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Power Platform CLI Exposed

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Exposed



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Do you want these slides?

- Download link:
 - <https://aka.ms/nordic-summit-2023>

Agenda

- What is a CLI?
- What is the Power Platform CLI?
 - How do I get it?
 - How do I use it?
- Command Groups

Agenda

- Newest update
- Other uses of the Power Platform CLI
- Q & A
- Resources

What is a CLI?



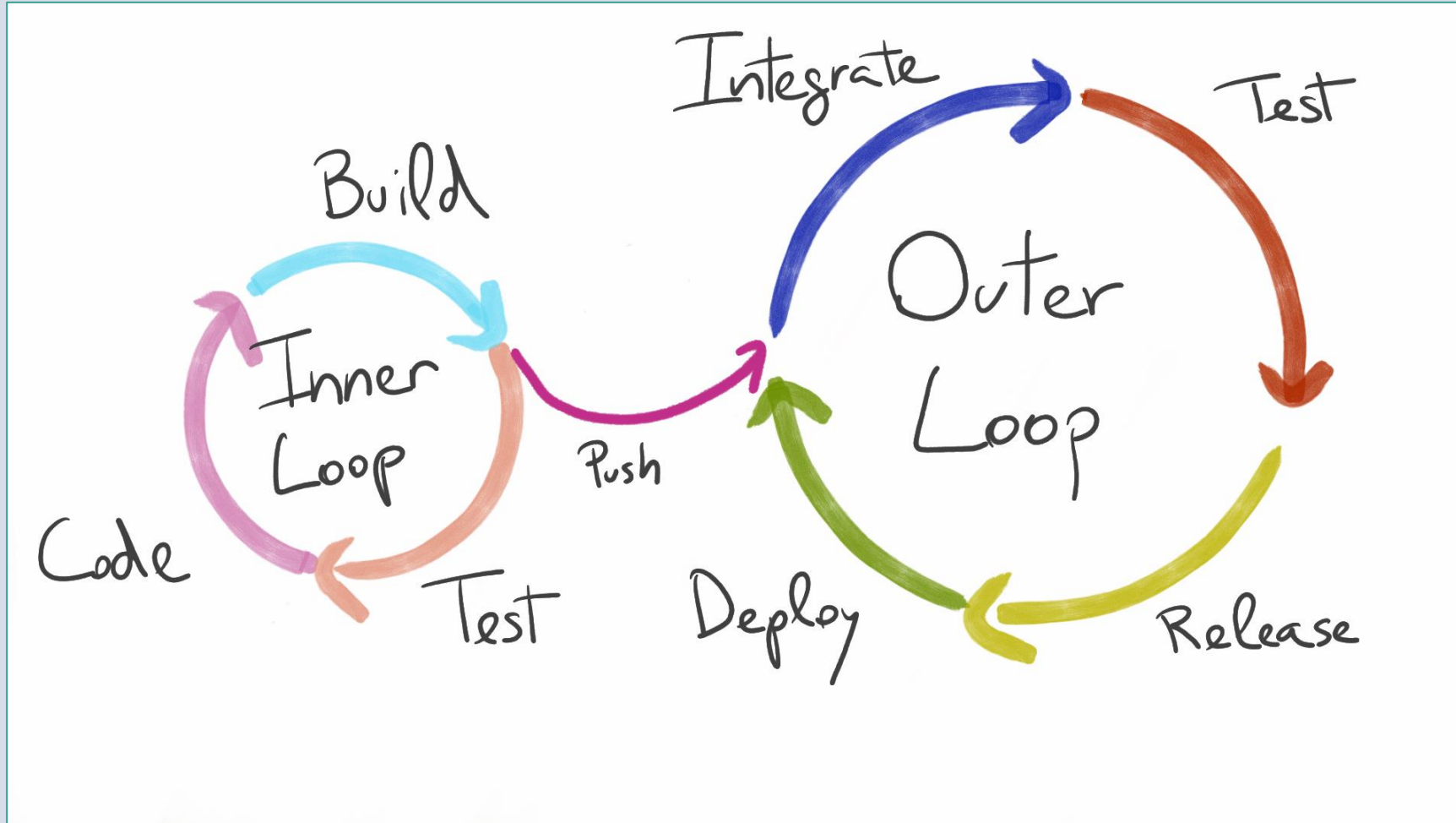
This Photo by UnknownAuthor is licensed under [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)

What is the Power Platform CLI?

- It's a CLI aimed at Developers & Advanced Makers for the Power Platform
- It enables you to connect and act on the Power Platform environments that you have
- You get a lot of commands, which help you to develop on the Power Platform or to help you manage the Power Platform

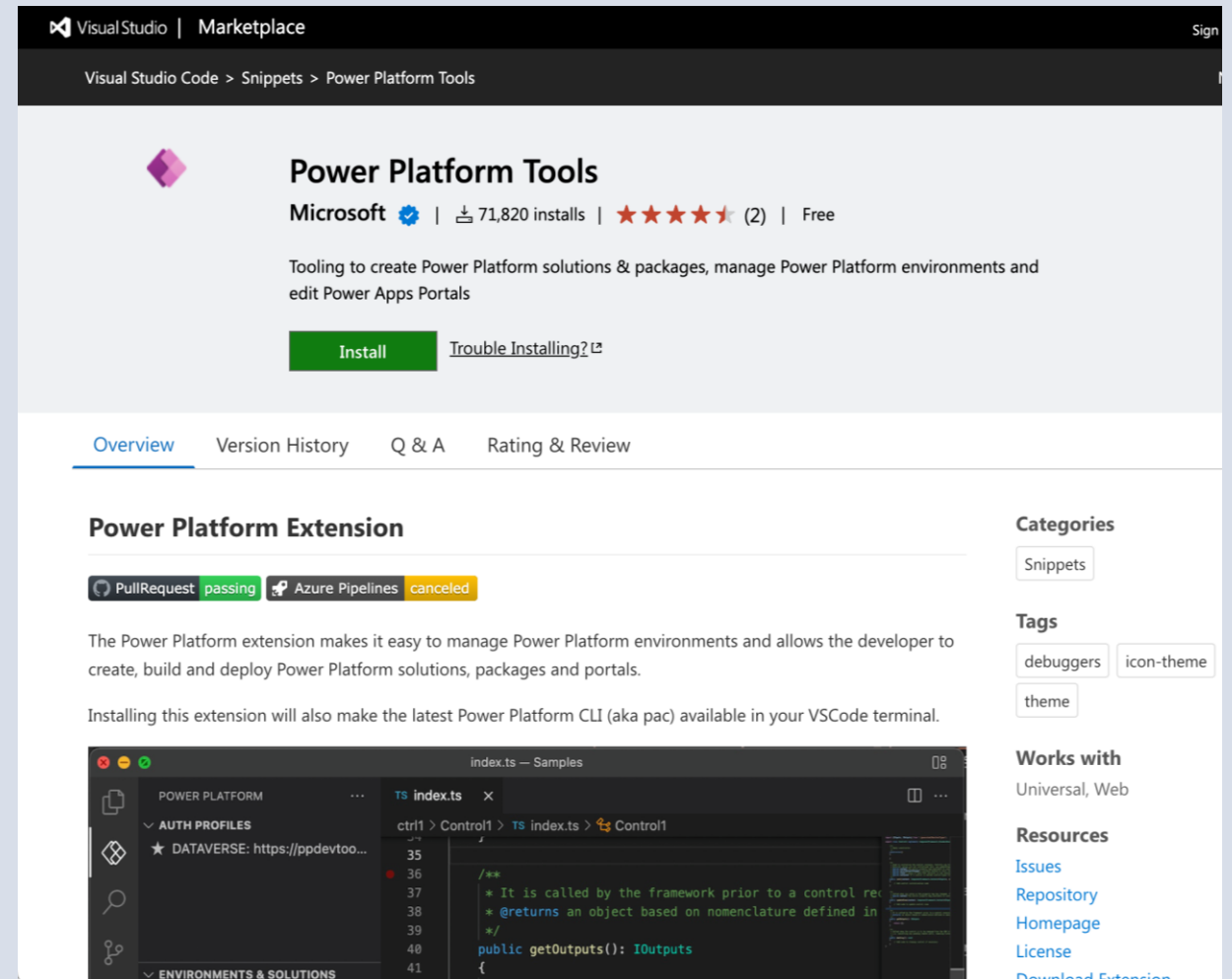


Inner loop vs outer loop



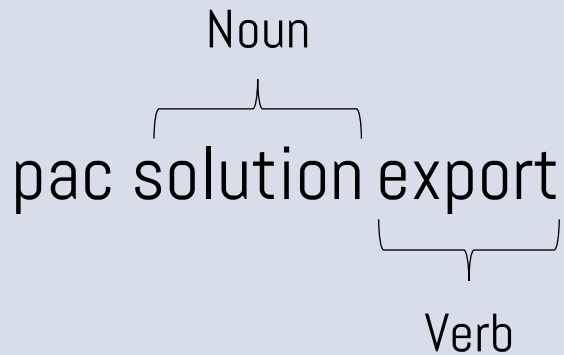
How do I get it?

- Install the standalone version via dotnet tool install
 - Run 'dotnet tool install --global Microsoft.PowerApps.CLI.Tool'
- Install the Power Platform Tools Extension (either locally or via GitHub Codespaces)
 - <https://aka.ms/pac/vscode>



The screenshot shows the Visual Studio Marketplace page for the 'Power Platform Tools' extension by Microsoft. The page includes the extension's name, a green 'Install' button, and a 'Trouble Installing?' link. Below the main content, there are tabs for 'Overview', 'Version History', 'Q & A', and 'Rating & Review'. The 'Overview' tab is active, showing a 'Power Platform Extension' section with a 'PullRequest passing' and 'Azure Pipelines canceled' status. The description states that the extension makes it easy to manage Power Platform environments and allows developers to create, build, and deploy solutions, packages, and portals. It also mentions that installing the extension will make the latest Power Platform CLI (aka pac) available in the VSCode terminal. On the right side, there are sections for 'Categories' (Snippets), 'Tags' (debuggers, icon-theme, theme), 'Works with' (Universal, Web), and 'Resources' (Issues, Repository, Homepage, License, Download Extension).

How do I use it?






```
Microsoft PowerPlatform CLI
Version: 1.27.5+g1aa2705
Online documentation: https://aka.ms/PowerPlatformCLI
Feedback, Suggestions, Issues: https://github.com/microsoft/powerplatform-build-tools/discussions

Usage: pac [admin] [application] [auth] [canvas] [catalog] [connection] [connector] [copilot] [help]
[modelbuilder] [org] [package] [pcf] [pipeline] [plugin] [powerpages] [solution] [telemetry] [test]
[tool] [virtual-agent]

admin          Work with your Power Platform Admin Account
application    Commands for listing and installing available Dataverse applications from AppSource
auth           Manage how you authenticate to various services
canvas         Operating with Power Apps .msapp files
catalog        (Preview) Commands for working with Catalog in Power Platform
connection     (Preview) Commands for working with Dataverse connection.
connector      (Preview) Commands for working with Power Platform Connectors
copilot        Tools and utilities for copilot scenarios
help           Show help for the Microsoft Power Platform CLI.
modelbuilder   Code Generator for Dataverse APIs and Tables
org            Work with your Dataverse organization.
package        Commands for working with Dataverse package projects
pcf           Commands for working with Power Apps component framework projects
pipeline       Work with Pipelines
plugin         Commands for working with Dataverse plug-in class library
powerpages     Commands for working with Power Pages website.
solution       Commands for working with Dataverse solution projects
telemetry      Manage telemetry settings.
test           (Preview) Execution of automated tests for a Power App
tool           Power Platform tools that can be installed and launched.
virtual-agent  Commands for working with Power Virtual Agent bots
```

How do I use it?

- Create one or more auth  profiles depending on where you use it
 - Local terminal, GitHub Codespaces, CI/CD pipelines, it can all be treated differently
- Use the "pac org" commands to list , and select environments
 - Pro tip: you can also use the VS Code Extension to do that in VS Code or Codespaces
- Go crazy on the commands 

DEMO: Get started with the Power Platform CLI

DEMO: Auth + Select environment

Command Groups

- **pac admin**
Work with your Power Platform Admin account
- **pac application**
Commands for listing and installing available Dataverse applications from AppSource
- **pac auth(*)**
Manage how you authenticate to various services
- **pac canvas**
Operating with Power Apps .msapp files
- **pac catalog**
(preview) Commands for working with Catalog in Power Platform
- **pac connection(*)**
Enables you to manage SPN connections in Dataverse
- **pac connector**
(Preview) Commands for working with Power Platform Connectors
- **pac copilot**
(Preview) Tools and utilities for copilot scenarios
- **pac data**
Import and export data from Dataverse
- **pac help(*)**
Show help for the Microsoft Power Platform CLI
- **pac modelbuilder**
Code Generator for Dataverse APIs and Table

Command Groups

- **pac org (*)**
Work with your Dataverse Organization
- **pac package**
Commands for working with Dataverse package projects
- **pac paportal**
Commands for working with Power Pages
- **pac pcf**
Commands for working with Power Apps component framework projects
- **pac pipeline (*)**
Work with Pipelines
- **pac plugin**
Commands for working with Dataverse plug-in class library
- **pac solution (*)**
Commands for working with Dataverse solution projects
- **pac telemetry**
Manage telemetry settings
- **pac tests**
(Preview) Execution of automated tests for a Power App
- **pac tool (*)**
Power Platform tools that can be installed and launched
- **pac virtual-agent**
Commands for working with Power Virtual Agent bots

Newest update (August update)

- admin
 - Added new list-tenant-settings
 - Added new update-tenant-settings
- connection
 - (Preview) Added create, update, list and delete verbs for Dataverse connections with Service Principal authentication

DEMO: Create SPN & create a Dataverse connection

Why use SPN?

Non-licensed user request limits

A separate limit is established for certain activities (for example: A background process that migrates data between databases) that don't require a user to interact with the service. These limits are defined and pooled at the tenant level. Dataverse enables you to have identities that don't require any user to interact with the service. These include:

- [Application users](#)
- [Non-interactive users](#)
- [Administrative users](#)
- [SYSTEM user](#)

Additionally, there are special free (\$0) licenses, which are used to interact with Dynamics 365 applications like Dynamics 365 Marketing. See [How Marketing is licensed](#) for more details.

For these non-licensed identities, every tenant will get an initial base request limit per tenant determined by what paid licenses are on the tenant, plus accrued limits determined by the quantity of paid Dynamics 365 Enterprise and Professional licenses. **500,000 base requests + 5,000 requests accrued per USL¹ up to 10,000,000 max²**

Products	Pooled non-licensed tenant-level requests per 24 hours
Dynamics 365 Enterprise & Professional applications ¹	500,000 base requests + 5,000 requests accrued per USL¹ up to 10,000,000 max²
Power Apps (all licenses)	25,000 base requests with no per-license accrual for the tenant
Power Automate (all licenses)	25,000 base requests with no per-license accrual for the tenant

DEMO: Create SPN & create a Dataverse connection

Other uses of the Power Platform CLI

- Power Platform CLI backs multiple other tools:
 - GitHub Actions
 - Azure DevOps Tools
- Can be used with GitHub Codespaces

DEMO: Codespaces & Power Platform CLI

Want to learn more?

- We created an ALM workshop for the European Power Platform Conference in June (it highlights a lot of features of Power Platform CLI):
 - <https://aka.ms/EPPC23-ALM>
- There is a playlist with videos on some of the command groups
 - <https://aka.ms/pac/playlist>

Feedback?

- Please go to the following URL to give feedback on the commands and if you have issues with the CLI you can report them there as well:
 - <https://aka.ms/pac/feedback>

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Q&A



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THANK YOU!