MCZ · MCP SERVERS

PC Hardware MCP manual

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PC Hardware MCP 0.2.1 lets Claude read this PC's hardware the way CPU-Z or HWiNFO do: identification (processor, caches, memory modules, board, BIOS, graphics, drives, network) and live sensors (clocks, temperatures, load, power, voltages, fans, drive health). It only reads; it never changes a setting. New to the MCP servers? Read Getting started first.

What it's for

- **Stress testing PC software.** Run your program, a build or a benchmark and have Claude watch the processor, graphics, memory and drives while it runs: `sample_sensors` gives the minimum, average and maximum of every reading over the run, so throttling, overheating or a sagging voltage shows up next to the load that caused it.
- **Monitoring hardware components.** Ask for the current temperatures, clocks, fan speeds, power draw and drive health at any time, or compare them before and after a change.
- **Proper smoke testing of a machine.** For a new, rebuilt or repaired PC, Claude can check that every part is detected as expected (`get_summary` and the per-area tools), put it under load and confirm that temperatures, fans, clocks and drive health stay within sensible limits.

PC Hardware MCP only reads: the load comes from your own software or test tools, and it never changes a setting.

How it works

- Claude starts the server (`PCHardwareMcp.Server.exe`) for each session. It runs as you, without administrator rights.
- Many sensors (processor temperatures and voltages, fan speeds, memory module data) can only be read with administrator rights. For those, setup can install an optional **sensor service**: a Windows service that runs in the background as LocalSystem from `%ProgramFiles%\PCHardwareMcp`, reads the hardware once a second, and answers the server over a local named pipe (`\\.\pipe\PCHardwareMcp`). The pipe is read-only and refuses connections from the network.
- The server only trusts the service installed in Program Files. Without the service it reads what it can by itself, and each answer says so.

- Sensor readings come from LibreHardwareMonitor. Low-level reads use the PawnIO driver, which setup can install.

Requirements

- Windows, 64-bit.
- Nothing else to install for the basics (the server is self-contained).
- For full sensor coverage: one administrator (UAC) prompt during setup, for the sensor service and, optionally, the PawnIO driver.

Install and uninstall

Run `PCHardwareMcpSetup-0.2.1.exe`. Options on the **Tasks** page:

- **Add to Claude Desktop** (registers the server as `pc-hardware`),
- **Install the sensor service** (one UAC prompt), with
- **Install the PawnIO driver** (via winget, `namazso.PawnIO`; not shown if PawnIO is already installed).

The server goes into `%APPDATA%\PCHardwareMcp\server` (per user); the service copies itself to `%ProgramFiles%\PCHardwareMcp` and is registered as the Windows service **PCHardwareMcp** (automatic start, restarts if it fails). Setup also installs the MCZ MCP Manager if needed.

The Claude Desktop entry:

```
"pc-hardware": {
  "command": "C:\\Users\\YourName\\AppData\\Roaming\\PCHardwareMcp\\server\\PCHardwareMcp.Server.exe"
}
```

Restart Claude Desktop afterwards. Silent install: `PCHardwareMcpSetup-0.2.1.exe /VERYSILENT /TASKS="claude,service,service\pawnio"` (the service still shows the UAC prompt).

Uninstall from **Settings > Apps**: it removes the `pc-hardware` entry and, after one UAC prompt, stops and deletes the service and its Program Files folder. If you decline the prompt, remove the service later from an administrator prompt with `sc.exe delete PCHardwareMcp`. PawnIO stays installed (remove it in Settings > Apps if you want). Licence keys stay in `%LOCALAPPDATA%\MCZ\products`.

By hand: `PCHardwareMcp.Server.exe --register [--name pc-hardware]` (and `--unregister`). For Claude Code:

```
claude mcp add --scope user pc-hardware -- "%APPDATA%\PCHardwareMcp\server\PCHardwareMcp.Server.exe"
```

First use

Ask Claude:

- "*Give me a summary of this PC's hardware.*"
- "*What are the CPU temperatures and clock speeds right now?*"

- "*Watch the sensors for 60 seconds while I run a game and tell me the maximum GPU temperature and whether the CPU throttles.*"
- "*Which memory modules are installed, and are they running at their rated speed?*"
- "*How healthy are my drives?*"

Claude starts with `get_summary`. The 30-day trial starts when you install the server on a computer.

Tools

15 tools: 13 hardware tools and 2 for the licence.

Group	Tools
Overview	`get_summary`
Per area	`get_cpu`, `get_memory`, `get_gpu`, `get_motherboard`, `get_storage`, `get_network`, `list_hardware`
Sensors	`get_sensors`
Over time	`sample_sensors`, `reset_min_max`
Status and diagnostics	`hardware_status`, `get_report`
Licence	`license_status`, `license_install`

- `get_summary`: processor, memory, board, BIOS, Windows, graphics and drives, with key readings.
- `get_cpu`: CPUID, instruction sets, cores and threads (with performance/efficiency cores), caches, per-core sensors.
- `get_memory`: each module (slot, size, DDR type, rated and configured speed, voltage, ranks, ECC, part number) and memory sensors.
- `get_gpu`: graphics adapters (driver, resolution) and clocks, temperatures (including hot spot), load, power, fan, video memory.
- `get_motherboard`: system, board, BIOS and Windows, plus board fans, voltages and temperatures.
- `get_storage`: disks and volumes, temperatures, remaining life, throughput.
- `get_network`: adapters, speed, addresses, gateways, DNS, throughput (`includeDown` lists disconnected ones too).
- `list_hardware`: every device with its number of sensors.
- `get_sensors`: all sensors with current, minimum and maximum, filtered by device, type or name.
- `sample_sensors`: minimum, average, maximum and last value of each sensor over 1 to 120 seconds (every 0.25 to 10 seconds). `reset_min_max` starts the recorded minimum and maximum again.
- `hardware_status`: whether the sensor service is running and trusted, whether readings are elevated, whether PawnIO is installed, and what is missing.
- `get_report`: LibreHardwareMonitor's raw report, for hardware it does not recognise.

Settings

There are no user settings. (`PCHARDWAREMCP_TRUST_ANY_SERVICE=1` makes the server accept a sensor service that is not the one in Program Files; it exists for developers only.)

Licence

30 days free, then a key. `license_status` and `license_install` always work. From a prompt: `PCHardwareMcp.Server.exe --license` shows the state (exit code 0 when the tools work, 2 when not); `PCHardwareMcp.Server.exe --license MCZ1-...` installs a key. See Getting started and the licence terms.

Troubleshooting

- **Temperatures, fans or voltages are missing**: ask Claude for `hardware_status`. "Not elevated" means the sensor service is not running or not installed: run setup again with **Install the sensor service** ticked, or start the **PCHardwareMcp** service in Services. "PawnIO missing" means the driver is not installed (tick it in setup, or `winget install namazso.PawnIO`).
- **"Cannot read the image path of pipe server process"** in `hardware_status`: version 0.2.0 could not use the sensor service unless Claude ran as administrator. Install 0.2.1 or later over it (your licence is kept).
- **Check everything at once**: `PCHardwareMcp.Server.exe --selftest` prints the status, summary and every area, and ends with `SELFTEST OK` or `SELFTEST FAILED` (add `--out file.txt` to save it). It does not use or start the trial.
- **Memory timings** (CL, tRCD and so on) are not available on any PC. Some boards (for example with DDR5 registered memory) expose no memory temperatures either; the module list itself works everywhere.
- **The server is not listed in Claude**: see Troubleshooting in Getting started.

Logs

- Service install and uninstall: `%ProgramData%\PCHardwareMcp\install.log`.
- The sensor service reports to the Windows Event Log (Application).
- Server messages go to standard error, in Claude's MCP log (`%APPDATA%\Claude\logs\mcp-server-pc-hardware.log`).
- Setup: the installer log in `%TEMP%`.

Third-party components

PC Hardware MCP includes, unmodified and under their own licences:

Component	Licence	Source
LibreHardwareMonitorLib 0.9.6	Mozilla Public License 2.0	https://github.com/LibreHardwareMonitor/LibreHardwareMonitor
BlackSharp.Core 1.0.7	Mozilla Public License 2.0	https://github.com/Blacktempel/BlackSharp
DiskInfoToolkit 1.1.2	Mozilla Public License 2.0	https://github.com/Blacktempel/DiskInfoToolkit
RAMSPDToolkit-NDD 1.4.2	Mozilla Public License 2.0	https://github.com/Blacktempel/RAMSPDToolkit

Component	Licence	Source
HidSharp 2.6.4	Apache License 2.0	https://software.seekye.com/hidsharp
MCP C# SDK 1.4.0	Apache License 2.0	https://github.com/modelcontextprotocol/csharp-sdk
.NET runtime and libraries, Mono.Posix.NETStandard	MIT	https://github.com/dotnet/dotnet

The full notices are in `THIRD-PARTY-NOTICES.txt` next to the server and the service. The **PawnIO** driver is not part of PC Hardware MCP: setup can install it from its publisher (https://pawnio.eu/), under its own licence.