



ALM Accelerator Demo

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October 11, 2023

What's inside

The purpose of the deck is to present the ALM Accelerator. Included are Information to explain the set up and the main functionalities.

What's the right choice for my organization?

Depending on the needs of your organization, you may decide to use one or more of the available options ([Pipelines for Power Platform](#), [Power Platform Build Tools for Azure DevOps](#), [GitHub Actions for Power Platform](#), [ALM Accelerator for Power Platform - Power Platform | Microsoft Learn](#)). While there's no one right answer for every organization, the following table and descriptions of each option can help you decide which option is right for you based on current capabilities and future plans. This table isn't exhaustive and is meant to help you make an informed decision. It's also going to evolve with time as more capabilities are added to the ALM Accelerator and to the built-in Power Platform ALM capabilities. ([Who should use the ALM Accelerator for Power Platform?](#))

Capability	Power Platform Pipelines	ALM Accelerator	Build Tools
IT / Developer involvement	Not required	Up front setup	Required for every project
Source Code integration	No, but planned	Yes	Yes
Customizations	Since June 2023 extending is possible	Yes	Yes
Maker requires elevated privileges in target environment	Yes, but Service Principal support is in preview	No, Service Principal Supported	No, Service Principal Supported
Quality Control	Minimal	Best Practices	Unlimited
Democratized for Citizen Development	Yes	Yes	No
In-Product Experience	Yes	Canvas app provided, but not in Maker experience	No
Sharing and Ownership Experiences	No, but planned	Yes	No
Code-first development	No	Yes	Yes
Requires Managed Environment	Yes	No	No
Support	Microsoft-supported	Power CAT support through GitHub issues and discussions	Microsoft-supported and GitHub issues

Why is the ALM Accelerator still a valid option?

The ALM Accelerator is built on top of the Build Tools and therefore serves as an accelerator to getting started with the Build Tools rather than requiring organizations to start from scratch creating Pipelines and setting up the ALM strategy.

The ALM Accelerator is intended to simplify ALM for Makers and more Advanced / Code First Makers.

The ALM Accelerator pipelines and the related canvas app are open source and intended to be used as is or as a reference implementation that an organization can customize to suit their specific needs.

Generally, an organization that has similar requirements as those who would use Build Tools but don't have the resources to build their own ALM processes from scratch and want to provide a maker experience on top of the Azure DevOps processes that drive ALM would choose to use the ALM Accelerator.

[ALM Accelerator Overview](#)

ALM Accelerator Set Up

Two setup options are available for the ALM accelerator for Microsoft Power Platform:

- Set up manually by using the step-by-step walk-through guide: [Set up ALM Accelerator for Power Platform components manually - Power Platform | Microsoft Learn](#).
- Set up by using the [ALM Accelerator Administration App](#).

For both options there are some prerequisites, initial steps to be followed, described in the guides.

The ALM Accelerator for Microsoft Power Platform must be installed into a Power Platform environment with a Microsoft Dataverse database. From this environment, the ALM Accelerator for Power Platform app can be used to deploy solutions from development to Validation, to Test and to Production environments. All these environments will also require a Dataverse database to deploy your solutions.

It is recommended to install the ALM Accelerator in the same environment as other CoE Starter Kit solutions, if already existing.

Setup Azure DevOps projects with the Admin App

Here a [YouTube DEMO on how to Setup Azure DevOps projects for ALM Accelerator for Power Platform](#)

Dynamics 365 | ALM Accelerator for Power Platform A... | **SANDBOX**

Azure DevOps Projects

Azure DevOps Organization: sabrinadi

Projects

+ New | Delete | Refresh

Name ↓	Description
sab	
ALM Demo	

Setup new ALM Accelerator Project

Follow the steps below to setup a complete ALM Accelerator Project

- Project**
- Pipeline Templates
- Service Connections
- Generic Pipelines

Use a new or existing project?

Select an existing empty project or create a new Project for use with ALM Accelerator.

Each Project can host multiple Power Platform solutions.

Each Project will have an Default Team. Members of the Project Team will have access to the solutions in the project.

Consider creating Projects per Team, Department, Power Platform Project

Project Name:

Project Description:

Project Process:

Or

Select an existing project:

☐ Enable Preview Features ⓘ

Next **Cancel**

Setup Azure DevOps projects with the Admin App

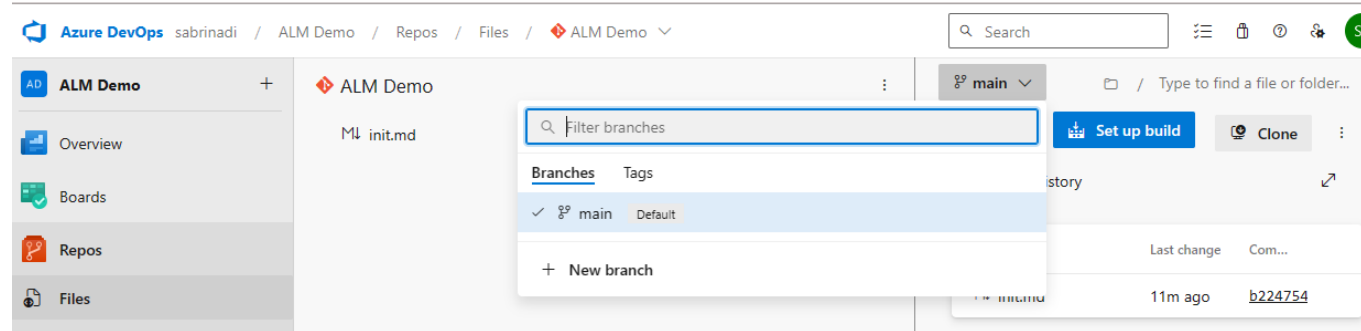
As a result, a new Project in DevOps will be created and two new Repos: The Project Repo and the Pipeline Repo. The Pipeline Repo contains all the ALM Accelerator Pipeline Templates

The screenshot displays the Azure DevOps Admin App interface. On the left, a sidebar shows navigation options: Overview, Boards, Repos (selected), Files, Commits, Pushes, Branches, Tags, Pull requests, Pipelines, Test Plans, and Artifacts. The main content area shows the 'Repos' section for the 'ALM Demo' project. A dropdown menu is open, showing a search bar and a list of repositories. The 'coe-alm-accelerator-templates' repository is selected. Below the dropdown, a list of repository templates is displayed, including .github, .vscode, CanvasTestFramework, Pipelines, and Templates. The right sidebar shows a table of repository templates with columns for Last change and Commits.

Last change	Commits
4 Apr	dc9952d8 Fix for projects with sp...
10 Sept ...	89241dc0 subfolders devkeydet
9 Feb 20...	2e0ad64d squash devkeydet
16 May	655dc39f Updated logic to build...
16 May	655dc39f Updated logic to build...
30 Jun 2...	79a1c6c7 initial pester tests for ...
25 Mar 2...	d347df52 Initial CODE_OF_CON...
30 Mar	68b4ba4b Updating sample payl...
30 Mar	68b4ba4b Updating sample payl...
29 Aug 2...	11ab120a Powerpages ci cd tooli...
21 Jan 2...	73adff9a remove BT caching jen...
25 Mar 2...	aef35890 Updating LICENSE to t...
29 Oct 2...	07ace1ee Update README.md D...
25 Mar 2...	ff4e78a7 Initial SECURITY.md co...
25 Mar 2...	8b20c305 Initial SUPPORT.md co...
4 Apr	cbe429a6 Update version.json (#...

Setup Azure DevOps projects with the Admin App

The Project Repo will be initially empty with an initial main branch.



The setup process also creates, among other things :

- Environment and Service Connections
- Pipelines for import, delete, and export of solutions
- Solution build and deployment pipelines
- Deployment pipeline variables with settings
- Branch policies for pull request validation and configuration
- Resource access permissions for pipelines and settings

Setup Azure DevOps projects with the Admin App

Result visible in the ALM Accelerator Administration App:

The screenshot displays the 'Azure DevOps Projects' configuration page within the Dynamics 365 ALM Accelerator Administration App. The interface is divided into a left sidebar and a main content area. The sidebar includes navigation options: Deployments, Deployment User Set..., Deployment Profile, Deployment Requests, Azure DevOps, and Projects (which is currently selected). The main content area is titled 'Azure DevOps Projects' and features a dropdown for 'Azure DevOps Organization' set to 'sabinadi'. Below this, there are sections for 'Projects', 'Team Members', 'Pipelines', 'Repositories', 'Service Connections', and 'Variable Groups'. The 'Projects' section shows a table with one project, 'ALM Demo', which was created on 19/07/2023. The 'Team Members' section lists 'Sabrina Di Bartolomeo' as a team member with the email 'sabinadi@D' and 'Is Team Admin' set to 'True'. The 'Pipelines' section lists several pipelines, including 'delete-unmanaged-solution-a...', 'export-solution-to-git', 'import-unmanaged-to-dev-en...', and 'sync-pipeline-repo'. The 'Repositories' section lists two repositories: 'coe-alm-accelerator-templates' and 'ALM Demo', both with default branches of 'refs/heads/main'. The 'Service Connections' section lists four service connections, all with the environment URL 'https://.../ynamics.com/'. The 'Variable Groups' section lists one variable group, 'alm-accelerator-variable-group'.

Azure DevOps Projects

Azure DevOps Organization: sabinadi

Projects

Name	Description	Date Modified
ALM Demo	ALM Demo	19/07/2023

Team Members

Name	Email	Is Team Admin
Sabrina Di Bartolomeo	sabinadi@D	True

Pipelines

Name	Path
delete-unmanaged-solution-a...	\
export-solution-to-git	\
import-unmanaged-to-dev-en...	\
sync-pipeline-repo	ALM Accelerator Templates

Repositories

Name	Default Branch
coe-alm-accelerator-templates	refs/heads/main
ALM Demo	refs/heads/main

Service Connections

Name	Environment URL
https://.../ynamics...	https://.../ynamics.com/
https://.../ynamic...	https://.../ynamics.com/
https://.../ynamics...	https://.../ynamics.com/
https://.../ynamics...	https://.../ynamics.com/

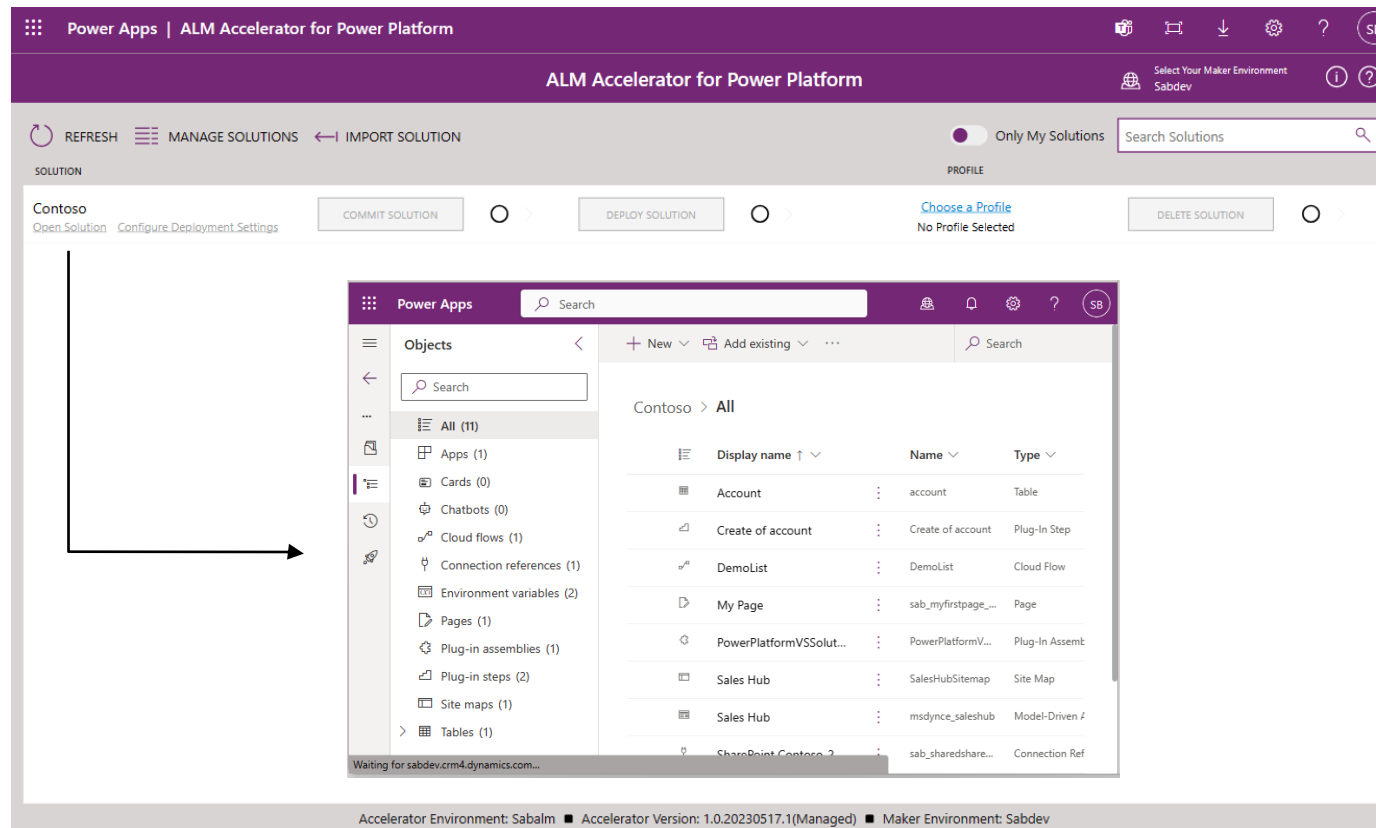
Variable Groups

Name	Description
alm-accelerator-variable-group	

ALM Accelerator for Power Platform

The ALM Accelerator canvas app sits on top of Azure DevOps pipelines to provide a simplified interface to regularly commit and create pull requests for the development work in the Power Platform. The combination of the Azure DevOps pipelines, and the canvas app are what make up the full ALM Accelerator solution.

On the Top Right the user needs to select the Development environment that contains the solutions to deploy. The App automatically will display all the unmanaged solutions in the selected Development Environment.



ALM Accelerator for Power Platform

The first time a user signs in to the ALM Accelerator for Power Platform App and doesn't have a deployment user setting assigned to them, the app automatically creates a deployment user setting for that user. This user setting is created with all functionality enabled, including import, delete, and all advanced features.

The screenshot shows the Dynamics 365 ALM Accelerator for Power Platform App interface. The top navigation bar includes the Dynamics 365 logo, the app name, and a 'SANDBOX' label. The left sidebar contains navigation options: Deployments, Deployment User Set..., Deployment Profile, Deployment Requests, Azure DevOps, and Projects. The main content area displays 'Active Deployment User Settings' for a user named 'sabinadi'. The table below shows the user's permissions for various functions.

Name	Delete Sol...	Import So...	Manage S...	Profile Cr...	Profile Up...	Advanced...	Advanced...	Drillthrou...	Bypass Pr...	Show All ...	Publish C...	Owner	Created On	Modified ...	Modified ...
sabinadi												Allowed	7/19/2023 10:...	7/19/202...	

User Functions

Import Solutions	...
Manage Solutions	...
Profile Creation	...
Advanced Deploy	...
Bypass Prepare	...
Deployment Configuration	...
Bypass Approval	Not Allowed
Commit Portals	Not Allowed
Publish Customizations	Allowed
Allow Import Managed	...

Delete Solutions	...
Drillthrough Status	...
Profile Updates	...
Advanced Promote	...
Bypass Prepare Default	Allowed
Show All Solutions	...
Bypass Approval Default	Not Allowed
Commit Portals Default	Not Allowed
Publish Customizations Default	Allowed
Import Managed Default	...

ALM Accelerator for Power Platform

The first time the user needs to create at least one Profile

1) Select Choose a Profile of the solution to deploy

SOLUTION PROFILE
Contoso

Select a Profile

Organization

Solution Project

Solution Repository

Solution Target Branch

Deployment Environments

SAVE

NOTE: Changes made to the solution's profile requires you to run COMMIT SOLUTION again to update the deployment.

2) Select the New Icon next to Select a Profile and enter a name, select the DevOps Organization, Project and the Project Repo where the source of the customizations will be stored and Create.

SOLUTION PROFILE
Contoso

Create a Profile

Enter a Name for this Profile

Organization

Solution Project

Solution Repository

Solution Target Branch

Deployment Environments

CREATE

NOTE: Changes made to the solution's profile requires you to run COMMIT SOLUTION again to update the deployment.

3) Select the Validation, Test and Production Power Platform Environments and Save

SOLUTION PROFILE
Contoso

Select a Profile

Organization

Solution Project

Solution Repository

Solution Target Branch

Deployment Environments

ALM Demo Profile - Validation

ALM Demo Profile - Test

ALM Demo Profile - Prod

SAVE

NOTE: Changes made to the solution's profile requires you to run COMMIT SOLUTION again to update the deployment.

ALM Accelerator for Power Platform

The Deployment Profile looks like this:

The screenshot shows the 'ALM Demo Profile' configuration in Dynamics 365. The interface includes a left sidebar with navigation options like 'Deployments', 'Deployment User Set...', 'Deployment Profile', and 'Deployment Requests'. The main area displays the 'General' tab of the profile, which includes fields for Name, AzDO Organization, AzDO Project, Repository, Target Branch, AzDO Pipeline Project, Service Connection Name, and Repository ID. Below these fields is a table of 'Deployment Steps'.

Name	Step Number	Step Type	Deployment Environment	Approval Type	Deployable	Created On
Validation	1	Deploy...	ALM Demo Profile - Validation	Pull Requ...	Not Allow...	7/19/2023 10:43 ...
Test	2	Deploy...	ALM Demo Profile - Test	Pull Requ...	Allowed	7/19/2023 10:43 ...
Prod	3	Deploy...	ALM Demo Profile - Prod	Pull Requ...	Allowed	7/19/2023 10:43 ...

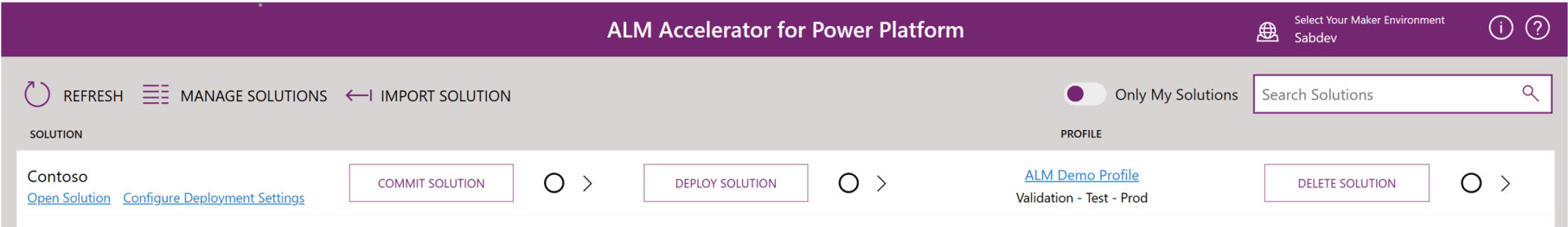
Also an Active Deployment Request will be created:

The screenshot shows the 'Active Deployment Requests' view in Dynamics 365. The interface includes a left sidebar with navigation options like 'Deployments', 'Deployment User Set...', 'Deployment Profile', and 'Deployment Requests'. The main area displays a table of active deployment requests.

Solution N...	Request T...	Deployme...	Build ID	Deployme...	Source	Target	Created On	Created By
Contoso	Profile	ALM Dem...					7/19/2023 1:0...	Sabrina D...

Commit Solution

To commit the solution, select Commit Solution. Here a new Feature Branch for the solution will be created. [ALM Accelerator for Power Platform branching and environment strategy - Power Platform | Microsoft Learn](#)



IMPORTANT: Only during the first commit of the solution, in addition to the Feature Branch, which name is specified in the text box, the Commit will create a branch from Main, called with the same name of the solution. In this case **Contoso**. The feature branch only at first commit will be a branch of main. It's not possible to choose for the feature branch the same name as the Solution or the name "main".



1. The **main** branch is where the current **production** release of the solution is stored. The main branch is where the solution branch will be merged when the solution is ready to be deployed to the production environment.
2. When a new solution is being committed to source control, the maker will create a new branch from the main branch. This will also create a **new solution branch**.
3. When a maker is ready to commit their changes to the solution branch, they'll use the ALM Accelerator app to create a **pull request** from their **feature branch to the solution branch**. This triggers a **deployment to the validation** environment.
4. Once all checks have passed on the pull request, the pull request can be merged. This triggers a **deployment to the test** environment.
5. If the solution is ready to be deployed to the production environment, a **pull request** can be created **from the solution branch to the main branch**. This triggers a deployment to the production environment.
6. Once the solution is **deployed to the production** environment, both the main branch and the solution branch contain the latest source code for the solution. From this point on, the solution branch will be used to create new feature branches.

Commit Solution

By selecting Commit Solution, we have now to enter the Feature Branch Name and other settings that might be available based on the Deployment User Setting.

First Commit

Platform

COMMIT SOLUTION

Contoso

Selected Profile

ALM Demo Profile

Enter Notes

Enter notes about this version of your solution (e.g. changes made or work items completed)

Scope

Solution and Settings

Show Advanced

Create New Branch

sabrinadi@D.

Based On

main

Publish Customizations

Bypass Prepare

COMMIT SOLUTION

Future Commit

rm

COMMIT SOLUTION

Contoso

Selected Profile

ALM Demo Profile

Enter Notes

Enter notes about this version of your solution (e.g. changes made or work items completed)

Scope

Solution and Settings

Show Advanced

Create New Branch

sabrinadi@D.

Based On

Contoso

Include Power Pages

Website(s)

Publish Customizations

Bypass Prepare

COMMIT SOLUTION

Commit Solution

Example of a run of *export_solution_to_git* Pipeline steps

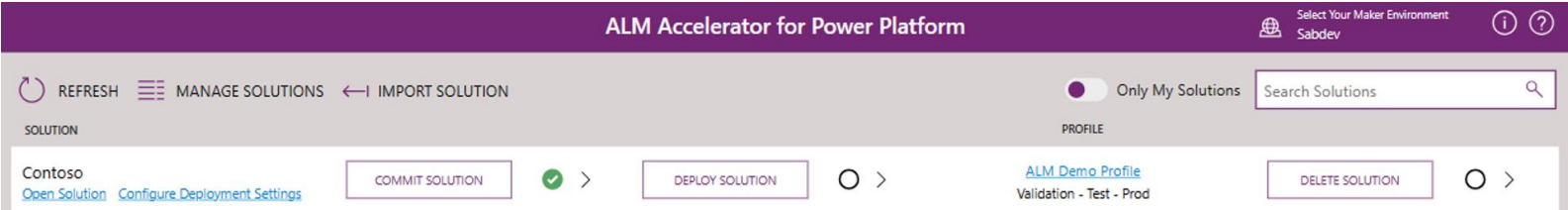
✓	export_solution_to_git	3m 40s
✓	Initialize job	3s
✓	Configuring core.longpaths true	2s
✓	Checkout Pipeline Branch	15s
✓	Checkout Source Branch	1s
✓	Set Service Connection Url	1s
✓	Install Power Platform Build To...	<1s
✓	Set Connection Variables	<1s
✓	Set SpnToken for use by other t...	2s
✓	Saving Export Pipeline Paramet...	1s
✓	Set toolsPaths	1s
✓	Cache Powershell Modules	2s
✓	Initialize Git	1s
✓	Create New Git Branch: sabrin...	<1s
✓	Install PowerShell Modules	1s

⌚	Publish Customizations	<1s
✓	Set localProcessCanvasApps var...	1s
✓	Set pac tools path	1s
✓	pac - Clone or Sync Solution	2m 25s
✓	Add Packagetype Node to cdsp...	1s
✓	Update Solution XML with Build...	1s
✓	Delete solution zip files	1s
✓	Format JSON files	1s
✓	Fix unset GUIDs in new Business...	1s
⌚	Verify Environment Variable C...	<1s
⌚	Remove Code from Custom C...	<1s
✓	Export Solution Update Deplo...	<1s
✓	Update Deployment Settings	9s
✓	Check if Deployment Settings E...	1s
✓	Retrieve Flow Activation Config ...	1s

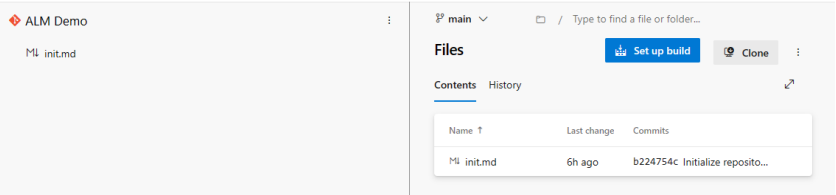
✓	Disable / Enable Solution Flows	1s
✓	Retrieve Default Environment V...	1s
⌚	Verify Default Environment Va...	<1s
⌚	Download website(s)	<1s
⌚	Fetch and set deployment pro...	<1s
✓	Add Changes to Git Branch	1s
✓	Commit Changes to Git Branch	1s
⌚	Push to Contoso Remote Bran...	<1s
✓	Push to sabrinadi@D:	1s
⌚	Push to sabrinadi@D:	<1s
⌚	Push to sabrinadi@D:	<1s
✓	Post-job: Cache Powershell Mo...	1s
✓	Post-job: Checkout Source Bran...	1s
✓	Post-job: Checkout Pipeline Br...	<1s
✓	Finalize Job	<1s

Commit Solution

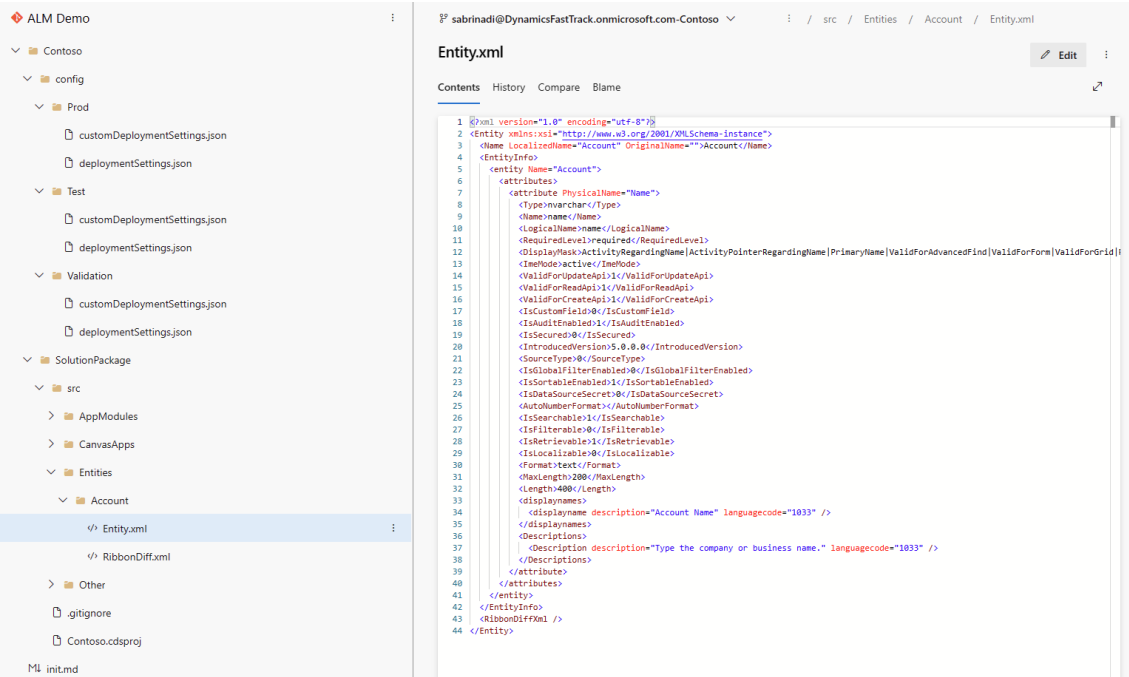
Result:



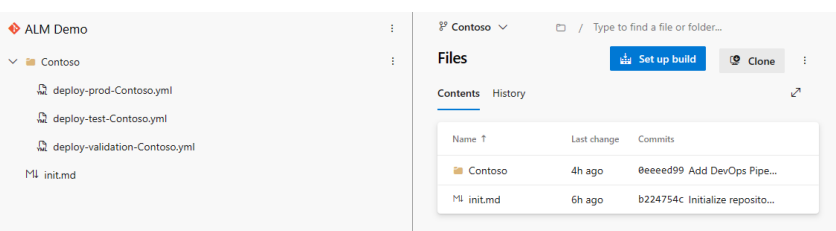
Main Branch



Feature Branch



Solution Branch



Commit Solution

In the Solution branch, also a Policy will be created

Branches

Mine All Stale

Branch

Contoso

main

Default Compare

sabrinadi@D:

Contoso

Settings Policies Security Approvals and checks

Branch Policies

Note: If any required policy is enabled, this branch cannot be deleted

Off

Require a minimum number of reviewers

Require approval from a specified number of reviewers on pull requests.

Off

Check for linked work items

Encourage traceability by checking for linked work items on pull requests.

Off

Check for comment resolution

Check to see that all comments have been resolved on pull requests.

Off

Limit merge types

Control branch history by limiting the available types of merge when pull requests are completed.

Build Validation1

Validate code by pre-merging and building pull request changes.

Enabled

Name ↑

Path filter

On

Build Validation

Required

/Contoso/*

Status Checks0

Require other services to post successful status to complete pull request.

No status checks found, but you can use the add button to create one.

Automatically included reviewers0

Designate code reviewers to automatically include when pull request is created.

Edit build policy

Enabled

On

Build pipeline *

deploy-validation-Contoso (ALM Demo - Contoso)

Path filter (optional)

/Contoso/*

Trigger

Automatic (whenever the source branch is updated)

Manual

Policy requirement

Required

Build must succeed in order to complete pull requests.

Optional

Build failure will not block completion of pull requests.

Build expiration

Immediately when Contoso is updated

After hours if Contoso has been updated

Never

Display name

Build Validation

Save Cancel

Deploy Solution to Validation Environment

When a maker is ready to deploy their changes to the solution branch, they'll use the ALM Accelerator app to **Create a pull request** from their feature branch to the solution branch. This triggers a deployment to the validation environment because of the Policy at Solution Branch

ALM Accelerator for Power Platform

REFRESHMANAGE SOLUTIONSIMPORT SOLUTION

SOLUTION

Contoso

Open SolutionConfigure Deployment Settings

COMMIT SOLUTION

DEPLOY SOLUTION

ALM Demo ProfileValidation - Test -

DEPLOY SOLUTION

Contoso

Selected Profile

ALM Demo Profile

Title

Deploy the Feature

Enter Notes

Enter notes about this deployment of your solution (e.g. changes made or work items completed)

Advanced Settings

Source Branch

sabrinadi@D:

Target Branch

Contoso

Bypass Approval

DEPLOY SOLUTION

Pipelines

RecentAllRuns

New pipeline

Filter pipelines

Recently run pipelines

Pipeline	Last run
deploy-validation-Contoso ALM Demo - Contoso	#1.0.20230719.1 • Deploy the Feature 1 PR automated for 12 Just now
export-solution-to-git	#export-Contoso-to-git-branch • Merge pull request 9 from initialSync into main 1 Manually triggered for 17 min 5h ago 7m 30s
sync-pipeline-repo ALM Accelerator Templates	#20230719.1 • Initial commit 1 Manually triggered for 17 min 7h ago 2m 12s

Deploy Solution to Validation Environment

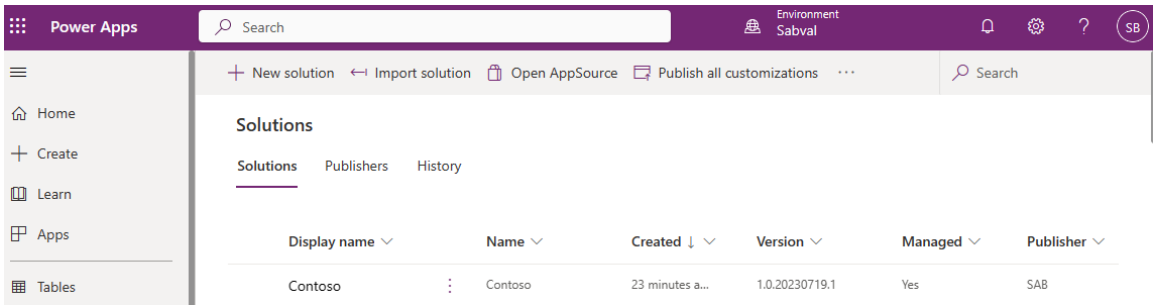
✓ build_and_deploy_job7m 2s	✓ Archive Configuration Migratio...1s	✓ Display Bin Files1s	✓ Replace Tokens: deploymentSet...1s	✓ Share Canvas App with AAD Gr...3s
⌵ Initialize job7s	✓ Replace Tokens: deploymentS...<1s	✓ Copy cdsproj solutions to Artif...1s	⌵ Get unmanaged solution zip ...<1s	✓ Update Solution Component O...2s
✓ Set Service Connection Url2s	✓ Retrieve Flow Activation Config...1s	✓ Append version to solutions1s	⌵ Import Unmanaged Solution<1s	✓ Update WebHook Urls2s
✓ Checkout Pipeline Branch15s	✓ Disable / Enable Solution Flows1s	✓ Print ArtifactStagingDirectory Fi...1s	✓ Get managed solution zip path1s	✓ Update SDK Message Configur...3s
✓ Checkout Source Branch1s	✓ Set localProcessCanvasApps va...1s	✓ Run Solution Checker37s	✓ Import Managed Solution ...2m 41s	✓ Activate Flows10s
✓ Set buildType based on solutio...1s	⌵ Validate Flows<1s	✓ Publish Artifacts1s	⌵ Import Managed Solution as ...<1s	✓ Share Flows with Group Team1s
✓ Set Service Connection Url1s	✓ Check codefirst components ex...1s	✓ Set IsUnmanaged parameter1s	⌵ PowerPlatformApplySolution...<1s	✓ Share Connectors with Group T...1s
✓ Install Power Platform Build T...<1s	✓ Add project references to cdspr...3s	⌵ Install Power Platform Build T...<1s	⌵ Power Platform Publish Custo...<1s	✓ Evaluate Running Canvas Tests1s
✓ Set Connection Variables<1s	✓ Install npm - pcf projects1s	✓ Set Connection Variables<1s	✓ Retrieve Flow Activation Config...1s	⌵ Set Agent Screen Resolution t...<1s
✓ Set SpnToken for use by other t...2s	✓ Build cdsproject26s	✓ Set SpnToken for use by other t...1s	✓ Retrieve AAD Group Team Conf...1s	⌵ Run Power Apps Test Automa...<1s
✓ Saving Build Pipeline Parameters1s	✓ Install NuGet2s	✓ Saving Deploy Pipeline Parame...1s	✓ Retrieve AAD Group Canvas Co...1s	✓ Set pac tools path1s
✓ Set toolsPaths1s	✓ Check the presence of CS proje...1s	✓ Set toolsPaths1s	✓ Retrieve Solution Component ...1s	✓ Upload website(s)6s
✓ Set Source Repo Name1s	⌵ Remove Relative References f...<1s	✓ Cache Powershell Modules1s	✓ Retrieve Connection Reference ...1s	✓ Post-job: Cache Powershell Mo...2s
✓ Set pac tools path1s	⌵ Restore NuGet packages to ru...<1s	✓ Install PowerShell Modules17s	✓ Retrieve WebHook Urls Config ...1s	✓ Post-job: Checkout Source Br...<1s
✓ Pac cli and Authenticate15s	⌵ Disable the nuget restore vali...<1s	✓ Set EnvironmentId8s	✓ Retrieve SDK Messages Config ...1s	✓ Post-job: Checkout Pipeline B...<1s
✓ Restructure legacy folders1s	⌵ Build cs projects<1s	✓ Set Solution Exists5s	✓ Retrieve Flow Share with Group...1s	⌵ Finalize Job<1s
✓ Update Solution XML with Buil...1s	⌵ Check for RunSettings file in t...<1s	✓ Download Build Pipeline Artifact2s	✓ Retrieve Connector Share with ...1s	
✓ Flatten JSON files1s	⌵ VSTest without Run Settings file<1s	✓ Get artifact drop path1s	✓ Check if Configuration Migratio...1s	
✓ Detect and process old canvas ...1s	⌵ VSTest with Run Settings file<1s	✓ Check if Deployment Settings E...1s	⌵ Import Configuration Migrati...<1s	
✓ Rebuild canvas app source files ...3s	⌵ Repopulate nuget validation c...<1s	✓ File Transformation: deploym...<1s	✓ Set Dataverse AAD Group Teams3s	
✓ Check if Deployment Settings E...1s				

Deploy Solution to Validation Environment

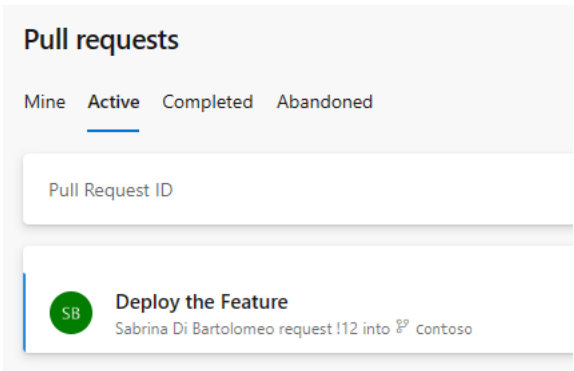
Result:



Solution imported in Validation Environment



Active Pull Request in DevOps



Deploy Solution to Test Environment

To deploy the feature in the solution to Test, the user need to **Complete the Pull Request** and this will trigger the deploy-test-solution Pipeline

Deploy the Feature

Active 112 Sabrina Di Bartolomeo proposes to merge sabrinadi@D

Overview Files Updates Commits

Required check succeeded

Build Validation Build Validation succeeded Re-queue

No merge conflicts Last checked 18m ago

Description

Show everything (1)

Add a comment...

Sabrina Di Bartolomeo created the pull request 18m ago

Approve Complete

into Contoso

Reviewers

Required

No required reviewers

Optional

No optional reviewers

Tags

No tags

Work items

No work items

Complete pull request

Merge type

Squash commit

Post-completion options

Complete associated work items after merging

Delete sabrinadi@D after merging

Customize merge commit message

Cancel Complete merge

Pipelines

Recent All Runs

Recently run pipelines

Pipeline	Last run
deploy-test-Contoso ALM Demo - Contoso	#1.0.20230719.1 • Merged PR 12: Deploy the Feature Individual CI for PR automated for 12
deploy-validation-Contoso ALM Demo - Contoso	#1.0.20230719.1 • Deploy the Feature PR automated for 12
export-solution-to-git	#export-Contoso-to-git-branch • Merge pull request 9 from initialSync into main Manually triggered for main
sync-pipeline-repo ALM Accelerator Templates	#20230719.1 • Initial commit. Manually triggered for main

Deploy Solution to Test Environment

✓ build_and_deploy_job	5m 55s	✓ Archive Configuration Migratio...	1s	✓ Display Bin Files	1s	✓ Replace Tokens: deploymentS...	<1s	✓ Share Canvas App with AAD Gr...	3s
⌵ Initialize job	7s	✓ Replace Tokens: deploymentS...	<1s	✓ Copy cdsproj solutions to Artif...	1s	⌵ Get unmanaged solution zip ...	<1s	✓ Update Solution Component O...	2s
✓ Set Service Connection Url	2s	✓ Retrieve Flow Activation Config...	1s	✓ Append version to solutions	1s	⌵ Import Unmanaged Solution	<1s	✓ Update WebHook Urls	2s
✓ Checkout Pipeline Branch	13s	✓ Disable / Enable Solution Flows	1s	✓ Print ArtifactStagingDirectory Fi...	1s	✓ Get managed solution zip path	1s	✓ Update SDK Message Configur...	4s
✓ Checkout Source Branch	1s	✓ Set localProcessCanvasApps va...	1s	⌵ Run Solution Checker	<1s	✓ Import Managed Solution ...	2m 46s	✓ Activate Flows	10s
✓ Set buildType based on solutio...	1s	⌵ Validate Flows	<1s	✓ Publish Artifacts	2s	⌵ Import Managed Solution as ...	<1s	✓ Share Flows with Group Team	1s
✓ Set Service Connection Url	1s	✓ Check codefirst components ex...	1s	✓ Set IsUnmanaged parameter	1s	⌵ PowerPlatformApplySolution...	<1s	✓ Share Connectors with Group T...	1s
✓ Install Power Platform Build T...	<1s	✓ Add project references to cdspr...	3s	⌵ Install Power Platform Build T...	<1s	⌵ Power Platform Publish Custo...	<1s	✓ Evaluate Running Canvas Tests	1s
✓ Set Connection Variables	<1s	✓ Install npm - pcf projects	1s	✓ Set Connection Variables	<1s	✓ Retrieve Flow Activation Config...	1s	⌵ Set Agent Screen Resolution t...	<1s
✓ Set SpnToken for use by other t...	2s	✓ Build cdsproject	17s	✓ Set SpnToken for use by other t...	1s	✓ Retrieve AAD Group Team Conf...	1s	⌵ Run Power Apps Test Automa...	<1s
✓ Saving Build Pipeline Parameters	1s	✓ Install NuGet	1s	✓ Saving Deploy Pipeline Parame...	1s	✓ Retrieve AAD Group Canvas Co...	1s	✓ Set pac tools path	1s
✓ Set toolsPaths	1s	✓ Check the presence of CS proje...	1s	✓ Set toolsPaths	1s	✓ Retrieve Solution Component ...	1s	✓ Upload website(s)	5s
✓ Set Source Repo Name	1s	⌵ Remove Relative References f...	<1s	✓ Cache Powershell Modules	2s	✓ Retrieve Connection Reference ...	1s	✓ Post-job: Cache Powershell Mo...	1s
✓ Set pac tools path	1s	⌵ Restore NuGet packages to ru...	<1s	✓ Install PowerShell Modules	1s	✓ Retrieve WebHook Urls Config ...	1s	✓ Post-job: Checkout Source Br...	<1s
✓ Pac cli and Authenticate	10s	⌵ Disable the nuget restore vali...	<1s	✓ Set EnvironmentId	7s	✓ Retrieve SDK Messages Config ...	1s	✓ Post-job: Checkout Pipeline B...	<1s
✓ Restructure legacy folders	1s	⌵ Build cs projects	<1s	✓ Set Solution Exists	4s	✓ Retrieve Flow Share with Group...	1s	⌵ Finalize Job	<1s
✓ Update Solution XML with Buil...	1s	⌵ Check for RunSettings file in t...	<1s	✓ Download Build Pipeline Artifact	1s	✓ Retrieve Connector Share with ...	1s		
✓ Flatten JSON files	1s	⌵ VSTest without Run Settings file	<1s	✓ Get artifact drop path	1s	✓ Check if Configuration Migratio...	1s		
✓ Detect and process old canvas ...	1s	⌵ VSTest with Run Settings file	<1s	✓ Check if Deployment Settings E...	1s	⌵ Import Configuration Migrati...	<1s		
✓ Rebuild canvas app source files ...	3s	⌵ Repopulate nuget validation c...	<1s	✓ File Transformation: deploym...	<1s	✓ Set Dataverse AAD Group Teams	3s		
✓ Check if Deployment Settings E...	1s								

Deploy Solution to Test Environment

Result:

ALM Accelerator for Power Platform

Select Your Maker Environment
Sabdev

?

REFRESH

MANAGE SOLUTIONS

IMPORT SOLUTION

Only My Solutions

Search Solutions

SOLUTION

PROFILE

Contoso

[Open Solution](#)

[Configure Deployment Settings](#)

COMMIT SOLUTION

✓ >

DEPLOY SOLUTION

✓ >

[ALM Demo Profile](#)

Validation - Test - Prod

DELETE SOLUTION

○ >

Solution imported in Test Environment

Power Apps

Search

Environment
Sabtest

SB

New solution

Import solution

Open AppSource

Publish all customizations

...

Search

Solutions

Solutions

Publishers

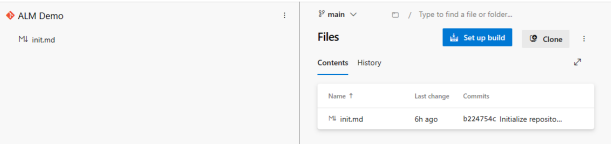
History

Display name	Name	Created	Version	Managed	Publisher	Solution check
Contoso	Contoso	12 minutes a...	1.0.20230719.1	Yes	SAB	Checked by publ...

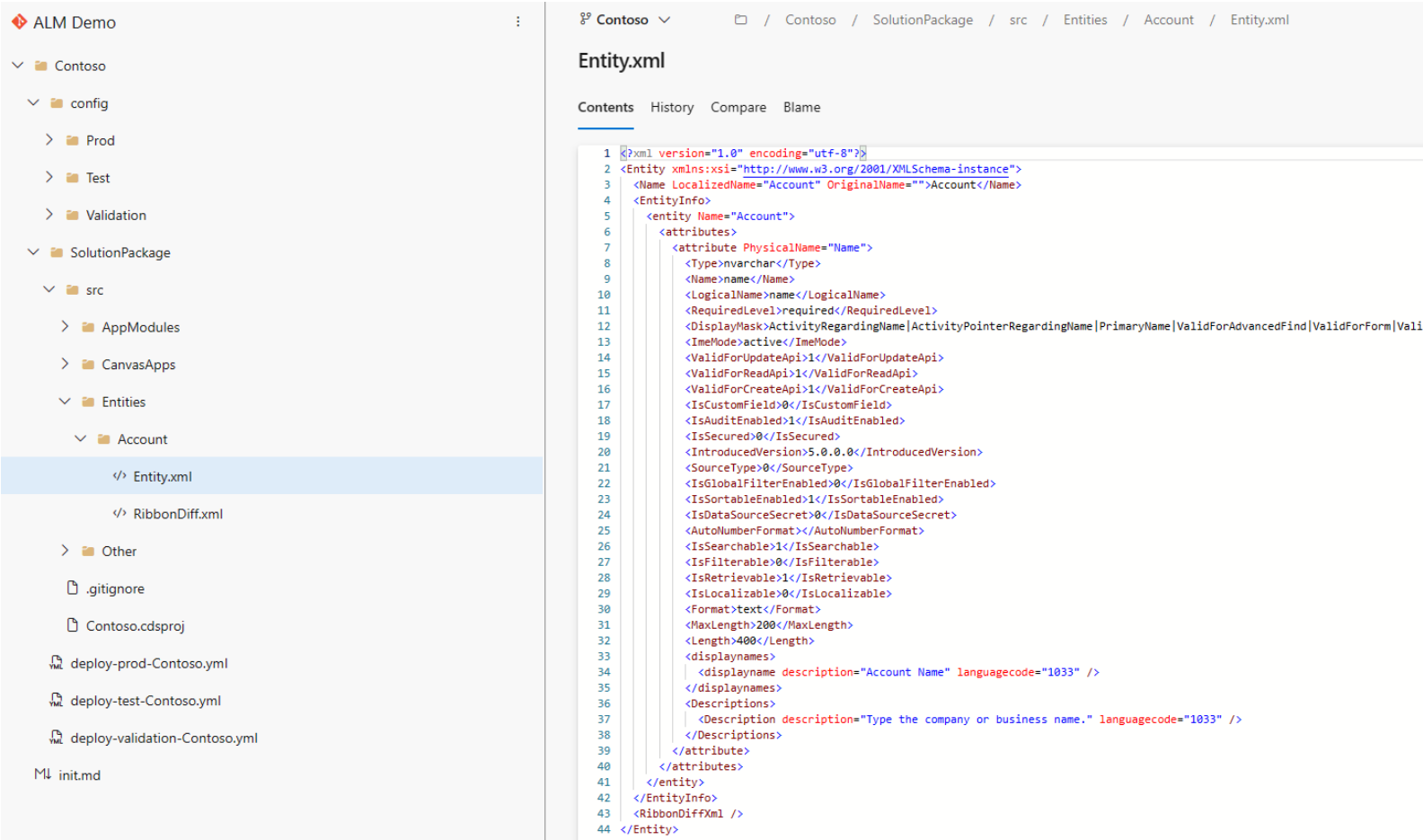
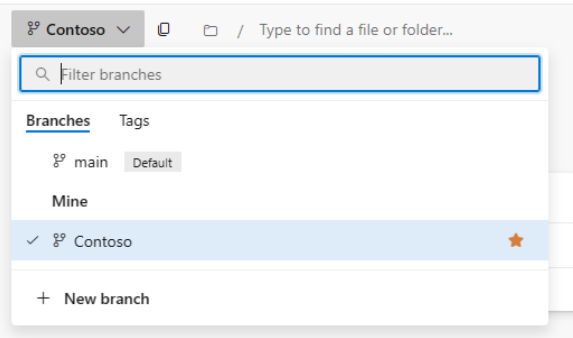
Deploy Solution to Test Environment

Result in DevOps:

Main Branch



Solution Branch



Deploy Solution to Production Environment

When a maker is ready to deploy their changes to the main branch (Deploy to Production), he can use the ALM Accelerator app to create a pull request from their solution branch to the main branch.

The screenshot displays the 'ALM Accelerator for Power Platform' interface. The main window shows a solution named 'Contoso' with buttons for 'COMMIT SOLUTION' and 'DEPLOY SOLUTION'. A modal dialog titled 'DEPLOY SOLUTION' is open, showing the 'Contoso' solution profile. The dialog includes a 'Selected Profile' dropdown set to 'ALM Demo Profile', a 'Title' field with 'Deploy to Production', an 'Enter Notes' text area, and 'Advanced Settings' for 'Source Branch' (Contoso) and 'Target Branch' (main). A 'Bypass Approval' toggle is also present. A 'DEPLOY SOLUTION' button is at the bottom right.

ALM Accelerator for Power Platform

REFRESH MANAGE SOLUTIONS IMPORT SOLUTION

SOLUTION PROFILE

Contoso

Open Solution Configure Deployment Settings

COMMIT SOLUTION

DEPLOY SOLUTION

ALM Demo Profile

Validation - Test -

DEPLOY SOLUTION

Contoso

Selected Profile

ALM Demo Profile

Title

Deploy to Production

Enter Notes

Enter notes about this deployment of your solution (e.g. changes made or work items completed)

Advanced Settings

Source Branch

Contoso

Target Branch

main

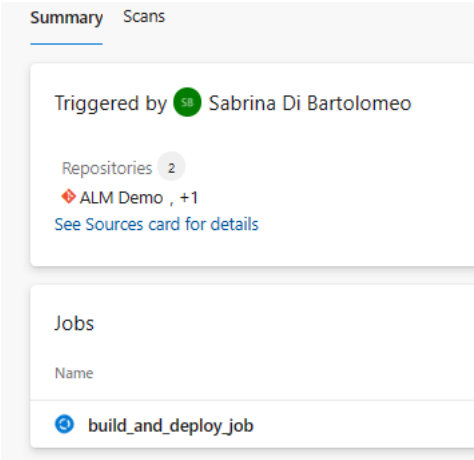
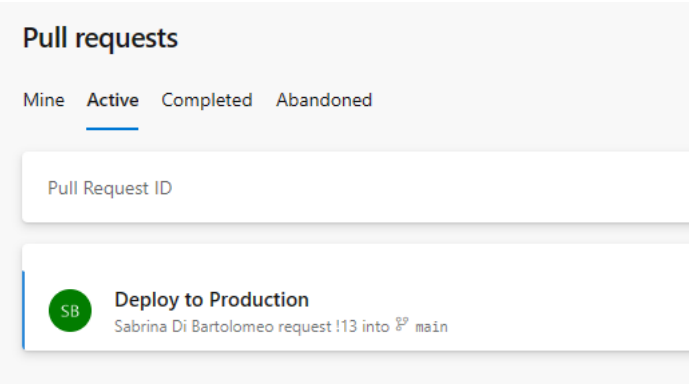
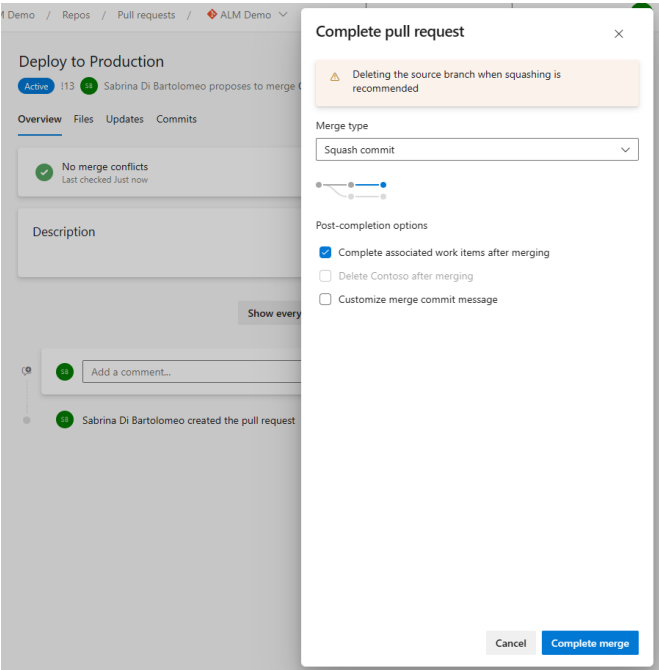
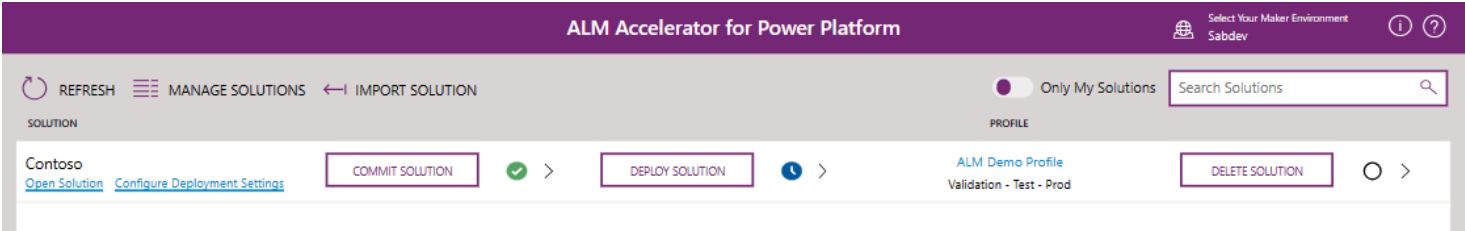
Bypass Approval

DEPLOY SOLUTION

Accelerator Environment: Sabalm Accelerator Version: 1.0.20230517.1(Managed) Maker Environment

Deploy Solution to Production Environment

A user with permissions to approve can approve and complete the Pull Request

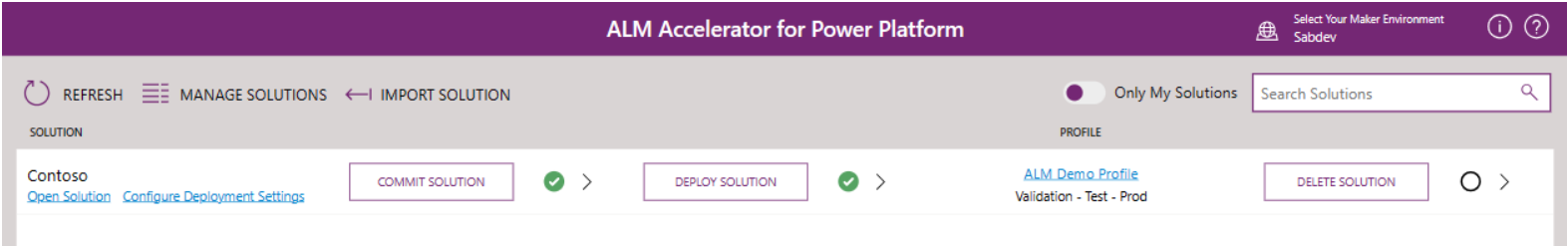


Deploy Solution to Production Environment

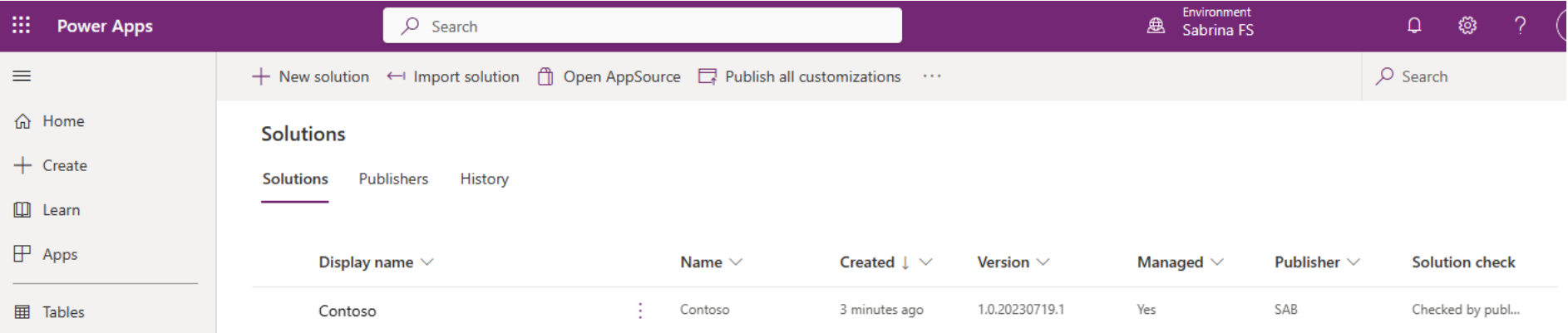
✓ build_and_deploy_job	5m 57s	✓ Archive Configuration Migratio...	1s	✓ Display Bin Files	1s	✓ Replace Tokens: deploymentS...	<1s	✓ Share Canvas App with AAD Gr...	3s
⌚ Initialize job	8s	✓ Replace Tokens: deploymentS...	<1s	✓ Copy cdsproj solutions to Artif...	1s	⌚ Get unmanaged solution zip ...	<1s	✓ Update Solution Component O...	2s
✓ Set Service Connection Url	2s	✓ Retrieve Flow Activation Config...	1s	✓ Append version to solutions	1s	⌚ Import Unmanaged Solution	<1s	✓ Update WebHook Urls	2s
✓ Checkout Pipeline Branch	14s	✓ Disable / Enable Solution Flows	1s	✓ Print ArtifactStagingDirectory Fi...	1s	✓ Get managed solution zip path	1s	✓ Update SDK Message Configur...	3s
✓ Checkout Source Branch	3s	✓ Set localProcessCanvasApps va...	1s	⌚ Run Solution Checker	<1s	✓ Import Managed Solution ...	2m 34s	✓ Activate Flows	14s
✓ Set buildType based on solutio...	1s	⌚ Validate Flows	<1s	✓ Publish Artifacts	2s	⌚ Import Managed Solution as ...	<1s	✓ Share Flows with Group Team	1s
✓ Set Service Connection Url	1s	✓ Check codefirst components ex...	1s	✓ Set IsUnmanaged parameter	1s	⌚ PowerPlatformApplySolution...	<1s	✓ Share Connectors with Group T...	1s
✓ Install Power Platform Build T...	<1s	✓ Add project references to cdspr...	3s	⌚ Install Power Platform Build T...	<1s	⌚ Power Platform Publish Custo...	<1s	✓ Evaluate Running Canvas Tests	1s
✓ Set Connection Variables	<1s	✓ Install npm - pcf projects	1s	✓ Set Connection Variables	<1s	✓ Retrieve Flow Activation Config...	1s	⌚ Set Agent Screen Resolution t...	<1s
✓ Set SpnToken for use by other t...	2s	✓ Build cdsproject	18s	✓ Set SpnToken for use by other t...	1s	✓ Retrieve AAD Group Team Conf...	1s	⌚ Run Power Apps Test Automa...	<1s
✓ Saving Build Pipeline Parameters	1s	✓ Install NuGet	1s	✓ Saving Deploy Pipeline Parame...	1s	✓ Retrieve AAD Group Canvas Co...	1s	✓ Set pac tools path	1s
✓ Set toolsPaths	1s	✓ Check the presence of CS proje...	1s	✓ Set toolsPaths	1s	✓ Retrieve Solution Component ...	1s	✓ Upload website(s)	8s
✓ Set Source Repo Name	1s	⌚ Remove Relative References f...	<1s	✓ Cache Powershell Modules	2s	✓ Retrieve Connection Reference ...	1s	✓ Post-job: Cache Powershell Mo...	1s
✓ Set pac tools path	1s	⌚ Restore NuGet packages to ru...	<1s	✓ Install PowerShell Modules	1s	✓ Retrieve WebHook Urls Config ...	1s	✓ Post-job: Checkout Source Br...	<1s
✓ Pac cli and Authenticate	12s	⌚ Disable the nuget restore vali...	<1s	✓ Set EnvironmentId	7s	✓ Retrieve SDK Messages Config ...	1s	✓ Post-job: Checkout Pipeline B...	<1s
✓ Restructure legacy folders	1s	⌚ Build cs projects	<1s	✓ Set Solution Exists	5s	✓ Retrieve Flow Share with Group...	1s	⌚ Finalize Job	<1s
✓ Update Solution XML with Buil...	1s	⌚ Check for RunSettings file in t...	<1s	✓ Download Build Pipeline Artifact	1s	✓ Retrieve Connector Share with ...	1s		
✓ Flatten JSON files	1s	⌚ VSTest without Run Settings file	<1s	✓ Get artifact drop path	1s	✓ Check if Configuration Migratio...	1s		
✓ Detect and process old canvas ...	1s	⌚ VSTest with Run Settings file	<1s	✓ Check if Deployment Settings E...	1s	⌚ Import Configuration Migrati...	<1s		
✓ Rebuild canvas app source files ...	3s	⌚ Repopulate nuget validation c...	<1s	✓ File Transformation: deploym...	<1s	✓ Set Dataverse AAD Group Teams	3s		
✓ Check if Deployment Settings E...	1s								

Deploy Solution to Production Environment

Result:

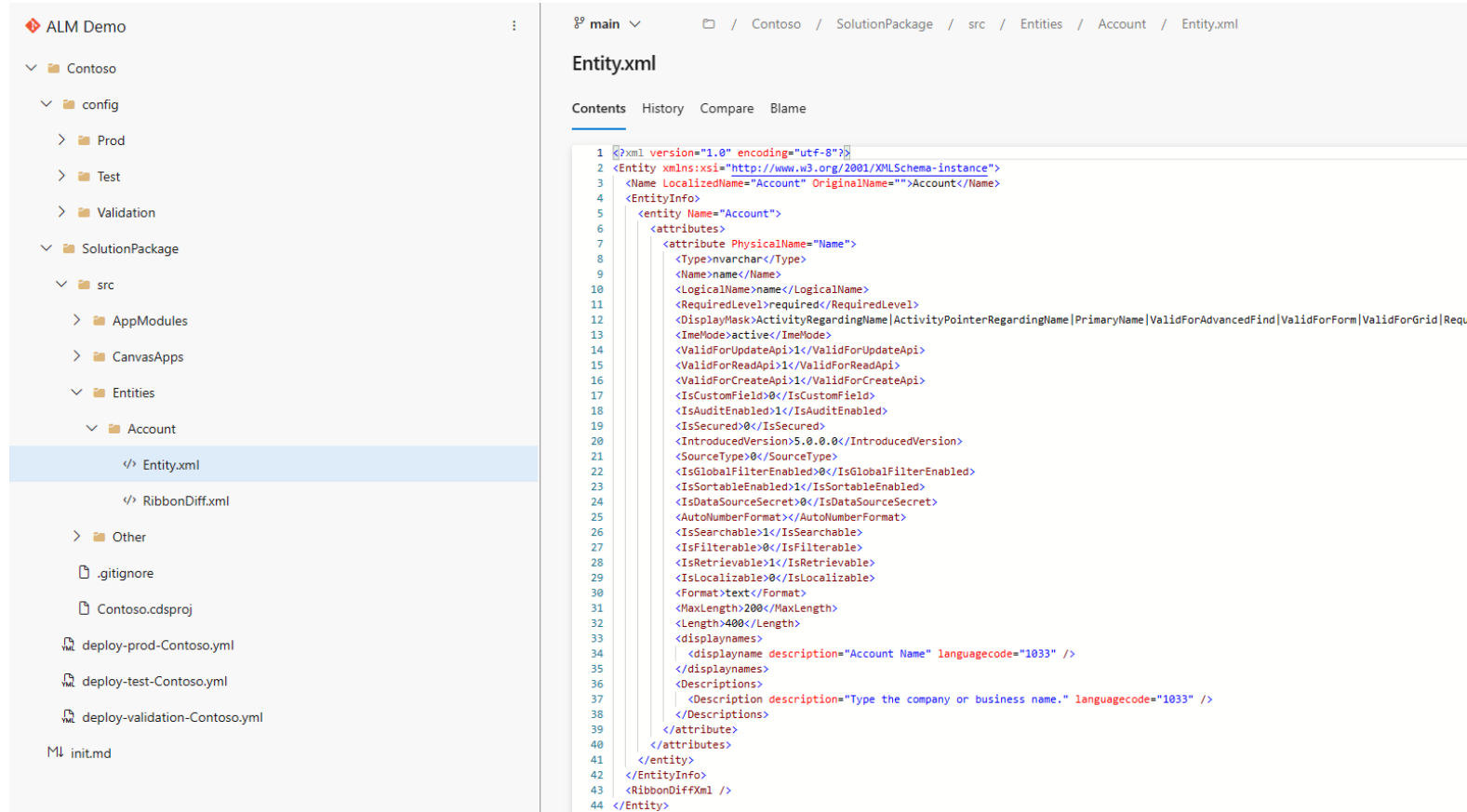


Solution imported in Production Environment



Deploy Solution to Production Environment

Result in DevOps:



The screenshot displays the ALM Demo interface. On the left, a file explorer shows the project structure. The right pane shows the content of the selected file, Entity.xml, which is an XML schema definition for an Account entity.

Entity.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <Entity xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
3   <Name LocalizedName="Account" OriginalName="Account"/>
4   <EntityInfo>
5     <Entity Name="Account">
6       <attributes>
7         <attribute PhysicalName="Name">
8           <Type>nvarchar</Type>
9           <Name>name</Name>
10          <LogicalName>name</LogicalName>
11          <RequiredLevel>required</RequiredLevel>
12          <DisplayMask>ActivityRegardingName|ActivityPointerRegardingName|PrimaryName|ValidForAdvancedFind|ValidForForm|ValidForGrid|Requ
13          <ImeMode>active</ImeMode>
14          <ValidForUpdateApi>1</ValidForUpdateApi>
15          <ValidForReadApi>1</ValidForReadApi>
16          <ValidForCreateApi>1</ValidForCreateApi>
17          <IsCustomField>0</IsCustomField>
18          <IsAuditEnabled>1</IsAuditEnabled>
19          <IsSecured>0</IsSecured>
20          <IntroducedVersion>5.0.0.0</IntroducedVersion>
21          <SourceType>0</SourceType>
22          <IsGlobalFilterEnabled>0</IsGlobalFilterEnabled>
23          <IsSortableEnabled>1</IsSortableEnabled>
24          <IsDataSourceSecret>0</IsDataSourceSecret>
25          <AutoNumberFormat></AutoNumberFormat>
26          <IsSearchable>1</IsSearchable>
27          <IsFilterable>0</IsFilterable>
28          <IsRetrievable>1</IsRetrievable>
29          <IsLocalizable>0</IsLocalizable>
30          <Format>text</Format>
31          <MaxLength>200</MaxLength>
32          <Length>400</Length>
33          <displaynames>
34            <displayname description="Account Name" languagecode="1033" />
35          </displaynames>
36          <Descriptions>
37            <Description description="Type the company or business name." languagecode="1033" />
38          </Descriptions>
39        </attribute>
40      </attributes>
41    </Entity>
42  </EntityInfo>
43  <RibbonDiffXml />
44 </Entity>
```

ALM Accelerator History

Power Platform ALM Accelerator Request History					
Contoso					
REQUEST	STATUS	ACTION	REQUESTED BY	DESTINATION	PROFILE
7/19/2023 9:14 PM - Contoso	✓	DEPLOY SOLUTION	System	Prod	ALM Demo Profile Validation - Test - Prod
7/19/2023 9:13 PM - Contoso	✓	DEPLOY SOLUTION	Sabrina Di Bartolomeo	main	ALM Demo Profile Validation - Test - Prod
7/19/2023 8:48 PM - Contoso	✓	DEPLOY SOLUTION	System	Test	ALM Demo Profile Validation - Test - Prod
7/19/2023 8:29 PM - Contoso	✓	DEPLOY SOLUTION	Sabrina Di Bartolomeo	Contoso	ALM Demo Profile Validation - Test - Prod
7/19/2023 8:29 PM - Contoso	✓	DEPLOY SOLUTION	System	Validation	ALM Demo Profile Validation - Test - Prod
7/19/2023 3:59 PM - Contoso	✓	COMMIT SOLUTION	Sabrina Di Bartolomeo sabinadi@D:		ALM Demo Profile Validation - Test - Prod

ALM Accelerator Configure Deployment Settings

Environment Variables with different values based on the Environment:

CONFIGURE DEPLOYMENT SETTINGS (Contoso) X

Select an Environment to Configure

Test Upgrade Solution

Connection References Environment Variables Canvas Apps Group Teams Flows Custom Connectors WebHooks Power Pages Plugin Steps

SP url String

https://d: sharepoint.com/sites/testsite

SP listname String

DemoList

CONFIGURE DEPLOYMENT SETTINGS (Contoso) X

Select an Environment to Configure

Prod Upgrade Solution

Connection References Environment Variables Canvas Apps Group Teams Flows Custom Connectors WebHooks Power Pages Plugin Steps

SP url String

https://: harepoint.com/sites/prodsite

SP listname String

DemoList

ALM Accelerator Configure Deployment Settings

Plugin Steps with different values based on the Environment:

CONFIGURE DEPLOYMENT SETTINGS (Contoso)

Select an Environment to Configure

Test

Upgrade Solution

Connection References

Environment Variables

Canvas Apps

Group Teams

Flows

Custom Connectors

WebHooks

Power Pages

Plugin Steps

	Unsecured Configuration	Secured Configuration
Create of account	Enter unsecured configuration	Enter secured configuration
Update of account	testtest, footest, bartest, test	Enter secured configuration

CONFIGURE DEPLOYMENT SETTINGS (Contoso)

Select an Environment to Configure

Prod

Upgrade Solution

Connection References

Environment Variables

Canvas Apps

Group Teams

Flows

Custom Connectors

WebHooks

Power Pages

Plugin Steps

	Unsecured Configuration	Secured Configuration
Create of account	Enter unsecured configuration	Enter secured configuration
Update of account	testprod, fooprod, barprod, prod	Enter secured configuration

Extends PP Pipelines with ALM Accelerator Pipelines

[ALM Accelerator Pipeline Export Extension.mp4](#)