

VCJump Installation Guide

Codex-first setup for Siemens TIA Portal V21

VCJump v0.12.2-beta

The normal installation path is guided by Codex. You download and extract VCJump, open Codex, and let Codex run the packaged installation and setup tools for you. PowerShell commands remain available for advanced or manual use, but they are not the primary workflow.



What you do

- ✓ Download and extract the VCJump ZIP.
- ✓ Open Codex and give it the installation instruction from this guide.
- ✓ Approve Siemens Openness manually if TIA Portal asks.
- ✓ Send the generated license request and place the returned license when received.

What Codex does

- ✓ Reads the packaged README / INSTALL instructions.
- ✓ Runs installation and diagnostics.
- ✓ Runs the license-request workflow.
- ✓ Discovers TIA project / VCI workspace and performs VCJump setup.

Before you begin

What must already be available on your workstation.

1 System requirements

- ✓ 64-bit Windows engineering workstation.
- ✓ Siemens TIA Portal V21 with STEP 7 installed.
- ✓ Siemens TIA Openness / Public API V21 installed and available.
- ✓ Windows user has Siemens TIA Openness access permission/group membership.
- ✓ .NET Framework 4.8 or later.
- ✓ PowerShell 5.1 or later.
- ✓ Codex installed and able to work with the local extracted VCJump folder.
- ✓ A TIA Portal V21 project you intend to use; create or connect the VCI workspace in Step 4.
- ✓ A valid VCJump Trial or paid license before runtime use.

2 Important operating boundaries

- ! VCJump works with PLC software inside the approved project/workspace scope.
- ! VCJump does not download to the PLC and does not perform online PLC operations.
- ! VCJump does not modify hardware configuration, network configuration, or device addresses.
- ! Keep TIA Portal visible during the first VCJump connection so you can approve Siemens Openness if prompted.

3 One manual Siemens step

A small icon representing the TIA V21 software, with the text 'TIA V21' in white on a black background.

First Openness authorization

The first time VCJump connects to TIA Portal, Siemens may display an Openness authorization prompt. This is expected Siemens behavior. Switch to TIA Portal and approve VCJump manually. VCJump will continue after approval.

Step 1 - Download, extract, and open Codex

You do not start by editing PowerShell commands.

1 Download the VCJump release

Download the current VCJump ZIP from vcjump.com and extract it to any normal local folder. The ZIP location is not fixed; Desktop, Downloads, or another local tools folder are all acceptable.



Example

C:\Users\<User>\Downloads\VCJump-v0.12.2-beta\

2 Open Codex with access to the extracted folder

Open Codex and make sure it can access the folder you just extracted. Do not point Codex at an older VCJump release.

3 Give Codex the packaged installation instruction

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```
Install VCJump from this extracted package and guide me through the complete initial setup.
Use only files in this extracted VCJump package and follow its README, INSTALL, and CODEX_INSTALL
instructions.
Run installation and diagnostics for me.
When we reach licensing, ask whether I want the free Trial or already have a perpetual license, then follow
the packaged licensing flow.
Stop when I must send a license request or provide the returned license.json.
When TIA Portal, Siemens Openness, Windows, or UAC requires manual approval, stop and tell me exactly what to
approve.
Show me the detected project, VCI workspace, and allowed PLC software scope before Apply.
Do not bypass licensing or ownership checks, broaden PLC scope, modify unrelated project content, perform PLC
download or online operations, or change hardware, networks, or device addresses.
```



Why this is the normal path

Codex runs the packaged VCJump tools on your workstation. You provide answers and approvals in Codex or Siemens dialogs instead of editing command syntax.

Step 2 - Codex installs VCJump and runs diagnostics

Installation is guided by Codex using the packaged VCJump tools.

1 What Codex should do

- ✓ Read the packaged README and INSTALL guide first.
- ✓ Run the standard no-argument VCJump installer.
- ✓ Accept or confirm the standard installation directory unless you ask for another path.
- ✓ Run VCJump diagnostics after installation.
- ✓ Report any missing prerequisite before attempting workarounds.



Normal installation target

C:\Tools\VCJump-0.12.2-beta

Advanced users may still select another install directory.

2 Diagnostics Codex verifies

- | | |
|----------------------------|--|
| ✓ Windows x64 | ✓ TIA Openness / Public API |
| ✓ VCJump package integrity | ✓ STEP 7 availability |
| ✓ .NET Framework 4.8+ | ✓ VCJump license directory / local state |
| ✓ TIA Portal V21 | |

3 What you should see

Installation complete

Codex should confirm that the package installed successfully and that required diagnostics passed.

If TIA or Openness prerequisites are missing, fix those before continuing.

Step 3 - Choose and complete licensing

Codex guides the licensing step; you do not place personal details inside a PowerShell command.

1 Tell Codex which license path you need

Codex may already ask which license you want. If it does, answer its questions directly. Otherwise use one of the ready prompts below; Codex should stop whenever a manual license action is required.

FREE TRIAL - 14 DAYS

Create my VCJump Trial license request and guide me through the next step.
Stop when I need to send the machine-bound request or provide the returned license.json.

PERPETUAL LICENSE

I have a VCJump perpetual license. Guide me through activating it on this workstation.
If a machine-bound request or returned license.json is required, stop and tell me exactly what to provide.

2 What happens next

For a Free Trial



- Codex runs the packaged interactive Trial request.
- You provide your name and email through prompts.
- The request records LicenseType: Trial.

For a Perpetual license

If you already received license.json, provide it to Codex for placement and verification. If issuance for this workstation still requires a machine-bound request, Codex will stop and tell you when to send it to VCJump support.

3 Machine-bound request and returned license

When a request is required, VCJump creates:

C:\VCJump\Licenses\license-request.json

Do not edit the JSON manually.

4 Send / return only when required

support@vcjump.com

Send license-request.json when issuance is required.

Place the returned file at C:\VCJump\Licenses\license.json and let Codex run license-check.

Step 4 - Prepare TIA Portal and the VCI workspace

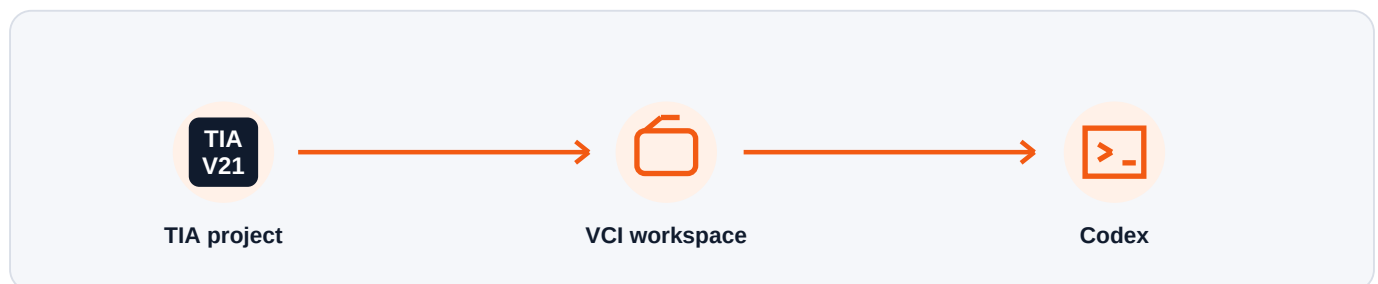
This is the main Siemens-side preparation before VCJump onboarding.

1 Open or create the TIA Portal V21 project

- ✓ Open the TIA Portal V21 project you want to use, or create a new one for first-time onboarding.
- ✓ Keep TIA Portal open and visible during first-time setup.
- ✓ Do not connect or download to a production PLC as part of installation.

2 Create or connect a VCI workspace

In TIA Portal, create or connect the local Version Control Interface workspace that will be used with Codex and VCJump.



3 A new VCI workspace must not be empty

- ! Open Project tree > Version control interface and open the intended workspace.
- ! In Workspace configuration, set both supported file types to SIMATIC SD: S7DCL (*.s7dcl) and S7RES (*.s7res).
- ! Copy/export at least one PLC software folder or software unit into the VCI workspace (for example Program blocks).
- ! Confirm mapped PLC software is visible before continuing. VCJump uses this VCI content to infer safe PLC ownership.

4 If Siemens asks to authorize Openness

Switch to TIA Portal and approve the VCJump Openness request manually. Do not wait for Codex or VCJump to approve Siemens authorization automatically.

Step 5 - Let Codex run VCJump setup

Codex discovers the open project and the prepared VCI workspace.

1 Tell Codex to continue setup

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Continue the VCJump first-time setup using the open TIA Portal project and the prepared VCI workspace.
Use the packaged interactive setup.
Show me the discovered project, workspace, and allowed PLC software scope before applying anything.
Stop and ask me if Siemens Openness needs approval or if the discovered scope is unexpected.

2 What VCJump/Codex discovers

- ✓ Currently open TIA Portal V21 project.
- ✓ Available configured VCI workspace(s).
- ✓ Workspace directory and default workspace.
- ✓ Mapped PLC software ownership / allowed PLC scope.
- ✓ A sensible default profile name based on the project.

3 Proposal first - no active configuration yet

Codex should show you a proposal containing:

- ✓ TIA project
- ✓ VCI workspace + directory
- ✓ Allowed PLC software
- ✓ Profile name

Nothing is active until Apply.

Review the proposal. If the project, workspace, or PLC scope is wrong, do not apply it.

4 Apply after review

After you review the proposal and confirm that the project, workspace, and PLC scope are correct, approve that exact proposal in Codex. VCJump performs fresh validation and refuses to silently apply a materially changed scope.

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Yes. I approve this exact proposal.
Apply it using the packaged VCJump Apply flow.
Do not broaden or change the project, workspace, or PLC software scope.
Report the Apply result and stop before starting VCJump.

Step 6 - Start, verify, and work from Codex

After Apply, VCJump is ready to bridge Codex and TIA Portal.

1 Ask Codex to start VCJump

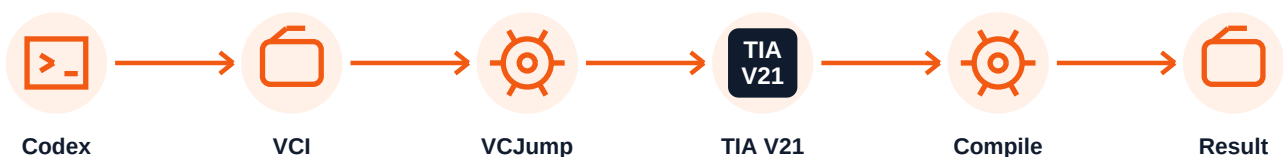
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Start VCJump using the active configuration and verify that the server is Healthy.
Confirm the active TIA project, default VCI workspace, and allowed PLC software scope.
Do not perform any PLC download or online operation.

2 Healthy startup should confirm

- ✓ VCJump server status: Healthy.
- ✓ Expected TIA project connected.
- ✓ Expected VCI workspace selected as DefaultWorkspace.
- ✓ Only the approved PLC software scope is visible/allowed.
- ✓ Trial or paid license remains valid.

3 Normal engineering workflow



Validated VCJump flow

- ✓ Codex edits approved VCI PLC software.
- ✓ VCJump synchronizes into TIA Portal.
- ✓ TIA Portal performs compilation.
- ✓ VCJump validates and saves only after successful checks.
- ✓ Result/project state returns to the Codex/VCI workflow.

Stop VCJump

When you finish working, stop the VCJump runtime without uninstalling it.

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Stop VCJump on this workstation.

- ✓ Your license, profile and configuration are preserved.

Troubleshooting

Most first-time issues have a simple, safe explanation.

1 TIA Portal appears to be waiting

Check TIA Portal for a Siemens Openness authorization dialog. Approve VCJump manually.

2 No workspace is available

Create/connect a VCI workspace in TIA Portal and export the intended PLC software into it.

3 Workspace is empty

Export/link at least the intended PLC software scope before VCJump setup.

4 License is missing or invalid

Confirm that license.json is present under C:\VCJump\Licenses and ask Codex to run license-check.

5 Wrong project detected

Open the TIA project that matches the reviewed VCJump configuration.

6 VCJump server is not running

Ask Codex to start VCJump and verify status. Do not bypass configuration checks.

Safety reminder

VCJump is a controlled engineering bridge. It does not download to PLCs, perform online PLC operations, or modify hardware, network configuration, or device addresses.

Uninstall with Codex

Remove the VCJump application while keeping your license and configuration available for a future reinstall.

1 Ask Codex to uninstall VCJump

COPY INTO CODEX

```
Uninstall VCJump from this workstation.  
Use only the packaged VCJump uninstall tools and instructions.  
Stop VCJump safely before removing the application.  
Preserve my VCJump license and configuration.  
Do not modify TIA Portal, VCI workspaces, PLC software, Codex projects, or unrelated files.  
Confirm when the application has been removed and my license and configuration were preserved.
```

2 What uninstall removes

VCJump application

- VCJump runtime and executable files
- Installed scripts and application documentation
- The VCJump installation directory

VCJump keeps

- Your license
- Your profiles and reusable configuration
- Persistent VCJump data used for reinstall

3 Your engineering work stays untouched

- ✓ TIA Portal and Siemens engineering software are not removed or modified.
- ✓ TIA projects and VCI workspaces are left unchanged.
- ✓ PLC software, hardware, networks, device addresses, and online state are not modified.
- ✓ Codex projects, source repositories, and unrelated files are left untouched.

Reinstall later

Your license and configuration stay on this workstation.

If you install VCJump again on the same workstation, the preserved license and profiles remain available.

Advanced / manual installation

PowerShell remains available as a fallback and for automation. It is not the primary installation path.

1 Manual Quick Start

```
.\Install-VCJump.ps1
.\Request-VCJumpLicense.ps1
.\VCJump.exe license-check
.\Setup-VCJump.ps1
.\Setup-VCJump.ps1 -Apply
.\Start-VCJump.ps1
.\Test-VCJump.ps1
.\Stop-VCJump.ps1
.\Uninstall-VCJump.ps1
```

2 Advanced parameters are still supported

- ✓ -InstallDirectory
- ✓ -ConfigurationDirectory
- ✓ -Profile
- ✓ -DefaultWorkspace
- ✓ -WorkspaceId
- ✓ Low-level VCJump.exe license-request command

Use the Codex-first flow for normal installation and uninstall. Use manual commands only when needed.

Support: support@vcjump.com