

Power Automate Desktop Locker Management

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Microsoft – Power CAT

Purpose

With this solution you will be able to create and use Lockers which store Values for use within Cloud & Desktop Flows.

This solution can be seen as a light-weight alternative for Azure Key Vault available within Power Platform environments.

This solution is entirely built on Dataverse with standard Power Platform components and security features.

This solution is an open-source project, published on GitHub. Any issues, concerns, inquiries... should not be directed to Microsoft.

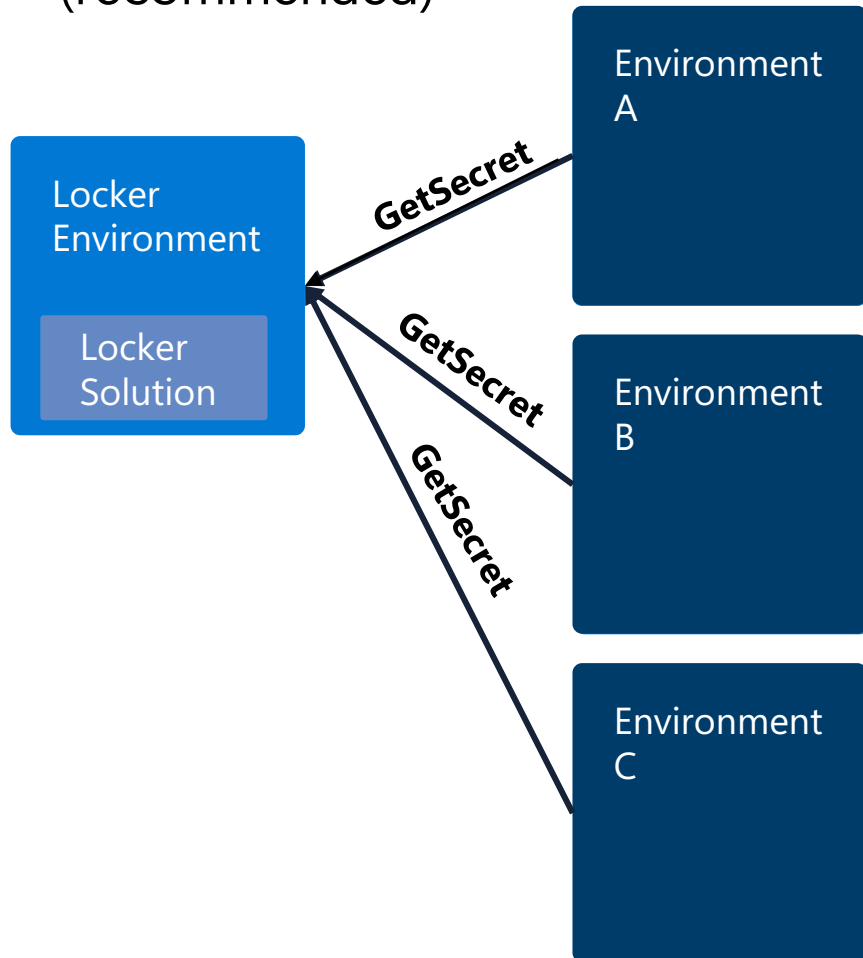
Agenda

- Installation
- Create Locker + Access Management
- Create Values
- Use Lockers

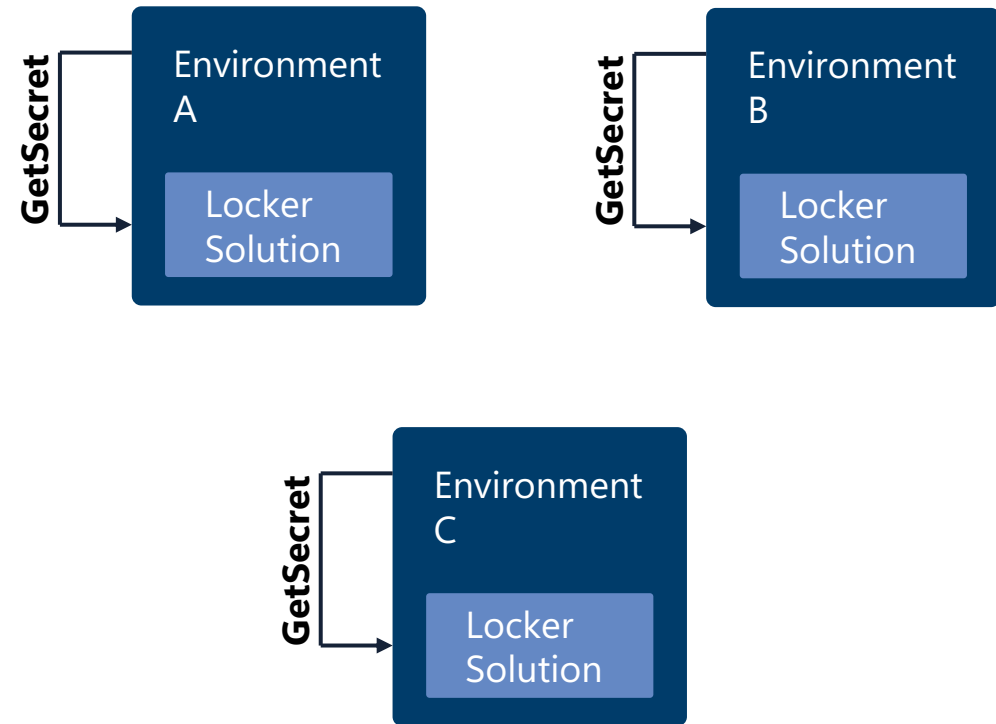
Installation

Locker Environment Setup

- 1 shared Locker environment (recommended)



- Multiple Locker environments



Installation steps

- 1. Download managed solution file: [GitHub - Locker Mngt](#)
- 2. Import solution in Locker environment(s)

+ New solution

↩ Import solution

📁 Open AppSource

📄 Publish all customizations

⋮

🔍 Search

Solutions

Solutions

Publishers

History

Display name ▾		Name ▾	Created ↓ ▾	Version ▾	Managed ▾	Publisher ▾	Solution check
Locker Management	⋮	CredentialVault	1 week ago	1.0.0.18	Yes	RPACAT	Checked by publ...

Assign Security Roles

The solution has 2 security roles. These roles must be assigned to all users and application users using the lockers according to needed privileges for each user.

Role	Create Locker	Edit Locker	Share Locker	Create Values	Edit Values	Read Actual Values
Locker Admin	✓	✓	✓	✗	✗	✗
Locker User	✗	✗	✗	✓	✓	✓
Locker Reader	✗	✗	✗	✗	✗	✓

*Only user with the security role "Locker User" will be able to see the actual value, otherwise these users will see the encrypted value.

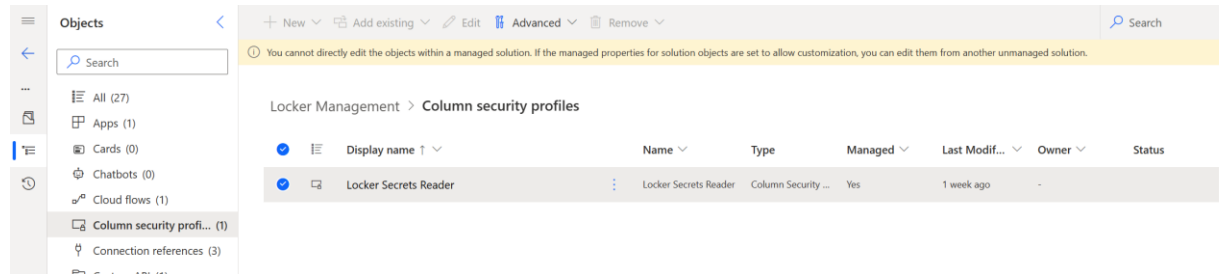
Assign users/teams to Column Level Security profile

For any user to be able to see the actual value (Version) for a Value, the user has to be configured in the "column level security profile": **Locker Secrets Reader**.

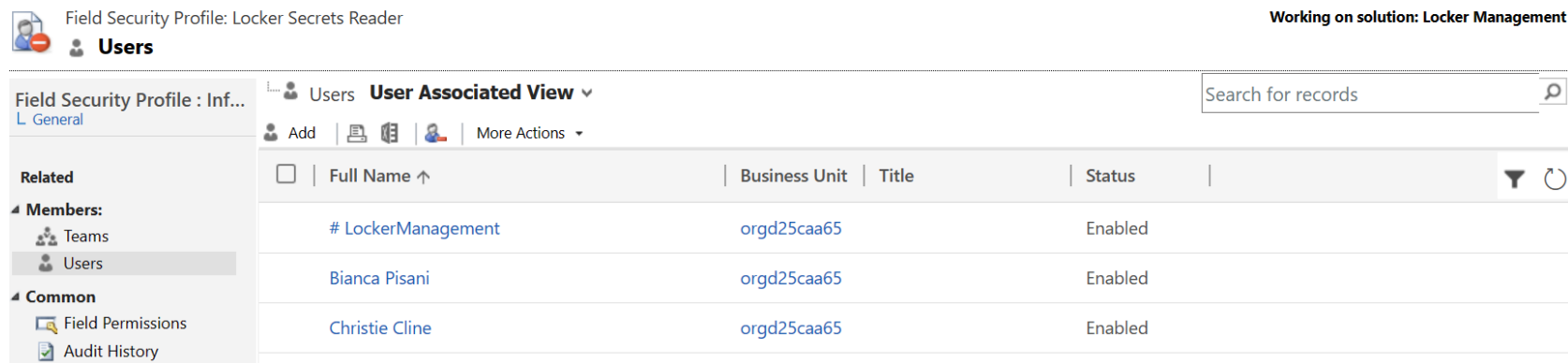
When a user is not in this profile and even has full access to the record, the user will not be able to see the actual values. They will just see a password field (****).

Assign users/teams to Column Level Security profile

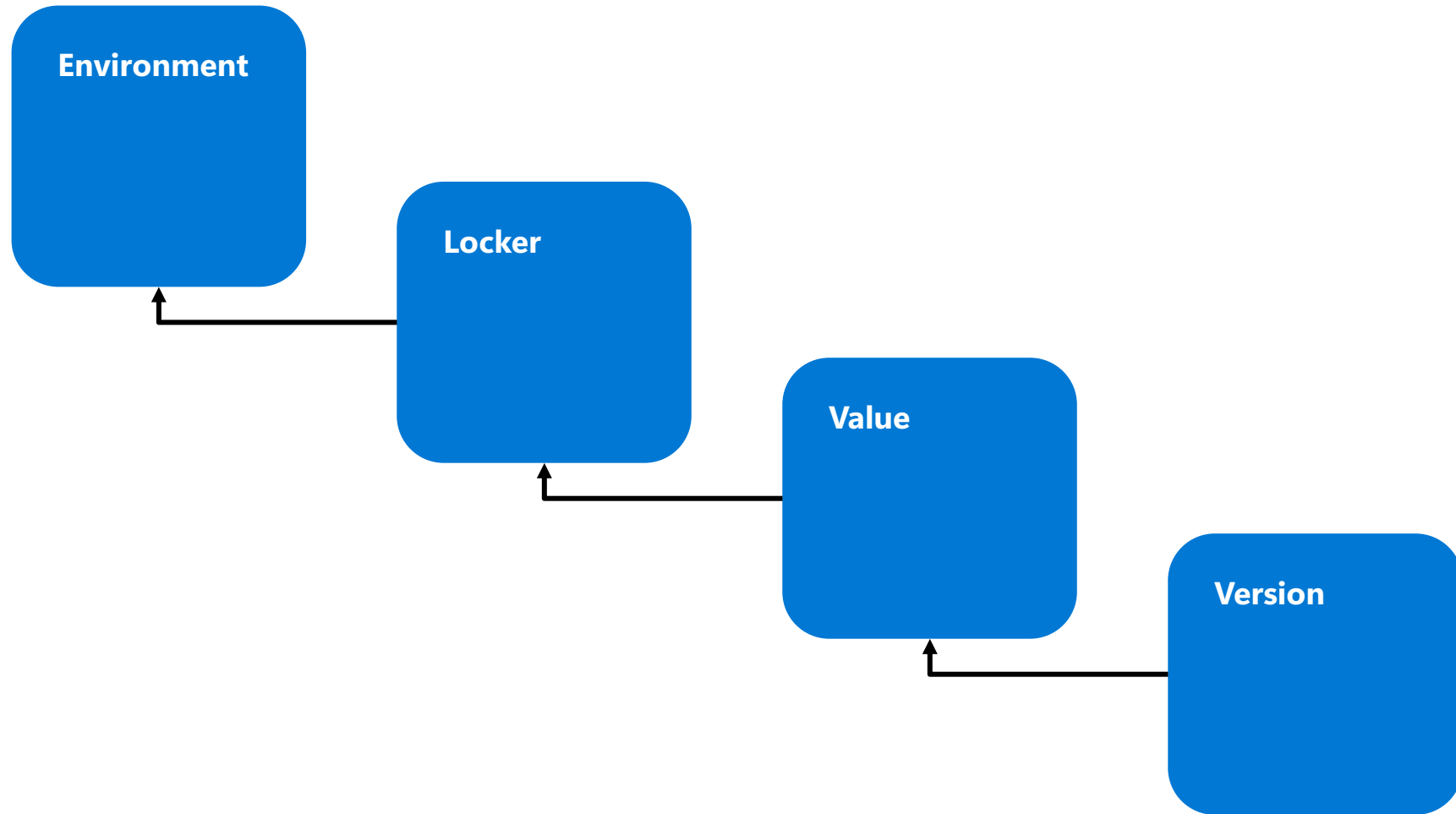
1. Navigate to the Locker Management solution.
2. Select Column security profiles solution artifact.



3. Select the Locker Secrets Reader profile.
4. Add your users, application users and teams on the profile.



Data Tables



Create Locker

Locker

Lockers are created for a specific **environment** and has certain **values**. A locker is **owned by a user or a team** and is managed by a user with a Locker Admin security role.

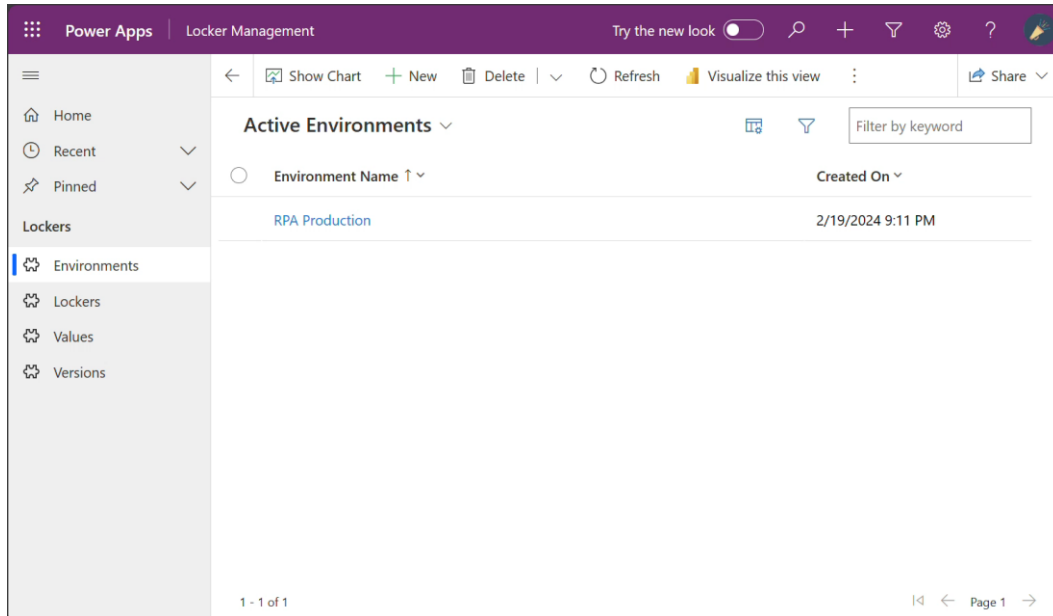
The owner of the locker will grant access to other users or teams by **sharing** the locker.

Example lockers:

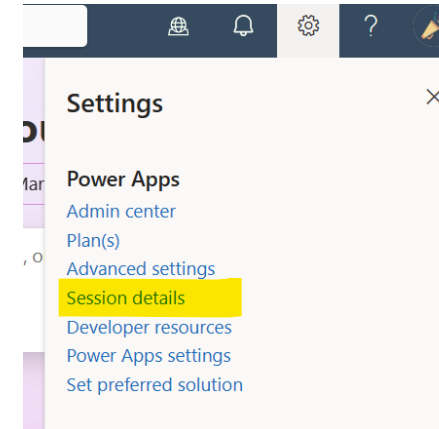
A Locker can be created to keep track of values for a specific bot.

A locker can be used as a shared locker for several bots.

Create an Environment

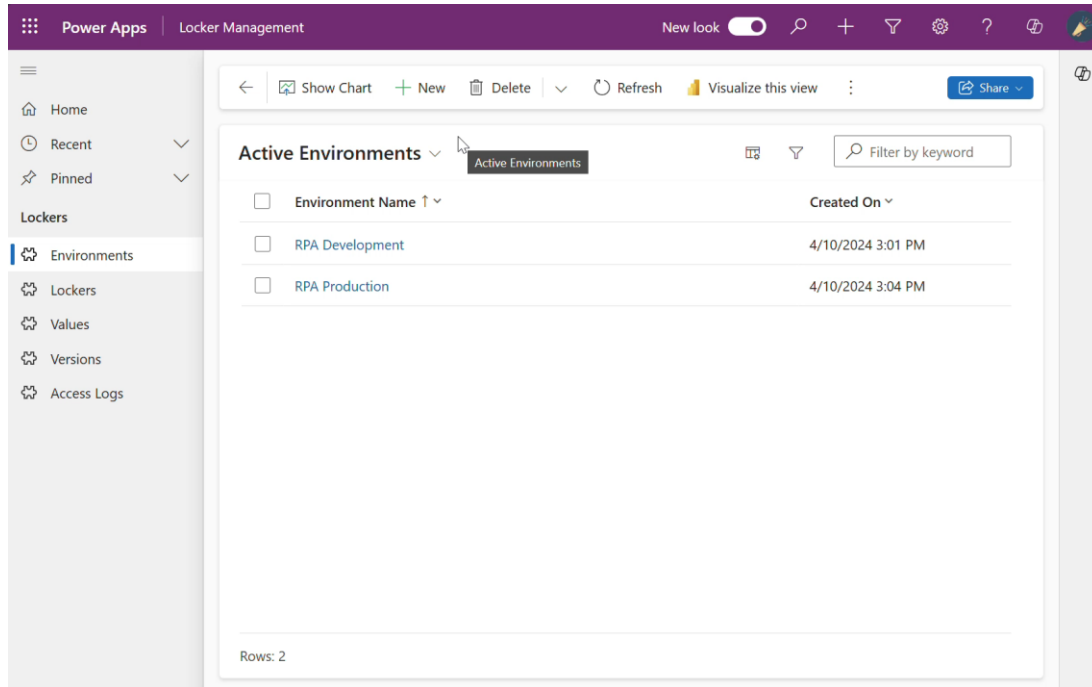


Get the Environment details from the settings – settings details in <https://make.powerapps.com> for the proper environment.



Or in the admin center: [Edit properties of an environment - Power Platform | Microsoft Learn](#)

Create a Locker



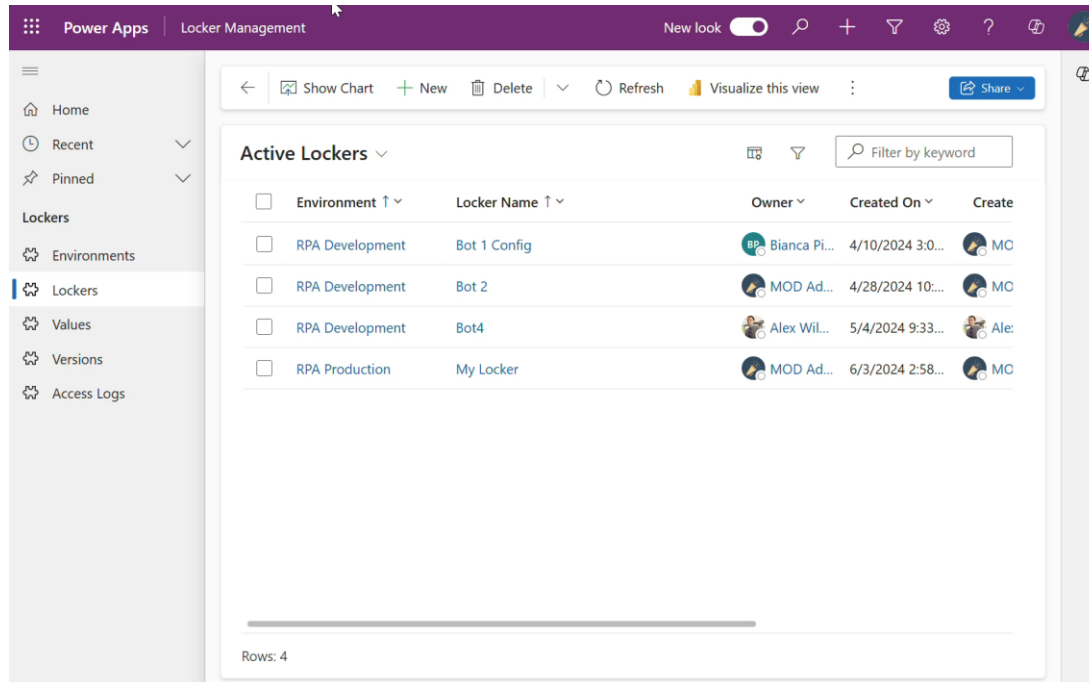
A Locker is connected to an environment and has a name for the locker.

The name should be unique within the lockers for a specific environment.

The same locker name can be reused across different environments.

Access Management

Share a Locker



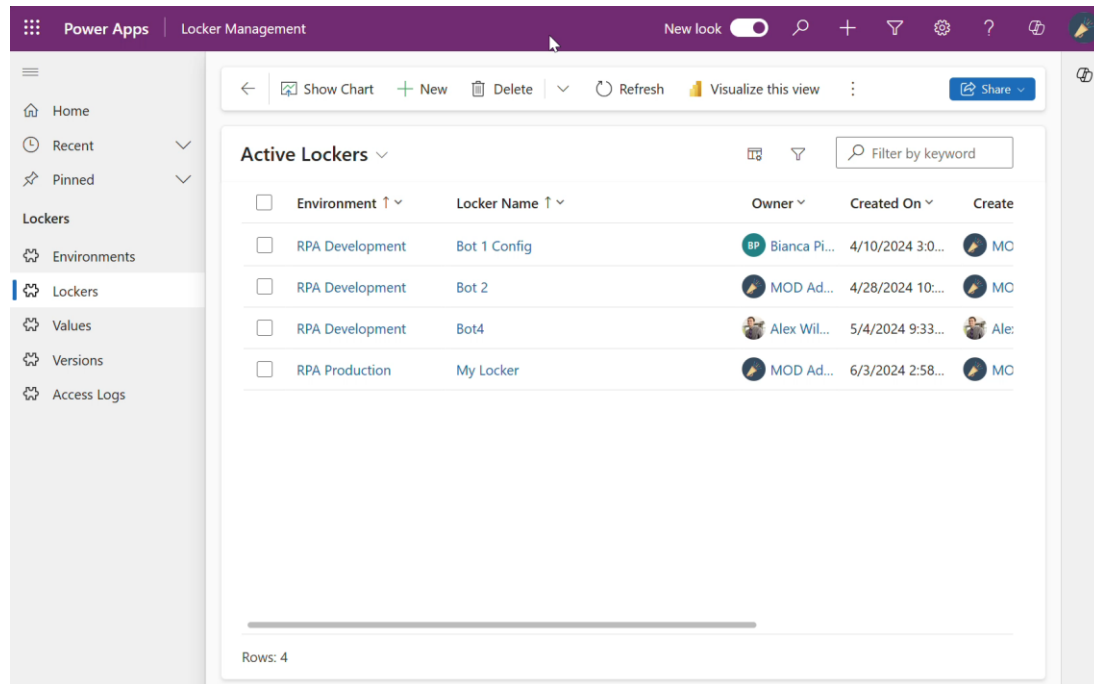
To give access to a locker for a user to be able create, edit or read values, a locker has to be shared with the user, application user and/or team.

Permissions to be used in the Sharing popup:

Permissions

- ☒ Read
- ☐ Write
- ☐ Delete
- ☒ Append
- ☒ Append to
- ☐ Assign
- ☐ Share

Review access



The screenshot shows the 'Locker Management' interface in Power Apps. The left sidebar contains navigation links: Home, Recent, Pinned, Lockers (selected), Environments, Values, Versions, and Access Logs. The main area displays a table of 'Active Lockers' with columns for Environment, Locker Name, Owner, Created On, and Create. There are four rows of data. Above the table, there are action buttons: Show Chart, New, Delete, Refresh, Visualize this view, and Share. A search bar 'Filter by keyword' is also present.

Environment	Locker Name	Owner	Created On	Create
RPA Development	Bot 1 Config	Bianca Pi...	4/10/2024 3:0...	MC
RPA Development	Bot 2	MOD Ad...	4/28/2024 10:...	MC
RPA Development	Bot4	Alex Wil...	5/4/2024 9:33...	Ale:
RPA Production	My Locker	MOD Ad...	6/3/2024 2:58...	MC

Rows: 4

It is a best practice to occasionally review the access for each of the lockers.

In this example the locker has been shared with a user, an application user and a team.

Create Values

Values

Values can be created within a **Locker**. These are the names that will be used to retrieve the actual value for the Value in a Locker.

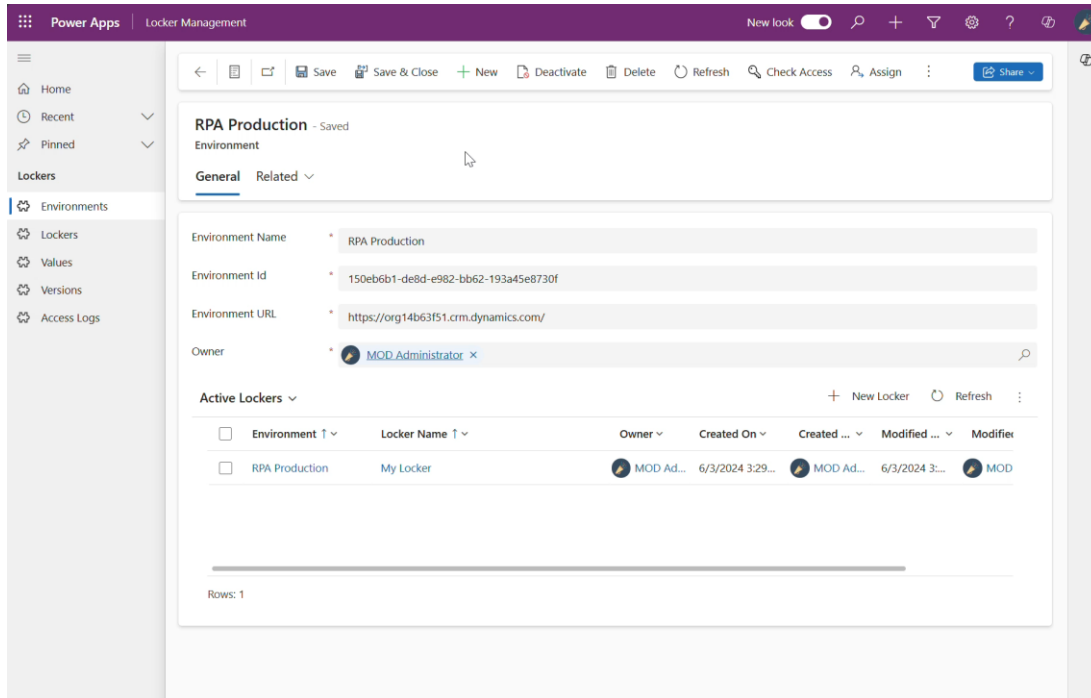
Example lockers:

Bot 1 username: to hold the actual value for the bot username.

Bot 1 password: to hold the actual value for the bot password.

SQL1ConnString: to hold the value of connection string to connect to SQL1.

Create Values



A Value is created for a locker. A Value is created from the locker record or in the Values list.

You can also set a Value to Private, which means this value is only accessible for the owner of the Value record and non-interactive users/application users.

Add a version for a Value

The screenshot displays the Power Apps 'Locker Management' interface. The left sidebar shows navigation options: Home, Recent, Pinned, Lockers, Environments, Lockers, Values (selected), Versions, and Access Logs. The main content area shows the 'Bot1 Username' Value record. The 'Definition' tab is active, displaying fields: Environment Name (RPA Production), Locker Name (MyLocker), Value Name (Bot1 Username), Owner (MOD Administrator), Created On (6/3/2024 3:38 PM), and Modified On (6/3/2024 3:38 PM). The 'Private' toggle is set to 'No' and the 'Status' is 'Active'. Below the definition, the 'Active Versions' section is shown, which is currently empty with a message 'We didn't find anything to show here' and 'Rows: 0'.

To add an actual value for a Value record, a version is created, which holds the actual value in an encrypted format. Only Locker users are able to see the secret values in a decrypted format.

Multiple versions can be created for one Value record. A version can have a start and/or end date.

If multiple versions would be valid, the most recent version will be used for the Value.

Versions can be created from the Value record or in the Versions list.

Versions can also be set to Private, same behavior as a private Value.

Use Lockers

How to read the actual value for a Value of a Locker

For Cloud Flows and Desktop Flows to retrieve the actual values from lockers the solution has a [Custom API](#). This Custom API endpoint will get the correct Version for a Value in a Locker. The Custom API has 3 input parameters: Environment name, Locker name, Value and will return the actual Version.

The solution contains 2 sample flows, 1 example is a Cloud Flow which will retrieve a value. The other example is a Desktop Flow.

Cloud Flow

The screenshot shows the configuration interface for the 'Get Secret from Locker' action. The left pane contains the configuration details, and the right pane shows a flow diagram.

Configuration Details:

- Parameters:**
 - Environment ***: Body inst... x
 - Action Name ***: rpacat_GetSecret
- Advanced parameters**: Showing 1 of 1 (Show all, Clear all)
- Action Parameters**:

```
{
  "Secret": "Bot 1 username",
  "Environment": "RPA Production",
  "Locker": "Bot 1 Credentials"
}
```

Flow Diagram:

```
graph TD
    A[Get Locker Environment Properties] --> B[For each Locker Environment]
    B --> C[Get Secret from Locker]
```

The flow diagram illustrates a process starting with 'Get Locker Environment Properties', followed by a loop 'For each Locker Environment', which then calls the 'Get Secret from Locker' action.

Connected to Locker Mngt Dataverse 2. [Change connection reference](#)

To get a secret (or actual version) for a Value you can use the unbound action of the Dataverse connector.

For the environment use the Locker environment.

For the Action parameters provide the proper values.

The connection should be created with an account (user or application user) which has access to the locker and the Locker User security role.

Desktop Flow

Invoke web service

✕

🔗

Invokes a web service and stores the response text [More info](#)

URL:

①

Method:

①

Accept:

①

Content type:

①

Custom headers:

Content-Type: application/json"/>

①

Request body:

①

Save response:

①

> Advanced

> Variables produced

GetSecretWSResponseHeaders

GetSecretWSResponse

GetSecretStatusCode

On error

Save

Cancel

To get a secret (or actual version) for a Value you can use the invoke web service action to call the custom API (rpacat_GetSecret).


For the URL use the Locker environment URL.

For the Action parameters provide the proper values.

To authenticate a proper Bearer token is required.


Desktop Flow (from PAD version 2.45)

Perform an unbound action in selected environment (Preview)

 Run a global Dataverse action in a Power Platform environment, including custom actions. [More info](#)


Environment:

Locker Management




Action Name:

rpacat_GetSecret




item/Environment:

RPA Production




item/Secret:

Bot1Username





item/Locker:

My Locker




> Advanced

 Variables produced



PerformUnboundActio...

The Perform an unbound action in selected environment (Preview) response

 On error

Save

Cancel

To get a secret (or actual version) for a Value you can use Dataverse unbound action.

Select the locker environment name.

For the Action parameters provide the proper values.

To authenticate use a connection reference.

FAQ

Q: I can't create a Locker.

A: Assign the Locker Admin security role.

Q: I see '****' for the secret value in a Version record.

A: Add your user to the column level security profile.

Q: I see an encrypted string for the secret value in a Version record.

A: Add your user to the Locker User security role.

Q: I see a strange long string for the secret value in a Version record

A: Make sure you have the Locker User security role.

Q: I am not able to create a Value record.

A: Assign the locker User security role to your user account.

Thank you!