Rev. 2026.09

PlantPulse Feature List

What the four products do — by module

What Edge, Platform, AI and Studio can do, module by module. The «Details» column links to that feature in the manual.

Screen
done in the product UI

API
REST, done by a program

Config
a property or env var

MCP
a tool an AI assistant calls

CLI · Flow
command line · no-code editor

Ref.
tables and reference pages

> This edition lists only what exists. Roadmap items are not included — something may exist that is not listed here, but everything listed works today.

Edge	**51** features • **8** modules	Reads the plant floor
Platform	**81** features • **14** modules	Stores and decides
AI	**47** features • **8** modules	Explains, with evidence
Studio	**30** features • **7** modules	Turns it into an app

Edge

Reads the plant floor

Collection — Protocols

Supports **43 industrial protocols**. For the complete list and address formats, see the Guide by PLC Type.

Category	What it reads	Details
PLC — Korea and Japan	MELSEC · LS XGI/XBC/XBM · Keyence KV · OMRON FINS · Panasonic MEWTOCOL · FATEK	MELSEC · LS
PLC — Europe and the Americas	Siemens S7 · Allen-Bradley EtherNet/IP · AB-ETH · Beckhoff ADS · GE SRTP	S7 · EtherNet/IP
Standard and general-purpose	OPC-UA · Modbus TCP · Modbus RTU (serial) · SNMP · HTTP push	OPC-UA · Modbus
Machine tools and semiconductors	Fanuc FOCAS · MTConnect · SECS/GEM	FOCAS · SECS/GEM
Power and utilities	IEC 60870-5-104 · IEC 61850 MMS · DNP3 · M-Bus	IEC 104 · IEC 61850
Buildings and equipment	BACnet/IP · KNXnet/IP · DALI · CANopen · IO-Link · HART-IP	BACnet · KNX
Messaging and others	MQTT · Sparkplug B · Kafka · WebSocket · CoAP · ROS2 · NMEA · IEC 61162-450	Sparkplug B · Kafka
DCS and motion	Emerson DeltaV · Mitsubishi CC-Link IE Field · PROFINET	DeltaV · PROFINET
Sensors	MotorSense (vibration and current)	MotorSense

Connection Management

Feature	What it does	Where	Details
Protocol selection	Selects the appropriate driver for the equipment	UI	Select a Protocol
Add connection	Registers a PLC and verifies the connection	UI · API	Add a New PLC Connection
Connection list	Reviews registered equipment and its status	UI · API	Connection List

Connection Management (continued)

Feature	What it does	Where	Details
Register tags	Defines the addresses and intervals to read	UI · API	Register Tags
Enter addresses	Uses the address notation required by each manufacturer	Reference	PLC Address Reference
Bulk CSV registration	Uploads hundreds of tags from a file	UI	Bulk CSV Upload
Driver options	Configures driver-specific settings	Configuration	Driver Reference

View and Find Values

Feature	What it does	Where	Details
Home dashboard	Shows collection status and the latest values on one screen	UI	Home Dashboard
Real-time values	Displays values as they arrive	UI	View Real-Time Values
Collection history	Queries historical values for a specified period	UI · API	View Collection History
Point search	Finds tags by name or address	UI	Point Search
OPC-UA node viewer	Browses the remote server's node tree	UI	OPC-UA Viewer
Mobile rounds inspection	Performs inspections in the field using a mobile phone	UI	Mobile Rounds Inspection

Value Processing

Feature	What it does	Where	Details
Formula	Applies scaling, unit conversions, and complex calculations to tags	UI · Configuration	Apply a Formula
Formula functions	Lists available functions and syntax	Reference	Formula Reference

Value Processing (continued)

Feature	What it does	Where	Details
Flow (Node-RED)	Creates no-code branching, transformations, and integrations	Flow	Get Started with Flows
Edge-specific nodes	Provides nodes for tags, collection, and transmission	Flow	Edge-Specific Nodes

Export

Feature	What it does	Where	Details
Platform transmission	Sends collected values to Platform	Configuration	How Edge Uploads Values
Sparkplug B publishing	Publishes to your own broker in a standard format	Configuration	Sparkplug B
MQTT publishing	Sends values to any broker	Flow · Configuration	MQTT Node
External application integration	Allows other applications to receive values	Configuration	External Application Integration
Buffering and retransmission	Buffers values during an outage and retransmits them afterward	Configuration	How Edge Uploads Values

API and AI Integration

Feature	What it does	Where	Details
REST API (v1)	Manages connections, tags, values, and status programmatically	API	REST API
MCP server	Lets an AI assistant use Edge as a tool (six read-only tools)	MCP	MCP Server
AI Edge assistant	Lets users ask questions and receive answers directly in the UI	UI	AI Edge Assistant
Sparkplug B API	Checks publishing status	API	Sparkplug B

Operations

Feature	What it does	Where	Details
Start, stop, and restart	Controls the service	UI · CLI	Start · Stop
Configuration backup and restore	Backs up and restores connections, tags, and flows	UI · CLI	Configuration Backup and Restore
Temporary file cleanup	Frees disk space	UI · CLI	Cleanup
View and download logs	Displays system logs	UI	System Logs
Diagnostics and inspection	Identifies where problems are occurring	UI · CLI	Diagnostics and Inspection
Monitoring	Displays resource usage and collection volume	UI · API	Monitoring
Upgrades and firmware	Updates the installed version	UI · CLI	Upgrade
High availability (HA)	Uses two units and transfers write authority between them	UI · API · Configuration	High Availability
Container operation	Runs Edge with Docker	Configuration	Container Mode
Application management	Starts and stops applications installed on Edge	UI	Application Management
Quick actions	Provides immediate access to frequently used actions from the status bar	UI	Status Bar Quick Actions

Configuration and Security

Feature	What it does	Where	Details
Web UI configuration	Changes settings in the UI	UI	Web UI Configuration
`app.properties`	Defines detailed settings in a file	Configuration	Properties Reference
Environment variables	Injects values into containers	Configuration	Configure Environment Variables

Configuration and Security (continued)

Feature	What it does	Where	Details
Credential rotation	Changes passwords and API keys	Configuration	Change Passwords and API Keys
Enforce HTTPS	Blocks unencrypted requests	Configuration	MCP Server

Platform Stores and decides

Overview

Feature	Description	Where	Details
Dashboard	View equipment, alarms, and collection status on a site map	Screen	Dashboard
Daily Statistics	Review daily collection volume, alarms, and operation data	Screen	Daily Statistics
Public Status Page	Display service status without requiring login	Screen	Status Page

Connectivity

Feature	Description	Where	Details
Protocol Connection	Register data sources such as OPC UA and MQTT	Screen · API	Connection Management
Connection Status	Check whether data is currently arriving from each source	Screen	Connection Management
Edge Management	Register field Edge instances and monitor their status	Screen	Connection Management
OPC Service	Manage connections and subscriptions programmatically	API	OPC Service

Factory Model

Feature	Description	Where	Details
Model	Create the structure of sites, areas, and lines	Screen · API	Factory Management
Asset Tree	Register the site→area→line→equipment hierarchy	Screen · API	Asset Service
Tag	Register and map equipment measurement points	Screen · API	Tag Service
Ontology	Define the meaning of equipment types and attributes	Screen	Factory Management

Factory Model (continued)

Feature	Description	Where	Details
Metadata	Manage additional attributes associated with assets	Screen	Factory Management
Reference Data	Manage shared reference values such as codes and units	Screen	Factory Management
Domain ID Rules	Use ID formats fixed across both code and the database	API	ID Rules

Production

Feature	Description	Where	Details
Customer	Register delivery customers	Screen · API	Customer Service
Product	Register production items	Screen · API	Product Service
Process — Product Route	Define the **sequence** of unit processes a product passes through	Screen · API	Process
Process — Unit Process	Define processes and their associated equipment	Screen	Process
Process — Connection Diagram	Map **supply and dependency** relationships between equipment	Screen	Process
Downstream Impact	Identify how far operations will stop if this equipment stops	Screen · API	Process
Employee	Register operators	Screen · API	Employee Service
Work Schedule	Create shift and work calendars	Screen · API	Calendar Service
Work Order	Register work orders and review actual results	Screen · API	Order Service

Equipment

Feature	Description	Where	Details
Equipment List	Review the status and latest values for each piece of equipment	Screen	Equipment
Data Query	Query equipment tag values for a specified period	Screen	Equipment
Timeline Comparison	Compare multiple equipment items and tags on the same timeline	Screen	Equipment
Equipment Command	Send registered commands to equipment	Screen · API	Equipment Commands
Predictive Analytics	Use machine learning to view future trends	Screen	Predictive Analytics

ISO Metrics

Feature	Description	Where	Details
ISO Data	View OEE, RAM, and EMS metrics by equipment	Screen	ISO Data and Analytics
ISO Analytics	Compare metrics by period and line	Screen	ISO Data and Analytics
Plugin	Enable or disable standard metric calculators	Configuration	Plugins
Aggregation Interval	Change the rolling window used for metrics	Configuration	Properties

Data

Feature	Description	Where	Details
Stream	View incoming values in real time	Screen	Data Points
Trend	View historical values as graphs	Screen	Data Points
Snapshot	View all values at a specific point in time	Screen	Data Points
Data Export	Export query results to a file	Screen	Data Points

Data (continued)

Feature	Description	Where	Details
Object (BLOB)	Attach images and files to tags for storage	Screen · API	Objects
Retention Period (TTL)	Define how long values are retained	Configuration	Data Retention
Data Gateway	Query the data lake through REST and JDBC	API	Data Gateway

Alarm

Feature	Description	Where	Details
Alarm List	Review and acknowledge triggered alarms	Screen · API	Alarms
Advanced Alarm Search	Combine conditions to search alarm history	Screen	Alarms
Alarm Visualization and Analysis	Identify when and where alarms occur frequently	Screen	Alarms
Advanced EQL Alarm	Define alarm conditions using queries	Screen	EQL
Alarm Service	Query and acknowledge alarms programmatically	API	Alarm Service
Status Codes	Define status values for alarms and connections	Reference	Status Codes

Visualization

Feature	Description	Where	Details
Canvas	Place widgets on drawings to create field screens	Screen	Canvas
Widget Binding	Bind tags and alarms to widgets	Screen	Canvas

Automation

Feature	Description	Where	Details
Flow	Create processing workflows without code	Screen · API	Flow

Automation (continued)

Feature	Description	Where	Details
Flow Execution History	Review what ran, when it ran, and whether it failed	Screen	Flow
EQL Query	Find values using the event query language	Screen	EQL
Statement	Register continuously running CEP queries	Screen	CEP
CEP Rule	Evaluate real-time conditions and generate derived events	Screen · Configuration	CEP
Flow Service	Manage flows programmatically	API	Flow Service
Batch	Run aggregations and reports on a schedule	Configuration	Batch

Standard

Feature	Description	Where	Details
Namespace (UNS)	Publish and subscribe to values through a unified namespace	Screen	UNS
Catalog	Publish registered resources in a standard format	Screen	Standards and External Tools
OPC-UA Server	Expose Platform values through OPC-UA	Screen · Configuration	Standards and External Tools
AAS V3	Export data in Asset Administration Shell format	Screen	Standards and External Tools
External Tool Integration	Query data from standard tools such as Grafana	Configuration	Standards and External Tools

System

Feature	Description	Where	Details
User	Manage accounts and roles	Screen · API	User Management
Security Policy	Configure password rules, lockouts, and sessions	Screen · Configuration	Security Management

System (continued)

Feature	Description	Where	Details
API Token	Issue and revoke keys for external integrations	Screen · API	Getting Started
Monitoring	Monitor Platform resource usage and throughput	Screen	System Monitoring
Diagnostics	Inspect each component for abnormal conditions	Screen	Diagnostics
Logs	View server logs on screen	Screen	System
Cluster	View node configuration and status	Screen	Performance Tuning
High Availability (HA)	Manage failover to standby nodes	Screen · Configuration	High Availability
Audit	Record who changed what	Screen	Security Settings
Settings	Change properties on screen	Screen · Configuration	Property Reference
Environment Information	Check the currently active values	Screen	Environment Variables
Backup · Recovery	Back up and restore the system of record and configuration	Configuration	Backup and Recovery

AI Integration (MCP)

Feature	Description	Where	Details
MCP Server	Allow AI assistants to use the Platform as a tool	MCP	MCP Server
22 Tools	Query assets, tags, values, alarms, and relationships	MCP	MCP Server

Data Lake

The storage and analytics layer consists of a suite of proprietary engines. For details, see Data Lake and the Technical White Paper.

Feature	Description	Where	Details
Aster TSDB	Time series storage and query engine	Configuration	Time Series DB
Aster CEP	Complex event processing engine	Configuration	CEP
Aster MQTT	Broker for high-volume collection	Configuration	Messaging
Tiered Storage (Hot · Warm · Cold)	Move data between storage tiers based on age	Configuration	Tiered Storage
Lakehouse	Retain data long-term in open formats and query it with SQL	Configuration	Warehouse
Full-Text Search	Search text associated with time series data	API	Full-Text Search
CLI (`pd`)	Manage the data lake from the command line	CLI	Data Lake CLI
Management Console	Manage storage, batches, and the warehouse on screen	Screen	Console

Questions and Answers (Copilot)

Feature	Description	Where	Details
AI Chat	Ask questions about the plant and receive answers with supporting evidence	UI	AI Chat Web
Evidence for This Answer	Review which tools were called, their arguments, and the returned results	UI	AI Chat Web
Conversation Search	Find previous conversations by title	UI	AI Chat Web
Watch	Describe what to monitor in natural language; it is checked periodically and escalated to an incident when attention is required	UI	Watch
Screen Map	Shows which screen answers which types of questions	Reference	Copilot Screen Map
Anomaly Detection and Incident Response	Review detected anomalies, acknowledge them, and suppress them	UI	Incident Response
Daily Action Recommendations, Reports, and Weekly Briefings	Receive today's recommended actions and review the results and the past week	UI	Copilot Screen Map
Mobile	Ask questions from a phone in the field	UI	Copilot Screen Map
Public API	Allows external systems to call chat, daily action recommendations, and the tool list (`X-API-Key`)	API	API Integration Guide
Workflow	Who does what and when	Reference	Business Process

Models (AURA)

Feature	Description	Where	Details
Diagnostic Model	Answers industrial questions using an internally trained model	API · UI	AURA Models
Retrieval Model	Finds supporting evidence in documents using embeddings	API	AURA Models
Precision Ranking Model	Selects the best answer from the candidates using a reranker	API	AURA Models
On-Premises Serving	Keeps models and data within the organization	Settings	AURA Technical White Paper
Model Management	View deployed models and how to call them	UI · Settings	AI Admin Console
Playground	Test models directly from the UI	UI	AI Admin Console

Document Retrieval (RAG)

Feature	Description	Where	Details
Document Indexing	Reads and indexes manuals and procedures	UI · API	RAG
Evidence Retrieval	Finds passages relevant to a question	UI · API · MCP	RAG
Synchronization History	View what was added and when	UI	AI Admin Console
Ontology	Connects relationships in a plant knowledge graph	API	Ontology

Time Series Analysis (TimeSeries-Insight)

Feature	Description	Where	Details
Anomaly Detection	Equipment, systems, OEE, RAM, EMS, work orders, and alarms	UI · API · MCP	TimeSeries-Insight

Time Series Analysis (TimeSeries-Insight) (continued)

Feature	Description	Where	Details
Forecasting	Forecasts future trends for the same seven target types	UI · API · MCP	TimeSeries-Insight
Equipment Health Index	Represents equipment condition as a single score	UI · MCP	TimeSeries-Insight
In-Depth Alarm Analysis	Correlation, duration, frequency, and forecasting	UI · MCP	TimeSeries-Insight
Feature Store	Precomputes values for faster responses	UI · API	TimeSeries-Insight
33 Analysis Tools	List of tools exposed through MCP	MCP	Time Series Insight Tools
Model Class Configuration	Selects the loader that matches the checkpoint generation	Settings	TimeSeries-Insight

Vision and Document Understanding

Feature	Description	Where	Details
Vision	Reads and describes images	API · UI	AI Admin Console
Document Understanding (Parser)	Extracts content from PDFs and drawings	API · UI	AI Admin Console

Real-Time Integration (MCP)

Feature	Description	Where	Details
Four MCP Servers	Allow assistants to use AI services as tools	MCP	MCP Servers
Tool Map	Shows what each tool does	Reference	MCP Tool Map
Platform Integration	Reads equipment, tags, and alarms in real time	MCP	MCP Servers
Tool Approval Gate and Invocation Ledger	Prevents state-changing tools from running in chat and records every invocation	Settings	MCP Servers

Administration and Operations

Feature	Description	Where	Details
Admin Console	Manages all six service categories from one UI	UI	AI Admin Console
Copilot Administration	Manages users, conversations, and policies	UI	Copilot Admin Console
Public API Keys	Issues and revokes keys for copilot `/api/v1` and stores them only as hashes	UI	Copilot Admin Console
API Keys	Issues and revokes keys for each service category	UI	AI Admin Console
Endpoint List	Shows what to call and where	UI · Reference	API Integration Guide
Logs	View logs for each service category in the UI	UI	Logs and Monitoring
GPU Status	Shows how many GPUs are available and what is deployed on them	UI	Logs and Monitoring
Database Management	Shows what data is stored and where	Settings	Database Management
Service Operations	Start, stop, and recover services	CLI · Settings	Service Operations
Credential Rotation	Change passwords and API keys	Settings	Change Passwords and API Keys
Port Map	Shows which port each service uses	Reference	Service Port Map

Installation

Feature	Description	Where	Details
One-Line Installation	Installs with a single command	CLI	One-Line Installation
Air-Gapped Installation	Installs without internet access	CLI	Air-Gapped Installation
System Requirements	GPU, memory, and disk requirements	Reference	Requirements

Studio Turns it into an app

Create Apps

Feature	What It Does	Where	Details
Create an app from Home	Describe what you want in plain language to create an app	UI	Create an App from Home
Builder	Refine the generated app through conversation	UI	Develop Apps with Builder
Preview and deployment	Preview your changes and deploy them to the field	UI · API	Projects and Deployment
Query data through chat	Ask questions directly without creating an app	UI	Query Data through Chat
How it works	Learn how a chat becomes an app	Reference	How Chat Becomes an App

My Apps and Sharing

Feature	What It Does	Where	Details
My Apps	View all the apps you created	UI	App Catalog and Sharing
App Catalog	Find apps shared within your organization	UI	App Catalog and Sharing
Gallery	Browse apps published publicly by others	UI	App Catalog and Sharing
Marketplace	Download reusable apps and resources	UI	App Catalog and Sharing
Sharing scope	Set access to private, organization-wide, or public	UI	App Catalog and Sharing

Watchers and Skills

Feature	What It Does	Where	Details
Watcher	Define conditions and receive notifications when they are met	UI	Watchers and Notifications

Watchers and Skills (continued)

Feature	What It Does	Where	Details
Mark notifications as read	View the unread notification count in the navigation rail	UI	Watchers and Notifications
Field Skill	Define frequently performed tasks once and invoke them as needed	UI	Field Skills
Skill API	Manage skills programmatically	API	Skills

Use in the Field

Feature	What It Does	Where	Details
Mobile interface	Open apps on a mobile device	Mobile	Field Mobile
Workflow	Define who does what and when	Reference	Work Process

Data Integration

Feature	What It Does	Where	Details
Platform integration	Allow apps to access equipment, tags, and alarms from Platform	API · Settings	Platform Integration
Chat API	Start and use conversations from external systems	API	Chat
Sessions	Preserve conversation context	API	Sessions

Administration (Administrators)

Feature	What It Does	Where	Details
Users	Create accounts and assign permissions	UI · API	Administration
Usage	View usage by user	UI	Administration
Settings	Configure models, integrations, and branding	UI · Settings	Settings
Secret management	Store keys securely	Settings	Secret Management

Administration (Administrators) (continued)

Feature	What It Does	Where	Details
Environment variables	Pass values to containers	Settings	Environment Variable Reference
Credential rotation	Change passwords and API keys	Settings	Change Passwords and API Keys
Backup and restore	Back up and restore apps and settings	Settings	Backup and Restore

Installation

Feature	What It Does	Where	Details
One-line installation	Install with a single command	CLI	One-Line Installation
Air-gapped network installation	Install without internet access	CLI	Air-Gapped Network Installation
Domain and proxy	Make Studio accessible externally	Settings	Domain and Reverse Proxy
Change initial password	Complete this required commissioning step	UI	Change the Initial Password