

Artek-MCP

An Ignition gateway, readable by an AI agent.

Free Ignition 8.3 gateway module · module id `com.artek.mcp` · distributed AS IS, unsupported · artekis.io/artek-mcp

WHAT IT IS

Artek-MCP turns an Ignition gateway into a Model Context Protocol server, so an AI agent — Claude, ChatGPT, or anything else that speaks MCP — can read and reason about that gateway directly. It is one signed Java module running in the gateway. There is no sidecar process, no broker, and nothing to write before it is useful.

The distinction that matters: most ways of connecting an LLM to Ignition give you a *framework* for publishing your own tools — the useful part is work you still have to do. This module ships a working inspection surface instead.

WHAT AN AGENT CAN REACH

BUILT IN — NO CONFIGURATION

Projects and every project resource · tags, UDTs and tag history · alarms, journals, shelving and rosters · gateway health, modules, licences, redundancy · config resources · Perspective sessions and view bindings · security inventory, users, roles, IdPs · audit log · gateway logs and diagnostics · store-and-forward · EAM · dependency graphs.

OPTIONAL — OFF UNTIL YOU TURN IT ON

Database access

Ad-hoc read-only `SELECT` against connections you name individually, plus your existing Named Queries — so an agent answers from plant data, not just tag values.

Your own functions

Declare a project library function as an endpoint and it registers as its own MCP tool, with the description and argument schema you give it. There is no arbitrary-code path.

SECURITY MODEL

- **Read-only by default.** Mutating tools are disabled on a fresh install. The mutation allowlist is empty, and empty means deny.
- **Optional providers ship disabled**, and naming no database connection exposes no database. Opting in is always an explicit act.
- **Keys can be scoped** by tool, by resource path and by database connection, with per-key rate limiting.
- **Read-only is not secret-safe.** Config secrets are redacted and logs scrubbed, but project resource bodies come back verbatim — a password hardcoded in a script is disclosed to any key that can read it.
- **Write-enabled is admin-equivalent.** A key that can write project resources can plant code the gateway will run.
- **No telemetry.** The module never calls out. It talks only to endpoints you configure.

The honest summary. Free, unsupported, and it exposes real gateway data to whoever holds a valid key. You decide what to expose, to whom, and on what network — install it where you are prepared to own that decision.

WHAT PEOPLE USE IT FOR

INHERITING A SYSTEM

Point an agent at a gateway nobody documented: which projects reference what, what a view is bound to, which named queries are dead, where a tag is really used. The dependency-graph tools answer in minutes what otherwise takes days of clicking.

TROUBLESHOOTING

“Why did line 3 stop at 04:00?” — the agent reads the alarm journal, audit log and gateway log across that window and correlates them. The same evidence you would read, faster.

ASKING THE DATA

With the database provider on, an agent answers from plant history rather than tag snapshots: downtime ranked by reason, scrap by shift, OEE against the counts it came from.

REVIEW AND AUDIT

Sweep a project for hardcoded credentials, unsecured views, disabled alarms or dead scripts — before a handover, or as a standing check.

How it compares

Three ways to put an AI agent in front of Ignition. They are not competing for the same job, and the differences are structural rather than a matter of quality.

	ARTEK-MCP	IA MCP MODULE	COMMUNITY MCP SERVERS
Tools on install	A full inspection surface, working immediately	None — you author each one	Typically 10–20
Where it runs	Inside the gateway	Inside the gateway	A separate process beside it
Publish your own functions	Yes, declared per endpoint	Yes — its central purpose	Varies
Database access	Yes, opt-in per connection	Via tools you write	Varies
Status	Released	Early Access	Community projects
Cost	Free	Free during EA; slated for the paid Enterprise Integration Solution Suite	Mostly free, open source
Support	None — AS IS	Vendor-backed once released	None

CHOOSE IA'S MODULE WHEN

You want to publish a small, deliberate set of your own tools to an LLM, you are building for the long term on vendor-supported components, and you are comfortable waiting for general availability. It is designed for precisely this, and vendor support is something we do not offer at any price.

CHOOSE ARTEK-MCP WHEN

You want an agent that already understands your gateway — for troubleshooting, auditing, documenting, or reviewing a project you have inherited — without writing a tool first. It is available today, and it also does the publish-your-own-functions job when you need it.

Both are gateway modules and nothing prevents installing both. If your gateway already runs IA's module for a set of curated tools, this one adds the broad read surface underneath it.

REQUIREMENTS AND DEPLOYMENT

Ignition version	8.3.4 or later, gateway scope. Perspective and Alarm Notification are optional dependencies — without them, the tools that depend on them do not register.
Transport	Stateless streamable-HTTP MCP at <code>/data/artek-mcp/mcp</code> . Protocol revision 2025-06-18, also accepting two earlier revisions.
Authentication	Authorization: Bearer <code><token></code> , or an OAuth resource-server mode when you enable it. The settings page authenticates by gateway web session instead, so an MCP key can never widen its own policy.
Install	Standard gateway module install. Signed by Artek Integrated Solutions and signature-verified by the gateway; the published SHA-256 is generated from the shipped binary, so you can check the download first.
Configuration	A settings page in the gateway web UI, with the manual built into the page. Most changes apply without a restart.

GETTING IT

Download, checksum and licence: artekis.io/artek-mcp. The download page carries the current version, its exact byte size and its SHA-256, all read out of the binary at publish time so they cannot disagree with the file you receive.

Artek Integrated Solutions builds and runs Ignition systems for a living. Considering this on a gateway that matters? Talk it through with us first — artekis.io/contact.