

Microsoft Power Platform CLI is a simple, one-stop developer CLI that empowers developers and ISVs to perform various operations in Microsoft Power Platform related to environment lifecycle, authentication, and work with Microsoft Dataverse environments, solution packages, portals, code components, and more.

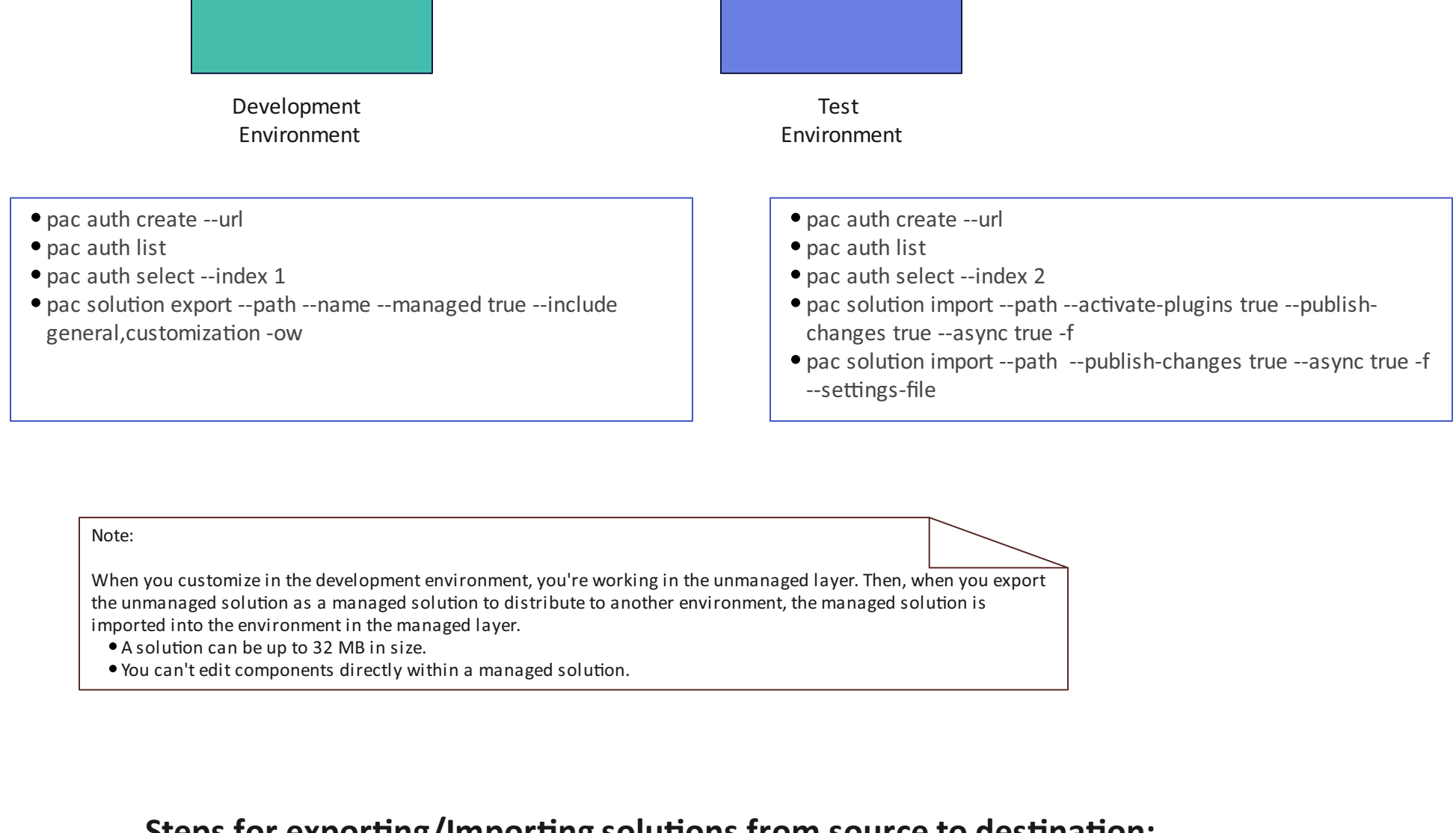
Install Microsoft Platform CLI

You can install Microsoft Power Platform CLI using either or both of the following:

- Install using Power Platform Tools for Visual Studio Code
- Install Power Platform CLI for Windows

References: <https://learn.microsoft.com/en-us/power-platform/developer/cli/introduction>

Export and Import Solution Packages



• pac auth create --url
• pac auth list
• pac auth select --index 1
• pac solution export --path --name --managed true --include general,customization -ow

• pac auth create --url
• pac auth list
• pac auth select --index 2
• pac solution import --path --activate-plugins true --publish-changes true --async true -f
• pac solution import --path --publish-changes true --async true -f --settings-file

Steps for exporting/importing solutions from source to destination:

Step 1: Create and store authentication profiles on the computer: pac auth create --url

Create and store authentication profiles on this computer

```
PS C:\learning\PL-400> pac auth create --url https://orgdd490ab7.crm8.dynamics.com  
modernsearchtrail@modernsearchtrail.onmicrosoft.com authenticated successfully.  
Validating connection...  
Connected to: PLDEMO  
Authentication profile created  
Environment: Public  
https://orgdd490ab7.crm8.dynamics.com/ : modernsearchtrail@modernsearchtrail.onmicrosoft.com Public
```

Use the Instance url

Optional Parameters:

--application-id
--certificatePath
--certificatePassword
--clientSecret
--cloud-id
--deviceCode
--environment-name
--name
--password
--tenant-id
--url
--username

Power Apps session details

```
Timestamp: 2022-12-08T06:41:56.379Z  
Session ID: 5f7e0808-76c3-11ed-a136-6715bc540df0  
Tenant ID: f367a8ac-e34f-45ba-b26a-b7d3d5a98f47  
Object ID: 2a8c776f-d18f-4a22-977a-8ac426cc080e  
Build name: 0.0.20221203.3-2211.4-prod  
Organization ID: 31803432-8c5c-47c7-ac3a-77a3feff5ed3  
Unique name: uncb1d034328c3c47cfac377a3feff5  
Instance url: https://orgdd490ab7.crm8.dynamics.com  
Environment ID: Default-f367a8ac-e34f-45ba-b26a-b7d3d5a98f47  
Cluster environment: prod  
Cluster category: Prod  
Cluster geo name: IN  
Cluster URL suffix: in-1101.gateway-prod.island
```

Copy details Close

```
PS C:\learning\PL-400> pac auth create --url https://orgdd490ab7.crm8.dynamics.com  
Microsoft PowerPlatform CLI  
Version: 1.20.3+ga66a744
```

Step 2: List and Select the authentication profile that should be active

List the authentication profiles stored on this computer

```
PS C:\learning\PL-400> pac auth list  
Index Active Kind Name Friendly Name Url User Cloud  
[1] * DATAVERSE https://orgdd490ab7.crm8.dynamics.com/ modernsearchtrail@Modernsearchtrail.onmicrosoft.com Public
```

Select which authentication profile should be active

```
PS C:\learning\PL-400> pac auth select --index 1  
New default profile:  
* DATAVERSE https://orgdd490ab7.crm8.dynamics.com/ : modernsearchtrail@Modernsearchtrail.onmicrosoft.com Public
```

```
PS C:\learning\PL-400> pac auth list
```

```
Index Active Kind Name Friendly Name Url User Cloud  
[1] * DATAVERSE https://orgdd490ab7.crm8.dynamics.com/ modernsearchtrail@Modernsearchtrail.onmicrosoft.com Public
```

```
PS C:\learning\PL-400> pac auth select --1  
Microsoft PowerPlatform CLI  
Version: 1.20.3+ga66a744
```

Step 3: Export the solution to local path

Export a solution

```
PS C:\learning\PL-400> pac solution export --path c:\learning\PL-400\cli\solutionexport\PLPowerPlatform_UnManaged.zip --name PLPowerPlatform --managed true --include general,customization,iscvconfig,relationships
```

Required Parameter:

--name -n
--path -p

The name of the solution to be exported.
Path where the exported solution zip file will be written.

Optional Parameter:

--async -a (Exports solution asynchronously)
--include -i (Which settings needs to be included in the solution during export)
--managed -m (Whether the solution should be exported as managed solution)
--max-async-wait-time -wt (Max asynchronous wait time in minutes. Default is 60 minutes)
--overwrite -ow (This exported solution file can overwrite the solution zip file on the local file system)

Use one or more of these values separated by commas:

calendar
customization
emailtracking
externalapplications
general
iscvconfig
marketing
outlookssynchronization
relationshipsprobes
sales

```
PS C:\learning\PL-400> pac solution export --path c:\\learning\\PL-400\\cli\\solutionexport\\PLDemoClientSideScript_UnManaged.zip --name PLDemoClientSideScript --managed true --include general,customization -ow  
Connected to...PLDEMO
```

Exported Solution files in local path

Name	Type
CanvasApps	File folder
WebResources	File folder
Content_Type.xml	XML File
customizations.xml	XML File
solution.xml	XML File

Name	Type
Connector	File folder
environmentvariablesdefinitions	File folder
Workflows	File folder
Content_Type.xml	XML File
customizations.xml	XML File
solution.xml	XML File

Solution components in PowerApps

Objects	Display name	Name	Type
Apps (1)	PLDemoClientSideScript > All		
Chatbots (0)			
Cloud flows (0)			
Component libraries (1)			
Site maps (1)			
Tables (0)			
Web resources (4)			

Solution components in PowerAutomate

Display name	Name	Type
FlowHostURL	cr225_FlowHost...	Environment Variable
GetAllFlowCustomConnector	GetAllFlowCust...	Cloud Flow
GetAllFlows	cr225_getAllflows	Custom Connector
GetAllFlows CustomConnectorSolution	cr225_sharedget...	Connection Referen...

Step 4: Import the solution packages to destination

Import the solution

```
PS C:\learning\PL-400> pac solution import --path c:\\learning\\PL-400\\cli\\solutionexport\\PLCustomConnector_UnManaged.zip --publish-changes true --async true -f --settings-file c:\\learning\\PL-400\\cli\\SampleDeploymentSettingsDev.json  
Connected to...PLDEMO
```

Solution Importing...

```
Waiting for asynchronous operation 06c8c7da-4c76-ed11-81ac-002248d5deb0 to complete with timeout of 01:00:00  
Processing asynchronous operation... execution time: 00:00:00 and 0.00% complete  
Processing asynchronous operation... execution time: 00:00:04 and 0.12% complete  
Processing asynchronous operation... execution time: 00:00:08 and 0.23% complete  
Processing asynchronous operation... execution time: 00:00:12 and 0.35% complete  
Processing asynchronous operation... execution time: 00:00:16 and 0.46% complete  
Processing asynchronous operation... execution time: 00:00:20 and 0.57% complete  
Processing asynchronous operation... execution time: 00:00:24 and 0.69% complete  
Processing asynchronous operation... execution time: 00:00:29 and 0.81% complete  
Processing asynchronous operation... execution time: 00:00:33 and 0.92% complete  
Processing asynchronous operation... execution time: 00:00:37 and 1.04% complete  
Asynchronous operation 06c8c7da-4c76-ed11-81ac-002248d5deb0 completed successfully within 00:00:41.3714998  
Publishing All Customizations...  
Waiting for asynchronous operation f043abf5-4c76-ed11-81ac-002248d5deb0 to complete with timeout of 01:00:00  
Processing asynchronous operation... execution time: 00:00:00 and 0.00% complete  
Processing asynchronous operation... execution time: 00:00:04 and 0.13% complete  
Processing asynchronous operation... execution time: 00:00:08 and 0.24% complete  
Processing asynchronous operation... execution time: 00:00:12 and 0.36% complete  
Processing asynchronous operation... execution time: 00:00:17 and 0.47% complete  
Processing asynchronous operation... execution time: 00:00:21 and 0.59% complete  
Processing asynchronous operation... execution time: 00:00:25 and 0.71% complete  
Asynchronous operation f043abf5-4c76-ed11-81ac-002248d5deb0 completed successfully within 00:00:29.5863936
```

Optional Parameters:

--activate-flows -af
--activate-plugins -ap
--async -a
--convert-to-managed -cm
--force-overwrite -f
--import-as-waiting -h
--max-async-wait-time -wt
--path -p
--publish-changes -pc
--settings-file
--skip-dependency-check -s

```
PS C:\learning\PL-400> pac solution import --path c:\\learning\\PL-400\\cli\\solutionexport\\PLCustomConnector_UnManaged.zip --publish-changes true --async true -f --settings-file c:\\learning\\PL-400\\cli\\SampleDeploymentSettingsDev.json  
Connected to...PLDEMO
```

SampleDeploymentSettingsDev.json

Environmental variables key and value will be declared here.

```
{  
  "EnvironmentVariables": [  
    {  
      "SchemaName": "cr225_FlowHostURL",  
      "Value": "api.flow.microsoft.com"  
    }  
  ],  
  "ConnectionReferences": [  
    {  
      "LogicalName": "cr225_sharedgetallflows5f0ce1f241ef06e9f35fdee42c6af8ef514_ee098",  
      "ConnectionId": "30745038-7ae4-4104-a1a9-81e643566c47",  
      "ConnectorId": "/providers/Microsoft.PowerApps/apis/shared_getallflows-5f0ce1f241ef06e9f3-5fdee42c6af8ef514"  
    }  
  ]  
}
```

Connection references will be declared here. In the above sample custom connector connection id are updated in the file.

• Generate the deployment settings file using power platform cli
pac solution create-settings --solution-zip <solution_zip_file_path> --settings-file <settings_file_name>
This command will generate a JSON file. In the JSON file, few values are empty in the ConnectionReferences section. These values need to be gathered after creating them in the target environment.

Common Commands

Command	Description
pac admin	Commands for environment lifecycle features.
pac auth	Commands to connect to your environment.
pac application	Commands to install App-Source applications that are pre-requisites for the solution flow in the target environment (Preview).
pac canvas	Commands for working with canvas app source files (Preview).
pac org	Commands for working with Dataverse environments.
pac package	Commands for working with solution packages.
pac paportal	Commands for working with Portals support for Microsoft Power Platform CLI.
pac pcf	Commands for working with Power Apps component framework.
pac plugin	Command to create a plug-in project.
pac solution	Commands for working with Dataverse solution projects.
pac telemetry	Manages the telemetry settings.
pac connector	(Preview) Commands for working with Power Platform Connectors

Power Platform Build Tools is now Power Platform CLI based

version 2.0 of Power Platform Build Tools is Power Platform CLI based.

Note:
Going forward Power Platform Build Tools 2.0 is the version that will be serviced and newer features added.
For previous versions of Power Platform Build Tools, we will do critical security updates as needed.
Microsoft highly recommends that customers move to Power Platform Build Tools version 2.0 at their earliest.
* You cannot mix and match versions for Power Platform Build Tools in your build pipeline.
* The Power Platform CLI tasks are multi-platform with great flexibility including running on Linux runners. These are the Azure tasks that are available with Power Platform Actions for GitHub. You now have a consistent experience between Azure DevOps and GitHub.