AI Integration in MDOpen for VS Code

MDOpen for VS Code includes an embedded **MCP server** (Model Context Protocol) that lets AI assistants answer questions about your IBM i application. You ask in plain words, and the assistant answers from **MDiQ** through your active MDOpen connection: counts, lists, where-used, call charts, source and more.

> **Beta**
>
> The AI integration is in beta. The assistant only **reads** and opens views: it changes nothing on the IBM i. The only repository actions it can take are switching, creating and copying a repository, and you are always asked to confirm first. It cannot delete or build a repository.

Supported AI Clients

The extension registers an MCP server called `mdopen` and installs its AI skills, so the tools are available in any folder you open.

GitHub Copilot in VS Code	**Cursor** Agent
Claude Code and the Claude desktop app	**Codex**

Getting Started

1. Install or update the MDOpen extension and reload the window.
2. Connect MDOpen to MDiQ as usual and **select a repository**. The assistant works against the selected repository unless you name another one.
3. Open your AI client and ask: *"which MDOpen tools do you have?"*. You should see tools such as `mdiq_list`, `mdiq_where_used`, `mdiq_source`, `mdiq_ile_chart` and the `open_...` view tools.

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Tools not showing?

Run **MDIQ: Refresh MCP** from the command palette, then restart your AI client. For Codex, run **MDIQ: Configure Codex MCP**.

Where the Answer Goes

The words you use decide where the answer appears. A format word ("as JSON", "to a file") always wins over the verb.

A question (how many, which, who, is there) or **give me X**	The answer **in chat**. Nothing opens.
Show / open / list / display, a diagram, metrics	An **MDOpen view** opens. The chat gets one line.
... as JSON or **in the editor**	A **VS Code editor tab** with the JSON.
... to a file or **save as a file**	A **file** on disk. The chat gives you its path.
show me the call chart of X	The **MDOpen call chart view**.
ILE chart of X or **give me the call chart of X**	An **interactive page** in a VS Code tab (tree and flowchart, click to expand).
the call chart of X as a flowchart	A **flowchart in chat**, with a short explanation.
get me the source of X	A **read-only editor tab** with the source member.
export / save / extract with no format word	The assistant **asks once**: JSON in an editor tab, or a file.

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> **Note**
>
> When a list has more than about 50 rows, you get the count, ten names and one question: open the view, JSON in an editor tab, or save a file. When a request is unclear, the assistant asks **one** question with at most four options instead of guessing.

Commands

To be sure where the answer goes, start your message with a command. The command decides the result, whatever the wording.

/md-show	Opens an MDOpen view	`/md-show RPGLE programs`
/md-list	Rows in chat	`/md-list programs that call CUST`
/md-json	JSON in an editor tab	`/md-json service programs of library MDVISDEM`
/md-find-object	What the object is, in chat	`/md-find-object CUST`
/md-dependency	What a program uses, grouped by kind	`/md-dependency CUST`
/md-impact	What a change to an object affects	`/md-impact CUSTDATA`
/md-ile-chart	The interactive ILE chart page	`/md-ile-chart CUST`
/md-report-bad-answer	A report file of the conversation (see below)	`/md-report-bad-answer`

Example Prompts

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Example

- *how many RPGLE programs are there?*
- *who uses CUSTDATA?*
- *show me the RPGLE programs*
- *give me the program list as JSON*
- *write the physical files of library MDVISDEM to a file*
- *ILE chart of CUST*
- *how many programs in SKU_VISDEM?* (another repository, no switch needed)

Working with Another Repository

A question, a count or JSON for another repository works without switching. Opening a **view** for another repository asks you to **Confirm / Cancel** the switch first, because switching closes the open panels of the current repository.

Report a Bad Answer

Help us improve the assistant

When an answer is wrong, slow or opens the wrong thing, say **"report this"** in the same chat, or run **MDIQ: Report a bad answer (AI)** from the command palette.

A file is written to `~/Documents/mdopen-feedback/` with every tool call of the session and your note. Object, library and repository names are replaced and secrets are removed. **Nothing is sent automatically**: review the file and send it to Midrange Dynamics support.

Settings

These settings are found under **MDOpen** in the VS Code settings.

mdopen-86.mcp.enabled	Enables the embedded MDOpen MCP server for AI clients. Default `true`.
mdopen-86.mcp.port	Fixed localhost port of the MCP server. Default

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	`6286`.
mdopen-86.mcp.syncOnFolderOpen	Re-syncs the Claude Code, Codex and workspace MCP configuration when a folder is opened. Default `true`.
mdopen-86.mcp.autoOpenAgentWorkspace	When no folder is open, opens `~/mdopen-agent` so Claude Code and Codex have a project. Default `false`.
mdopen-86.mcp.workspaceSkills	Also writes the MDOpen AI skills into the open workspace folder (excluded from git). Default `false`.
mdopen-86.mcp.callLog	Keeps a local log of MCP tool calls, used by **Report a bad answer**. Kept for 7 days, never sent anywhere. Default `true`.

Related commands in the command palette: **MDIQ: Refresh MCP**, **MDIQ: Configure Codex MCP**, **MDIQ: Copy Claude Code MCP setup command** and **MDIQ: Remove AI agent files**.

Known Limitations

> ⚠ **Warning**
>
> - The ILE chart does not show procedure-to-procedure calls, and the interactive page opens at 4 levels and 60 nodes.
> - Fields and variables have no where-used data: the where-used view opens instead.
> - **Explain Code** on a large program can take longer than the wait; the assistant says it is still running.
> - A `_` in a name matches any single character, so `CUST_` also finds `CUST2`.
> - Which tool is picked depends on the AI model, so wrong picks can happen. Please report them.

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