

BACMANAGER USER MANUAL

How to discover, browse, write and schedule BACnet/IP and MS/TP devices, read Modbus devices in the same window, and build dashboards, logs, alarms and a BACnet–Modbus gateway with BACManager on Windows. Jump to a topic, or download the manual as a PDF.

Free 14-day trial · BACManager \$149 one-time · Runtime \$39 per machine · Windows 10 / 11

GETTING STARTED

BACManager is a Windows tool for buildings where BACnet and Modbus meet. It discovers BACnet/IP and MS/TP devices, browses and writes their objects with the priority array, edits Schedule and Calendar objects, subscribes to COV and exports EDE — and in the same window reads Modbus RTU and TCP meters and drives. Dashboards, a Historian, alarms, tags with Structured Text and a BACnet–Modbus gateway are included. Everything runs locally.

LICENCE	WHAT IT INCLUDES
BACManager — \$149	Everything in this manual: BACnet explorer and editors, BACnet simulator, Modbus tools, dashboard editor, Historian, alarms, gateway, Siemens S7 (beta), Runtime package export.
Runtime — \$39 / machine	Runs a dashboard package full screen on a panel PC with live BACnet and Modbus, alarms and trends; no editor, scanner, schedule editor, gateway or simulator. See Runtime edition .

INSTALL

1

RUN THE INSTALLER

Download the installer and start BACManager from the Start menu.

TRIAL

2

14 DAYS, FULL FEATURES

No account, no credit card. The licence button shows the days left.

OPEN

3

OPEN THE BACNET CLIENT

BACnet/IP or MS/TP, then Open.

DISCOVER

4

FIND THE DEVICES

Discover sends Who-Is; pick a device and browse its objects.

NO DEVICE AT HAND?

Start the built-in [BACnet simulator](#), tick **localhost (sim)** in the BACnet tab, Open, Discover — everything in this manual can be tried on it.

THE MAIN WINDOW

The tabs are, in order: **BACnet** (the explorer, opened at start), **Slave sim** (the BACnet simulator), then the Modbus tools **Registers**, **Chart**, **Write**, **Serial Monitor**, **Test Center**, **Slave Scan**, **Address Scan**, **Slave**, and the shared tools **Dashboard**, **Tags**, **History**, **Alarms**, **Gateway**. The toolbar above them belongs to Modbus: Connect, the poll window settings, display options, Workspace, Templates, Print and **License**. While the BACnet tab is open, the Modbus TX/RX log is hidden and BACnet has its own [activity log](#).

The tray icon offers *Keep running when window is closed* and *Start with Windows*, for a gateway or alarms that must run unattended. On quit, BACManager asks whether to save the workspace.

BACNET/IP CONNECTION

The screenshot shows the BACnet/IP connection interface in BACManager. The top bar includes a dropdown for 'BACnet/IP', fields for 'Interface' (127.0.0.1) and 'Port' (47809), a checkbox for 'localhost (sim)', and buttons for 'Open', 'Discover', 'Close', and 'Activity'. Below this, there's a 'BBMD' section with a dropdown for 'BBMD IP[port] — multi-subnet', a 'TTL' field (300), and a 'Register' button. The main area is divided into 'DEVICES' and 'OBJECTS'. The 'DEVICES' list shows 'Sim-Controller' with ID 1234 and IP 127.0.0.1. The 'OBJECTS' list shows various objects like 'analog-input0', 'analog-input1', 'analog-value:0', 'binary-value:0', 'calendar:0', 'device:1234', 'loop:0', and 'schedule:0'. The 'ACTIVITY LOG' at the bottom shows the connection process and polling status.

The BACnet tab polling the simulator: connection row, BBMD row, devices on the left, objects on the right, activity log below.

1. Choose the datalink **BACnet/IP**.
2. **Interface**: the IP address of the network card to use, or empty for all interfaces. **Port**: 47808 (0xBAC0) unless the site uses another.
3. Press **Open**. The status on the right shows “Client open (port 47808)”; **Close** closes it. A dropped client is retried (“Connection lost — retrying...”).

localhost (sim) sets Interface 127.0.0.1 and Port 47809, so the client can talk to the simulator on the same PC. The interface, port, poll interval, COV subscriptions and BBMD registration are remembered for the next start.

NOTE — PORT 47808 IN USE

Only one program can own UDP 47808 on an interface. If another BACnet tool or a BMS runs on the same PC, close it, or open BACManager on a different interface.

BBMD & FOREIGN DEVICE REGISTRATION

Who-Is is a broadcast and stops at the router. To discover devices on another subnet, register BACManager as a **foreign device** with that network's BBMD:

1. Open the client (BACnet/IP).
2. Enter the **BBMD** address (or , port 47808 by default) and the **TTL** in seconds (default 300, minimum 30).
3. Press **Register**. The dot turns green and the status reads “FDR: registered @ ...”; a refusal shows the BVLC result code, a timeout means the BBMD never replied.
4. Run **Discover** — broadcasts now reach the remote subnet.

The registration is renewed automatically at 75 % of the TTL, and re-applied the next time the client opens. **Unregister** ends it. Registration applies to BACnet/IP only; the row is hidden on MS/TP.

Background: [BBMD & foreign device registration explained](#).

MS/TP (RS-485)

The screenshot shows the BACManager software interface. The top bar includes a 'Disconnect' button and a dropdown menu for 'AHU-1 Supply Fan'. Below this, there are fields for 'FC: FC03 Holding Reg', 'address 0', 'Base', 'Quantity: 8', 'Slave ID 60', 'Interval 1000', and 'Delay:'. The main window is titled 'MS/TP (RS-485)' and contains a 'Serial' dropdown menu set to 'COM1 — Communications Port (COM1)', a 'Baud' dropdown menu set to '38400', and a 'MAC' field set to '99'. There are buttons for 'Open', 'Discover', and 'Close'. The 'Discover' button is highlighted. Below the configuration fields, there is a section for 'DEVICES' with a 'Poll' button and a 'Write priority' dropdown menu. The 'Activity Log' at the bottom shows a list of events: '23:02:50 - client open -- port 47808', '23:02:51 TX BACnet whoIs -> 127.0.0.1', '23:06:39 - BACnet client closed', and '23:06:39 - client closed'. The status bar at the bottom indicates 'TX: 92 RX: 91 Errors: 1 Latency: 3004 ms Device: 127.0.0.1:5921' and 'PAUSED'.

1. Connect a USB-RS485 adapter to the MS/TP trunk and choose the datalink **MS/TP (RS-485)**.
2. **Serial**: the COM port (↻ refreshes the list if the adapter was plugged in later).
3. **Baud**: 9600, 19200, 38400 (default), 57600, 76800 or 115200 — the same as the trunk.

4. **MAC**: this station's address, 0–127 (default 99). It must be unique on the segment.

5. **Open**, then **Discover**.

BACManager joins the token ring as a master node (it answers Poll-For-Master and passes the token; Max Master 127), so it can send confirmed requests: browse, write, COV, schedules and EDE work as on BACnet/IP. Discover sends one broadcast Who-Is on the segment; Target IP and BBMD do not apply. MS/TP and Modbus RTU use separate COM ports, so both can run at once. More: [BACnet MS/TP over RS-485](#).

DISCOVERING DEVICES

Target IP decides where **Discover** sends Who-Is:

TARGET IP	WHO-IS SENT AS
empty	a broadcast on the local subnet (and through the BBMD when registered)
192.168.10.25	a directed Who-Is to one address, e.g. across a router
192.168.10.1-254 or 192.168.10.0/24	a sweep of up to 256 addresses, one directed Who-Is each

Each I-Am adds the device to **Devices**: name (read after discovery), “ID ... · address · vendor ...”, sorted by device instance. The activity log shows every “iAm ← device ...”.

Devices behind a router. A device that answers through a BACnet router — MS/TP controllers behind an IP-to-MS/TP router, or the indoor units a VRF controller such as a Daikin iTM presents on its own network — shows “net N” in its line. BACManager keeps the network and address the I-Am came from and sends every request for that device through the router, so it is browsed, polled and written like any other. More on finding devices: [BACnet scanner](#).

OBJECTS & POLLING

Click a device to read its object list. Objects are grouped by type (“analog-input (3)”) and sorted by instance. Each object's name is read after the list and shown in its row, so a points list can be read by its names. Each row shows the present value and, on the right:

- click the row — read the present value now;
-  **Write value** — on commandable types (AO, AV, BO, BV, MSO, MSV);

-  **Log to History** — start or stop logging the value;
-  **COV subscription** — live updates without polling;
-  **Add as tag** — a tag for dashboards, alarms, scripts and the gateway;
-  **Browse / read / write all properties** — the property browser, or the grid editor for schedules and calendars.

The bar above the list: **Interval** (ms, minimum 200) and **Poll / Stop** read the present value of every object with ReadPropertyMultiple; **Write priority** (— or 1–16) is used by  writes; **↓ CSV** and **↓ EDE** export the list. Selecting another device stops the poll.

Gap (ms per property) slows down every request to the selected device: after a request BACManager waits the gap times the number of properties it carried before it sends the next one — poll, writes, tag reads, Refresh and the object list alike. 0 (the default) sends at once. Use it for a device that asks for a minimum time between requests: a Mitsubishi AE-200 asks for 200 ms per property. The gap is kept per device, remembered for the next start and saved in the workspace.

Activity ▾ opens the decoded activity log (Who-Is, I-Am, reads, writes, COV, exports) with a filter box, All/TX/RX/Err chips, Pause and Clear; it keeps the last 600 entries.

PROPERTY BROWSER

 on an object opens its properties. **Read common set** reads the properties that matter for that object type — name, type, description, present value, units, status flags, event state, reliability, out-of-service, limits, COV increment, and for commandable objects the **priority-array** (87) and **relinquish-default** (104); for the device object the vendor, model, firmware, protocol revision, APDU and segmentation settings.

Any other property: choose it in — **property** — or type its number in **ID**, then **Read**. To write, enter the value (empty = NULL), leave the type on **auto** or pick Real, Unsigned, Signed, Boolean, Enumerated or String, and press **Write**; the value is read back at once. A property the device does not have shows “error” — hover for the reason.

LOOP OBJECTS

A Loop's setpoint is property **108**, its process value (controlled variable) **21**, the output is the present value **85**, and P / I / D are **93 / 49 / 26**. Type the ID to read or write them.

WRITING & PRIORITIES

Commandable objects (AO, BO, MSO, and AV/BV/MSV where the device makes them commandable) keep a 16-slot **priority array**; the present value is the highest-priority slot that is not NULL, or the relinquish default.

- Set **Write priority** in the bar (8 = Manual Operator is the usual choice), then  on the row and enter the value.
- **Relinquish**: leave the value empty — NULL is written at that priority and the slot is released.
- With priority “—” no priority is sent and the device applies its default (normally 16).
- Properties other than the present value (e.g. a Loop setpoint) are written without a priority.
- Tags, dashboard elements and gateway rows that write BACnet carry their own priority, 8 by default.

PRIORITY	TYPICAL USE
1–2	Life safety
3–5	Critical equipment control
6	Minimum on/off
8	Manual operator
9–15	Available, local scheduling
16	Lowest — many controllers’ own logic

To see who is holding a point, read property 87 in the property browser. More: [BACnet priority array explained](#).

COV SUBSCRIPTIONS

 on a row subscribes to Change-of-Value notifications: the device sends the value when it changes, and the row updates without polling. Click again to unsubscribe. BACManager subscribes for unconfirmed notifications with a 300 s lifetime and renews at 75 % of it; subscriptions are remembered and restored when the device announces itself again (“COV subscribed ... (restored)”).

SCHEDULE & CALENDAR EDITOR

← Objects

schedule:0

Raw properties

Reload

Write schedule

present-value: 21.50 default: 16 priority: 8

Mon	06:00	21.5	×	18:00	18	×	+ add
Tue	06:00	21.5	×	18:00	18	×	+ add
Wed	06:00	21.5	×	18:00	18	×	+ add
Thu	06:00	21.5	×	18:00	18	×	+ add
Fri	06:00	21.5	×	18:00	18	×	+ add
Sat	08:00	19	×	+ add			
Sun	08:00	19	×	+ add			

Writes to: AV:0 → present-value

Exceptions:

Calendar CAL:0 00:00 16 prio 10

A Schedule object as a weekly grid; it writes AV 0 at priority 8.

 on a **schedule** object opens the weekly grid instead of the property list. The line above shows the present value, the schedule default and the priority it writes with.

- Each day lists time/value pairs: edit them in place, × removes one, + **add** adds one. Times are .
- **Write schedule** writes the weekly schedule to the device; **Reload** reads it again; **Raw properties** switches to the property browser.
- **Writes to** (the object properties the schedule commands) and **Exceptions** (dates, week-n-day entries and calendar references with their priority) are shown read-only.

A **calendar** object opens as a list of entries: specific dates (, an empty part means “any”), **date ranges** (from ... to, e.g. a summer shutdown, or 1–15 August of every year with the year left empty) and week-n-day patterns (month, week, weekday). + **date**, + **range** and + **weekday** add entries, × removes one, **Write calendar** writes the list.

More: [BACnet schedule & calendar editor](#).

EDE & CSV EXPORT

With a device selected, ↓ **EDE** writes its object list as a BACnet **EDE 2.3** file (keyname, device instance, object name, type and instance, description, default present value, min/max, commandable, high/low

limit, unit code...) that other BACnet tools import, and ↓ **CSV** writes a plain list (device, type, instance, name, description, present value, units). Each object is read during the export; the status counts them.

BACNET SIMULATOR

APPLY & RESTARTSTOP SIMULATORRunning

DEVICE ID1234

DEVICE NAMESim-Controller

☒ Include Schedule & Calendar demo objects

TYPE	INSTANCE	NAME	VALUE	UNITS	DESCRIPTION	SIMULATION
Analog Input (AI)	0	Room_Temp	21.5	62	Room temperature	~ 19–24 ×
Analog Input (AI)	1	Supply_Humidity	55.2	98		— Static value ×
Analog Value (AV)	0	Setpoint	21.0	62		— Static value ×
Binary Value (BV)	0	Fan_Enable	1			— Static value ×
Loop	0	Supply_Air_Loop	0	62	PID loop on a simulated process	PID 15–35 ×

+ Add object↑ Import CSV / EDE↓ ExportReset to demo

Device: Sim-Controller · ID 1234 · 127.0.0.1:47808

OBJECT	NAME	VALUE
AI:0	Room_Temp	23.29
AI:1	Supply_Humidity	55.2
AV:0	Setpoint	21
BV:0	Fan_Enable	1

The simulator running device 1234 with a sine-wave room temperature and a simulated PID loop.

The **Slave sim** tab runs a BACnet/IP device on this PC (127.0.0.1, port 47808) for testing the explorer, dashboards, the gateway or a BMS without hardware.

1. Set the **Device ID** and **Device name**; tick **Include Schedule & Calendar demo objects** for a demo Schedule and Calendar.
2. Edit the object table: type (AI, AO, AV, BI, BO, BV, MSV, Loop), instance, name, value, units (BACnet unit code, e.g. 62 = °C, 98 = %RH) and description. + **Add object**, ↑ **Import CSV / EDE**, ↓ **Export**, **Reset to demo**.
3. Click a **Simulation** cell: Static value, Counter ↑/↓, Sine wave, Random, Ramp, or **PID loop (simulated process)** on a Loop object — a PI controller drives a first-order process between Min and Max, with Period as its time constant; writing the Loop's setpoint (108) makes the process follow.
4. **Start simulator** (later **Apply & restart**). In the BACnet tab tick **localhost (sim)**, Open, Discover.

The simulator answers Who-Is, ReadProperty, ReadPropertyMultiple, COV and WriteProperty with a priority array on the present value. Besides name, present value, description and units it answers the

properties every object has — object type, status flags, event state, reliability, out-of-service, and for commandable objects the live priority array and relinquish default — and the device object’s vendor, model, protocol and APDU properties, so the property browser’s **Read common set** works on it.

MODBUS TOOLS

The Modbus tabs are the same as in ModbusManager, so the [ModbusManager manual](#) describes them in detail. In short:

- **Connect:** Modbus TCP (IP, port 502), RTU (COM port, baud, parity, data and stop bits) and further transports; auto-reconnect. See [Connecting](#).
- **Poll windows & Registers:** FC01–FC04 blocks with their own slave ID and interval; every value as decimal, hex, binary, 32- and 64-bit; value names, conditional colours, word order, CSV export, snapshot and PDF report.
- **Write** (FC05, 06, 16, 22, 23), **Chart**, **Serial Monitor**, **Test Center** (incl. FC08, FC43/14).
- **Slave Scan** with **Auto-detect**, **Address Scan**, and the **Slave** simulator with simulations and the Link panel.

TAGS & STRUCTURED TEXT



Tags name values so dashboards, alarms, the Historian, the gateway and scripts can use them. Types: **Register** (Modbus, with data type, word order, Scale x and Offset +), **Internal**, **Siemens S7 (beta)** and **BACnet**:

- **BACnet tag:** Device ID, Object (AI, AO, AV, BI, BO, BV, MSI, MSO, MSV or Loop), Instance, **Property** (85 = present value; for a Loop 21, 108, 93, 49, 26) and the write **Priority** (8 by default). The list shows it as `BAC [1234 analog-value:0]`.
-  **Add as tag** in the object list creates a present-value tag in one click.

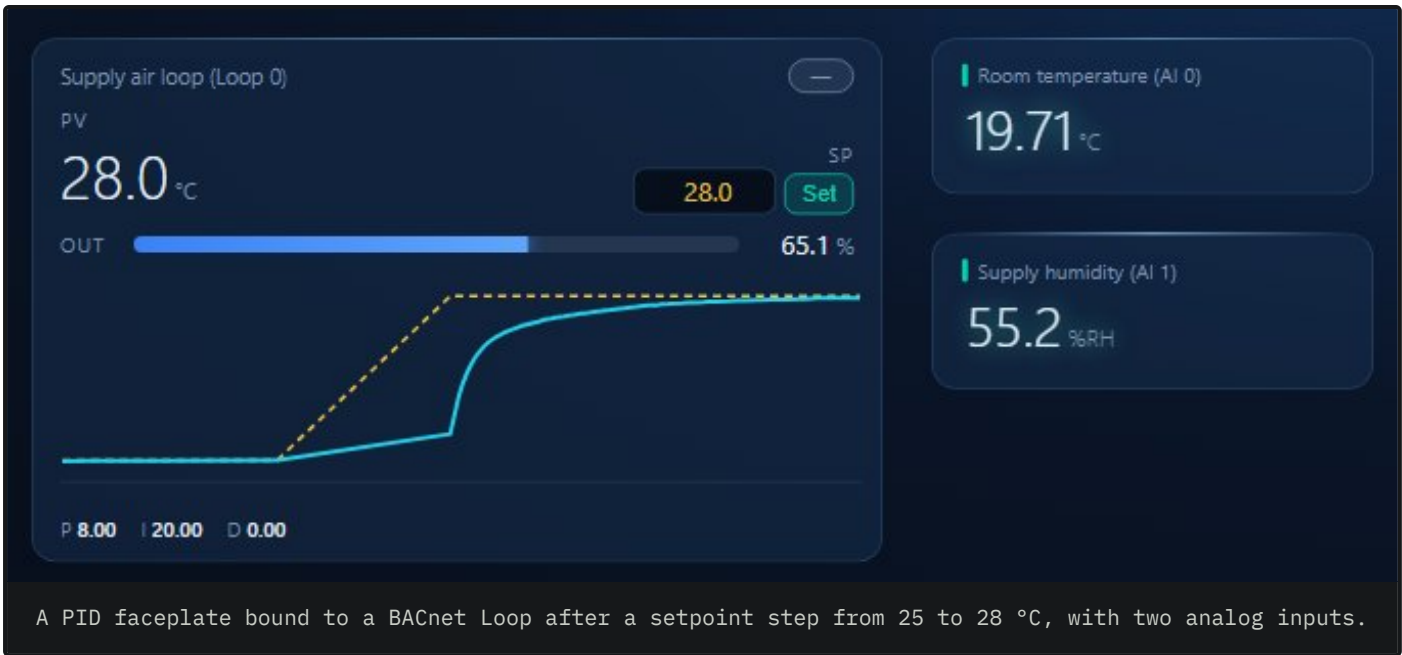
- A BACnet tag is read on its own: every device a tag reads is polled while the client is open and the device has answered, so a workspace shows live values without pressing Poll. **Poll** in the BACnet tab takes over that device's poll and **Stop** hands it back. Extra properties such as a Loop's 108 and 21 are read in the same poll.
- **Refresh (s)** writes the tag's last written value again every that many seconds (0 = off, 10 at the least) until it is relinquished — for controllers that drop a BMS value not written again in time, like a Lennox CORE's five-minute rule. It applies whoever wrote the value — a dashboard control, the gateway or MQTT; the list marks such a tag with ↻.

The **Script Editor (Structured Text)** computes with tags: `:=`, arithmetic, comparisons, `AND OR NOT`, `IF/ELSIF/ELSE/END_IF`, `FOR ... TO ... DO ... END_FOR` and `(* comments *)`, run once or as a loop (interval ≥ 100 ms). Writing a BACnet tag from a script writes the device with the tag's priority.

DASHBOARD & PID FACEPLATE

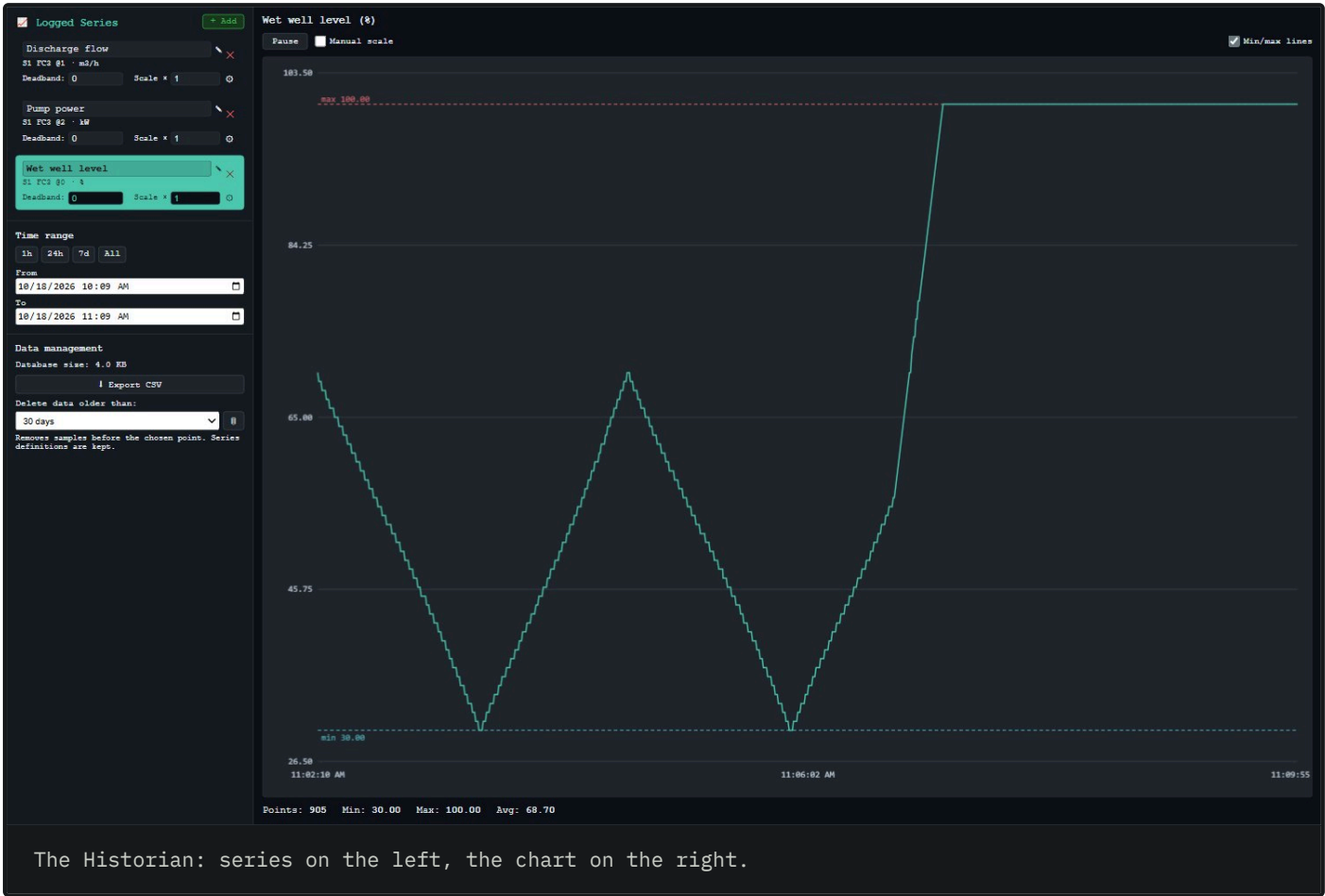
The dashboard editor is the one from ModbusManager Pro — pages and popup pages, Classic and Modern themes, 57 elements in Standard Objects, Basic, Solar/Energy, Process, **HVAC** (fan, damper, coils, filter, AHU, thermostat, humidifier, heat exchanger...), Input/Data and Charts, undo/redo, Runtime mode and full screen. The [ModbusManager manual](#) describes the editor in detail. BACManager adds:

- **Source** → **BACnet** in an element's properties: Device ID, Object, Instance (and Property for a Loop: output, process value, setpoint, P, I, D). The device must be polled or COV-subscribed in the BACnet tab or by a gateway source to show a live value.
- **PID Loop faceplate** with a **BACnet Loop object** box: enter the Device ID and Loop instance and press **Bind PV, SP, OUT, P/I/D** — PV is bound to property 21, SP to 108, OUT to 85, P/I/D to 93/49/26. Auto/Manual is bound by hand if the controller exposes it.
- In Runtime the operator changes the setpoint (written to property 108) after a confirmation.



Write elements write only in **Runtime** and only after the element has read a value. A BACnet write uses priority 8 unless the tag says otherwise.

HISTORY & ALARMS

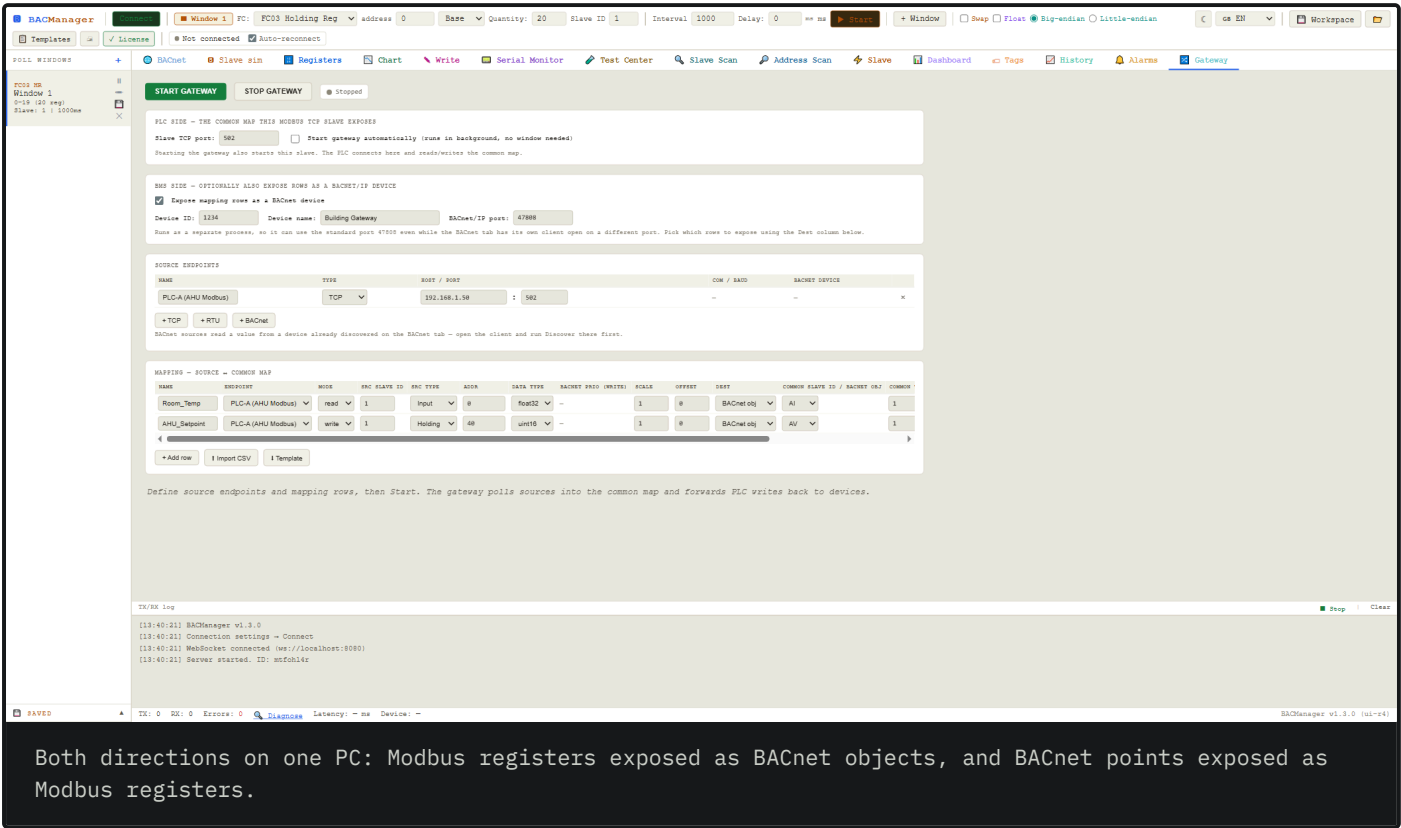


History:  on a BACnet object (or a tag, or a Modbus register) starts logging; the series list sets a **Deadband** and a display scale. Choose 1h/24h/7d/All or a date range, zoom by dragging, export CSV, and delete old data. Values are stored as they arrive (at the poll rate or on COV).



Alarms: + **New alarm** with source **BACnet** (Device ID, Object, Instance), a tag or a Modbus register; condition (>, <, ≥, ≤, =, ≠, between, outside), warning and critical limits, hysteresis and delay. Active alarms are acknowledged in the tab or from a dashboard Alarm Banner / Alarm List; sound can be muted. These are BACManager’s own alarms on values — BACnet event notifications from devices are not received (see [Not supported yet](#)).

GATEWAY



Both directions on one PC: Modbus registers exposed as BACnet objects, and BACnet points exposed as Modbus registers.

The gateway connects the two worlds in both directions at once. Each mapping row has its own source and destination:

- **Sources** (endpoints): + **TCP** and + **RTU** Modbus devices, + **BACnet** (a device already discovered in the BACnet tab; the row sets object type, instance, property and the write priority, 8 by default), + **Siemens S7 (beta)** and + **Tags**.
- **Destinations**: the **Modbus map** — a Modbus TCP slave (PLC side, port 502) any PLC or SCADA polls; a **BACnet obj** on the gateway's own BACnet/IP device; an **S7 DB (beta)** a Siemens PLC reads with GET; or **MQTT** (below).
- **BMS side**: tick **Expose mapping rows as a BACnet device**, set the Device ID (default 1001), name and BACnet/IP port (47808). It runs as a separate process, so it can use 47808 while the BACnet tab's client uses another port. Rows with Dest "BACnet obj" become AI, AO, AV, BI, BO, BV, MSV or Loop objects with an instance and optional units. A BMS discovers it with Who-Is and can read, subscribe to COV and — for rows in write mode on commandable types — write with priority; the write goes on to the source device.
- **Mode** read (source → destination) or write (destination → source); data type, scale and offset per row.

Start gateway; Start gateway automatically plus the tray options keep it running unattended. Rows and endpoints import from and export to CSV, and the configuration is saved with the workspace. The S7 server needs its **Allowed PLC addresses** list — empty means no PLC can connect. More: [BACnet ↔ Modbus gateway](#).

MQTT AND HOME ASSISTANT

A third destination, **MQTT**, publishes a row's value to an MQTT broker — Home Assistant's Mosquitto add-on or any other — as `<base topic>/<topic>/state`. Any source works: a BACnet object, a Modbus register, an S7 address or a tag. In the **MQTT** panel set the broker, port (1883; 8883 with TLS), user, password and base topic; per row set the topic (empty: from the name), unit and Home Assistant device class.

With **Home Assistant discovery** on, the rows appear in Home Assistant by themselves under one device: values as sensors (BI, BO and BV as binary sensors), write rows as numbers or switches whose commands go to the object at the row's write priority. Energy rows are growing totals for the Energy dashboard, and the device shows as unavailable when the gateway stops. The password stays on this PC: it is never written to a workspace or a CSV export.

SIEMENS S7 (BETA)

BACManager reads and writes Siemens S7-1200/1500 (and S7-300/400) PLCs over PUT/GET, the same way as ModbusManager Pro: permit PUT/GET in the CPU, turn off optimized block access for the DBs, add the PLC in Tags → **Siemens S7 (beta)**... (IP, rack 0, slot 1; slot 2 for S7-300/400), then use S7

tags, the dashboard's S7 source or an S7 gateway endpoint. Addresses look like `DB1,REAL4`, `DB1,X12.0`, `MW2`. It is released as beta, tested against a simulated PLC. Guide: [S7-1200 / S7-1500 PUT/GET from a PC](#).

RUNTIME EDITION

1. In BACManager, build the dashboard and press : machine or line name, a 4–8 digit **Service PIN**, *Start with Windows*, *Fit to the machine's screen* or *Actual size*, **Export package** → a `.mmrt` file. Network settings are not in the package.
2. On the panel PC (same installer):  → **Choose package...**, restart. It opens the dashboard full screen, always dark, with finger-sized controls.
3. The kiosk opens BACnet with this PC's saved settings, sends Who-Is every 30 s until each device its tags use has answered, and polls them; Modbus and S7 connect too.

4. **Service:** `Ctrl` + `Shift` + `F12` or hold the top-right corner 5 s, then the PIN (five wrong PINs lock for a minute). The menu sets the **BACnet network** (BACnet/IP interface, port, Who-Is target, or MS/TP port, baud, MAC), the Modbus connection, S7 PLCs, installs another package, the licence, *Open the editor* (BACManager licence or trial only), *Make this an ordinary PC* and *Close the application*.

A **Runtime key** (`BACR-`, \$39 per machine) runs packages without limit; ordered by e-mail to license@bacmanager.com with the Machine IDs. Without a key the PC runs on the 14-day trial, then 2 hours at a time before polling stops. Details: [BACnet HMI Runtime](#).

WORKSPACES & TEMPLATES

 **Workspace** saves one JSON file to Documents; the folder button opens one. It holds the Modbus poll windows and their settings, the dashboard, tags and script, the Historian's logged series, the slave blocks, the BACnet simulator configuration and BACnet panel state, the BACnet request gaps, and the gateway configuration (opening a workspace asks before applying it). Connection settings stay with each PC; alarm definitions and the S7 PLC list are kept by the application. ModbusManager Pro and BACManager open each other's workspaces. **Templates** load ready Modbus poll windows for common devices.

Other device numbers. A workspace names BACnet devices by instance. When it reads devices that are not in the BACnet tab's list, BACManager asks which discovered device takes each one's place (with its own **Discover** button) and moves every point over at once: tags, dashboard elements, the script, logged series, gateway rows and endpoints, PID loops and request gaps. **Keep** leaves a number as it is; two workspace devices cannot both go to one. The gateway's own BACnet device and the simulator keep their numbers, and a Runtime kiosk is never asked. With nothing discovered the workspace loads as before and a hint names its devices. The free workspaces on the [device guides](#) open this way.

LICENSING

- **Trial:** 14 days with every feature, from the first start; reinstalling does not reset it.
- **Machine ID:**  **License** in the toolbar shows it with a copy button.
- **Buy:** on bacmanager.com enter the Machine ID and e-mail; the key (`BACP-...`) is e-mailed after checkout. Paste it in the licence window and press **Activate license**. Runtime keys start `BACR-`.
- A key is perpetual and bound to one machine; to move it to a new PC write to support@bacmanager.com. Terms: [licence terms](#).

Languages: English, German, Spanish, French, Portuguese, Ukrainian, Chinese, Polish and Estonian, from the flag in the toolbar. A few BACnet-specific labels and prompts are in English only.

NOT SUPPORTED YET

So you know before you need it, BACManager 1.4.6 does **not**:

- use BACnet/SC (secure connect) — only BACnet/IP and MS/TP;
- read Trend Log objects (they are listed, but ReadRange is not implemented);
- receive BACnet event or alarm notifications, or acknowledge device alarms;
- send DeviceCommunicationControl, ReinitializeDevice or TimeSynchronization;
- discover routers (Who-Is-Router-To-Network) or set Who-Is instance limits;
- edit exception schedules (they are shown).

TROUBLESHOOTING

SYMPTOM	CHECK
Discover finds nothing	The client is open on the right interface; the devices are on the same subnet (otherwise a directed Target IP or a BBMD); Windows Firewall allows BACManager on UDP 47808; no other program holds the port.
Devices behind a router	Register with the BBMD, or use Target IP with the device's address or a range. MS/TP devices behind an IP router answer for themselves and show "net N".
A device skips answers or reports it is busy	Set a Gap for it in the BACnet tab (the maker's minimum time between requests, per property).
MS/TP: no devices	Baud matches the trunk, the MAC is unique and within the masters' Max Master, A/B polarity and termination, the adapter's COM port.
Every value shows "error" while polling	The device may not support ReadPropertyMultiple; read single values by clicking the rows.
A write is refused	The object is not commandable, the value type is wrong (set the type in the property browser), or a higher priority holds the point — read property 87.
A dashboard value stays empty	The BACnet client is open and the device has answered Who-Is; bind the element to a BACnet tag (read on its own) or poll the device on the BACnet tab. A workspace from another site may name other device numbers — open it again after Discover. Dashboards write only in Runtime.
Gateway BACnet server not visible to the BMS	Expose mapping rows is ticked, the gateway is started, the device ID is unique on the network, rows have Dest "BACnet obj", and the firewall

SYMPTOM	CHECK
	allows UDP 47808.

FAQ

Does BACManager work on MS/TP or only BACnet/IP?

Both. With a USB-RS485 adapter it joins an MS/TP trunk as a master node and does everything it does on BACnet/IP: discover, browse, write with priority, COV, schedules and EDE export.

Which priority does BACManager write with?

The one you choose in Write priority. Tags, dashboard elements and gateway rows default to 8, Manual Operator. An empty value relinquishes the slot.

Can a BMS read Modbus devices through BACManager?

Yes. The gateway exposes mapping rows as objects of its own BACnet/IP device, which a BMS discovers with Who-Is, reads, subscribes to and writes.

Can I try it without a controller?

Yes. The built-in simulator runs a BACnet device with analog, binary, multi-state and Loop objects, plus demo Schedule and Calendar objects, on the same PC.

Is it a subscription?

No. BACManager is \$149 one-time per machine, with a 14-day free trial. Runtime is \$39 per machine.
