

Infusion VFP MCP Server — Install, Configure, and Connect AI Agents

Product	Infusion VFP MCP Server
Version	0.5.3
Audience	Infusion operators and IT
Updated	2026-10-23

This manual is for people who **install and run** the server and **connect an AI client** to it. It is not a rebuild guide and not a full list of MCP tools.

- **Operators:** Parts 1–11 (install, folders, listener, feeds, security).
- **IT / power users:** Parts 12–16 (Cursor and other HTTP MCP clients).
- **AI agents** should load `get_agent_guide` (the same text as </docs/agents>). Do not paste this operator manual into every chat.

With the listener running, this page is also at <http://127.0.0.1:8765/docs/user-manual>.

Contents

Infusion VFP MCP Server — Install, Configure, and Connect AI Agents	1
Glossary	3
Part A — Install and configure	4
1. What this is	4
2. Before you install	4
3. Run Setup	4
4. First-run checklist	5
5. The main window	6
6. Companies and application folders	10
7. Named feeds	12
8. Security and writes	13
9. Browser (read-only)	14
10. Day-to-day	14
11. Troubleshooting	16
Part B — Connect AI agents	17
12. How MCP works here	17
13. Cursor	17
14. Other HTTP MCP clients	18
15. What to tell staff using agents	18
16. Excel, Power Query, and REST	18
Appendices	20
A. Health check	20
B. Cursor JSON (copy-paste)	20
C. Where is it?	21
Related documents (in the running app)	21

Glossary

Term	Meaning
Application Folder	Infusion install folder that contains Company.dbf and one or more DATA folders (for example C:\Infusion).
DATA folder / company	Sibling folder of company DBFs (DATA, DATA0001, ...) listed in Company.dbf.
Listener	Local HTTP/HTTPS server inside Infusion VFP MCP. Serves the browser site, REST, and MCP.
MCP	Model Context Protocol. AI clients call tools on http://127.0.0.1:8765/mcp.
VFPoledb	Microsoft 32-bit Visual FoxPro OLE DB provider (VFPoledb.1). Required for reads.
Infusion Gateway	32-bit COM DLL shipped with Infusion. Required for writes (create customer, pending invoice, and so on).
Named feed	A saved read-only SELECT the operator defines. Agents and Excel use its URL or named_query.
Allow Write	Per-company tick in the GUI plus a Staff User . Without both, write tools refuse.
Exposed	Per-company tick. Unticked folders cannot be queried or written through MCP or REST.
Azure Relay	Microsoft Azure Hybrid Connection that publishes /mcp on the internet without opening a LAN port. Infusion VFP MCP listens ; AI clients send .
Local (HTTPS)	Optional second TCP port with TLS on all interfaces (0.0.0.0) for LAN clients that need https://. Uses a Windows server certificate; HTTP Basic is required. Separate from the HTTP Port field.

Part A — Install and configure

1. What this is

Infusion VFP MCP Server is a **Windows app** that:

- **Reads** Infusion Visual FoxPro DBF files **in place** through VFPOLEDB (SELECT only), in company **DATA** folders. Application-folder files such as Company.dbf are not queried.
- **Writes** only through Infusion Gateway COM, exposed as **MCP tools** (not as REST POST APIs).
- Hosts a **local** website and MCP endpoint. It is not a cloud service and not a command-line stdio child process.

The app is **32-bit on purpose**. VFPOLEDB and Gateway COM will not load in a 64-bit process.

It is **not**:

- A replacement for Infusion Business Software
- A backup, reindex, or upgrade tool
- A posting engine (pending invoices and quotes stay unposted)

2. Before you install

On the PC:

- **Windows 11** (Windows 10 1809+ may run Setup, but Windows 11 is the supported target).
- Administrator rights to run Setup (and to install VFPOLEDB if it is missing).
- An Infusion **Application Folder** you can read (contains Company.dbf and DATA).
- **VFPOLEDB** 32-bit. Setup can install a bundled vfpoledb.exe if the installer was built with it; otherwise install from Microsoft (see [VFPOLEDB on Windows 11](#)).
- For **writes**: Infusion installed so **Infusion Gateway** COM is registered (ibsgatewayNNN.Gateway). Reads work without Gateway; create/update tools do not.

Recommendations:

- Prefer querying a **backup copy** of DATA if exclusive FoxPro locks from Infusion backups or reindex are a problem.
- Staff logged into Infusion is normal. Exclusive backup / reindex / upgrade is **maintenance** — the server will refuse queries until Infusion finishes.

The [Infusion Pre-Pilot Tools Terms](#) are shown during Setup. Open **Licence Agreement** from the Start menu or the app to read them again.

3. Run Setup

1. Run the Infusion.Vfp.Mcp-<version>-Setup.exe installer you were given **as Administrator**.
2. Accept the licence.
3. Install to the default folder: C:\Program Files (x86)\Infusion VFP MCP.
4. Optional **Tasks**:
 - Create a desktop shortcut.
 - **Install VFPOLEDB (32-bit) if missing** (only if this build bundled the provider).
5. Finish. You do **not** need the .NET SDK.

Setup copies:

- The app and Start Menu shortcuts
- Getting started notes (README.txt)
- This manual (docs\user-manual.md in the install folder)
- The Infusion Pre-Pilot Tools Terms (docs\Infusion-Pre-Pilot-Tools-Terms.md)
- Example Cursor JSON (examples\cursor-mcp.json)

Setup does **not** copy Infusion DATA, and does **not** copy named feeds. Feeds live in %AppData%\Infusion.Vfp.Mcp\named-queries.json. Upgrade and reinstall **leave that file alone**. Uninstall does **not** delete AppData or Infusion DATA.

4. First-run checklist

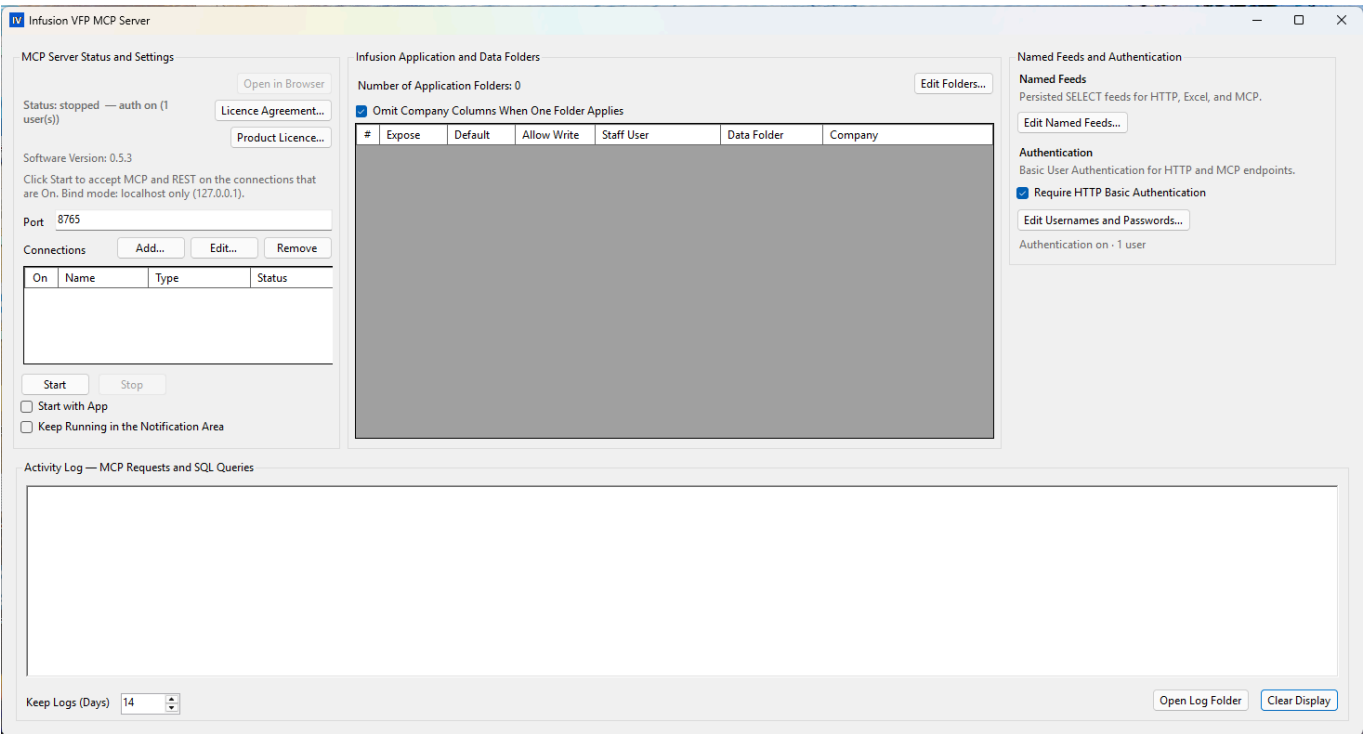
1. Start **Infusion VFP MCP** from the Start menu.
2. Click **Edit Folders...**. Add each Infusion **Application Folder** (the folder that contains Company.dbf and DATA). If you pick a DATA folder by mistake, the app walks up to the parent.
3. On the main grid, tick **Expose via MCP** for companies that agents and the browser may use. Leave the default company exposed.
4. Confirm the **Port** (assigned at first run, then kept in %AppData%\Infusion.Vfp.Mcp\settings.json). Change it while connections are stopped if you need a specific number. Switch on the **Connections** you want, then click **Start**.
5. Click **Open in Browser**, or open <http://127.0.0.1:8765/> and <http://127.0.0.1:8765/api/health>. Health should show status of ok (not maintenance).
6. Optional: tick **Start with App** so the listener starts next time you open the window. Tick **Keep in Tray** if you want the app to stay running in the notification area.
7. Leave **Local (LAN)** off unless other PCs on the LAN must connect over **HTTP**. That row is allowed only when **Require HTTP Basic Authentication** is on **and** at least one user exists. LAN REST and MCP then require that login. Allow the HTTP port in Windows Firewall. The pane shows **LAN** MCP and REST URLs when the row is on. Use **Local (HTTPS)** instead when LAN clients must use **TLS** (see **Local (HTTPS)** below). Add **Azure Relay** connections for cloud access: Relay namespace, hybrid connection name, and either a Listen shared-access policy name plus key (or paste the Listen connection string) or Azure AD tenant, application ID, and client secret. Keys are stored encrypted in AppData.
8. Copy the **MCP** URL with the icon beside it (<http://127.0.0.1:8765/mcp>) when you configure an AI client.

The application folders, which companies are exposed, the listener URL, and window size are stored in %AppData%\Infusion.Vfp.Mcp\.

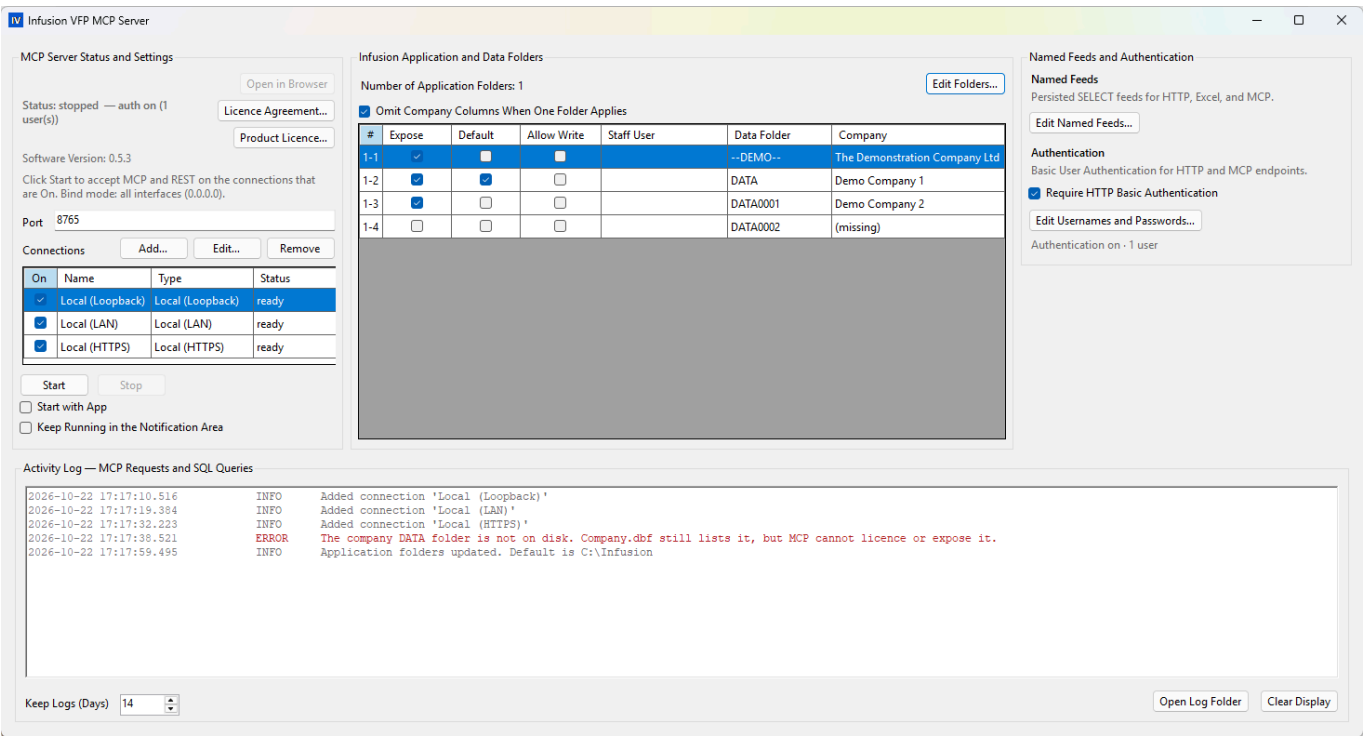
5. The main window

The window is three settings panes (they wrap on a narrow window) and **Activity Log — MCP Requests and SQL Queries** below.

After Setup, before any Infusion folder is added, it looks like this (listener stopped, empty company grid):



When folders are added, companies are exposed, and **Connections** are switched on (listener still stopped until you click **Start**):



After **Start**, status shows **running** (green). Use the copy icons beside **MCP**, **REST**, **LAN**, and (when HTTPS is configured) **HTTPS** URLs. Loopback and LAN HTTP can run while **Local (HTTPS)** still shows **error** until you **Edit...** that row and **Choose Certificate...** (see **Local (HTTPS)** below):

The screenshot shows the 'Infusion VFP MCP Server' application window. It is divided into several panes:

- MCP Server Status and Settings:** Shows the status as 'running' (green). It lists URLs for MCP, REST, LAN, and HTTPS. The 'Port' is set to 8765. There are buttons for 'Open in Browser', 'Licence Agreement...', and 'Product Licence...'. A 'Connections' table shows 'Local (Loopback)', 'Local (LAN)', and 'Local (HTTPS)' all as 'listening'. There are 'Start' and 'Stop' buttons, and checkboxes for 'Start with App' and 'Keep Running in the Notification Area'.
- Infusion Application and Data Folders:** Shows a table of application folders. The first row is selected.
- Named Feeds and Authentication:** Shows 'Named Feeds' and 'Authentication' settings. The 'Require HTTP Basic Authentication' checkbox is checked.
- Activity Log — MCP Requests and SQL Queries:** Shows a log of events, including 'MCP write policy enabled', 'Allow Write is enabled', 'MCP company exposure set', 'MCP write policy enabled', 'Starting HTTP listener', 'Local (HTTPS) is enabled', 'MCP tools (build 0.5.3): 63 in assembly, 63 registered for tools/list, 47 Gateway write tools', and 'Gateway write MCP tools: add pending backorder line. add pending invoice line. add pending po line. add pending quote line. add pending supplier invoice 1'.

MCP Server Status and Settings

- **Status** — running (green) or stopped.
- Copy icons next to advertised URLs: **MCP** / **REST** when **Local (Loopback)** is on, **LAN** MCP/REST when **Local (LAN)** is on, **HTTPS** MCP/REST when **Local (HTTPS)** is on, and **Azure** MCP when an Azure Relay row is on.
- **Connections** — local loopback, local LAN, local HTTPS, Azure Relay. Enable only the rows you need. You can **Remove** loopback or LAN if you do not want them; **Add...** puts a local row back. **Local (HTTPS)** is seeded automatically; use **Edit...** to choose a certificate. Azure-only does not advertise localhost URLs. **Add...** / **Edit...** on an Azure Relay row sets **Auth Mode** and the Listen credentials (see **Azure Relay auth options** below).
- **Open in Browser** — home page, only when a local loopback or LAN connection is enabled and the listener is running.
- **Port** — chosen at first run (a free loopback TCP port) and saved in settings. This is the **HTTP** port (loopback and, when **Local (LAN)** is on, LAN HTTP). It is **not** the HTTPS port. Disabled while the listener is running; stop the listener to change it.
- **Start / Stop** — run every connection that is switched **On**. **Start with App** repeats **Start** next time the window opens.
- **Keep Running in the Notification Area** — close box hides to the tray instead of exiting.
- **Licence Agreement...** — under **Open in Browser** (also Start menu and the tray).

Infusion Application and Data Folders

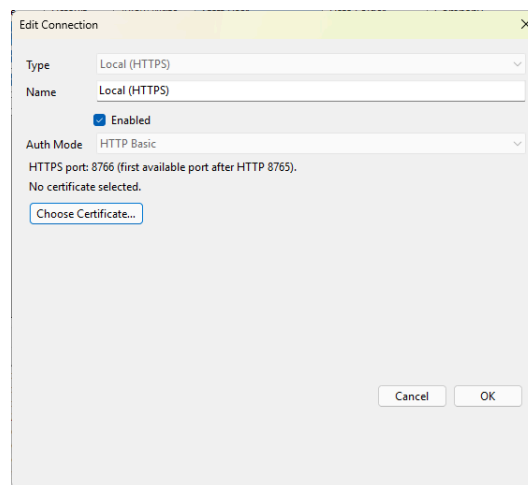
See §6 for **Edit Folders...** and the company grid.

Local (HTTPS)

Use **Local (HTTPS)** when another PC or tool on the LAN must call MCP or REST over **https://** (for example HTTPS-only clients or to avoid mixed-content issues). It is optional and independent of **Local (LAN)** HTTP.

How it works

1. Turn on **Require HTTP Basic Authentication** and add at least one user (same requirement as **Local (LAN)**).
2. **Edit...** the **Local (HTTPS)** connection. The dialog shows the **HTTPS port** that will be used: the first free TCP port **after** your HTTP **Port** (for example HTTP 8765 → HTTPS 8766, or the next free port if that port is already in use on this machine). The port is saved per MCP instance (important when several instances run on one server).
3. Click **Choose Certificate...** and pick a certificate. Only certificates suitable for **TLS server** use are listed (private key, valid dates, **Server Authentication** enhanced key usage when EKU is present; CA certificates are excluded).
4. Click **OK**, enable **Local (HTTPS)** on the connection row if it is not already on, and click **Start**. Copy the **HTTPS MCP/REST URLs** from the status pane (`https://{this-PC}:{httpsPort}/mcp`).
5. On **client PCs**, trust the certificate (enterprise CA, or install the public .cer your IT provides). Clients still send **HTTP Basic** on every request.



What stays on HTTP

- **Local (Loopback)** — `http://127.0.0.1:{Port}/...` for Cursor on the same PC, **Open in Browser**, and activity on this machine.
- **Azure Relay** — still forwards to loopback HTTP on the HTTP port; the public Relay URL remains `https://...servicebus.windows.net/...`

Limitations

- TLS **does not** replace authentication. Basic auth is still required for HTTPS LAN traffic.
- The app does **not** renew certificates. Replace the cert in Windows and **Choose Certificate...** again if the thumbprint changes.
- The app does **not** generate or install a public CA certificate for you (no Let's Encrypt wizard). Use your PKI, a manual self-signed cert, or a reverse proxy in front of HTTP LAN instead.
- **Open in Browser** still opens the **HTTP** home page on localhost — not the HTTPS LAN URL.
- If HTTPS fails to start (bad cert, port in use), **HTTP** and **Relay** can still run; the **Local (HTTPS)** row shows an error until you fix it.
- Putting Infusion Basic credentials or Azure Relay **Send** keys in a **browser** web app is still unsafe. Local (HTTPS) is for trusted LAN clients (Cursor on another PC, a server-side integration, Excel, scripts) — not for embedding `/mcp` in public JavaScript.
- Allow a second inbound **TCP** firewall rule for the **HTTPS** port when **Local (HTTPS)** is enabled.

You can run **Local (LAN)** HTTP and **Local (HTTPS)** together (two ports) during migration, or HTTPS only on the network while keeping loopback HTTP for local tools.

Azure Relay auth options

Each Azure Relay row has an **Auth Mode**. That setting is two layers:

1. **Listen** — how this PC authenticates to Azure so HybridConnectionListener can open the hybrid connection. Those values belong on the connection dialog, not in Cursor.
2. **Infusion HTTP Basic** — whether requests that arrive *through* that Relay must also present an Infusion username and password (the same users as **Edit Usernames and Passwords...**).

Auth Mode	Listen fields on the dialog	Infusion Basic on Relay traffic
Relay SAS	Relay namespace, hybrid connection, Shared Access Policy Name with Listen, Shared Access Key (or paste the Listen connection string)	Not required
Relay SAS and Basic	Same Listen SAS fields	Required
Azure AD	Relay namespace, hybrid connection, Directory (Tenant) ID, Application (Client) ID, client secret	Not required
Azure AD and Basic	Same Entra Listen fields	Required

Listen SAS is the Azure portal policy that includes **Listen** (often named Listen). Paste **Connection string—primary key** into **Or Paste Connection String**, or type namespace, hybrid connection name, policy name, and primary key separately. Do not put a **Send**-only policy here; the listener will not open.

Azure AD Listen uses an app registration that is allowed to listen on that hybrid connection (Azure RBAC for Azure Relay). The client secret is stored encrypted in AppData with the other secrets.

Start still needs Infusion HTTP Basic (and at least one user) when any enabled row is **... and Basic**, when **Local (LAN)** or **Local (HTTPS)** is on, or when the PC is Windows Server.

Clients (Cursor, REST) call `https://{namespace}.servicebus.windows.net/{hybridConnection}/mcp`. They authenticate to Azure with a **Send** shared access signature (ServiceBusAuthorization) or an Entra token that is allowed to send — not the Listen key stored in Infusion VFP MCP. If the row is **... and Basic**, they also send Infusion Authorization: Basic

Named Feeds and Authentication

- **Edit Named Feeds...** — full editor (also tray **Named Feeds...**). See §7.
- **Require HTTP Basic Authentication** and **Edit Usernames and Passwords...** — see §8.

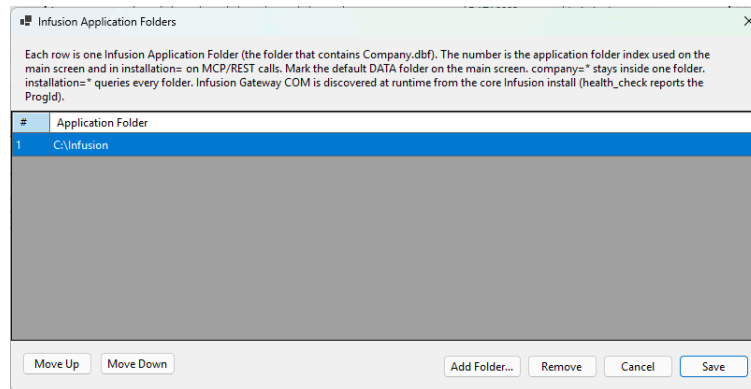
Activity log

The log shows listener start/stop, REST paths, MCP tool calls, and SQL. **Clear Display** clears only the scrolling window; log files on disk are not changed. **Open Log Folder** opens `%AppData%\Infusion.Vfp.Mcp\` in File Explorer. Restarting the app reloads recent files into the window. Use the log when checking whether Cursor actually reached `/mcp`.

If the process is 64-bit, the log will say VFPOLEDB and Gateway cannot load. Use the installed 32-bit shortcut.

6. Companies and application folders

Edit Folders... (application folders)



1. Click **Edit Folders....** The dialog title is **Infusion Application Folders**.
2. **Add Folder...** and pick the folder that contains `Company.dbf` (not a lone `DATA` folder unless you want the app to walk up).
3. Each row has **#** (1-based index for `installation=`) and **Application Folder** (path).
4. **Move Up** / **Move Down** change that index. **Remove** drops a folder from MCP (not from disk). You can remove the last folder; queries and writes stay unavailable until you add one again.
5. **Save**. If you added, removed, or reordered an application folder, read and acknowledge the **User Acceptance Summary** before the change is saved. The summary explains that AI-enabled Tools can send prompts containing Infusion data and personal information to third-party AI models, outside your environment. Mark the **default DATA folder** on the **main** grid (**Default** column), not in this dialog.

`company=*` stays inside one application folder. `installation=*` queries every configured folder. Infusion Gateway is discovered from the Infusion install at runtime (`health_check / /api/health`).

Several Infusion installs

- Omit `installation=` to use the **default** application folder.
- Pass `installation=2`, `installation=1,2`, or `installation=*` / all for **reads**.
- **Writes** must target one folder. Never pass `installation=*` on write tools.

Company grid (DATA folders)

Columns:

Column	Meaning
#	Display-only A-D (application folder, then DATA folder within it). Agents use Data Folder / <code>company=</code> , not this number.
Expose	Agents and REST may use this DATA folder
Default	Current company for that installation when <code>company=</code> is omitted
Allow Write	Gateway MCP writes allowed for this folder
Staff User	Infusion staff code used for Gateway login (combo from staff in that DATA folder)
Data Folder	Folder slug (DATA, DATA0001, ...)
Company	Name from <code>Company.dbf</code>

- The default company stays **Exposed**. Unticked **Expose** folders are rejected.
- **Allow Write** needs a **Staff User**. Writes also need Infusion Gateway registered.

7. Named feeds

Named feeds are **operator-defined** read-only SELECT statements. New installs start with **no feeds**. Agents should call `named_query(list)` first; if the catalogue is empty they use reports or SQL.

Open **Edit Named Feeds...** (pane) or tray **Named Feeds...**. The window title is **Named Feeds**. The AppData path is shown (link **Open Folder**).

Id	Summary	Area
open-jobs	All active job headers (...)	job_costing
open-quotes	Unposted INVIDX quot...	sales_invoici...
open-pos	Supplier PO lines not f...	purchasing
job-labour	Labour/time lines (JO...	—
bom-to-order	Kit BOM components ...	—
open-jobs-stale	Active jobs whose ope...	job_costing
credit-card-sup...	Bank/card cashbook p...	—

Name	Type	Required	Default	Description
status	string	☐	*ACTIVE*	JOBIDX.STATUS
*		☐		

1. **New**.
2. The editor opens in **Simple** mode: enter the feed **Id**, **Name**, **Description**, SQL, and any parameters, then save or test. Tick **Show Advanced Fields** to edit the agent catalogue and browser presentation settings. Drag the splitters between metadata, SQL, parameters, and test results to suit your screen; the editor remembers the layout.
3. In Advanced mode, fill catalogue fields so agents can pick the feed:
 - **Id** — URL slug (my-feed).
 - **Name, Summary** (one line for the catalog), **Description**.
 - **Use When** — when to choose this feed instead of `query_sql` or `run_report`.
 - **Keywords** — comma-separated (for example jobs, open jobs, wip).
 - **Tables** — comma-separated DBF names (JOBIDX, CUSTOMER).
 - **Example Prompts** — one user question per line.
 - **Area** — optional business area id (limits SQL to that module's tables).
 - **Max Rows** — 0 means the server default.
 - **HTML: Results Table Only (Scrollbars, No Page Chrome)** — browsers default to the table view; add `format=html` for the full page.
4. **SQL** — SELECT only. Use `@name` placeholders (bound as OLE DB parameters, never concatenated).
5. **Parameters** grid: **Name**, **Type** (string, number, date, bool), **Required**, **Default**, **Description**.
6. **Save**, then **Test...** (runs against the default company DATA folder; **Run** in the parameter dialog).
7. **Copy URL** — `http://127.0.0.1:{port}/api/feeds/{id}`. Add `?company=*` on the URL to run across all exposed DATA folders.

Duplicate / **Delete** as needed. Stored in %AppData%\Infusion.Vfp.Mcp\named-queries.json. Upgrade/reinstall does not replace this file.

HTTP format= on GET /api/feeds/{id}:

format	Output
json	JSON rows (column keys lowercase)
html	Full browser page (default for browsers)
table	Results table only
csv	UTF-8 CSV download

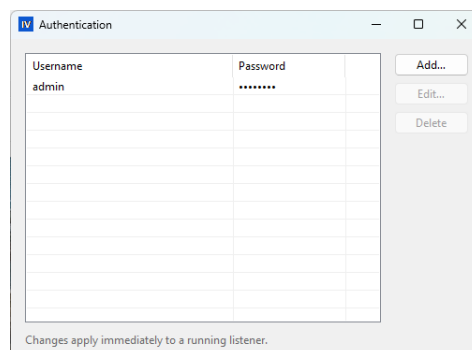
Result tables include **Save as CSV**. Add installation=* to include every application folder.

8. Security and writes

Network

- Default bind is **localhost only**.
- **Windows Server:** HTTP Basic is **required** for the local listener (including 127.0.0.1). Add a user and tick **Require HTTP Basic Authentication** before **Start**. You cannot turn authentication off or delete the last user on Server.
- Enable **Local (LAN)** only when another machine must call REST or MCP over **HTTP**. You must turn on **Require HTTP Basic Authentication** and add at least one user first. The listener will not bind HTTP to 0.0.0.0 without that when LAN is on. Requests from other machines always require HTTP Basic, even if authentication were somehow left off.
- Enable **Local (HTTPS)** when LAN clients need **TLS**. The same Basic auth rules apply. HTTPS uses a **separate** TCP port (see §5 **Local (HTTPS)**).
- **Windows Firewall:** when **Local (LAN)** is on, allow inbound **TCP** on the HTTP **Port**. When **Local (HTTPS)** is on, allow inbound **TCP** on the HTTPS port shown in **Edit...** / the status pane. Windows Defender Firewall → **Advanced settings** → **Inbound Rules** → **New Rule...** → Port → TCP → specific local port → allow the connection → choose the profiles (Domain / Private; avoid Public unless you intend it). Azure Relay does not need an inbound firewall port; the PC opens an outbound connection to Azure.
- **Azure Relay:** see **Azure Relay auth options** in §5. Listen credentials stay on this PC. Internet clients use a Send SAS or Entra send token. Modes **Relay SAS and Basic** and **Azure AD and Basic** also require Infusion HTTP Basic.

HTTP Basic authentication (required on Windows Server; optional on Windows 10/11 for localhost)



1. In **Named Feeds and Authentication**, tick **Require HTTP Basic Authentication**.
2. **Edit Usernames and Passwords...** — add at least one user.
3. Changes apply immediately to a running listener.
4. Browser, REST, and MCP clients must send Authorization: Basic ... (see Part B).

Writes

- REST and the browser **cannot** create or update Infusion data.
- In the company grid, tick **Allow Write** and pick a **Staff User** (Infusion staff code for that DATA folder) for that company. Changes apply while the listener is running.
- Infusion Gateway must be registered (/api/health shows GatewayProgId).
- Pending documents stay **unposted**. Do not ask agents to post invoices, payments, or GL.
- create_customer, create_pending_invoice, create_pending_quote, and create_job can use autoNumber=true to allocate their number in the same Gateway session. Otherwise the caller supplies the account, invoice, quote, or job number.
- Pending invoice and quote lines accept either an agreed rate (and optional discount) or autoPrice=true for Infusion customer/product pricing. Do not combine automatic and manual pricing; manual rates use the company's existing Infusion stock-price GST convention.
- Customer create/update supports delivery address, compatibility contact-name fields, and an alternative phone. Use create_contact for a proper customer or supplier contact record.
- Pending quotes can include jobId to link the quote to that customer's existing job. Active job headers can update **Assigned To**, **Job Notes**, and **Tech Notes**; MCP does not add WIP job lines or complete/close jobs.

Reads

- Sensitive card, bank, and tax-number columns are removed from query results.
- Deleted FoxPro records are omitted.

Maintenance

If Infusion has exclusive access (backup, reindex, upgrade), health returns **503** with status=maintenance and exclusiveAccess=true. Do not query or write until health is ok again.

9. Browser (read-only)

With the listener enabled:

Page	Address
Home	http://127.0.0.1:8765/
This manual	http://127.0.0.1:8765/docs/user-manual
Read and Write Guide	http://127.0.0.1:8765/docs/agents
Reports	http://127.0.0.1:8765/api/reports
Named Feeds	http://127.0.0.1:8765/api/feeds
Fiscal Context	http://127.0.0.1:8765/api/fiscal-context
Business Areas / area query	http://127.0.0.1:8765/api/business-areas
Health	http://127.0.0.1:8765/api/health
Help index	http://127.0.0.1:8765/docs

Queries are capped (default 500 rows). Use **Save as CSV** on result tables. There is no REST "create customer" API.

Open in Browser from the GUI (or tray) opens the home page. Confirm health at /api/health in the same browser session if authentication is on (the browser will prompt for the Basic user).

10. Day-to-day

- Leave **Infusion VFP MCP** running (window or tray) while agents or Excel call it.

- **Tray** (when **Keep Running in the Notification Area** is on): closing the window hides the app. Right-click the tray icon: **Open Window**, **Open in Browser**, **Named Feeds...**, **Edit Usernames and Passwords...**, **Licence Agreement...**, **Exit**. Double-click restores the window. **Exit** is what actually stops the listener.
- Infusion can be open for normal users. Exclusive backup/reindex/upgrade is maintenance.
- Settings, credentials, named feeds, and activity logs: %AppData%\Infusion.Vfp.Mcp\. Logs are daily files activity-yyyy-MM-dd.log. **Keep Logs (Days)** (default 14, range 1–365) deletes older files. **Clear Display** does not delete files. **Open Log Folder** opens that AppData folder. A single day is still capped at about 2 MB.
- To change port: **Stop**, set the port, **Start**. If the port is in use, pick another or stop the other program.
- After Infusion repair, confirm Gateway still appears on /api/health.
- After Windows updates that break VFPOLEDB, reinstall the 32-bit provider.
- **Upgrade:** run the new Setup over the existing install. Named feeds and credentials in AppData are kept.
- **Uninstall:** Windows **Settings** → **Apps** (or Control Panel). Uninstall does **not** delete %AppData%\Infusion.Vfp.Mcp\ or Infusion DATA. Delete AppData yourself if you want a clean credentials/feeds reset.

11. Troubleshooting

Problem	What to do
VFPOLEDB.1 provider is not registered	Install 32-bit VFPOLEDB; see VFPOLEDB on Windows 11 . Reboot if the wizard asked.
VFP DATA folder not found	Edit Folders... and pick the application folder (Company.dbf + DATA), not a random directory.
Browser or Cursor: connection refused	Start the GUI, click Start , then open /api/health.
Address already in use	Change the listen port, or stop the other program on 8765.
HTTP 401	Authentication is on (always for LAN, and always for the local listener on Windows Server). Add Basic auth in the browser or in the MCP client JSON.
Cannot enable Local (LAN)	Add a user under Edit Usernames and Passwords... , tick Require HTTP Basic Authentication , then try again.
Cannot enable Local (HTTPS)	Same as LAN (user + Basic). Edit... Local (HTTPS) and Choose Certificate... before enabling the row.
Local (HTTPS) shows error, HTTP works	Certificate expired, wrong thumbprint, or HTTPS port in use. Edit... to pick a valid cert; stop listener and Start to re-allocate port if needed. Check the activity log.
TLS errors from another PC	Trust the server cert on the client, or use a cert from your enterprise CA. Hostname in the URL should match the cert SAN/CN when clients validate strictly.
Cannot Start on Windows Server	Add a user, tick Require HTTP Basic Authentication , then try again.
status=maintenance	Wait until Infusion finishes exclusive backup/reindex/upgrade.
Write tools fail / Gateway not registered	Repair Infusion so Gateway COM registers. Tick Allow Write and set Staff User .
Tools missing in Cursor	Listener must be on before Cursor connects. In Cursor MCP settings, reload/refresh the server, or restart Cursor. Confirm URL is /mcp on the same port. Enable auth header if Basic is on.
LAN clients 401 with no login prompt in the JSON	External access always needs Basic auth. Add a user, turn auth on, put Authorization on the client.
Firewall blocks other PCs	Inbound TCP rule for the HTTP port and (if used) the HTTPS port; Local (LAN) or Local (HTTPS) on; auth + user configured.
Azure Relay will not listen	Use a policy with Listen , not Send-only. Check namespace and hybrid connection name. Entra Listen needs tenant, app ID, and a secret, plus Relay listen rights on that entity.

64-bit / "provider not registered" on a custom copy Use the installed x86 app under Program Files (x86).

Part B — Connect AI agents

12. How MCP works here

- Transport is **HTTP MCP** (or **HTTPS MCP** on the LAN HTTPS port), not stdio. The client opens `http://127.0.0.1:8765/mcp` on the same PC, or your **LAN / HTTPS** URL from the status pane if external connections are on.
- The **listener must be running**. If you close the app without tray, clients fail.
- Any client that supports a **remote MCP URL** can connect. Cursor is the documented example.
- After connect, the client lists tools (`tools/list`). Operators should not paste SQL into MCP JSON.

Typical first tools for an agent:

1. `health_check`
2. `get_agent_guide`
3. For writes: `get_gateway_write_catalog` and `list_companies` (confirm AllowWrite)

13. Cursor

1. Start Infusion VFP MCP and click **Start**. Confirm health at `/api/health` on the port shown in the GUI.
2. In Cursor open **Settings** (not VS Code "Extensions" only). Go to **MCP** (Cursor Settings → MCP). Use **Add new MCP server** / edit `mcp.json` and paste a server entry.
3. Start from the Start menu **Cursor MCP Example**, or copy `%ProgramFiles(x86)%\Infusion VFP MCP\examples\cursor-mcp.json`. If that example includes an Authorization header you do not use, remove the headers block. If you **do** use Basic auth, keep headers and put your Base64 token in (see Appendix B).
4. Save. In the MCP panel, enable the `infusion-vfp` server if it is toggled off. Use refresh/reload if tools do not appear.

Without authentication:

```
{
  "mcpServers": {
    "infusion-vfp": {
      "url": "http://127.0.0.1:8765/mcp"
    }
  }
}
```

With HTTP Basic authentication, add a header. The value is Basic plus Base64 of username:password (UTF-8). Example shape (replace the token):

```
{
  "mcpServers": {
    "infusion-vfp": {
      "url": "http://127.0.0.1:8765/mcp",
      "headers": {
        "Authorization": "Basic REPLACE_WITH_BASE64_OF_USER_COLON_PASSWORD"
      }
    }
  }
}
```

5. Confirm tools such as `health_check`, `query_sql`, `run_report`.
6. Optional: copy the project skill `.cursor/skills/infusion-vfp-mcp/` into a repo so agents call `get_agent_guide` first. The same short skill is at </docs/cursor-skill>.

If tools do not appear: listener off, wrong port, missing auth header, or Cursor started before the listener — enable the listener, then reload MCP / restart Cursor.

14. Other HTTP MCP clients

Any agent host that can call a URL (not only Cursor) needs:

Setting	Typical value
Server URL	<code>http://127.0.0.1:8765/mcp</code>
Bind	Same PC, or LAN URL if Local (LAN) is on
Headers	Authorization: Basic ... if Infusion Basic is on (required for LAN, Windows Server, and Azure ... and Basic). Azure Relay Send also needs ServiceBusAuthorization (Send SAS or Entra), not the Listen key.

After connect:

1. Call `health_check`. Stop if status is maintenance.
2. Call `get_agent_guide` (full read/write rules).
3. For creates/updates, call `get_gateway_write_catalog`. The operator must have ticked **Allow Write** and a **Staff User**.

Do not invent a second tool catalogue in the client. The live list is `tools/list` on `/mcp` and `GET /api/mcp-tools`.

15. What to tell staff using agents

- **Reads** (reports, SQL, feeds) work when the company is **Exposed**.
- **Writes** need **Allow Write** + staff. Agents must not post invoices, payments, or GL.
- Prefer **named feeds** the operator defined and `run_report` (trial balance, P&L, aged lists, GST). Do not invent P&L SQL against FINTRANS.
- `company=*` / `installation=*` are **read-only** fan-out.
- If health is **maintenance**, wait.

Example prompts (the agent should pick tools from the guide):

Ask	Expect
Trial balance / P&L / aged debtors	<code>get_fiscal_context</code> then <code>run_report</code>
Open jobs / a saved feed	<code>named_query(list)</code> then run the matching id
New debtor	<code>health_check</code> , <code>list_companies</code> , then <code>create_customer(autoNumber=true)</code> (MCP only)
Unposted invoice	<code>create_pending_invoice(autoNumber=true)</code> → priced lines → total; do not post

16. Excel, Power Query, and REST

The browser and REST are **read-only**. Useful without MCP:

- Named feed: `GET http://127.0.0.1:8765/api/feeds/{id}?format=csv`
- Report: `GET http://127.0.0.1:8765/api/reports/aged_debtors?format=csv`
- Health: `GET http://127.0.0.1:8765/api/health`

If authentication is on, send the same Basic header. For Power Query, omit `company=*` if you need a stable column set (fan-out adds `CompanyCode / CompanyName`).

Appendices

A. Health check

Open <http://127.0.0.1:8765/api/health> (JSON) or the home page. MCP `health_check` returns the same shape.

Healthy example (trimmed; your paths and counts will differ):

```
{
  "Status": "ok",
  "DataPath": "C:\\\\Infusion\\DATA",
  "DataPathExists": true,
  "TableCount": 180,
  "VfpoledbAvailable": true,
  "ProcessIs64Bit": false,
  "ExclusiveAccess": false,
  "InfusionRoot": "C:\\\\Infusion",
  "CurrentCompany": "DATA",
  "Issues": [],
  "GatewayProgId": "ibsgateway843.Gateway",
  "GatewayDllPath": "C:\\\\...\\ibsgateway843.dll",
  "McpToolCount": 40,
  "McpGatewayWriteToolCount": 22,
  "Companies": [
    {
      "Code": "DATA",
      "Name": "Demo Company",
      "Exposed": true,
      "IsCurrent": true,
      "AllowWrite": true,
      "WriteStaffCode": "ADMIN"
    }
  ]
}
```

Field	What you want
Status	ok — not maintenance, error, or degraded
VfpoledbAvailable	true
DataPathExists	true
ProcessIs64Bit	false
ExclusiveAccess	false (true means Infusion exclusive backup/reindex/upgrade)
GatewayProgId	Set if you need writes
Companies[]	Exposed, AllowWrite, WriteStaffCode as you configured
Issues	Empty array

McpGatewayWriteToolCount is how many write tools this build registered. REST still cannot call them. Status of maintenance is HTTP **503**.

B. Cursor JSON (copy-paste)

Local, no auth — see §13.

Local, Basic auth — encode username:password as Base64 and put it after Basic . In PowerShell:

```
[Convert]::ToBase64String([Text.Encoding]::UTF8.GetBytes("username:password"))
```

Example URLs below use port **8765**. Use the **Port** in the GUI (and the copy icons) if yours differs.

C. Where is it?

Item	Location
Application	C:\Program Files (x86)\Infusion VFP MCP\Infusion.Vfp.Mcp.exe
This manual (install folder)	C:\Program Files (x86)\Infusion VFP MCP\docs\user-manual.md
This manual (in the app)	http://127.0.0.1:8765/docs/user-manual
Cursor example	C:\Program Files (x86)\Infusion VFP MCP\examples\cursor-mcp.json
Settings, feeds, credentials, logs	%AppData%\Infusion.Vfp.Mcp\ (activity-yyyy-MM-dd.log)
MCP endpoint	http://127.0.0.1:8765/mcp
Help index	http://127.0.0.1:8765/docs
Agent tool guide	http://127.0.0.1:8765/docs/agents (get_agent_guide)

Related documents (in the running app)

Document	Use
Read and Write Guide	What agents may query and write (tool names, joins, posting rules)
Cursor Skill	Short skill text: call get_agent_guide first
VFPOLEDB on Windows 11	Provider install if Setup did not bundle it
README	Project readme (same topics in shorter form)