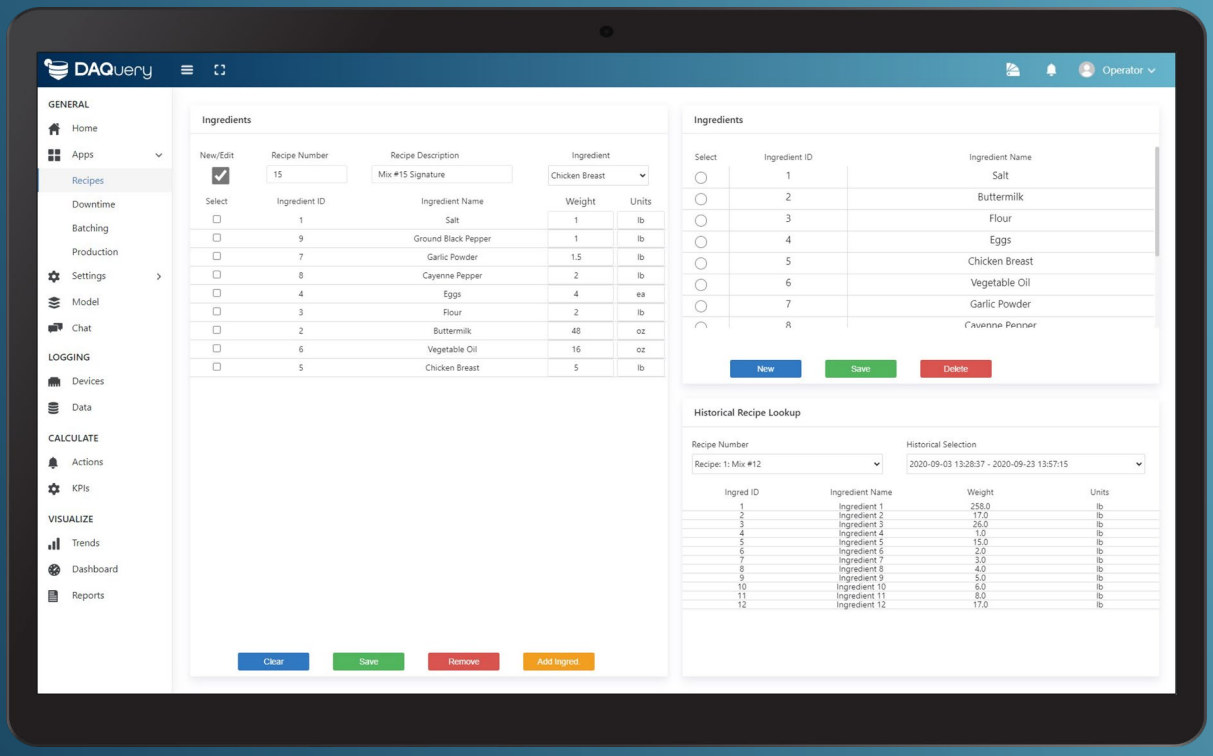


Production Reports

In-depth reports to compare actual production performance against goals and expectations.

DAQuery includes various pre-built reports providing an in-depth view of overall production performance and event, alarm, downtime, and batch tracking. Find where bottlenecks occur in your operations and what is generating excessive downtime to determine the best course of action for improving performance. All reports are exportable to .CSV .XLSX, .DOC .XML, and .PDF formats with the click of a button.

METRICS & KPIs



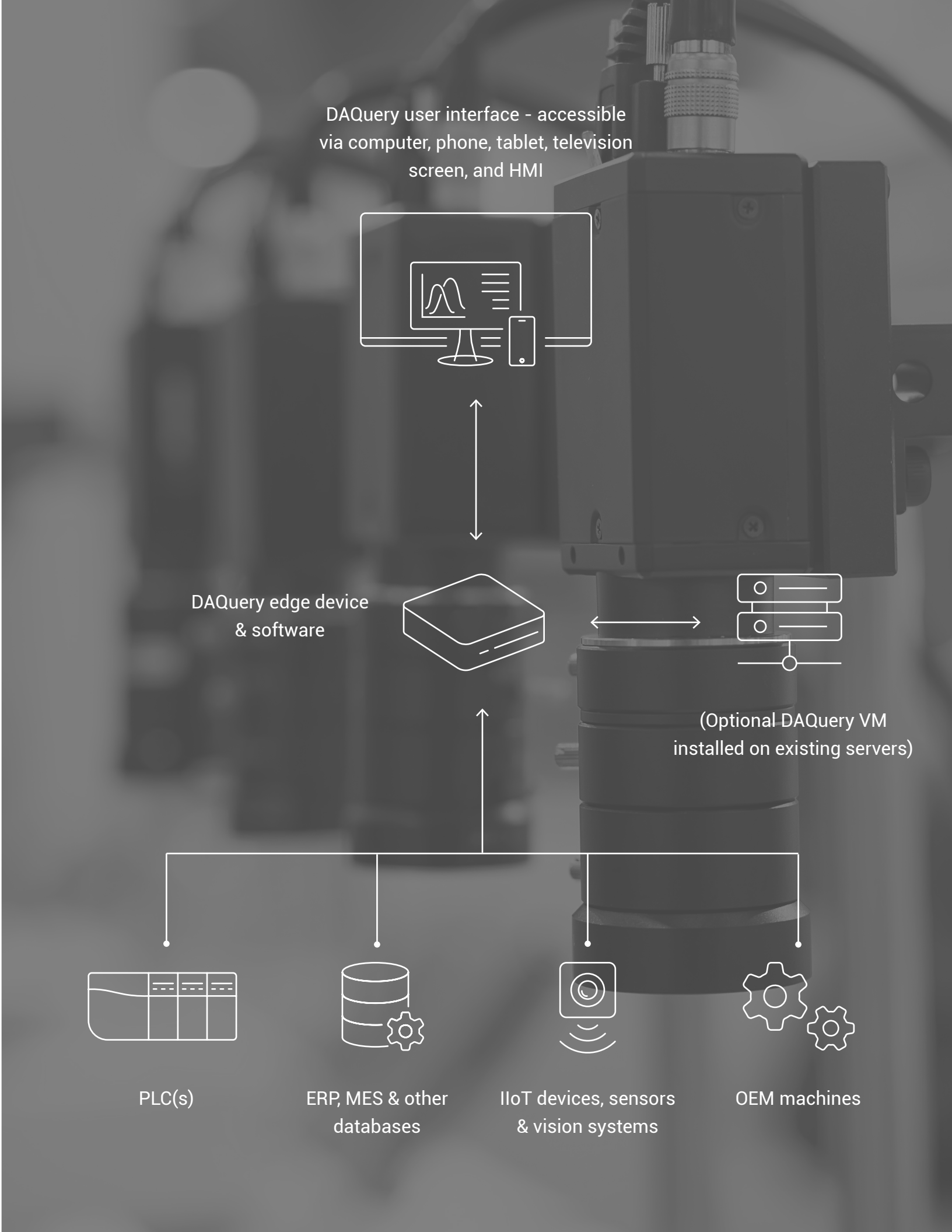
Production Apps

Eliminate paper print-outs of recipes and schedules with the production apps.

Record machine runtime, downtime, production data, and batch data with DAQuery's various production applications. Track KPIs, such as machine health, throughput, and operating efficiency. Eliminate paper print-outs and manual recipe inputs at every workstation with the built-in recipe builder.

IT ARCHITECTURE

Simple Data Extraction From Top to Bottom


DAQuery user interface - accessible via computer, phone, tablet, television screen, and HMI
DAQuery edge device & software
(Optional DAQuery VM installed on existing servers)
PLC(s)
ERP, MES & other databases
IIoT devices, sensors & vision systems
OEM machines

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