



# OptiZeus SCADA



Complete Feature Reference · Configuration · Administration

OptiZeus SCADA v2.5.4 · UM-OZ-001 · © 2026 Zeus Automation

optizeus.org · sales@optizeus.org · 4 pages

## MODULE OVERVIEW

### HMI Runtime

50+ SVG components, drag-and-drop builder, tag binding, Super Objects, multi-screen, kiosk mode

### Historian

Swinging door compression, 8 retrieval modes, trend viewer, alarm overlay, PDF/CSV export

### AI Assistant

6+ providers (Claude, GPT-4, Gemini, Ollama), auto-create tags/alarms/screens/CAMP5 docs

### User Management

5-level RBAC, LDAP/AD integration, MFA/TOTP, auto-logout, e-signatures (CER 11)

### KPI Dashboard

6 widget types: value, gauge, sparkline, bar chart, status, text · custom layouts

### Multi-language

English, Hebrew, Arabic with native RTL layout · 700+ translated UI strings

### Tag Manager

Tag database, data types, scaling, engineering units, quality indicators, UDTs, Super Objects

### Alarm Manager

ISA-18.2, HH/H/L/LL, Boolean, bit alarms, flood detection, shelving, SOE 1ms resolution

### Batch Engine

ISA-88 S88, SFC recipe execution, equipment model, EBR, PLI, version control

### Reports

PDF/Excel report designer, scheduled email delivery, SPC charts, batch comparison

### Server Manager

Test→Production→Backup topology, 1-click deploy, client auto-failover, change audit

### Mobile PWA

iOS/Android Progressive Web App, offline mode, Electron desktop kiosk app





### HMI RUNTIME ENGINE

|                 |  |
|-----------------|--|
| SVG Library     | <b>50+ industrial components: pumps, tanks, compression, treatment</b> |
| Screen Builder  | <b>Drag-and-drop with snap-to-grid and alignment guides</b>            |
| Tag Binding     | <b>Two-way live binding — read values and write back</b>               |
| Super Objects   | <b>Reusable composite objects with embedded logic and animations</b>   |
| Animations      | <b>Color, visibility, rotation, size, fill level — 60 FPS</b>          |
| Pop-ups         | <b>Tag faceplate, trend mini-chart, alarm details</b>                  |
| Role Visibility | <b>Show/hide screens per user role</b>                                 |
| Touch Support   | <b>Multi-touch capacitive for operator panels</b>                      |
| Kiosk Mode      | <b>Electron desktop app — full screen, no browser</b>                  |
| IP Camera       | <b>Embed RTSP/HTTP camera feeds on HMI screens</b>                     |

### INDUSTRIAL HISTORIAN

|   |
|---|
| Swinging Door Algorithm — configurable de   |
| Raw, Interpolated, Average, Min, Max, Count |
| Multi-pane drag-to-zoom with overlay        |
| HH/H/L/LL bands shown directly on trend ch  |
| Alarm trigger points visible on timeline    |
| Overlay multiple tags in one chart          |
| Compare multiple batch runs side by side    |
| PDF trend report · CSV/Excel data export    |
| Configurable per tag or global policy       |
| Sequence of Events — 1ms timestamp resol    |

### TAG MANAGER

|                 |   |
|-----------------|---|
| Data Types      | <b>Bool, Int16, Int32, Int64, Float, Double, String</b> |
| Quality         | <b>Good / Bad / Uncertain — OPC UA standard</b>         |
| Scaling         | <b>Raw → Engineering Units with linear or curve</b>     |
| UDTs            | <b>User-Defined Types — template inheritance</b>        |
| Super Objects   | <b>Tag + screen component linked — deploy</b>           |
| Alarm Config    | <b>HH/H/L/LL thresholds configurable per tag</b>        |
| Historian Rate  | <b>Individual scan rate per tag — from 100ms</b>        |
| Store & Forward | <b>Buffer during DB/network outage — no data loss</b>   |

### ALARM MANAGEMENT (ISA-18.2)

|   |
|---|
| Analog HH/H/L/LL · Boolean · Bit-based      |
| Auto-grouping by area — prevents flood      |
| Duration-based with reason code             |
| Individual or bulk · CFR 11 e-signature     |
| Email · SMS · WhatsApp · Telegram           |
| Weekly schedule per group per channel       |
| Per-alarm dead-band and on-delay filter     |
| All events stored in SQL Server — immutable |





### ISA-88 BATCH ENGINE

|                 |   |
|-----------------|---|
| Standard        | Full ISA-88 / S88 compliance                |
| Hierarchy       | Procedure → Unit Proc → Operation → Ph      |
| Recipe Engine   | SFC Sequential Function Chart execution     |
| Equipment Model | Physical model per S88 — configure per s    |
| Recipe Version  | Full version history with approval workflo  |
| Parameters      | Target / Min / Max per step — deviation al  |
| EBR             | Electronic Batch Record auto-generated r    |
| PLI             | Process Logic Interface support             |
| Batch Tracking  | Real-time visualisation of execution statu  |
| Batch Overlay   | Compare batch runs on historian trend ch    |
| Scheduling      | Product-to-recipe linking and run schedulin |
| E-Signature     | CFR 11 e-signature on batch close           |

### USER MANAGEMENT & RBAC

#### ADMINISTRATOR

Full config, user management, read-only audit trail

#### ENGINEER

Tag config, screens, alarms, recipes, drivers

#### SUPERVISOR

Alarm ack, batch close, e-signature operations

#### OPERATOR

HMI monitor/control, tag write, batch step exec

#### VIEWER

Read-only monitoring — no write operations

### AUTHENTICATION OPTIONS

|                 |   |
|-----------------|---|
| Local Auth      | Username + bcrypt-hashed password             |
| MFA/TOTP        | Google Authenticator / Authy / any TOTP app   |
| LDAP / AD       | Active Directory SSO with group mapping       |
| AD Auto-Create  | Users provisioned on first AD login           |
| Password Policy | Min length, complexity, expiry — configurable |
| Auto-Logout     | Inactivity timeout per role — configurable    |
| Session Tokens  | JWT with configurable expiry and rotation     |

### SERVER DEPLOYMENT TOPOLOGY

#### STANDALONE

Single server — dev, demo, small sites

#### TEST SERVER

Configure all tags, alarms, screens

#### PRODUCTION

1-Click deploy from Test — full audit trail

#### BACKUP SERVER

Auto-sync from Production — hot failover





### AI ASSISTANT

The built-in AI assistant can create complete SCADA configurations using natural language. Supports Claude, GPT-4, Gemini, Ollama (local), and more.

|                |   |
|----------------|---|
| AI Providers   | Claude, GPT-4, Gemini, Ollama, Mistral, +more |
| Create Tags    | "Create 50 tags from this address list..."    |
| Create Alarms  | "Set alarms on all temperature tags HH=85°C"  |
| Create Screens | "Design a pump station HMI screen"            |
| GAMP5 Docs     | "Generate full IQ/OQ/PQ for this system"      |
| Anomaly Detect | Z-score, rate-of-change, flatline detection   |
| Voice Commands | Web Speech API — hands-free operation         |
| Data Privacy   | On-premise Ollama — zero cloud dependency     |

### SECURITY CONFIGURATION

|                  |   |
|------------------|---|
| HTTPS/TLS        | Enable in Settings → Security → TLS cert pa |
| MFA Enforcement  | Require MFA per role in User Settings       |
| Password Policy  | Settings → Security → Password Rules        |
| Session Timeout  | Per-role inactivity timeout in seconds      |
| RBAC             | Assign roles in User Management → Edit Us   |
| LDAP/AD          | Settings → Authentication → LDAP server U   |
| Audit Trail      | Always-on — view in Reports → Audit Trail   |
| OT/IT Separation | Deploy OPC-UA Proxy between OT and IT su    |
| API Rate Limits  | Settings → Security → API throttling config |
| IP Whitelist     | Settings → Security → Allowed IP ranges     |

### DATABASE CONFIGURATION

|            |   |
|------------|---|
| SQLite     | Default dev mode — zero config, auto-select |
| SQL Server | Settings → Database → MSSQL → connectio     |
| MySQL      | Settings → Database → MySQL → host/port/    |
| PostgreSQL | Settings → Database → PostgreSQL → conn     |
| InfluxDB   | Settings → Database → InfluxDB → URL + to   |
| MongoDB    | Settings → Database → MongoDB → connect     |
| Migration  | Settings → Database → Migrate → auto sche   |
| Backup     | Settings → Backup → schedule + destination  |

### REPORTS & KPI DASHBOARD

|                 |   |
|-----------------|---|
| Report Designer | Drag-and-drop PDF report template builder       |
| Data Sources    | Historian tags, alarms, batch records, KPI      |
| Scheduling      | Auto-generate and email on schedule             |
| SPC Charts      | X-bar/R, UCL/LCL, Cp/Cpk process capabi         |
| KPI Widgets     | Value card, gauge, sparkline, bar, status, text |
| OEE Dashboard   | Availability x Performance x Quality            |
| Batch Reports   | EBR summary, deviation, comparison reports      |
| Export Formats  | PDF, CSV, Excel                                 |

Full documentation: [optizeus.org/docs](https://optizeus.org/docs) · Support: [sales@optizeus.org](mailto:sales@optizeus.org) · Forum: [optizeus.org/forum](https://optizeus.org/forum)  
zeus-automation.com · [info@zeus-automation.com](mailto:info@zeus-automation.com) · +972 3-9016777

