

Features releasing from April 2023 through September 2023

Last updated on May 30, 2023.

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# Microsoft Power Platform: 2023 release wave 1 plan

The Microsoft Power Platform release plan for the 2023 release wave 1 announces the latest updates to customers as features are prepared for release. You can browse the release plan here <u>online</u>, view it in the <u>Release planner</u>, or download the document as a <u>PDF file</u> (updated monthly). The plan for 2023 release wave 1 covers new features for Power Platform releasing from **April 2023** through **September 2023**.

The Dynamics 365, Viva Sales, and Supply Chain Platform features coming in the 2023 release wave 1 have been summarized in a separate release plan and a downloadable PDF.

The Microsoft Cloud for Industry features coming in the 2023 release wave 1 have been summarized in a separate release plan as well as a downloadable PDF.

# 2023 release wave 1 overview

Microsoft Power Platform enables users and organizations to analyze, act on, and automate the data to digitally transform their businesses. Microsoft Power Platform today comprises four products: Power BI, Power Apps, Power Automate, and Power Virtual Agents. It also has two add-ins: AI Builder and Power Pages. The 2023 release wave 1 release contains hundreds of new features across Power Platform applications including Power BI, Power Apps, Power Pages, Power Automate, Power Virtual Agents, and AI Builder, as well as Microsoft Dataverse, Power Platform capabilities for governance and administration, pro development, ISV experiences, and data integration.

#### **Power BI**

<u>Power BI</u> continues to invest in empowering every individual, team, and organization to drive a data culture. For individuals, we're enhancing the creation experience, bringing more parity on the web and adding the Power Query diagram view into Power BI. For teams, we're bringing enhancements to meetings and multitasking to help users seamlessly work with their data wherever they work.

# **Power Apps**

<u>Power Apps</u> is focusing on reducing risk for organizations with advanced governance capabilities, ensuring easy onboarding and leveraging low code capabilities in a manageable way for the organization to scale. Makers and developers of all skill levels will be more productive with modern experiences to build apps, manage data, and logic. Users will benefit from the modernization of web and mobile experiences, ensuring modern and fast experiences across apps.



# **Power Pages**

<u>Power Pages</u> continues to invest in bringing more out-of-the-box capabilities to support both low and no code development as well as professional developers. New features in this release will allow makers to have additional capabilities and solution templates in the Design Studio. Professional developers will be able to perform additional actions and work with code productively using Power Platform CLI tools and Visual Studio Code, and administrators will be enabled to better manage and govern their Power Pages sites.

#### **Power Automate**

<u>Power Automate</u> is releasing new capabilities to simplify creating new flows by describing them in natural language. This, with other experience improvements for creating and authoring flows, means it'll be easier than ever for new users to get started. These improvements include introducing work queues where automatable tasks can be viewed and managed together as well as providing simpler connectivity to a machine for desktop flows, eliminating the need for additional installs and managing password management.

# **Power Virtual Agents**

<u>Power Virtual Agents</u> offers a new unified authoring canvas that is Microsoft's single conversational AI studio for all bot building needs. With the continuing integration with Bot Framework capabilities and Azure Cognitive Services, bot creators – from subject matter experts to developers – are empowered to begin building today with the public preview. The advanced authoring canvas will be generally available this wave.

#### Microsoft Dataverse

<u>Microsoft Dataverse</u> continues to make investments focusing on enhancing makers' experiences by improving app building productivity, seamless connectivity to external data sources, and easier data stewardship with low code tools like Power Fx.

#### Al Builder

<u>Al Builder</u> will bring document processing improvements that will include more pre-built model capabilities like contract processing, the ability to identify personal information, and the possibility to extract field types from documents. We're also focusing on facilitating model governance and licensing by improving our admin interfaces to make it easier to govern how Al Builder credits are used across environments, apps, and flows.

# Governance and administration, pro development, and ISV experiences

Governance and administration continues to provide more tools and insights for admins to get the most from the Power Platform. We're adding more features supporting pay-as-you-



go metered billing and will continue to improve the manageability of environments with the ability to auto assign licenses of Power Platform products. Additionally, a new settings experience will be deployed that will modernize and improve the discovery of an array of settings.

<u>Pro development</u> will continue our investments in our Visual Studio Code extension, GitHub Actions, and Azure DevOps build tools to support building and deploying custom connectors and provide deeper integration with Microsoft Azure. We'll also enable new capabilities for code-first developers and low-code makers alike, to publish to a central catalog for a much simpler and scalable experience across environments making it much simpler to maintain components used across multiple apps and automations.

<u>ISV experiences</u> is enabling ISVs to iterate and sell faster with pay-as-you-go licensing through Azure subscription and automated application updates. These enhancements will allow more focus on building great applications and shipping at scale that will eliminate the manual overhead of coordinating license procurement between Microsoft, customers, and manual software updates.

# **Data integration**

<u>Data integration</u> will continue to enhance Power Query experiences with several new capabilities across Get Data and the Data Transformation experiences in the Power Query Editor, enhance on-premises and VNet data gateways capabilities, and release improvements to offer a new generation of Dataflows to Microsoft Data Cloud, supporting Power Platform, Dynamics 365, and beyond. In addition, we'll also deliver various big data performance and high scale improvements to connectivity scenarios from Azure Synapse, Dataverse, Snowflake, Databricks, Google BigQuery, and Amazon Redshift as well as many other Power Query connectors.

# Key dates for the 2023 release wave 1

These release plans describe functionality that may not have been released yet. Delivery timelines and projected functionality may change or may not ship (go to <u>Microsoft policy</u>).

Here are the key dates for the 2023 release wave 1.

Milestone	Date	Description
Release plans available	January 25, 2023	Learn about the new capabilities coming in the 2023 release wave 1 (April 2023 – September 2023) across Microsoft Power Platform, Dynamics 365, and Microsoft Cloud for Industry.
Early access available	January 30, 2023	Test and validate new features and capabilities that will be a part of the 2023 release wave 1, coming in April, before they get enabled

Milestone	Date	Description
		automatically for your users. You can view the Microsoft Power  Platform 2023 release wave 1 early access features now.
Release plans available in 11 additional languages	February 21, 2023	The Microsoft Power Platform and Dynamics 365 release plans are published in 11 additional languages: Danish, Dutch, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese (Brazilian), Spanish, and Swedish. Microsoft Cloud for Industry release plans are published in 4 additional languages: French, German, Dutch, and Spanish.
General availability	April 1, 2023	Production deployment for the 2023 release wave 1 begins. Regional deployments will start on April 1, 2023.

Just like the previous release waves, we continue to call out how each feature will be enabled in your environment:

- **Users, automatically** These features include changes to the experience for users and are enabled automatically.
- **Admins, makers, or analysts, automatically** These features are meant to be used by administrators, makers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

You can get ready with confidence knowing which features will be enabled automatically.

We've done this work to help you—our partners, customers, and users—drive the digital transformation of your business on your terms. We're looking forward to engaging with you as you put these new services and capabilities to work, and we're eager to hear your feedback as you dig into the 2023 release wave 1.

Let us know your thoughts. Share your feedback in the <u>Microsoft Power Platform community</u> <u>forum</u>. We'll use your feedback to make improvements.

# Change history

This topic is updated when a feature's release date changes or when a feature is added or removed. You can see the full topic in the **Change history** online.

Back to Contents Change history

# 2023 release wave 1 features available for early access

This topic lists the features that can be enabled for testing in your environment beginning **February 6, 2023**. Features from the following apps are available as part of early access:

Power Apps

The features from these apps update the existing user experiences. You can opt in early to enable these features in your environment. This will allow you to test these features and then adopt them across your environments. For information on how to enable these features, go to Opt in to 2023 release wave 1 updates.

**IMPORTANT** Other early access features may impact your users. To learn more about these features visit:

• Dynamics 365 2023 release wave 1 features available for early access

# **Power Apps**

For a complete list of the Power Apps features, go to What's new and planned for Power Apps.

Feature	Enabled for	Early access	General availability
Improved UX for sharing records	Users, automatically	✓ Mar 19, 2023	✓Apr 1, 2023
Look up records easily with modern advanced find	Users, automatically	✓ Feb 6, 2023	✓Apr 1, 2023
Power BI quick reports in Power Apps enabled by default	Users, automatically	✓ Feb 6, 2023	✓Apr 1, 2023
See which colleagues are viewing the same records as you	Users, automatically	✓ Jan 5, 2023	May 2023
View offline sync icon in the navigation bar	Users, automatically	<b>V</b> Feb 6, 2023	✓Apr 2, 2023

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# Power BI

# Plan and prepare for Power BI in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **Power BI**.

#### **Overview**

Microsoft business intelligence helps drive a data culture where everyone, at every level of an organization, can make confident decisions with data at any scale. To enable organizations to drive a data culture, we continue to invest across three key themes that we've introduced before:

# **Empower every individual**

Power BI makes it easier than ever for everyone to work with data, using familiar Office-like experiences and AI-infused insights across Power BI Desktop, the Power BI service, and mobile applications. Our focus is to deliver capabilities designed for business analysts and users. We're integrating Power BI even more tightly with Office to enable everyone to start analyzing data without friction. We're providing one-click on-ramps for analyzing tables of data from anywhere and capabilities that complement Excel. We continue our investment in improving our authoring experiences for visuals and measures, leveraging natural language input where possible, and most importantly, we're also making progress on ideas and feedback that the community has shared with us.

# **Empower every team**

Power BI is woven into the fabric where teams work. We make data a standard part of every team's decision-making by focusing on capabilities to drive team productivity, collaboration, and bias for action. This has become even more critical over the last couple of years as people have been working remotely and a lot of collaboration is occurring using technology. Insights become more valuable when they're shared. By integrating Power BI deeply with Office, we bring insights to Teams and Outlook, where everyone collaborates, with a deeper integration in key experiences, such as meetings, channels, and chats. We're also enabling users to find and share data quickly within and outside their organization, track business objectives at enterprise scale through Metrics, and build narratives around data through storytelling.

# **Empower every organization**

Power BI can scale to meet the most demanding needs of large enterprise customers. With the centralized administration, governance, and industry-leading security capabilities in Power BI, IT always has full visibility and control. Our investments continue to span several areas of the product focused on trust and compliance, auditability, information quality, adoption, connectivity, self-service data prep, big data, enterprise semantic models, and enterprise reporting. Our balance between enabling individuals and teams, along with enabling IT to meet advanced security and governance requirements, really helps organizations deliver insights at scale.

#### Investment areas



#### Investment areas

#### **Power BI Pro**

Power BI Pro helps organizations create a data culture by empowering every team and individual to discover and collaborate on insights.

#### **Power BI Premium**

With each release, Microsoft Power BI Premium continues to deliver features that help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise. These investments will span the following areas:

- **Flexible licensing models**: Organizations can choose between per user and per capacity licensing options.
- **Microsoft-owned resource management**: Organizations don't have to worry about workload spikes and capacity utilization that can impact the speed of work.
- **Autoscale and pay-as-you-go pricing**: Scale beyond resource capacity without experiencing drops in performance.
- Advanced self-service data prep.

- **Interactive experiences over big data** in big data sources, such as Azure Synapse Analytics.
- **Operational reporting and distribution** to distribute pixel perfect reports to millions of users.
- Advanced security.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Power BI below:

Check out the release plan

# For application administrators

#### User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

#### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.



Get the most out of Power BI

#### Get the most out of Power BI

Helpful links	Description
Release plan	View all capabilities included in the release.
Product updates	Stay up to date on latest product updates.
Release calendar	Know important release milestones.
Licensing	Improve your understanding of how to license Power BI.
Product documentation	Find documentation for Power BI.
<u>User community</u>	Engage with Power BI experts and peers in the community.
Upcoming events	Find and register for in-person and online events.
Product trials	Get started with Power BI.

# What's new and planned for Power BI

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to <u>Microsoft policy</u>.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

#### **Power BI Premium**

New Power BI Premium features help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise.

Feature		Public preview	General availability
Enable data mesh architecture with domains	Users by admins, makers, or analysts	Apr 2023	-

Feature	Enabled for	Public preview	General availability
Send unique report per recipient with paginated report email subscriptions	Users, automatically	Sep 2023	
Automate migration from Azure Analysis Services to Power BI Premium	Users by admins, makers, or analysts	-	May 2023
Log analytics for analysis services engine events	Users by admins, makers, or analysts	-	May 2023
Embedded analytics playground enhancements	Admins, makers, marketers, or analysts, automatically	-	Sep 2023
Microsoft Purview DLP protective action blocks sharing sensitive data with unauthorized users	Users by admins, makers, or analysts	Sep 2023	To be announced

# **Power BI Pro**

Power BI Pro helps organizations create a data culture by empowering every team and individual to discover and collaborate on insights.

Feature	Enabled for	Public preview	General availability
Navigate by workspaces in the data hub	Admins, makers, marketers, or analysts, automatically	May 2023	-
Dataset authoring in the Power BI Service	Users, automatically	May 2023	-
Improved setting delegation for Power BI administration	Admins, makers, marketers, or analysts, automatically	Jun 2023	-
Explore developer mode for Power BI datasets, reports	Admins, makers, marketers, or analysts, automatically	Jun 2023	
Author calculation groups	Users, automatically	Jul 2023	
Model explorer provides easy paths to author objects	Admins, makers, marketers, or analysts, automatically	Jul 2023	

Feature	Enabled for	Public preview	General availability
Control visual formatting with improved capabilities	Users by admins, makers, or analysts	Sep 2023	
Enable Microsoft Purview DLP policies for Power BI datamarts	Users by admins, makers, or analysts	Sep 2023	-
Explore single visuals with quick create	Users by admins, makers, or analysts	Sep 2023	
Navigate the model view using accessibility features	Users, automatically	Sep 2023	
Accessible tablix column headers and text box headings for paginated reports	Users, automatically	-	May 2023
Drill through to details in paginated reports	Users, automatically	-	May 2023
Optimize ribbon in Power BI Desktop	Admins, makers, marketers, or analysts, automatically	-	May 2023
Edit relationships in the properties pane	Admins, makers, marketers, or analysts, automatically	-	Aug 2023
Combine existing mapping visuals into one with Azure Maps	Users by admins, makers, or analysts	-	Sep 2023
Create and share paginated reports in the service	Users, automatically	Jul 2023	Sep 2023
Usage and adoption insights for tenant admins	Admins, makers, marketers, or analysts, automatically	May 2023	To be announced

# Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.

• **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability page</u>.

#### **Power BI Premium**

#### **Overview**

With each release, Microsoft Power BI Premium continues to deliver features that help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise. These investments will span the following areas:

- **Flexible licensing models**: Organizations can choose between per user and per capacity licensing options.
- **Microsoft-owned resource management**: Organizations don't have to worry about workload spikes and capacity utilization that can impact the speed of work.
- **Autoscale and pay-as-you-go pricing**: Scale beyond resource capacity without experiencing drops in performance.
- Advanced self-service data prep.
- **Interactive experiences over big data** in big data sources, such as Azure Synapse Analytics.
- Operational reporting and distribution to distribute pixel perfect reports to millions of users.
- Advanced security.

#### **Enable data mesh architecture with domains**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2023	-

#### **Business value**

This feature introduces data mesh concepts as an integral part of the data analytics experience, thus enabling organizations to implement a data mesh architecture.

#### **Feature details**

This data mesh architecture enables organizations to structure their data according to business departments or categories. With data mesh, organizations can optimize data boundaries and consumption to their line-of-business needs, and efficiently and flexibly govern their data per domain.

In this upcoming release, we plan to allow the following capabilities (among others):

- Defining domains that reflect organizational business units.
- Associating workspaces to domains by workspace name/owner/security group.
- Federated governance by allowing enforcement of granular settings per domain.
- Optimized consumption in per-domain experiences (e.g. filtering to best suit domain data).

#### Send unique report per recipient with paginated report email subscriptions

Enabled for	Public preview	General availability
Users, automatically	Sep 2023	-

#### **Business value**

You can now burst out paginated report email subscriptions so that each recipient receives a unique copy of the report. For all your paginated reports that use parameters to filter data, you can now specify which parameter(s) should be applied for each recipient of an email subscription.

#### **Feature details**

Paginated report parameters allow you to filter the data displayed in the report. Previously, all recipients of an email subscription received a copy of the report with the same parameter or set of parameters applied.

With this feature, you can define a mapping between recipients and single or multiple parameters right in Power BI! For example, you may have a report with a geography parameter that your sales team uses to view customers in specific regions. You can now send out this report to your sales reps, with each individual receiving a copy of the report containing only customers in their region.

This mapping between recipients and parameters is stored in Power BI, allowing you to make updates if needed.

#### **Automate migration from Azure Analysis Services to Power BI Premium**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	May 2023

#### **Business value**

This feature consolidates BI artifacts resulting in various benefits for customers migrating from Azure Analysis Services to Power BI Premium Gen2. These benefits include:

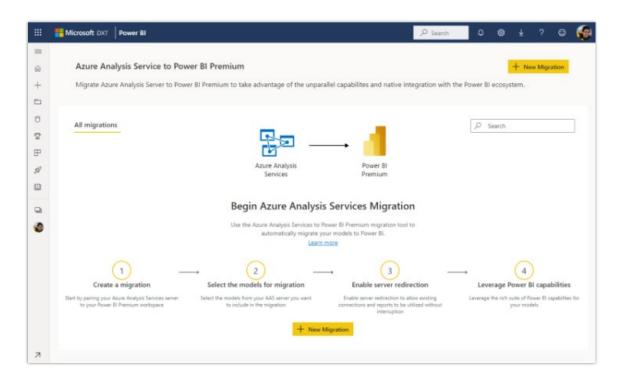
- Improved performance and reliability due to the Power BI Premium Gen2 distributed architecture.
- Simplified discovery and management due to consolidation and no need to "bridge the gap" between different products.
- A host of additional features, workloads, and capabilities available only in Power BI Premium.

#### **Feature details**

Azure Analysis Services is based on mature BI engine technology used by countless enterprises. The same technology is also at the heart of Power BI datasets. We've taken great strides to bring Azure Analysis Services capabilities to Power BI Premium to make it a superset of Azure Analysis Services. The full set of Power BI workloads, features and capabilities represent a modern, cloud-born BI platform that goes far beyond comparable functionality available in Azure Analysis Services.

The increased performance and reduced management overhead introduced by Power BI Premium Gen2, coupled with the lower price point of the Power BI Premium per User licensing model, has generated increased customer demand for migration of Azure Analysis Services models to Power BI Premium.

Administrators will be able to migrate Azure Analysis Services models to datasets in Power BI Premium along with necessary security settings, provide server redirection so existing reports continue to work without manual changes, and automation of various other migration steps.



Azure Analysis Services to Power BI Premium automated migration experience.

#### See also

Migrate Azure Analysis Services to Power BI (docs)

#### Log analytics for analysis services engine events

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	May 2023

#### **Business value**

Analysis Services engine events log detailed information about Power BI datasets used to understand engine load, query performance, and refresh behavior.

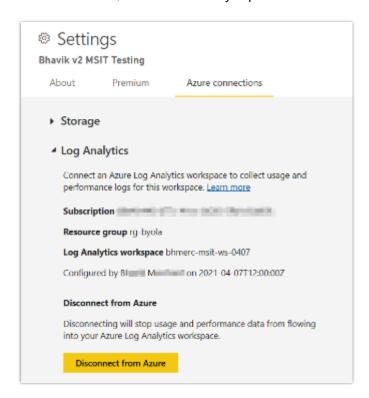
#### **Feature details**

Provides insights into activities performed against the Power BI datasets for refreshes, reports, and ad-hoc queries over long periods of time. Power BI Premium workspaces can log Analysis Services engine events to Log Analytics. This helps administrators and BI professionals with various scenarios.

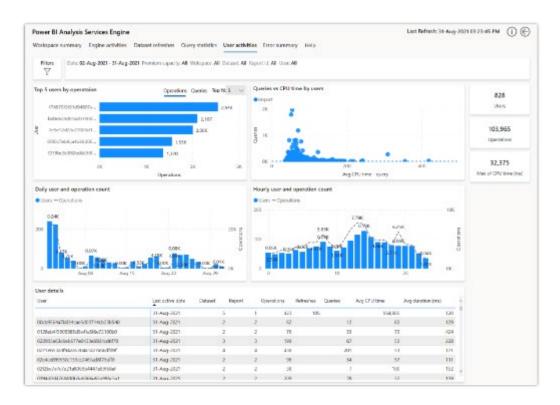
- Auditing and compliance
- Cause detection for long-running refreshes, queries, and user errors



- Tracing query bottlenecks through layers of the architecture, such as DirectQuery queries submitted to data sources
- Derivation of detailed usage metrics
- Integration with logging and monitoring data for other components of an Azure-based architecture, such as Azure Synapse for end-to-end visibility and traceability



Screenshot of workspace configuration for Azure Log Analytics.



Screenshot of user activities for Analysis Services engine.

# **Embedded analytics playground enhancements**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

The developer sandbox lets developers explore the embedded capabilities in Power BI and client APIs in a comfortable environment with no setup required. The new enhancements will give developers an improved coding sandbox experience.

#### **Feature details**

The added features include:

- Built-in log: Code snippets whose results are not visible on the report itself (for example, Get visuals) will be accessible through a dedicated built-in log and not only through the browser's log.
- **Editor and report resizing**: Users will have the flexibility to resize the different components on the page (code editor, report, and log) for a smoother coding experience.

# Microsoft Purview DLP protective action blocks sharing sensitive data with unauthorized users

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	To be announced

#### **Business value**

To help organizations detect and protect their sensitive data, Power BI supports Microsoft Purview data loss prevention (DLP) policies. When a DLP policy for Power BI detects a sensitive dataset, administrators can take protective actions. They can show a custom DLP policy tip to the dataset owner that explains the nature of the sensitive content and displays organizational guidelines for handling sensitive data in Power BI. An alert can be triggered in the Microsoft Purview compliance portal for monitoring and management by administrators. The new protective action enables administrators to block the sharing of datasets containing sensitive data with guest users from external organizations.

#### **Feature details**

When you create a sensitivity label, you can restrict access to content that the label will be applied to. For example, with the encryption settings for a sensitivity label, you could protect content so that:

- Only users in your organization will be able to open a confidential document or email.
- Only users in the marketing department will be able to edit and print a promotion announcement or email, while all other users in your organization will only be able to read it.
- Users won't be able to forward an email or copy information from it that contains news about an internal reorganization.
- A current price list being sent to business partners won't be openable after a specified date.

When a document or email is encrypted, access to the content is restricted, so that:

- It can be decrypted only by users authorized under the label's encryption settings.
- It remains encrypted no matter where it resides, inside or outside your organization, even if the file is renamed.
- It's encrypted both at rest (for example, in a OneDrive account) and in transit (for example, in an email as it traverses the internet).

Finally, as an admin, when you configure a sensitivity label to apply encryption, you can choose either to:

- Assign permissions now, so that you determine exactly which users get which permissions to content with that label.
- Let users assign permissions when they apply the label to content. This way, you allow people in your organization the flexibility they might need to collaborate and get their work done.

### **Power BI Pro**

#### **Overview**

Power BI Pro helps organizations create a data culture by empowering every team and individual to discover and collaborate on insights.

### Navigate by workspaces in the data hub

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	-

#### **Business value**

The data hub enables users to easily discover and reuse data in one central hub. This centralized experience empowers users by enabling them to curate, publish, discover, manage, and reuse organizational data to address their business questions. Now, we're extending the data hub further by enabling discovery by workspace as well.

#### **Feature details**

The data hub empowers users (from the data engineer to the BI consumer) to discover, in one central location, all data items meant for analytics within the service, to generate insights, and/or to manage and perform related actions.

Users may have access to hundreds and even thousands of data items. In many cases, users might not know the exact name of the data item they're looking for without actually seeing it, and making them scroll through the very long list of all the data items they have access to isn't a viable solution. Instead, now with this feature, they can get to the data they're looking for by first filtering the data-items list by a specific workspace, and then choosing their item from the much shorter list of items in that workspace.

Moving forward, we plan to provide users with an easy way to find data items through workspace navigation and filtering.

### **Dataset authoring in the Power BI Service**

Enabled for	Public preview	General availability
Users, automatically	May 2023	-

#### **Business value**

Power BI now allows users to perform modeling operations in the Power BI Service. Some examples of operations that are enabled include the ability to add new measures or columns to an existing dataset, edit the format strings, and edit the RLS of the model. The eventual goal is to get complete desktop parity in the web.

#### **Feature details**

Now, Power BI allows users to navigate to a dataset and edit the dataset using the model view interface found inside Power BI Desktop. This will allow users to work and collaborate simultaneously on the same dataset. We'll allow users to take an existing dataset and modify it, including:

- Measures
- Role Level Security
- Format strings
- Relationships

Power BI will also enable a preview mode to allow users in the dataset hub to easily view the definition of a dataset directly inside the browser. This is the first wave of improvements expected to help multiple authors edit datasets on the web.

#### Improved setting delegation for Power BI administration

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-

#### **Business value**

Easily manage Power BI with additional operational capabilities. Administrators can easily manage the admin portal experience by delegating tenant-level settings to the capacity (and subsequently workspace) levels.

#### **Feature details**

Improved management and administration functionalities increase flexibility and enable Power BI administrators to tailor the Power BI experience to organizational needs while decreasing overhead.

- Tenant admins will be able to delegate tenant-level settings to the capacity level. Feature switches will include options for delegating tenant-level settings to capacity admins who will then be able to enable/disable these settings for their capacities.
- Capacity admins will be able to manage settings delegated to them by using enhanced controls that will be made available through the existing capacity-settings interface. They can choose to preserve the default setting state as delegated by their tenant admin, or to override the default state.

### **Explore developer mode for Power BI datasets, reports**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-

#### **Business value**

Enable multi-developer collaboration scenarios where development teams can work on the same codebase. Accelerate release velocity, quality, reliability, and repeatability. Enable application lifecycle management for automated deployment across development, test, and production environments.

#### **Feature details**

#### **Developer centric experiences**

Enterprise customers who manage BI environments, ISVs, and developer partners need a developer-centric workflow for Power BI datasets and reports.

Storing dataset and report metadata in a documented, source-control friendly format will enable capabilities, such as the following:

- **Source control**: Power BI artifact definitions can be stored in a source control system, typically git. Source control systems allow developers to track version history, compare different revisions (diff), and revert to previous versions. Source control systems also offer developers familiar collaboration mechanisms for resolving conflicting changes (merge), and reviewing changes (pull requests).
- Continuous Integration and Continuous Delivery (CI/CD): Customers can setup systems where developers submit a proposed change to the CI/CD system, and the system subjects the change to a series of quality gates before applying the change to the production system. The quality gates may include things like reviews by other developers

(code review) and automated testing, and automated build to validate the integrity of the changes. CI/CD systems are typically built on top of source control systems.

- Programmatic generation and editing of artifact definitions: Customers can write scripts or applications to make changes to the definition of various artifacts. These applications may be based on public documentation of the artifact definitions and/or libraries provided by Microsoft.
- Text editor support: Like any source code files, the artifact definition files for reports and datasets must be text files, often in JSON format so that BI developers can modify these files by using any available developer tool, including VSCode and Notepad.

## **Author calculation groups**

Enabled for	Public preview	General availability
Users, automatically	Jul 2023	-

#### **Business value**

Significantly reduce the number of redundant measures by reusing common business logic in complex semantic models. Enhance DAX readability and reduce semantic model maintenance overhead.

#### **Feature details**

Calculation groups address an issue in complex models where there can be a proliferation of redundant measures using the same calculations - most common with time intelligence calculations. For example, a sales analyst wants to view sales totals and orders by month-todate (MTD), quarter-to-date (QTD), year-to-date (YTD), orders year-to-date for the previous year (PY), and so on.

Calculation groups have been part of Power BI as an engine only feature. With this enhancement, you'll be able to author calculation groups using first-party tooling in Power BI Desktop.

#### Model explorer provides easy paths to author objects

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jul 2023	-

#### **Business value**

Model explorer provides a significant productivity boost in building complex semantic models with Power BI Desktop with potentially thousands of objects.





#### **Feature details**

The model explorer organizes semantic model objects in a tree structure that closely resembles the Tabular Object Model.

## **Control visual formatting with improved capabilities**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

Power BI will add new out-of-the-box formatting capabilities, giving users greater control of how visuals look.

#### **Feature details**

Power BI will add new formatting capabilities to give users more control over how their visuals look. Some of these new out-of-the-box options may include setting padding and margins or visuals and better defaults to support best practices and new visuals.

## **Enable Microsoft Purview DLP policies for Power BI datamarts**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

To help organizations detect and protect their sensitive data, Power BI supports Microsoft Purview Data Loss Prevention (DLP) policies. Administrators can create and configure DLP policies for Power BI so that when a policy detects the upload of sensitive data to a dataset or datamart, sharing with unauthorized users (for example guest users from external organizations) can be blocked, a custom DLP policy tip can be shown to the dataset/datamart owner that explains the nature of the sensitive content and presents the organization's quidelines for handling sensitive data in Power BI, and an alert can be triggered in the Microsoft Purview compliance portal for monitoring and management by administrators.

#### **Feature details**

Providing data protection capabilities in Power BI is critical to enabling our customers to control and protect their sensitive enterprise data. We've been leading the landscape with data protection capabilities in Power BI. We've done this by integrating Microsoft's leading security solutions for information protection, threat protection, and cloud app security.





Microsoft Purview (formerly known as Microsoft 365 compliance) Data Loss Prevention (DLP) policies enable enterprise customers to implement policies for Office, Teams, SharePoint, and more. We realized that DLP policies could be leveraged to enable Power BI enterprise customers to meet some of their top-ask security requirements (particularly from the Financial Services and Healthcare sectors) - for example, the ability to detect, get alerts, and take protective action upon upload of PII data.

The DLP policies include the ability to detect upload of models that contain sensitive info types (both out-of-the box and custom types) and/or that are labeled with specified sensitivity labels. Previous releases have introduced DLP policy support for datasets. This release extends DLP policy support to Power BI datamarts.

To learn more about Power BI's data protection capabilities, go to the following documentation:

- Data loss prevention policies for Power BI (preview)
- Data protection in Power BI
- Sensitivity labels in Power BI
- Using Microsoft Defender for Cloud Apps controls in Power BI

## **Explore single visuals with quick create**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

Users can now explore their data in a dedicated exploration mode.

#### Feature details

In this new dedicated exploration mode, users will explore a single visual and use AI in Power BI to find hidden insights in their data. The new mode will be made available within report visuals focus mode.

## Navigate the model view using accessibility features

Enabled for	Public preview	General availability
Users, automatically	Sep 2023	-

#### **Business value**

The model view is now more user-friendly and supports keyboard navigation.





#### **Feature details**

The model view is being updated to support several features required for accessibility, including high contrast mode, keyboard navigation, alt text, and more. This update will allow all users to quickly navigate the modeling tab inside Power BI and carry out modeling operations in a more user friendly and usable way.

## Accessible tablix column headers and text box headings for paginated reports

Enabled for	Public preview	General availability
Users, automatically	-	May 2023

#### **Business value**

Accessibility refers to the design of products, devices, services, or environments that provide greater inclusion for our customers with diverse needs. That is why we continue to provide accessibility enhancements for Power BI paginated reports

Report authors and report consumers benefit from having accessibility tagging for tablix and text box properties in paginated reports. Report authors can enable headings for text box properties, and column headers for tablix properties in just a few clicks in Power BI Report Builder. When you add this tagging to the tablix and text box properties, you provide a better report navigation user experience for report consumers who use screen-readers.

## **Feature details**

When you author a report, here's how you can add these accessibility options to Power BI Report Builder:

- Right-click inside a tablix property to enable a first row header under the General properties menu. **Tablix** data regions refer to table, matrix, or list data regions.
- Right-click inside a text box data region to see the text box properties accessibility menu. Select an HTML heading tag [H1-H6] from the drop-down menu.

## Drill through to details in paginated reports

Enabled for	Public preview	General availability
Users, automatically	-	May 2023

#### **Business value**

A drillthrough report is a report that you open by selecting a link in another paginated report. Drillthrough reports commonly contain details about an item that is contained in an original summary report. For many years, SQL Server Reporting Services has given users the



ability to take advantage of this detailed report type. Now, we're bringing this capability to Power BI paginated reports.

#### **Feature details**

With drill through in Power BI paginated reports, you can create a destination detail report page that focuses on a specific entity, such as a supplier, customer, product, or manufacturer. When your report readers activate a cell data point in a summary page, they drill through to the target page to get details that are filtered to that context.

Feature functionality includes:

- Report to report (main report to detail).
- Ability to pass all applied filters to the drillthrough target page.
- Migrate on-premises drillthrough reports to paginated reports in the service.
- Author reports in Power BI Report Builder by using the action Go to report feature on a cell property.

#### See also

<u>Drillthrough, drilldown, subreports, and nested data regions in a paginated report (docs)</u>

## **Optimize ribbon in Power BI Desktop**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	May 2023

#### **Business value**

The new **Optimize ribbon** in Power BI allows you to unlock big data scenarios with large models and DirectQuery.

#### **Feature details**

Working on a Power BI report in Power BI Desktop? Now, you can use the new **Optimize ribbon**, which includes pause visual queries and optimization presets. **Pause visual queries** allows you to add or remove field list items to a visual without the visual updating until you're ready. You can also refresh individual visuals without refreshing the whole page. It's available for import and DirectQuery reports, but DirectQuery report authors may find this feature most useful.

Another useful feature, especially for DirectQuery reports, is the ability to **one-click apply Optimization presets**. These presets are for either query reduction or interactivity, giving you a fast way to see which settings may work best for your reporting needs and to customize these settings even further.

## **Edit relationships in the properties pane**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Aug 2023

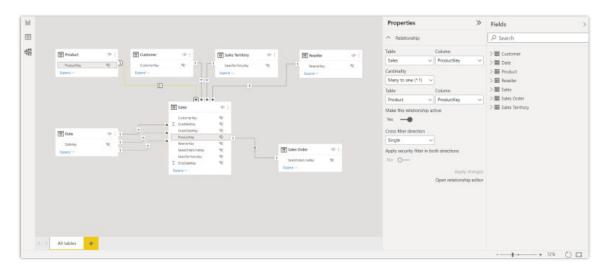
#### **Business value**

With this feature, you can create semantic models over big data and quickly edit relationships in the properties pane.

#### **Feature details**

In the **modeling** view, expand the **properties** pane and simply click on any relationship line to view all the relationship options. This new relationship editing experience sends minimal queries by having no data preview and validating only when you apply changes. Big data models, especially in DirectQuery storage mode, will see the most benefit from this streamlined experience. If you need to edit using the relationships dialog, this is still available from the properties pane or by double-clicking any line just like before.

In addition, this also introduces the ability to edit multiple relationships at once. Hold down CTRL to select multiple relationships and make changes or click the delete key on your keyboard to delete those selected.



*Relationship editing in the properties pane.* 

## **Combine existing mapping visuals into one with Azure Maps**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Sep 2023

#### **Business value**

Customers will now get the best of all mapping visuals in a single visual, including the use of shapes, points, shading, and more data points than the current default map visual.

#### **Feature details**

The Azure Maps visual will now be generally available, bringing together all the other existing mapping visuals into one to make customers' lives easier when plotting geographic data points. The Azure Maps visual will work in almost all regions and will respect data residency requirements (unless otherwise mentioned).

## **Create and share paginated reports in the service**

Enabled for	Public preview	General availability
Users, automatically	Jul 2023	Sep 2023

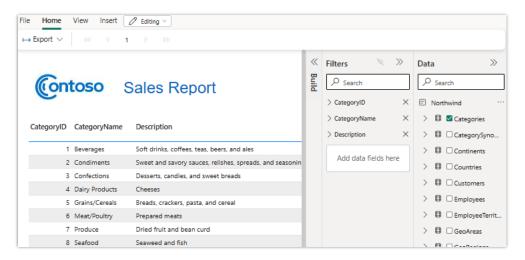
#### **Business value**

Create simple operational reports with low code, drag-and-drop experiences in the Power BI service on the web. You can share these in a variety of formats or just print them out!

#### **Feature details**

You can create a multitude of operational reports with our WYSIWG ("What you see is what you get") web-authoring experience.

For example, you can create a simple sales report by inserting an image, adding a title and a table. Simply filter the data you want in the table, reorder columns, display totals, and rename column headers.



Sample OperationalReport

## Usage and adoption insights for tenant admins

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	To be announced

#### **Business value**

Power BI administrators need access to detailed historical metrics in order to monitor performance, understand usage and adoption growth, support audits, and ensure compliance within their Power BI environment.

#### **Feature details**

Dedicated workspaces for administrators will host tenant-wide historical datasets and reports to help administrators monitor and govern Power BI. This includes:

- Metadata for Power BI items: a dataset of all known Power BI items (workspaces, reports, datasets, and more), regardless of whether or not those items are still active.
   Initially, this will include an identifier and name for key Power BI items. Each item will have additional relevant attributes, such as last modified date or name, as appropriate
- **Audit logs**: information about asset lifecycle activities (create, access, modify, and delete). We'll provide access to some key audit log data directly through a Power BI dataset, so you won't need Microsoft 365 admin rights to view this audit data. The information will match the information available in the Power BI activity log.
- Reusable standalone datasets: Audit log and metadata datasets will be available within
  the Admin Monitoring workspace, enabling you to leverage these resources by
  combining them with your own to enable customized reporting based on individual
  organizational scenarios.

• Out-of-box feature usage and adoption reporting: Analytical views built on the audit log that can help you understand who is doing what. This allows you to better govern Power BI by identifying specific trends, patterns, and activities. For example, you may discourage direct report sharing from personal workspaces and may want to have visibility if it happens.

# Power Apps

## Plan and prepare for Power Apps in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **Power Apps**.

## **Overview**

## Video: Learn about this product's new capabilities

Microsoft Power Apps is the industry-leading low-code application development platform that underpins Dynamics 365 extensibility, Microsoft 365 customization, and a standalone custom line of business applications for customers worldwide. Power Apps dramatically lowers the cost, complexity, and time of software development through powerful low-code development tools, a robust and secure data platform in Microsoft Dataverse, and hundreds of connectors to common business data sources.

Power Apps is investing in several areas as part of Microsoft Power Platform 2023 release wave 1:

- Reduce risk with advanced governance of low code to increase visibility and control while supporting low code adoption.
- Accelerate app modernization and reduce costs by doing more with existing systems, connecting Power Apps with existing or legacy sources of data.
- Efficient and productive experiences for makers and users to build higher quality apps, quickly and efficiently.

For official product documentation and training for Power Apps, go to:

- Power Apps docs
- Power Apps training on Microsoft Learn

#### Investment areas



Investment areas

### **Efficient maker experiences**

Power Apps and Dataverse enable organizations to build apps that use data from multiple sources, including data from Microsoft Dataverse, and third-party sources. In 2023 release wave 1, we'll continue to simplify the experience for makers building apps, working with data and logic to ensure makers are as efficient as possible, while supporting scale to more advanced scenarios.

#### Modern user experiences

Power Apps will continue to modernize the user experience supporting modern and intuitive controls and experiences for users to work with across apps and Microsoft products in a consistent and productive way.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Power Apps below:

Check out the release plan

## For application administrators

## User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

## Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.



Get the most out of Power Apps

## Get the most out of Power Apps

Helpful links	Description
Release plan	View all capabilities included in the release.
Product updates	Stay up to date on latest product updates.
Release calendar	Know important release milestones.
Licensing	Improve your understanding of how to license Power Apps.
Product documentation	Find documentation for Power Apps.
<u>User community</u>	Engage with Power Apps experts and peers in the community.
Upcoming events	Find and register for in-person and online events.
Product trials	Get started with Power Apps.

## What's new and planned for Power Apps

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

## **Efficient maker experiences**

Makers can build higher quality apps more efficiently.

Feature	Enabled for	Public preview	Early access*	General availability
Reuse Power Fx formulas with user defined functions	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-
Explore Dataverse tables within Studio using SQL queries	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-
Test Power Apps in CICD pipelines	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	
Turn existing artifacts into working apps with Express design in Figma	Users by admins, makers, or analysts	✓ May 8, 2022	-	<b>V</b> Apr 16, 2023
Be more productive with modern app designer improvements	Users by admins, makers, or analysts	-	-	Apr 2023
Add table columns to forms and views automatically	Admins, makers, marketers, or analysts, automatically	✓ Apr 10, 2023	-	May 2023

Feature	Enabled for	Public preview	Early access*	General availability
Experience Copresence in Canvas Studio	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Coauthor with other makers in the modern app designer	Users by admins, makers, or analysts	✓Sep 29, 2022	-	Jun 2023
Enhance delegation for UpdateIf and RemoveIf	Admins, makers, marketers, or analysts, automatically	May 2023	-	Jun 2023
Create virtual tables easily in Maker Portal	Admins, makers, marketers, or analysts, automatically	✓ Jan 5, 2023	-	Sep 2023
Experience the new Power Apps home page	Users by admins, makers, or analysts	May 2023	-	Sep 2023
Drag and drop to build responsive pages more easily	Users by admins, makers, or analysts	Sep 2023	-	To be announced

## **Modern user experiences**

Modern and easy user experiences promote maximum productivity.

Feature	Enabled for	Public preview	Early access*	General availability
Embed a Power Virtual Agents control using chatbot control	Users by admins, makers, or analysts	Apr 2023	-	-
Look up records easily with modern advanced find	Users, automatically	-	✓ Feb 6, 2023	<b>V</b> Apr 1, 2023
Power BI quick reports in Power Apps enabled by default	Users, automatically	-	✓ Feb 6, 2023	<b>V</b> Apr 1, 2023
Improved UX for sharing records	Users, automatically	-	✓ Mar 19, 2023	<b>V</b> Apr 1, 2023

Feature	Enabled for	Public preview	Early access*	General availability
View offline sync icon in the navigation bar	Users, automatically	-	<b>V</b> Feb 6, 2023	<b>✓</b> Apr 2, 2023
See which colleagues are viewing the same records as you	Users, automatically	-	✓ Jan 5, 2023	May 2023
Enjoy the new look and feel for model-driven Power Apps	Users by admins, makers, or analysts	✓ Jan 5, 2023	-	Jun 2023
Build canvas apps by using new and refreshed controls	Users by admins, makers, or analysts	✓ Mar 26, 2023	-	Jun 2023
Configure form components like header, command bar, and more	Users by admins, makers, or analysts	May 2023	-	Jul 2023

<sup>\*</sup> You are able to opt into some features as part of early access on February 6, 2023, including all mandatory changes that affect users. To learn more, go to Early access FAQ.

Description of **Enabled for** column values:

- Users, automatically: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the International availability guide. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability</u> page.

## **Efficient maker experiences**

#### **Overview**

Power Apps and Dataverse enable organizations to build apps that use data from multiple sources, including data from Microsoft Dataverse, and third-party sources. In 2023 release wave 1, we'll continue to simplify the experience for makers building apps, working with data



and logic to ensure makers are as efficient as possible, while supporting scale to more advanced scenarios.

#### Reuse Power Fx formulas with user defined functions

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Organize and reuse formulas by encapsulating logic into functions.

#### **Feature details**

Power Fx now supports user defined functions. Large formulas can be split into smaller parts, which is easier to understand, test, and reuse across an app. Functions can be recursive and can be imperative with side effects.

```
// table of employees with manager (Named Formula)
Employees = Table( { Employee: "Charles" }, { Employee: "Sandra", Manager: "Charles" },
    { Employee: "John", Manager: "Sandra" }, { Employee: "Tina", Manager: "Sandra" },
    { Employee: "Julia", Manager: "Charles" }, { Employee: "Fred", Manager: "Julia" },
   { Employee: "Kim", Manager: "Sandra" }, { Employee: "Jane", Manager: "Fred" } );
// user defined function (UDF) to recursively walk the organization and tally reports
TotalReports( ThisEmployee: String ): Number =
    Sum( Filter( Employees, Manager = ThisEmployee ), 1 + TotalReports( Employee ) );
// evaluate UDF for each employee and add a new column to the table
EmployeesWithRepors = AddColumns( Employees, "Total Reports", TotalReports( Employee ) );
```

Power Fx user defined function and formula.

## **Explore Dataverse tables within Studio using SQL queries**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

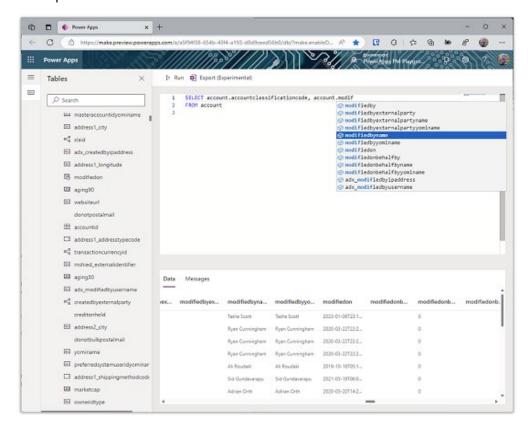
When makers familiar with relational, tabular data think about writing queries, they think about writing those queries in SQL. Makers who are proficient with the SQL language can quickly and easily write familiar queries against Dataverse tables in order to explore data and metadata. This is an additional way that we are making it easy and straightforward for makers to work with and explore their data in Dataverse.

#### **Feature details**

SQL is one of the most popular languages for querying tabular, relational data. With this feature, makers can load a web-based SQL editor instance within Power Apps Studio. Makers who are familiar with the SQL language can write familiar, powerful queries in order to explore, filter, sort, aggregate, join, and group data within Dataverse tables.

## Capabilities include:

- IntelliSense autocompletion for table metadata
- Syntax highlighting
- Table column exploration treeview with column type information
- Export resultset to Excel



*SQL query experience in Dataverse* 

## **Test Power Apps in CICD pipelines**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Test Engine is the future of testing Power Apps. With its initial launch in late 2022, the opensource Test Engine project took the first step in realizing a unified testing solution for Power Platform provided makers with the capability to write tests in Power Fx for their canvas apps and run them locally. We're enhancing Test Engine to enable test automation with Power Platform CLI, Azure DevOps tasks, or GitHub Actions, enabling organizations to run test passes as part of their ALM strategy.

#### **Feature details**

Testing is an important part of the software development lifecycle. Adequate functional testing of applications helps to ensure that business processes stay unblocked, helps to reduce support costs, and helps to build trust in your applications. As apps grow and become more complex, the ability to ensure that changes don't break or alter the app experience becomes even more critical. Our mission is to empower all makers of Power Apps to easily create robust tests that can be seamlessly integrated into your organization's application lifecycle management (ALM) practices.

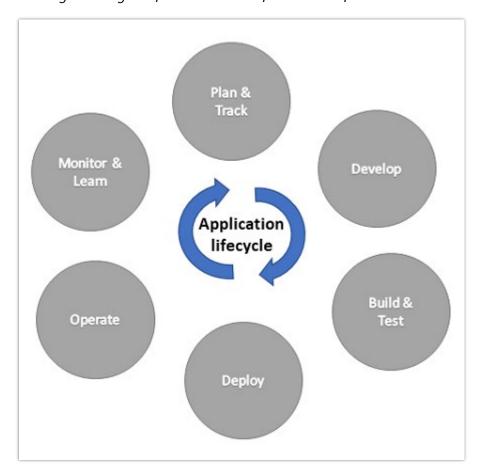
Test Engine is an evolution of our Power Apps testing tools. Test Engine builds upon the key use cases of Test Studio, but it takes it in a new, powerful direction through open source collaboration and use of the Playwright browser testing platform. The goals of Test Engine are to provide customers with a robust testing platform for all types of Power Apps and to make it super easy to integrate automated testing into your app development processes.

This feature builds upon the existing release of Test Engine by adding support that makes it easy for makers to integrate automated testing into CI/CD processes. With this feature set, Test Engine is now part of the Power Platform CLI and makers can now execute tests with a single command without having to build a GitHub project. With GitHub and Azure DevOps integration, it's now easy for makers to make automated testing part of their ongoing processes.

Power Apps  $\bigcirc$ 

```
S C:\Users\paagnihotri\source\PowerPlatform-ISVEx-ToolsCore> pac.exe tests run
Microsoft PowerPlatform CLI
Version: 0.1.0-dev
 ror: A required argument --test-plan-file is missing.
ror: A required argument --environment is missing.
ror: A required argument --tenant is missing.
Usage: pac tests run -test-plan-file --environment --tenant [--output-directory] [--log-level]
  --test-plan-file
                                      Path to the Test Plan file (alias: -test)
  --environment
                                      Environment ID to be used for executing tests (alias: -env)
                                     Tenant ID to be used for executing tests (alias: -t)
Path to save test output and logs (alias: -o)
  --tenant
  --output-directory
                                     Set the Log Level for the Test Run (alias: -1)
Values: Trace, Debug, Information, Warning, Error, Critical, None
  --log-level
```

Test Engine being run from the Microsoft Power Platform CLI toolset.



Add automated app testing into your Power Apps ALM processes.

## Turn existing artifacts into working apps with Express design in Figma

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	<b>✓</b> May 8, 2022	-	<b>V</b> Apr 16, 2023

#### **Business value**

Express design is a new way to quickly get started with Power Apps by instantly transforming your visual design into an app. With Express design, makers can quickly turn existing design artifacts (including paper forms, whiteboard sketches, and Figma files) directly into a working app. The ability to create apps directly from Figma design files helps bridge the gap between design and development by accelerating the app UI development process. It allows developers and designers to collaborate effectively and efficiently to deliver great user experiences with low cost and effort.

#### **Feature details**

Designers can create designs in Figma using the **Create Apps from Figma UI Kit**, which provides supported components for Power Apps and includes detailed instructions for how to use the kit. Once the designs are created, simply provide the link to the Figma design file, and Power Apps will generate a new canvas app based on those designs. The design frames are automatically converted into screens in Power Apps. Once the app UI is ready, you can extend this app by connecting to data, adding app logic, and adding more screens and controls.



Convert your Figma designs into pixel perfect Power Apps using Express design.

#### See also

Overview of creating apps from Figma (docs)

## Be more productive with modern app designer improvements

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	-	-	Apr 2023

#### **Business value**

Based on the feedback we've received from makers, we're making it easier for makers to create and edit views and forms within the modern app designer. These incremental improvements will help makers be more productive.

#### **Feature details**

The modern model-driven app designer will now open all component designers (forms, views, and custom page designers) directly inline, with the option to open in a new tab. This allows makers to be more productive when authoring the components of their model-driven apps.

The modern app designer will also have a new navigation pane. This is an improvement made to the current sitemap editor to be more intuitive and discoverable. Makers will be more productive when editing the contents of their apps using the new maker navigation interface.

## Add table columns to forms and views automatically

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	✓Apr 10, 2023	-	May 2023

#### **Business value**

One of the biggest friction points for Microsoft Dataverse makers today is that when creating table columns, the forms and views to be used for their model-driven apps aren't automatically updated. As a result, every time a new column is created, makers will need to manually update their forms and views. With this feature, makers can update their forms and views on the fly as they work on their table schema in the table designer or table hub.

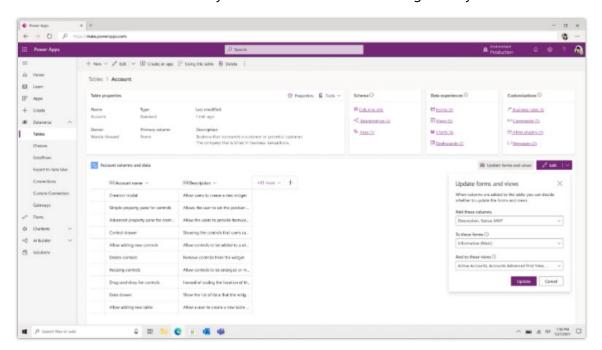
#### **Feature details**

Makers will be able to add table columns to selected forms and views through the table designer and table hub. An **Update forms and views** button will show up as the entry point of the feature in the table hub, full-page table designer, and inline table designer in the



model-driven app designer. Selecting the button will allow makers to configure what table columns to add to the forms and views for the table.

The feature will be automatically enabled for all makers when generally available.



Auto add column in table hub

#### See also

Update forms and views (docs)

## **Experience Copresence in Canvas Studio**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

### **Business value**

Copresence allows multiple makers to access an app together while working in Power Apps Canvas Studio.

#### **Feature details**

Multiple makers can now access an app in Power Apps Canvas Studio together and discover each other's copresence. Copresence provides the following benefits:

- Only one editor allowed, but other makers can now access app in the Power Apps Canvas Studio in read-only mode.
- Icons and names of people who have the app open are displayed with indicators to show who is editing the app and who's viewing it.
- Read-only labels are displayed to indicate to makers that they're in read-only mode
- While in read-only mode, makers will receive notification for saved changes made from the current editor. Then, they'll be prompted to refresh the app to stay on the latest version so as not to lose your work or overwrite other's work later.

## Coauthor with other makers in the modern app designer

Enabled for		Early access	General availability
Users by admins, makers, or analysts	✓Sep 29, 2022	-	Jun 2023

#### **Business value**

With the coauthoring feature, makers can edit together in the modern model-driven app designer. Teams can collaborate simultaneously and see the results in real time.

#### **Feature details**

Coauthoring in the modern model-driven app designer allows multiple makers—whether pro or citizen developers—to make changes to the app at the same time and see those changes in real time. As a result, teams can innovate together and build stronger connections between professional developers and business domain experts, a critical ingredient to maximizing low-code development.

#### See also

Coauthoring in model-driven apps (docs)

## **Enhance delegation for Updatelf and Removelf**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	Jun 2023

#### **Business value**

Customers can ensure that their apps are more performant and can execute actions that affect more than 500/2000 records correctly.

#### **Feature details**

This feature will allow Power Fx to delegate the **UpdateIf** and **RemoveIf** functions to be executed on Dataverse. They won't be subject to delegable limits. It will allow the delegation of greater than 2,000 records.

## **Create virtual tables easily in Maker Portal**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	<b>V</b> Jan 5, 2023	-	Sep 2023

#### **Business value**

Virtual tables allow makers to use existing data from sources like SQL and SharePoint in Dataverse. The data can continue to live in the source, without being migrated into Dataverse. Once virtualized, the tables act like standard Dataverse tables. For example, makers can create relationships between virtual tables and other Dataverse tables. In addition, makers can use virtual tables to work with data from SQL directly in a model-driven app.

#### **Feature details**

Although virtual tables have been available, the creation process has been difficult, requiring users to rely on documentation and other sources of guidance. The experience to date has been reserved for advanced users who are proficient in coding.

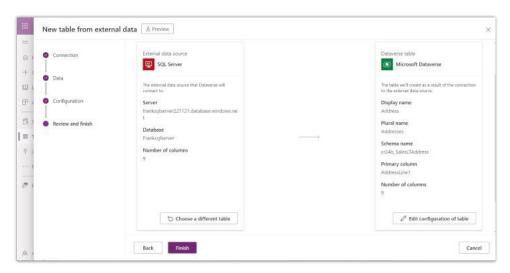
By introducing a guided, step-by-step wizard in Power Apps, all makers can quickly and easily create virtual tables in minutes. Existing virtual table users will find a dramatic decrease in clicks, time, and resources needed to create virtual tables.

Virtual tables will give makers new ways to use Dataverse to read and update data sourced in SQL and SharePoint. They can bring these datasets into model-driven apps and create new relationships with existing data.





Screenshot of creation wizard pick a table.



Finish and create with creation wizard.

#### See also

Create virtual tables using the virtual connector provider (docs)

## **Experience the new Power Apps home page**

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	May 2023	-	Sep 2023

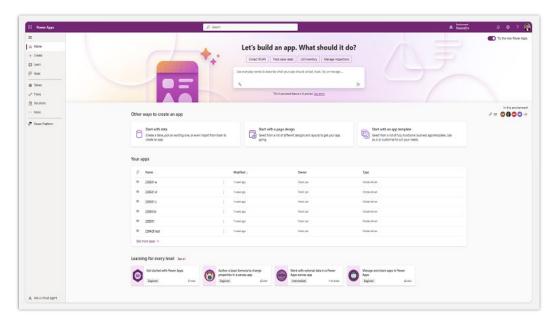
#### **Business value**

We're excited to launch an updated version of the Power Apps home page. Makers will benefit from improved navigation experiences, consistency with other Power Platform products, an update apps list, and performance improvements.

## **Feature details**

The Power Apps home page now has improved performance and the following enhancements:

- Modernized apps list
- Improved navigation experience
- Just in Time (JIT) developer environment provisioning (if allowed by admin)
- Integrated banner that includes the Copilot experience
- More options when creating an app including updates to existing create experiences



New Power Apps home page

#### See also

Get started with Power Apps (docs)

## Drag and drop to build responsive pages more easily

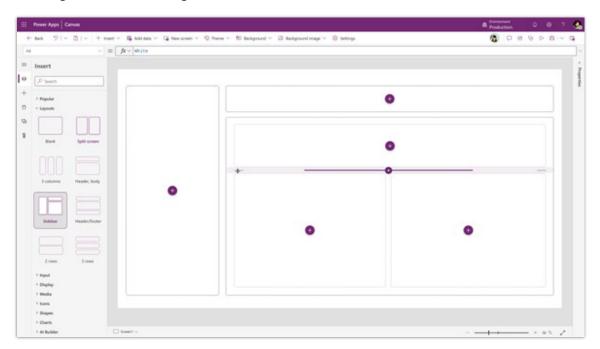
Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Sep 2023	-	To be announced

#### **Business value**

The introduction of the responsive layout containers unlocked the ability for makers to create one app for multiple form factors. Now, we're making the responsive layout containers easier than ever to use with drag and drop.

#### **Feature details**

The new layout configuration allows makers to add and easily reorder controls within responsive layout containers. Makers can resize controls and adjust the spacing between them right in the authoring canvas.



Screenshot of the Power Apps Canvas studio and responsive layouts with spacer tools.

## Modern user experiences

#### **Overview**

Power Apps will continue to modernize the user experience supporting modern and intuitive controls and experiences for users to work with across apps and Microsoft products in a consistent and productive way.

## **Embed a Power Virtual Agents control using chatbot control**

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Apr 2023	-	-

#### **Business value**

Makers can seamlessly integrate an intelligent Power Virtual Agents chatbot directly into their app, which enables them to enhance the conversational experience for their users.

#### **Feature details**

Makers have frequently requested a native integration of Power Virtual Agent bots into their Power Apps. With the introduction of Power Virtual Agent's conversational GPT experience, we're providing a double delight for makers through this feature.

Makers can now embed any Power Virtual Agent bot into their apps using the chatbot control. They can also embed an improved GPT-powered Power Virtual Agent control to enable their users to engage with the bot in a more conversational way, thereby solving their problems more effectively.

#### See also

Add Chatbot control to a canvas app (docs)

## Look up records easily with modern advanced find

Enabled for	Public preview	Early access	General availability
Users, automatically	-	<b>✓</b> Feb 6, 2023	✓Apr 1, 2023

#### **Business value**

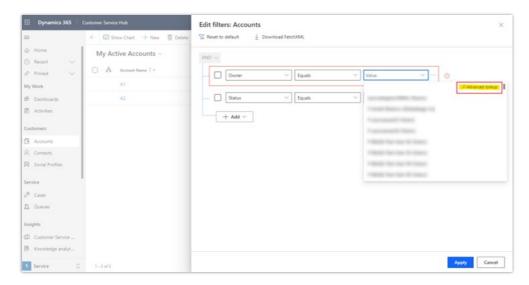
With modern advanced find enabled by default, you can be more productive in filtering data based on specific records on all grid pages in an app.

#### **Feature details**

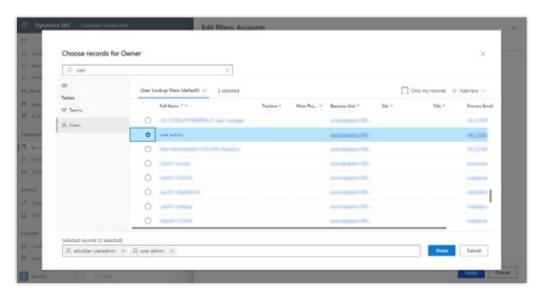
Adding a condition or editing an existing condition on lookup columns in the Edit filters pane on grid pages is easier with the **Advanced lookup** option. You can see more fields per record and search for records within a specific view to choose the right record to filter against.

Admins can disable this capability in Power Platform admin center by toggling the setting Show advanced lookup in lookup fields within Edit filters.





Advanced lookup option in Edit filters.



Advanced lookup in Edit filters.

## See also

Add conditions (docs)

## Power BI quick reports in Power Apps enabled by default

Enabled for	Public preview	Early access	General availability
Users, automatically	-	<b>V</b> Feb 6, 2023	✓Apr 1, 2023

#### **Business value**

Create reports in the Power BI service starting with a view in a model-driven app. Power BI automatically generates the visuals for you, so you can start exploring the data with just a few clicks.

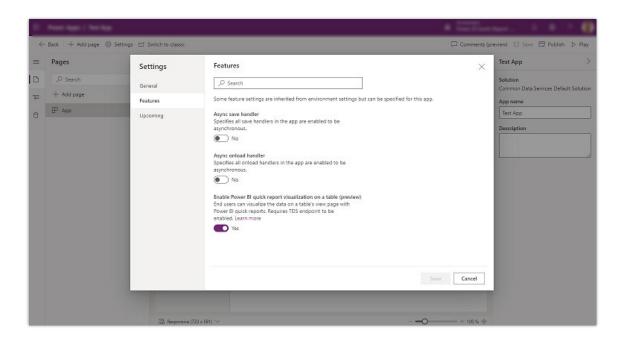
#### **Feature details**

The capability to enable Power BI quick report visualization on a table is available on all grid pages. All apps have this capability enabled by default, with the app setting still available for makers to disable per app.

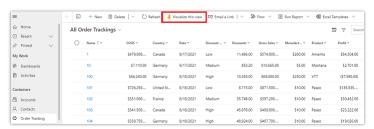
With the Visualize this view option on all grid pages, you can:

- Create a Power BI quick report, starting from a view with just a one button-click. The Power BI service generates visuals and a layout intelligently based on the underlying data.
- Make any necessary modifications to visuals, filters, or columns (or any combination of all three) using the display name of the columns on the quick report.
- Save the Power BI report to a workspace of your choice, so you can access it anytime and customize it for your needs.

All of these capabilities have already been generally available and enabled by default for new apps.



## Screen of app settings.



## Screen of visualize this view.



## Power BI quick report

## See also

Manage model-driven app settings in the app designer (docs)

## Improved UX for sharing records

Enabled for	Public preview	Early access	General availability
Users, automatically	-	<b>✓</b> Mar 19, 2023	✓Apr 1, 2023

#### **Business value**

Record owners now need fewer clicks to share a record and send a link to their colleagues.

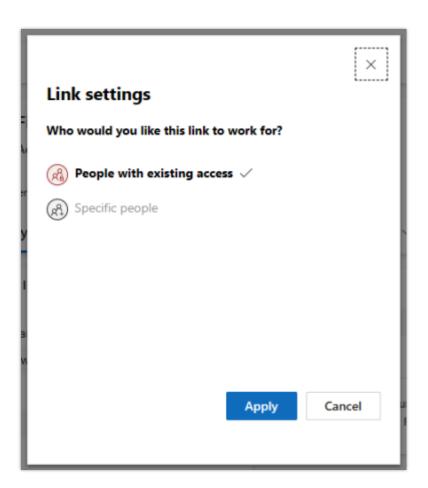
#### **Feature details**

Record owners can now share a record more easily using the **Share** > **Email link** option by modifying the link settings to select **Specific people**. When you share the link to the record with someone, the recipient is given read-only access to the record.

- Only users with Share privilege on the record will have the option to select the Specific people option when emailing links. Users with no share privilege will have this option disabled and won't be able to select it.
- Access can be revoked by selecting Share > Manage access, which allows you to remove
  access for the user.



Showing dropdown options when selecting modern share button.



Link settings dialog

## View offline sync icon in the navigation bar

Enabled for	Public preview	Early access	General availability
Users, automatically	-	<b>✓</b> Feb 6, 2023	✓Apr 2, 2023

#### **Business value**

The offline sync icon is now always visible in the mobile navigation bar. The icon provides contextual information, such as if the app is connected, if data is currently refreshing, whether there are pending user updates that haven't synchronized yet, and whether the sync has an error or warning. The icon still allows access to the sync status page, which has been improved with details related to pending changes.

#### **Feature details**

The offline sync icon is now visible in the main navigation on iOS and Android devices. The icon has several badges that represent sync states:

- Connected
- Not connected
- Syncing data
- Pending changes
- Error
- Warning

The sync status page has also been improved to provide more details. These details help users take effective actions in regards to the status of the data available on their devices.

#### See also

View offline sync status (docs)

## See which colleagues are viewing the same records as you

Enabled for	Public preview	Early access	General availability
Users, automatically	-	<b>✓</b> Jan 5, 2023	May 2023

#### **Business value**

This feature allows users to see which colleagues are viewing the same records as them. This makes it easy to collaborate and work with others to accomplish business goals.

#### **Feature details**

This feature applies to all entities, including custom tables, and is enabled by default.

This feature uses the Azure Fluid Relay Service (FRS), which must be available in your region. For more information, go to Azure Fluid Relay Service availability.

**NOTE** An admin can turn this feature off in the Power Platform admin center by going to the environment settings, viewing the features, and turning off the **Show other people when** they're using the same form feature, which is found under Collaboration.

#### See also

Collaborate with others in model-driven apps (docs)



## **Enjoy the new look and feel for model-driven Power Apps**

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	<b>✓</b> Jan 5, 2023	-	Jun 2023

#### **Business value**

Model-driven Power Apps now have an updated user interface aligning to the latest Microsoft Fluent Design System. This provides makers with beautiful controls and experiences to delight their users.

#### **Feature details**

The new look and feel for model-driven Power Apps include new controls, layouts, fonts, colors, and more.

Makers can opt-in to the new look and feel for their app. After a maker has enabled the new look and feel for their app, users can opt-in by selecting the **Try the new look and feel** option. Once enabled, model-driven apps will use the latest Microsoft Fluent Design-based elements as they're released.

Microsoft Fluent is an open-source, cross-platform design system to create engaging product experiences—accessibility, internationalization, and performance included.

#### See also

Modern, refreshed look for model-driven apps (docs)

## Build canvas apps by using new and refreshed controls

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓Mar 26, 2023	-	Jun 2023

#### **Business value**

Power Apps now have an updated user interface aligning to the latest Microsoft Fluent Design System. This provides makers with beautiful controls and experiences to delight their users.

## **Feature details**

The new look and feel for canvas apps will be an opt-in feature for makers that will enable Fluent-based designs, theme, and updated styling like fonts, colors, borders, shadows, and more.



#### See also

Overview of modern controls in canvas apps (docs)

## Configure form components like header, command bar, and more

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	May 2023	-	Jul 2023

#### **Business value**

Makers can now build complex multi-entity forms that support highly productive experiences in model-driven apps. They can work on related records with additional capabilities without leaving the larger context where the form component control is added. Full control on the form component gives customizers the ability to light up individual capabilities as per their business need.

#### **Feature details**

The form component control will support rendering model-driven app forms that can be used on another form, or can be easily added to other pages including dashboards and views, in model-driven apps. Users will be able to configure the command bar, business process flows, show or hide tabs and the form header.

# Power Pages

## Plan and prepare for Power Pages in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **Power Pages**.

## **Overview**

## Video: Learn about this product's new capabilities

Microsoft Power Pages is a secure enterprise-grade, low-code software as a service (SaaS) platform for creating, hosting, and administering modern external-facing business websites. Whether you're a low-code maker or a professional developer, Power Pages enables you to rapidly design, configure, and publish your websites that seamlessly work across web browsers and devices.

The 2023 release wave 1 plan focuses on enhancements to the core platform and new capabilities in the areas of templates. We'll focus on the areas of templates, design studio, administration, and professional development experiences.

For official product documentation and training for Power Pages, go to:

- Power Pages documentation
- Power Pages training

## **Investment areas**



#### Investment areas

#### **Template hub and prebuilt templates**

Power Pages template hub empowers makers to create sites using predefined, industry-

<u>Back to Contents</u> Power Pages 7

specific templates. The templates can be modified to reflect branding and customized to address specific business requirements. These templates expand upon the templates previously offered to add additional, industry-specific scenarios.

#### Administration and governance

As an administrator, you're able to efficiently manage, configure, and maintain websites directly from the **Power Platform admin center** and the **Set up** workspace with the design studio.

The administration and governance features allow you to:

- View website details, capacity consumption reports, and other site information from the Power Platform admin center.
- Use self-service diagnostic tools, such as the portal checker, to identify and resolve common issues in websites.
- Configure integration with other services like SharePoint and Power Bl.
- Restrict site access by IP address, enable maintenance mode on sites, and other site administration options.

In 2023 release wave 1, we're enhancing administration capabilities with new features like enhanced website inventory information.

### **Professional developer experiences**

Professional developer experiences enable developers to build advanced customizations and configurations with their websites. These experiences include several key areas, such as:

- Tooling support for development like Visual Studio Code for Web editor, Visual Studio Code extensions, and continuous integration and continuous delivery (CI/CD) support using Azure DevOps and GitHub actions.
- End-to-end application lifecycle management (ALM) capabilities.
- Extensibility patterns allowing developers to extend the websites for complex business requirements.

#### Core platform

The core platform provides makers with capabilities to configure, customize, and use as-is in low-code/no-code ways and extend using professional development techniques to meet business needs.

Typical areas that describe the core platform capabilities are:

- Content management system (CMS) capabilities to store webpages and site content.
- Data types and components, such as forms and lists, to allow a user to interact with data in Microsoft Dataverse.
- User authentication supporting OAuth 2.0, OpenID Connect, and SAML 2.0 standard protocols.

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- Security using a robust role-based access control (RBAC) authorization model that provides granular control over permissions on webpages and data.
- A configurable global search that allows users to search content within a website.
- Extensibility options provided by code components, Web APIs, Liquid code, client-side scripts, custom style sheets, and web templates.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Power Pages below:

Check out the release plan

# For application administrators

### User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.



Get the most out of Power Pages

# Get the most out of Power Pages

Helpful links	Description
Release plan	View all capabilities included in the release.
Product updates	Stay up to date on latest product updates.
Release calendar	Know important release milestones.
Licensing	Improve your understanding of how to license Power Pages.
Product documentation	Find documentation for Power Pages.
<u>User community</u>	Engage with Power Pages experts and peers in the community.
Upcoming events	Find and register for in-person and online events.
Product trials	Get started with Power Pages.

# What's new and planned for Power Pages

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, delivery timelines may change and projected functionality may not be released. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (V) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

**Power Pages** 75

# **Administration and governance**

Administration and governance capabilities enable administrators to efficiently manage, configure, and maintain websites.

Feature	Enabled for	Public preview	General availability
Provide website inventory data for tenants and environments	Admins, makers, marketers, or analysts, automatically	-	Jun 2023
Disable anonymous access in Power Pages	Users by admins, makers, or analysts	Jun 2023	Aug 2023

### **Core platform**

The core platform provides makers with capabilities to configure, customize, and use as-is in low-code or no-code ways to meet business needs.

Feature	Enabled for	Public preview	General availability
Use cloud flows with Power Pages sites	Users by admins, makers, or analysts	May 2023	
Use Bootstrap version 5 in Power Pages	Users by admins, makers, or analysts	Jul 2023	

# **Professional developer experiences**

Developers can build advanced customizations and configurations with their websites.

Feature	Enabled for	Public preview	General availability
Edit webpages with new features in Visual Studio Code for the Web	Users, automatically	Jun 2023	
Perform website actions using Microsoft Power Platform CLI	Users, automatically	Sep 2023	-
Manage Power Pages ALM using solutions	Users by admins, makers, or analysts	✓ Apr 28, 2023	To be announced

### **Template hub and prebuilt templates**

The template hub provides a set of predefined industry specific and cross industry website patterns.

Feature			General availability
Create new sites with FAQ template	Admins, makers, marketers, or analysts, automatically	✓ Apr 13, 2023	Jun 2023

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- Users by admins, makers, or analysts: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the International availability guide. For more information about geographic areas and datacenters (regions), go to the Dynamics 365 and Microsoft Power Platform availability page.

# Administration and governance

#### **Overview**

As an administrator, you're able to efficiently manage, configure, and maintain websites directly from the **Power Platform admin center** and the **Set up** workspace with the design studio.

The administration and governance features allow you to:

- View website details, capacity consumption reports, and other site information from the Power Platform admin center.
- Use self-service diagnostic tools, such as the portal checker, to identify and resolve common issues in websites.
- Configure integration with other services like SharePoint and Power BI.
- Restrict site access by IP address, enable maintenance mode on sites, and other site administration options.

**Power Pages** 

In 2023 release wave 1, we're enhancing administration capabilities with new features like enhanced website inventory information.

### Provide website inventory data for tenants and environments

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jun 2023

#### **Business value**

Tenant admins, especially in highly regulated industries and government spaces, need to have an accurate inventory of all websites in their tenant. This will help them to stay on top of the website details in their organization, who can access them, when were they last modified.

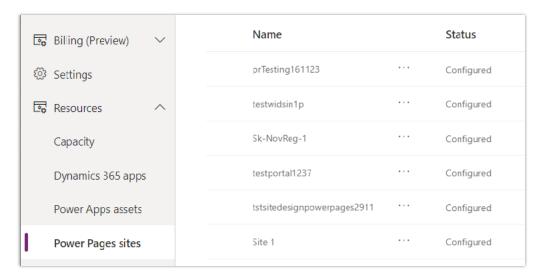
#### **Feature details**

Currently, the Power Platform admin center provides a read-only list of all websites in a tenant (or environments to which the user is an admin) that can't be exported for further analysis. The list has the following metadata:

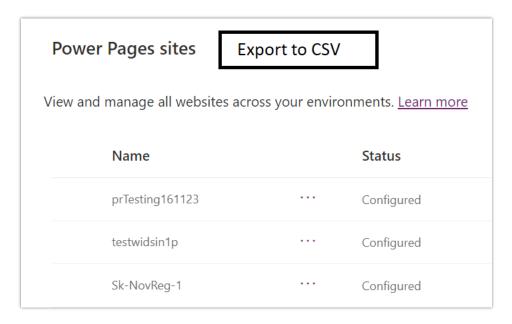
- Name
- Status
- Environment
- Created On
- Type
- Site Visibility

This new feature provides the following:

- Additional website metadata like last modified time, last modified by, and when the site was made public.
- Admins can export this data to a CSV and access the additional metadata through admin APIs.



List of websites in the tenant.



Export button to download inventory of websites.

### **Disable anonymous access in Power Pages**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jun 2023	Aug 2023

### **Business value**

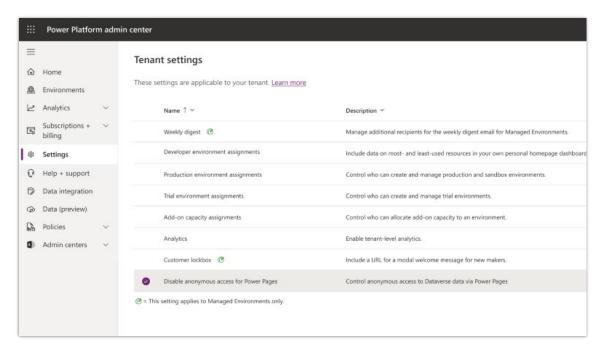
The protection of organizational data is key to driving enterprise trust. We aim to provide administrators with the ability to enforce additional security measures through right



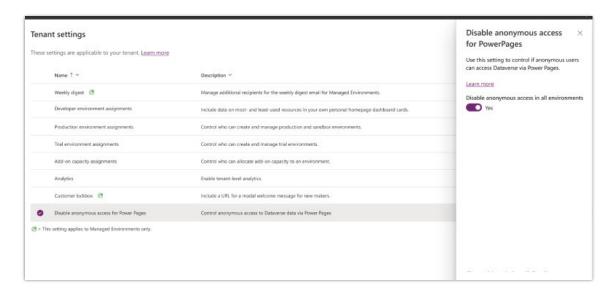
governance controls. Using this governance control, admins can enforce a data policy (using a tenant setting) to block anonymous access in Power Pages and avoid accidental exposure of their organizational data.

#### **Feature details**

Currently, administrators don't have control over Power Pages for blocking data access to anonymous users. Using this governance control (a tenant setting in Power Platform admin center) admins can enforce a data policy to block anonymous access in Power Pages. This will prevent makers from unintentionally exposing organizational data to anonymous users and will enforce authentication of users to access Dataverse data.



Tenant setting to block anonymous access to Power Pages.



Toggle setting to disable anonymous access to Power Pages.

# Core platform

#### **Overview**

The core platform provides makers with capabilities to configure, customize, and use as-is in low-code/no-code ways and extend using professional development techniques to meet business needs.

Typical areas that describe the core platform capabilities are:

- Content management system (CMS) capabilities to store webpages and site content.
- Data types and components, such as forms and lists, to allow a user to interact with data in Microsoft Dataverse.
- User authentication supporting OAuth 2.0, OpenID Connect, and SAML 2.0 standard protocols.
- Security using a robust role-based access control (RBAC) authorization model that provides granular control over permissions on webpages and data.
- A configurable global search that allows users to search content within a website.
- Extensibility options provided by code components, Web APIs, Liquid code, client-side scripts, custom style sheets, and web templates.

Back to Contents **Power Pages** 

### **Use cloud flows with Power Pages sites**

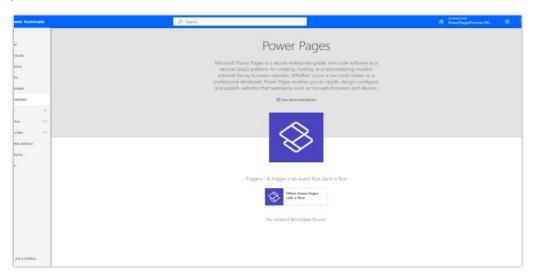
Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	-

#### **Business value**

Using an API, professional developers can use Power Automate cloud flows from Power Pages to integrate with external applications or automate their processes to meet their business needs.

#### **Feature details**

Enable native integration of Power Pages with Power Automate by providing professional developers with methods to securely call cloud flows using an API from web pages. A Microsoft provided connector will be made available in Power Automate that can be triggered on demand from events in Power Pages and will be capable of bi-directional data exchange. Developers will be able to authorize specific cloud flows and configure security through the Set up workspace so these can be securely invoked from the Power Pages platform.



Screenshot of Power Pages connector.

# **Use Bootstrap version 5 in Power Pages**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jul 2023	-

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#### **Business value**

Create your Power Pages website using the latest CSS styling framework version 5 of Bootstrap. This upgrade also enables you to migrate your existing websites to the latest Bootstrap version using a migration tool. The tool automatically converts your code to Bootstrap version 5 and provides the ability to report the changes and modify the code per the recommendations.

#### **Feature details**

Bootstrap is a commonly used Cascading Style Sheet (CSS) framework, providing a powerful and extensible front-end toolkit for developers. Power Pages currently supports Bootstrap version 3. With this release, we'll provide the support for Bootstrap version 5 to apply to your customizations as well as for the site templates shipped with Power Pages.

Power Pages will continue to support both version 3 and version 5 Bootstrap libraries for a limited time.

Bootstrap version 5 support with Power Pages will provide the following advantages:

- Save time converting your existing websites to Bootstrap version 5 using a migration tool that will convert CSS code and provide recommendations for the breaking changes.
- Use the latest CSS controls offered by Bootstrap.
- Receive new security updates and fixes from Bootstrap.

# Professional developer experiences

#### **Overview**

Professional developer experiences enable developers to build advanced customizations and configurations with their websites. These experiences include several key areas, such as:

- Tooling support for development like Visual Studio Code for Web editor, Visual Studio Code extensions, and continuous integration and continuous delivery (CI/CD) support using Azure DevOps and GitHub actions.
- End-to-end application lifecycle management (ALM) capabilities.
- Extensibility patterns allowing developers to extend the websites for complex business requirements.

### Edit webpages with new features in Visual Studio Code for the Web

Enabled for	Public preview	General availability
Users, automatically	Jun 2023	-

#### **Business value**

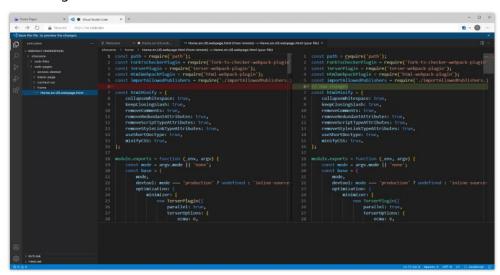
Professional developers will see improved productivity with the enhancements that are introduced to Visual Studio Code for the Web extension.

#### **Feature details**

Power Pages integration with Visual Studio Code for the Web allows code-first professional developers to configure and customize webpages.

We're enhancing the experience and adding support for:

- **Improved code-editing reliability**: To promote reliable co-authoring, we're adding a capability within Visual Studio Code for the Web that detects changes on the same file by multiple users. As a developer you'll be prompted of any changes allowing you to avoid accidental overwrites and loss of work.
- Enhanced page preview experience: You'll be able to preview webpages within Visual Studio Code for the Web so you won't have to switch to the design studio to review changes.



View conflicts and avoid accidental overwrites.

### **Perform website actions using Microsoft Power Platform CLI**

Enabled for	Public preview	General availability
Users, automatically	Sep 2023	-

#### **Business value**

Professional developers will have command line support using Power Platform CLI for actions like create and delete websites.

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#### **Feature details**

We're adding support for website create and delete operations using Power Platform CLI (command line interface). This will allow you to automate deployments and streamline your application lifecycle management (ALM) processes for Power Pages sites.

Using Power Platform CLI, you'll be able to:

- Create build scripts
- Develop CI/CD flows
- Automate deployments

### **Manage Power Pages ALM using solutions**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	✓Apr 28, 2023	To be announced

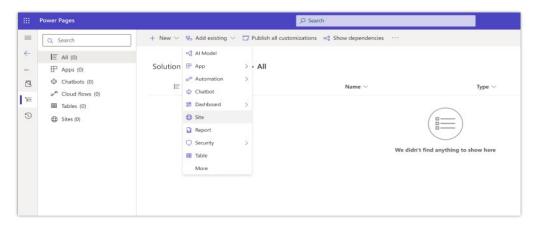
#### **Business value**

With solution awareness for Power Pages, site configuration becomes portable, making it effortless to move a site and its components from one environment to another, thereby simplifying application lifecycle management (ALM) for Power Pages.

#### **Feature details**

Power Pages ALM using solutions will allow makers to migrate site configuration between environments and provide an experience that's consistent with other Power Platform applications. The capability provides simplified and enhanced visual experience through a dedicated solutions area for managing Power Pages components.

This feature will also include Power Pages data model infrastructure optimizations and improvements.



Power Pages solution awareness.

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#### See also

<u>Using solutions with Power Pages</u> (docs)

# Template hub and prebuilt templates

#### **Overview**

Power Pages template hub empowers makers to create sites using predefined, industryspecific templates. The templates can be modified to reflect branding and customized to address specific business requirements. These templates expand upon the templates previously offered to add additional, industry-specific scenarios.

### **Create new sites with FAQ template**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	<b>✓</b> Apr 13, 2023	Jun 2023

#### **Business value**

Prebuilt site templates showcase the potential of what you can build with Power Pages. The FAQ template features both the admin and customer experience within Power Pages.

#### **Feature details**

This feature enables a prebuilt FAQ website template. This template features common customer questions and topics and provides corresponding answers. The template offers a customer experience for viewing the content and an admin experience for managing and publishing articles and topics.

#### See also

Frequently Asked Questions template (docs)

**Power Pages**  $(\uparrow)$ 



# **Power Automate**

# Plan and prepare for Power Automate in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **Power Automate**.

### Overview

### Video: Learn about this product's new capabilities

Microsoft Power Automate provides the tools that you can use to improve productivity in your organization by automating repetitive, time-consuming tasks. Power Automate provides a better way to get things done across your organization through cloud flows and robotic process automation (RPA). It's deeply integrated with the Microsoft 365 ecosystem and the rest of Microsoft Power Platform.

Power Automate is investing in several areas as a part of Microsoft Power Platform 2023 release wave 1 around the following three themes:

- Driving organization-wide low code adoption: Our focus is on making sure IT leaders
  in every organization are ready and resourced to broadly scale Power Platform across the
  entirety of their organizations.
- **Achieving experience excellence**: We'll provide simpler, modern authoring experiences infused with intelligent assistance at every step. The experience will feel more like the rest of the Microsoft cloud, including seamless collaboration throughout a user's workday.
- **Enabling flagship solutions with high scale**: Users are increasingly betting on Power Platform to drive critical business processes across the enterprise. The professional developers and fusion teams driving these flagship solutions have needs that extend beyond traditional no-code citizen development.

For official product documentation and training for Power Automate, go to:

- Power Automate docs
- Power Automate training on Microsoft Learn

#### Investment areas



#### Investment areas

#### **Cloud flows**

Cloud flows is a core automation capability in Power Automate that allows customers to focus on what matters and automate the rest. Cloud flows capabilities include:

- Integration with applications like Microsoft Teams, SharePoint, OneDrive, Dynamics 365 suite of applications, and more.
- Integration with the rest of Microsoft Power Platform, including the ability to invoke workflows from an app created using Power Apps, when a data alert is triggered in Power BI, or to take an action in Power Virtual Agents.
- Mobile applications that help customers receive notifications, perform approvals, and invoke and monitor automation runs on the go.

In 2023 release wave 1, we're focusing on making it easier to build and share automations and help organizations drive adoption with confidence through deeper governance and privacy controls.

#### **Desktop flows**

Desktop flows is the Robotic Process Automation (RPA) solution within Power Automate. Desktop flows provides automation for Windows desktop applications, services, and experiences for orchestration and deployment within Power Platform. In 2023 release wave 1, we'll invest in desktop flows in the following ways:

- Drive adoption within large and small enterprises, delivering features that enable organizations to deploy their automations at scale.
- Provide citizen developers with delightful first run experiences with high ease of use and fast access to hosted resources so they can build or run their automations.
- Enable ISV integrations, opening new options for partners to build RPA solutions based on desktop flows decoupled from cloud flows.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Power Automate below:

Check out the release plan

# For application administrators

### User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.



Get the most out of Power Automate

### Get the most out of Power Automate

Helpful links	Description
Release plan	View all capabilities included in the release.
Product updates	Stay up to date on latest product updates.
Release calendar	Know important release milestones.
Licensing	Improve your understanding of how to license Power Automate.
Product documentation	Find documentation for Power Automate.
<u>User community</u>	Engage with Power Automate experts and peers in the community.
Upcoming events	Find and register for in-person and online events.
Product trials	Get started with Power Automate.

# What's new and planned for Power Automate

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to <u>Microsoft policy</u>.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

### **Cloud flows**

Use the new cloud flows features to automate tasks across hundreds of connectors.

Feature		Public preview		General availability
Flows created with natural language can now understand parameters	Admins, makers, marketers, or analysts, automatically	May 2023	-	-

Feature	Enabled for	Public preview	Early access*	General availability
Push cloud flow execution data into Application Insights	Users by admins, makers, or analysts	Jun 2023	-	-
Make changes in draft mode for solution cloud flows	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	
Use versioning for solution cloud flows	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	
Use OAuth support for HTTP request triggers	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-
Monitor performance for cloud and desktop flow activities	Admins, makers, marketers, or analysts, automatically	Sep 2023	-	-
Store cloud flow execution history in Microsoft Dataverse	Admins, makers, marketers, or analysts, automatically	Sep 2023	-	-
Generate expressions from examples	Admins, makers, marketers, or analysts, automatically	<b>V</b> Oct 10, 2022	-	May 2023
Enable flows that are owned by service principals	Admins, makers, marketers, or analysts, automatically	<b>V</b> Sep 27, 2022	-	May 2023
Define sequential approvals in Power Automate	Admins, makers, marketers, or analysts, automatically	-	-	May 2023
Use native integration for flows in Excel	Admins, makers, marketers, or analysts, automatically	May 2023	-	May 2023

Feature	Enabled for	Public preview	Early access*	General availability
Select dynamic values with the improved user experience	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Build richer expressions with the improved editor experience	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Use the improved OData editor for easy filtering in cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Manage solution-aware cloud flows using admin APIs	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Cancel all flow runs for a version of a flow	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Experience the improved Power Automate mobile app for iOS	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Identify platform roles to connect to the correct environment	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Use natural language to create flows	Admins, makers, marketers, or analysts, automatically	-	-	Sep 2023
Connect to other environments from the Microsoft Dataverse connector	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	Sep 2023
Use Copilot in Power Automate cloud flows designer	Admins, makers, marketers, or analysts, automatically	May 2023	-	To be announced

# **Desktop flows**

Use the new desktop flows features to automate tasks on your Windows PC.

Feature	Enabled for	Public preview	Early access*	General availability
Create desktop flow connections without passwords	Admins, makers, marketers, or analysts, automatically	<b>V</b> Apr 11, 2023	-	
Connect your own virtual network with hosted machine group	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	
Use credentials from Azure Key Vault in desktop flow connections	Admins, makers, marketers, or analysts, automatically	Jul 2023	-	
Connectivity troubleshooter in Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	Jul 2023	-	-
Enable SLA-based machine and work queue scaling	Admins, makers, marketers, or analysts, automatically	Aug 2023	-	
Improved runtime error messages for Excel actions	Admins, makers, marketers, or analysts, automatically	-	-	Apr 11, 2023
Run flows with keyboard shortcuts	Admins, makers, marketers, or analysts, automatically	-	-	<b>A</b> pr 11, 2023
Use web automation to access cross-domain iframes	Admins, makers, marketers, or analysts, automatically	-	-	<b>V</b> Apr 11, 2023
Validate the selectors of UI elements	Admins, makers, marketers, or analysts, automatically	-	-	Apr 11, 2023

Feature	Enabled for	Public preview	Early access*	General availability
Fix the selector of a UI element	Admins, makers, marketers, or analysts, automatically	-	-	May 2023
Use updated actions pane	Admins, makers, marketers, or analysts, automatically	-	-	May 2023
Utilize performance improvements	Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023
Configure option to include or to not include screenshots in the error logs	Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023
Use SAP-dedicated actions in desktop flows	Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023
Use troubleshooter for UI automation	Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023
Add child flows dependencies in desktop flow properties	Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023
Log message action	Admins, makers, marketers, or analysts, automatically	-	-	Aug 2023
Introduce UISpy to work with UI elements	Admins, makers, marketers, or analysts, automatically	Jul 2023	-	Aug 2023
Power Automate for desktop displays dynamic messages in the home screen	Admins, makers, marketers, or analysts, automatically	-	-	Sep 2023

Feature	Enabled for	Public preview	Early access*	General availability
Use custom actions in Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	May 2023	-	Sep 2023
Manage work queues for Power Automate	Admins, makers, marketers, or analysts, automatically	May 2023	-	Sep 2023

<sup>\*</sup> You are able to opt into some features as part of early access on February 6, 2023, including all mandatory changes that affect users. To learn more, go to <a href="Early access FAQ">Early access FAQ</a>.

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

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### **Cloud flows**

#### **Overview**

Cloud flows is a core automation capability in Power Automate that allows customers to focus on what matters and automate the rest. Cloud flows capabilities include:

- Integration with applications like Microsoft Teams, SharePoint, OneDrive, Dynamics 365 suite of applications, and more.
- Integration with the rest of Microsoft Power Platform, including the ability to invoke workflows from an app created using Power Apps, when a data alert is triggered in Power BI, or to take an action in Power Virtual Agents.
- Mobile applications that help customers receive notifications, perform approvals, and invoke and monitor automation runs on the go.

In 2023 release wave 1, we're focusing on making it easier to build and share automations and help organizations drive adoption with confidence through deeper governance and privacy controls.

### Flows created with natural language can now understand parameters

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	-

#### **Business value**

Natural language flow authoring is easier than before with flow parameters pre-filled for you.

#### **Feature details**

With this feature, Power Automate automatically fills in the values for the required configuration parameters that you provide when you create flows from a natural language description of the flow you want to create. This feature minimizes the amount of manual configuration you need to do when you create flows from a natural language description.

#### See also

Format data by examples (docs)

## **Push cloud flow execution data into Application Insights**

Enabled for	Public preview		General availability
Users by admins, makers, or analysts	Jun 2023	-	-

#### **Business value**

Administrators can leverage their existing Application Insights instances in Azure to monitor automations within an environment.

#### **Feature details**

With the first click stop of this integration (or *milestone* in the continuous range of reference points in this integration), admins can push cloud flow execution data into Application Insights. This push can then be used for advanced monitoring and alerting scenarios for automations running in an environment.

### Make changes in draft mode for solution cloud flows

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Users have told us that they're unable to begin creating or editing a flow until they have a large amount of time available because they can't pause halfway through.

#### **Feature details**

Currently, makers can't save a flow with errors and can't save a draft version of a flow. With this feature, makers can make changes to solution cloud flows in draft mode, including when there are errors, and publish when changes are complete.

### Use versioning for solution cloud flows

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Currently, makers don't have versioning for solution cloud flows, so they lack the ability to revert to a previous version. With this feature, makers can view and restore past versions of solution cloud flows.

#### **Feature details**

With this feature, makers can use a panel in the flow designer to view and restore previous versions of solution cloud flows if something goes wrong, or they change their minds. The draft state and version history are stored in Microsoft Dataverse. This is part of a platformwide approach to versioning, with solution cloud flows being the first solution component to add this Dataverse-backed versioning support. Other solution components will follow. This won't provide source control integration, which is being planned for the future.

**Power Automate**  $(\uparrow)$ 



### **Use OAuth support for HTTP request triggers**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Makers can use enhanced security measures for HTTP request triggers.

#### **Feature details**

Prior to this feature, when makers created a flow that had an HTTP request trigger, the flow generated a shared access signature (SAS) URL. This URL was typically used by developers to trigger workflows from within their own applications or services. This feature provides added security to this trigger by enabling developers to limit who can trigger this workflow.

### Monitor performance for cloud and desktop flow activities

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-	-

#### **Business value**

Customers can use a central consolidated view to monitor and understand the executions across cloud and desktop flows.

#### **Feature details**

With this feature, you have a single consolidated view to understand the automation performance across your cloud and desktop flows. This feature enables you to:

- Understand the top trends across all of your automation assets (for example, success and failure) across different time periods.
- Understand top errors and their trends.
- Configure corrective actions and alerts for specific error types.
- Estimate the return on investment (ROI) of different automations.

### **Store cloud flow execution history in Microsoft Dataverse**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-	-

#### **Business value**

You can use your Dataverse instances to build custom, longer-term reports based on the flow execution history.

#### **Feature details**

With this feature, you can use Dataverse to store your flow execution data. This enables you to:

- Build custom reports for automation ROI (return on investment), monitoring, and more.
- Retain flow execution records for longer than the current limit of 30 days.
- Centralize the automation execution storage data across cloud and desktop flows.

### **Generate expressions from examples**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	<b>V</b> Oct 10, 2022	-	May 2023

#### **Business value**

Easily format date, number, and text fields without having to author complex expressions. By providing examples of date, number, or text values and the desired output, you can easily format your values to look exactly how you want them to appear.

#### **Feature details**

Power Automate has a rich expression language that you can use to format the different values within your cloud flows; however, finding the appropriate expression to use can be time consuming, particularly for new users. To address this, we're introducing format by examples. Show Power Automate an example of a value that you want to format and the desired output, and Power Automate will suggest the appropriate expression to use. With this feature, you can easily format dates, numbers, and texts.

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#### See also

Format data by examples preview (docs)

### **Enable flows that are owned by service principals**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Sep 27, 2022	-	May 2023

#### **Business value**

This feature allows Microsoft Power Platform to work in enterprise environments where service principals are used.

#### **Feature details**

Currently, you can't enable flows that service principals own because the connections that flows use can't be shared with service principals. As a workaround, makers use shared service accounts when they want more than one person to own a flow.

With this feature, connections can be shared with service principal accounts, allowing you to enable flows that service principal accounts own.

#### See also

Requests limits and allocations (docs)

### **Define sequential approvals in Power Automate**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2023

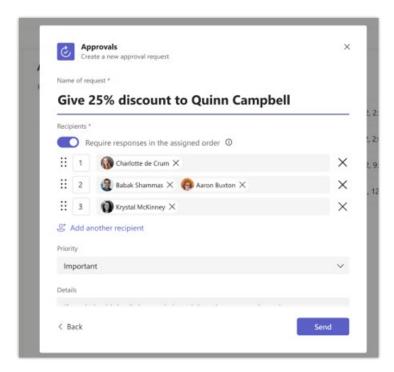
#### **Business value**

This feature allows users to create more complex approval workflows within Microsoft Teams and Power Automate flows.

#### **Feature details**

With this feature, makers can define multiple levels/stages in an approval flow in Microsoft Teams or Power Automate and assign who needs to approve them. The approval request

goes to the next level/stage after all approvers in a previous level/stage approve the flow. If someone rejects the flow at any level/stage, it's considered rejected, and it isn't passed on to subsequent levels/stages. All approvers can see the history of the approvals at each stage and the outcome.



Screenshot of the sequential approvals dialog.

### **Use native integration for flows in Excel**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	May 2023

#### **Business value**

Enable users to create and execute flows directly from within Excel, making it easier to work with Power Automate flows.

#### **Feature details**

This feature brings Power Automate flow creation and run support directly within Excel. With this feature, users can access Excel-specific templates from the **Automate** menu in Excel. From there, they can easily use the template onboarding experience to set up the templates.

From this add-in, users will also be able to manage flows associated with the Excel file they're currently accessing.

### Select dynamic values with the improved user experience

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	1	Jun 2023

#### **Business value**

Upgrades allow you to easily interact with the dynamic value token picker on the designer.

#### **Feature details**

With this feature, you'll have an improved dynamic values token picker experience while you build your flows. With the new dynamic values token picker, you'll be able to view the datatype of the tokens to avoid potential runtime errors. The token picker view pops open to the bottom of the card rather than drift on the side for a better user experience.

### Build richer expressions with the improved editor experience

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

Updates to the expression editor enables makers to build richer expressions more easily.

#### **Feature details**

With the new expression editor, you can build multiline expressions and add dynamic values without having to switch tabs. This feature makes it easier to build richer expressions in the provided editing experience.

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### Use the improved OData editor for easy filtering in cloud flows

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

The OData editor feature provides easy filtering in actions like the SharePoint **Get Items** action that previously required OData syntax.

#### **Feature details**

With the OData editor feature, cloud flow actions hide the OData syntax by default, making it easier to filter items without in-depth knowledge. You can switch between basic and advanced mode. Advanced makers can still use the OData syntax if they choose. This feature will first be available in the **Get Items** action for the SharePoint Online connector.

### Manage solution-aware cloud flows using admin APIs

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

Power Automate admin APIs have full support for solution cloud flows.

#### **Feature details**

Currently, Power Automate admin APIs don't fully support the management of solutionaware cloud flows. With this feature, Power Automate admin APIs can now fully support the management of solution-aware cloud flows using Power Automate Management connector, the Power Automate for Admins connector, PowerShell for Power Platform Administrators, and the Power Platform admin center. Admins can see unpublished solution cloud flows, share solution cloud flows, and view the ownership of solution cloud flows.

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#### Cancel all flow runs for a version of a flow

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

This feature helps to reduce incidents and feedback on the limited number of flows that users can resubmit and cancel on the **My flows** page in Power Automate.

#### **Feature details**

Currently, makers can resubmit or cancel up to 20 flows at once. With this feature, makers can cancel all flow runs in a particular flow version. Being able to cancel more flows at once improves efficiency for all makers, especially those in enterprise scenarios.

### **Experience the improved Power Automate mobile app for iOS**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

The new version of the Power Automate mobile app for iOS provides an updated, modern experience for you on your iPhone. Improvements to the Power Automate mobile app for iOS provide a more user friendly and modern experience.

#### **Feature details**

This experience aligns the mobile app with the Power Automate website experience. You can receive notifications, trigger instant flows on the go, and create **widgets**. Widgets are shortcuts to trigger instant flows from the home screen on your mobile home screen.

You can view your list of approvals more quickly with the new design, too. The fast rollout of new features and updates is supported.

### Identify platform roles to connect to the correct environment

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

This enhancement brings parity between Power Apps and Power Automate environment pickers. It helps to guide makers to environments with sufficient permissions and access.

#### **Feature details**

Currently, the environment picker in Power Automate provides no guidance to makers without permission to the environment they are viewing. With this update, the environment picker provides filters that display platform roles. With the platform roles available, makers can easily identify their roles and then connect to the environments to which they have permissions.

### Use natural language to create flows

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Sep 2023

#### **Business value**

Easily get started building new cloud flows by describing them in natural language. This feature supports additional actions, connectors, geo-availability, parameter filling, and explainability to make the experience even easier.

#### **Feature details**

Using state-of-the-art Al models like GPT3, Power Automate can take natural language as input to create flows. You can use everyday natural language to describe the cloud flow that you want, and Power Automate will create it based on your written description of the scenario to automate. This feature makes it easier for you to build different types of automation faster, allowing a broader population of business users to use Power Automate in a truly no-code experience.

The feature launched in preview for the United States region at Ignite 2022. Now, we'll be making the feature generally available, adding several new enhancements in the process:

- Support for more connectors and actions. Power Automate understands natural language input to build flows that include Dataverse, approvals, and Power Apps.
- Availability in EU (European Union) region and GCC (Government Community Cloud).
- Automatic flow parameter filling. Once a flow is created in natural language, the flow won't only include the individual actions but also the parameters in the action cards.
- Explainability to understand how your description of the flow translates to the different flow actions with suggested improvements.

### **Connect to other environments from the Microsoft Dataverse connector**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	Sep 2023

#### **Business value**

Create flows that combine data and perform operations across different Microsoft Dataverse databases.

#### **Feature details**

Currently, you must use the Microsoft Dataverse (legacy) connector to connect to environments outside of the current environment. With this feature, you can connect to other environments from the Microsoft Dataverse connector's actions and triggers.

### **Use Copilot in Power Automate cloud flows designer**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	To be announced

#### **Business value**

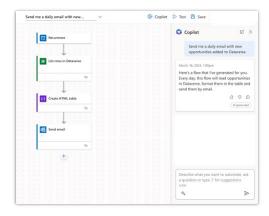
Power Automate makes it possible for you to not just describe a flow to create, but also improve and iterate on your flows with Al-driven conversations. This next-generation Albased Copilot in Power Automate sits inside the flow studio and helps with every flow that's being built or changed.

Copilot in Power Automate allows open-ended and conversational experiences while authoring your flows. As you build, you'll be able to ask questions and get assistance making

improvements and changes. You won't need any special knowledge of how Power Automate works. Simply by using natural language, you'll be able to build and enhance everything from a simple flow to a complex, robust enterprise-wide process.

#### **Feature details**

Power Automate is advancing to the next step in the evolution of code abstraction; moving from custom code to low-code to natural language authoring, with the arrival of your personal next-generation Al Copilot in Power Automate. This allows human and machine to work together and empower every person on the planet to build transformative automation in a language that's naturally understood.



Copilot in Power Automate

# **Desktop flows**

#### **Overview**

Desktop flows is the Robotic Process Automation (RPA) solution within Power Automate. Desktop flows provides automation for Windows desktop applications, services, and experiences for orchestration and deployment within Power Platform. In 2023 release wave 1, we'll invest in desktop flows in the following ways:

- Drive adoption within large and small enterprises, delivering features that enable organizations to deploy their automations at scale.
- Provide citizen developers with delightful first run experiences with high ease of use and fast access to hosted resources so they can build or run their automations.
- Enable ISV integrations, opening new options for partners to build RPA solutions based on desktop flows decoupled from cloud flows.

### **Create desktop flow connections without passwords**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	<b>V</b> Apr 11, 2023	-	-

#### **Business value**

Desktop flow users aren't limited to hard-coded credentials to use desktop flows in attended mode. It's now possible to set up a connection without providing a password using Azure Active Directory authentication. For many customers and organizations, passwords aren't used anymore making it so they can't run attended desktop flows.

#### **Feature details**

With this feature, users can create a desktop flow connection specifying which machine to target and their current user account. The desktop flow connection will be visible in **Power** Automate and can be used to launch a desktop automation in attended mode.

### Connect your own virtual network with hosted machine group

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-

#### **Business value**

Users can run desktop flows using a hosted machine group connected to their own virtual network (VNet) in order to execute RPA jobs that require access to on-premises networks.

### **Feature details**

Users can now seamlessly integrate a hosted machine group (HMG) with their own VNet. This integration enables users to run desktop flows and execute RPA jobs that require access to on-premises networks. By leveraging their own VNet, users can ensure secure and reliable connectivity between the hosted machines and the on-premises networks.

## **Use credentials from Azure Key Vault in desktop flow connections**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jul 2023	-	-

#### **Business value**

Users can leverage credentials from Azure Key Vault to connect to Windows sessions on desktop flow machines. This feature supports rotating passwords without the need to update the connection.

#### **Feature details**

With this feature, users can have their desktop flows run on Windows machines logged in with credentials from Azure Key Vault. The Windows machine retrieves the latest credentials at runtime. This enables desktop flows to keep running successfully even when the administrator changes the password.

## **Connectivity troubleshooter in Power Automate for desktop**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jul 2023	-	-

#### **Business value**

Users will have access to a new troubleshooting and diagnostic tool that will help them resolve issues and get information about resolution steps for various problems that may occur.

#### **Feature details**

Users have access to a new troubleshooting and diagnostic tool that helps them resolve issues and get information about resolution steps for various possible problems in Power Automate for desktop. The first phase of this tool checks basic connectivity requirements, like being able to connect to the proper public endpoints, which are needed for Power Automate to work properly.

## **Enable SLA-based machine and work queue scaling**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Aug 2023	-	-

#### **Business value**

With this new feature, CoE and business teams will have the ability to define, process, and monitor work queue data in accordance with service-level agreement (SLA) rules, which will impact prioritization and machine capacity to effectively meet these SLAs.

#### **Feature details**

SLA-based work queue scaling ensures that the workload is processed efficiently and in accordance with the constraints specified in the SLA.

This feature will have:

- Prioritization
- Machine load distribution
- Auto-scaling of machine capacity
- Processing and reprocessing strategies
- Human-in-the-loop scenarios

## Improved runtime error messages for Excel actions

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	✓Apr 11, 2023

#### **Business value**

Users can now get a straightforward explanation about what went wrong with their Excel actions. Also, they have access to remediation steps, so they don't always need to resort to support help.

#### **Feature details**

Before this feature, it was challenging to understand what went wrong and what needed to be done to fix runtime errors. This feature provides more descriptive error messages,

including troubleshooting steps incorporated in the error dialog or links to knowledge articles for assistance.

#### See also

Review errors and warnings using the errors pane (docs)

## Run flows with keyboard shortcuts

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	✓Apr 11, 2023

#### **Business value**

Makers are able to set up hotkey triggers to easily run local attended desktop flows.

#### **Feature details**

You can now easily set up a keyboard shortcut to trigger your local attended desktop flow. This setting can be found in the properties section of each desktop flow in Power Automate for desktop console.

#### See also

Run desktop flows via keyboard shortcuts (docs)

## Use web automation to access cross-domain iframes

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	✓Apr 11, 2023

#### **Business value**

Power Automate for desktop supports web automation scenarios, including steps for interacting with web UI elements that consist of cross-domain iframes.

#### **Feature details**

Although web automation is an important feature of desktop flows, some webpages can be complicated to automate because of nested iframes. With this feature, Power Automate for

desktop can capture iframes elements, unblocking scenarios where automations need to work with iframes on webpages.

#### Validate the selectors of UI elements

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	✓Apr 11, 2023

#### **Business value**

You can now ensure that a selector, whether edited or not, can locate the specified UI element. You may perform any change in the selector and test in an easy way whether the selector is valid and can find the desired UI element on the screen.

#### **Feature details**

UI and browser automation in desktop flows interacts with UI elements. A selector that specifies the UI element is generated when a UI element is captured. A selector is the **address** of the UI element that allows Power Automate for desktop to locate the UI element while running the desktop flow.

With the selector testing feature, you can navigate to the UI element builder window for a captured UI element, test one or all selectors, and check whether the UI element can be found.

You can perform testing immediately after opening the builder or after editing one or more selectors. The testing process will inform you whether a UI element is found on the screen (success), not found (failure), or multiple UI elements are found with the specific selector(s).

#### See also

Test a selector (docs)

### Fix the selector of a UI element

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2023

#### **Business value**

You can now create desktop flows that perform UI and browser automation and don't fail due to a lack of ability to locate the UI elements in every execution.

#### **Feature details**

UI and browser automation in desktop flows interact with UI elements. When you capture a UI element, a selector gets generated and specifies the UI element. A selector is the **address** of the UI element, and Power Automate for desktop can locate the UI element while running the desktop flow.

In many cases, the selector of a UI element is dynamic, meaning that it can be slightly different every time the window or webpage is loaded. This scenario may cause a UI/browser automation action to fail during running time, as the selector is no longer the same as at the time of capturing.

You can capture a UI element multiple times using a wizard, and Power Automate for desktop will compare all captured selector information and suggest a new one that is more dynamic and robust and can be used for **addressing** the specific UI element.

## Use updated actions pane

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2023

#### **Business value**

This enhancement complements the future availability of more cloud connectors in the desktop application of Power Automate, making it easier to search for and select actions and connectors.

#### **Feature details**

You can now search for modules and actions in a more straightforward way. Keywords that are being searched won't need to have an exact match with the actual action names in order to return helpful results.

## **Utilize performance improvements**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jun 2023

#### **Business value**

The desktop application of Power Automate has become more responsive for users regarding certain functionalities.

#### **Feature details**

You can start a desktop flow run directly from the console or flow designer. The response time is improved when launching the flow from an external URL.

## Configure option to include or to not include screenshots in the error logs

Enabled for		Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023

## **Business value**

This feature enables makers to refrain from capturing screenshots in cases where the desktop flow is processing sensitive data.

#### **Feature details**

As a flow owner, you have an option in the desktop flow properties to select if you wish to keep a screenshot in the error log when the desktop flow encounters an issue. This allows you to refrain from capturing screenshots that potentially contain sensitive data.

## **Use SAP-dedicated actions in desktop flows**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023

#### **Business value**

SAP UI elements tend to have dynamic properties, making UI automation difficult to achieve. So, the introduction of SAP-dedicated actions aims to create a smoother maker experience and result in a more accurate attended/unattended runtime.

#### **Feature details**

There are two ways to integrate with SAP: using the UI of SAP or using RFC APIs. We've recently made improvements to make working with the RFC APIs easier from cloud flows. Now, Power Automate for desktop is introducing dedicated SAP UI actions, simplifying the authoring process for makers and helping create more robust SAP desktop automations.

#### Use troubleshooter for UI automation

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023

#### **Business value**

You can now check whether all prerequisites for performing UI automation are met in an easy and timely manner and ensure that all capabilities are in place and up and running as expected.

#### **Feature details**

UI automation of Power Automate for desktop requires some components for interacting with UI elements in screens of specific technologies.

You're able to troubleshoot cases that Power Automate for desktop tries to interact with:

- Webpages
- Java apps and applets
- Virtual desktops in Citrix or RDP
- SAP

## Add child flows dependencies in desktop flow properties

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Jul 2023

#### **Business value**

Makers are able to view the child flow dependencies of a desktop flow through its properties in the Power Automate for desktop console.

#### **Feature details**

In the properties section of each desktop flow, all of the child flow dependencies are listed for better visibility and management. For each desktop flow, makers can see all of its child desktop flows.

## Log message action

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Aug 2023

#### **Business value**

Environment makers and admins can audit and review the desktop flow execution through custom messages in the flow run details.

#### **Feature details**

A new action will be introduced in the Power Automate for desktop designer that will allow makers to log custom text messages to the desktop flow execution logs. The action will only log messages at runtime.

## **Introduce UISpy to work with UI elements**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	Jul 2023	-	Aug 2023

#### **Business value**

With this new component, you can view the details of all UI elements available on the screen and create better custom selectors. You can discover all the UI elements of a window in an easier and more user-friendly way and test specific actions on top of these UI elements.

#### **Feature details**

UISpy is a new sub-app of Power Automate for desktop. You can use it to inspect all the UI elements of your screen, check the hierarchy trees of all windows, capture the elements you desire, and test actions like **click** or **populate** without any interaction with the flow designer.

## Power Automate for desktop displays dynamic messages in the home screen

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	-	-	Sep 2023

#### **Business value**

You're informed of valuable information regarding Power Automate for desktop in the most timely manner.

#### **Feature details**

The Power Automate for desktop home page in the console has a dedicated section with important messages that inform you quickly about the product. The section displays in the home page of the console component and content is updated dynamically as fast as possible.

## **Use custom actions in Power Automate for desktop**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	Sep 2023

#### **Business value**

Users are now able to:

- Create custom actions through a publicly available SDK (Modules SDK).
- Manage groups of actions for their flows by adding/removing custom-developed action groups through a dedicated UI (Assets library) in the Power Automate for desktop designer.

#### **Feature details**

This feature introduces the package manager in Power Automate for desktop. Users are now able to browse using feeds to custom created functionality in the form of packages. This feature also introduces the ability to create custom actions using a dedicated SDK.

## **Manage work queues for Power Automate**

Enabled for	Public	Early	General
	preview	access	availability
Admins, makers, marketers, or analysts, automatically	May 2023	-	Sep 2023

#### **Business value**

CoE teams and business stakeholders can jointly create, maintain, and control prioritized work queues. Process and CoE admins can then closely monitor the performance and efficiency of their work queues and respond to business exceptions that may occur across their digital workforce.

#### **Feature details**

This feature introduces some key workload management features in the form of work queues:

- Power Automate portal experience to create and manage work queues and their item details
- Work queues support custom prioritization and built-in role-based access control support.
- Work queues support for cloud flows, desktop flows and APIs.
- Human-in-the-loop experiences for exception management.
- Work queue actions in Power Automate for desktop.
- Processing history and execution logs.

# Power Virtual Agents

# Plan and prepare for Power Virtual Agents in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for Power Virtual Agents.

#### Overview

#### Video: Learn about this product's new capabilities

Power Virtual Agents enable anyone in your organization to create Al-powered bots that can chat with users about specific topics. Your bots can answer routine questions, resolve common issues, or automate tasks that take up valuable customer or employee time.

Creating a bot is typically a complex and time-intensive process, requiring long content update cycles and a team of experts. Power Virtual Agents gives anyone in your organization the ability to create powerful custom bots using an easy, code-free graphical interface without the need for AI experts, data scientists, or teams of developers. A bot can interact with users, ask for clarifying information, and answer a customer's questions.

Power Virtual Agents has deep integration with Power Automate and the Microsoft Bot Framework. Authors can extend their bots to integrate with API backends which enables bots to handle additional topics, limited only by the author's imagination. You can deploy bots to many channels, including websites, Microsoft Teams, and Facebook.

The 2023 release wave 1 brings improvements to the authoring experience. This includes topic overlap detection in all Power Virtual Agents languages, adaptive card authoring, multi-modal response authoring, and more.

#### Investment areas



Investment areas

**Power Virtual Agents**  $(\uparrow)$ 

#### Core authoring

Create bots with Power Virtual Agents using the no-code authoring canvas to manage how topics interact, design conversation flow, and customize the look and feel. Then test changes to your bot without having to fully deploy it.

Enhance your bots further with variables and entities to make your bot more capable of understanding your users. Then add rich content, such as Adaptive Cards and Speech Synthesis Markup Language (SSML), to make your bots more relatable and easier to use. Manage all of your bots in one place with the improved app navigation.

## **Copilot and AI innovation**

Reimagine your Power Virtual Agents experience leveraging in-product, generative AI for developing conversational assistants to engage your employees and customers. Innovative in-product generative AI features means your bot is knowledgeable as soon as you've hit create, and it's more productive as generative AI features make authoring topics easier than ever before.

#### **Bot configuration**

Power Virtual Agents provides several ways to configure your bots to adapt to your needs. Configuration settings also allow you to extend your bots with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, and channel integration, such as Microsoft Teams and Facebook.

## **Enhanced natural language capabilities**

Power Virtual Agents is powered by conversational Al and natural language capabilities, which enable the system to understand complex language, parse it for the appropriate information, and ask for clarification when needed.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Power Virtual Agents below:

Check out the release plan

# For application administrators

## User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

## Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

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Get the most out of Power Virtual Agents

# Get the most out of Power Virtual Agents

Helpful links	Description
Release plan	View all capabilities included in the release.
Product updates	Stay up to date on latest product updates.
Release calendar	Know important release milestones.
<u>Licensing</u>	Improve your understanding of how to license Power Virtual Agents.
Product documentation	Find documentation for Power Virtual Agents.
<u>User community</u>	Engage with Power Virtual Agents experts and peers in the community.
Upcoming events	Find and register for in-person and online events.
Product trials	Get started with Power Virtual Agents.

Power Virtual Agents **(** 

## What's new and planned for Power Virtual Agents

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may** change and projected functionality may not be released. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (V) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

## **Bot configuration**

Configure bots to suit the individual needs of an organization and to provide further extensibility with other services and features.

Feature	Enabled for	Public preview	General availability
Trigger bot topics by events	Admins, makers, marketers, or analysts, automatically	✓ Nov 15, 2022	May 2023
Use Power Fx expressions in authoring canvas	Admins, makers, marketers, or analysts, automatically	✓Nov 15, 2022	May 2023

## **Copilot and AI innovation**

Reimagine your Power Virtual Agents experience by leveraging in-product, generative Al.

Feature	Enabled for	Public preview	General availability
Boost conversations with  GPT-powered generative AI	Users by admins, makers, or analysts	✓ Apr 1, 2023	-
Create and edit with Copilot	Users, automatically	<b>✓</b> Apr 1, 2023	

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## **Core authoring**

Use the Power Virtual Agents conversational editor to construct your dialogs with rich content, variables, and powerful entity types.

Feature	Enabled for	Public preview	General availability
Edit your bot's code directly with the code-behind view in the authoring canvas	Users, automatically	-	May 2023
Use Bot Framework Composer with chatbots in the unified authoring canvas	Users, automatically	-	May 2023
Enrich conversations with Adaptive Cards	Users by admins, makers, or analysts	Nov 15, 2022	May 2023
Give users a natural experience with multi-modal response authoring	Admins, makers, marketers, or analysts, automatically	✓ Nov 15, 2022	May 2023
Add a chatbot from the Dynamics 365 Customer Service admin center with one click	Users, automatically	-	Jun 2023
Use list variables and looping in conversations	Users by admins, makers, or analysts	✓ Nov 15, 2022	Jun 2023

# **Enhanced natural language capabilities**

Al and natural language capabilities enable the system to understand and parse complex user language.

Feature			General availability
Use conversational language understanding to improve bots	Users by admins, makers, or analysts	May 2023	Jul 2023

## Description of **Enabled for** column values:

Users, automatically: These features include changes to the user experience and are enabled automatically.

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- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- Users by admins, makers, or analysts: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the International availability guide. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability</u> page.

## **Bot configuration**

#### **Overview**

Power Virtual Agents provides several ways to configure your bots to adapt to your needs. Configuration settings also allow you to extend your bots with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, and channel integration, such as Microsoft Teams and Facebook.

## **Trigger bot topics by events**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Nov 15, 2022	May 2023

#### **Business value**

Many bots need to perform pre- or post-message processing logic to meet key business requirements. For instance, each message may need to be added to a central audit trail or scanned for sensitive PII which needs to be redacted before being processed and stored in analytics.

#### **Feature details**

Advanced triggering for Power Virtual Agents bots provides a powerful extensibility point enabling bot authors to add processing logic at key events within a bot, such as when a message is received and sent. A topic can now be triggered by events, enabling an author to leverage connectors, Power Fx expressions, or any other node type, ensuring key extensibility needs can be met.

**Power Virtual Agents**  $(\uparrow)$ 



## **Use Power Fx expressions in authoring canvas**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Nov 15, 2022	May 2023

#### **Business value**

A broad range of authoring personas can now author low-code expressions to perform system integration and data management tasks that previously required software engineers. For example, connectors can be invoked directly, and data returned can be manipulated to retrieve key information.

#### **Feature details**

Expression authoring is a key capability for any bot in order to implement more sophisticated logic. For example, you can now author expressions to perform data validation or control looping logic. In addition, you can better manipulate data, performing operations on variables (for example, adding a percentage). By retrieving data from connectors, you can, for example, retrieve data from a JSON object or array.

#### See also

Create expressions using Power Fx (docs)

# **Copilot and AI innovation**

#### **Overview**

Reimagine your Power Virtual Agents experience leveraging in-product, generative Al for developing conversational assistants to engage your employees and customers. Innovative in-product generative AI features means your bot is knowledgeable as soon as you've hit create, and it's more productive as generative AI features make authoring topics easier than ever before.

## **Boost conversations with GPT-powered generative AI**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>✓</b> Apr 1, 2023	-

### **Business value**

Use **Boost conversations** in Power Virtual Agents to enhance your bot responses with contextual answers from your website. By using the boosted conversations in Power Virtual

**Power Virtual Agents** 125 Agents, your bot can find and present information from an external source even if you haven't created a topic for it.

Quickly create and deploy a functional bot, without having to first manually author multiple topics that may or may not cover all the questions your customers might end up asking. This massively reduces the time it can take to get a chatbot up and running.

#### **Feature details**

Power Virtual Agents uses an underlying natural language understanding model for understanding a bot user's question and determining the right topic. Typically, you create multiple topics within a bot to account for what a user might ask. Sometimes, however, a bot user might ask a question for which there is no built topic.

When this happens, by default, the bot prompts the user to rephrase their query. If, after two prompts, the bot still can't determine the user's intent, the bot escalates to a live agent through the system Escalate topic.

You can specify a system Fallback topic to customize the response and actions the bot takes - but this isn't always helpful for the bot user.

The **Boost conversations** option in Power Virtual Agents preview helps to solve that issue by connecting the natural language processing capabilities of Azure OpenAI, which includes use of OpenAI GPT technology, with the AI already in Power Virtual Agents (including transformer-based natural language understanding) to:

- Understand a user's intent by parsing what they type, and determining what they're
- Find, collate, and parse relevant information from a URL you specify
- Create a plain language response and deliver that to the bot user

In other words, if the bot doesn't already have an answer for what the user is asking, it can get the information and create one on-the-fly.

Refer to the <u>Boost conversations</u> topic for how to set up and use **Boost conversations**, along with tips for getting the best from the Al.

#### See also

**Boost conversations** (docs)

## **Create and edit with Copilot**

Enabled for	Public preview	General availability
Users, automatically	✓Apr 1, 2023	-

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#### **Business value**

This feature enables you to create prompt-authored Power Virtual Agents chatbots in minutes. This massively reduces the time it takes to create simple and advanced chatbot topics that "just work."

#### **Feature details**

In addition to the traditional method for <u>creating and editing topics</u>, Power Virtual Agents lets you create and iterate on topics by describing what you want and having AI build it for you. This significantly decreases the time it takes to create and update bot topics.

This means you can quickly create and deploy a functional bot, without having to first manually author multiple topics. This capability uses AI to understand what you want to do and then automatically creates a functioning topic, complete with different node types and conversational responses.

Refer to the Al-based chatbot authoring overview for more examples and descriptions of how this capability works. Learn how to use it with the **Boost conversations** capability.

#### See also

Create and edit with Copilot (docs)

# Core authoring

#### **Overview**

Create bots with Power Virtual Agents using the no-code authoring canvas to manage how topics interact, design conversation flow, and customize the look and feel. Then test changes to your bot without having to fully deploy it.

Enhance your bots further with variables and entities to make your bot more capable of understanding your users. Then add rich content, such as Adaptive Cards and Speech Synthesis Markup Language (SSML), to make your bots more relatable and easier to use. Manage all of your bots in one place with the improved app navigation.

## Edit your bot's code directly with the code-behind view in the authoring canvas

Enabled for	Public preview	General availability
Users, automatically	-	May 2023

#### **Business value**

Speed up bot development by utilizing your team's developer knowledge. Bot builders can use a YAML-based code view for bot topics and make edits directly into the code.

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#### **Feature details**

Bot authors typically do most of their bot topic creation in Power Virtual Agents with the visual authoring canvas, which they can extend with advanced variables and Power Fx formulas.

The Power Fx formula editor provides autocomplete and type checking features for cases that require editing formulas in conditions and variables, but for advanced scenarios, bot builders can also view, edit, and configure their bot's topics using a code-behind view.

The code-behind language is a subset of YAML with added Power Fx formula support, and includes error handling and code autocompletion. For example, if the content for a node or function within a bot's topic is not well formed, the bot builder will be warned and must resolve the errors before they can save or return to the visual editing part of the authoring canvas. This ensures all content that is created for the bot has a visual representation, and there can be no "hidden" code.

Undo history is also preserved between the visual editor and code.

Even if you use the code-behind view, bots can still be exported using Power Platform solutions. The content exported is stored in the same format used by the code-behind view, so it's always easy to see what your bot is doing.

## **Use Bot Framework Composer with chatbots in the unified authoring canvas**

Enabled for	Public preview	General availability
Users, automatically	-	May 2023

#### **Business value**

By incorporating Bot Framework Composer capabilities directly into the Power Virtual Agents authoring canvas, bot builders can build bots more quickly. Bot building is also easier than before - meaning that anyone in your organization, regardless of their technical knowledge, can quickly and intuitively build bots.

## **Feature details**

The unified authoring canvas in Power Virtual Agents brings together the powerful and flexible capabilities from Bot Framework Composer with the intuitive authoring experience that Power Virtual Agents is known for, providing a single authoring canvas where any member of the team, irrespective of their skill level, can collaborate on bot building - from low-code makers through to pro developers alike.

New capabilities include:

• Rich response authoring



- An enhanced question node which adds the ability to finely control re-prompt behavior and custom validation rules
- Deep Power Fx integration for data and variable manipulation and authoring productivity improvements, including cut, copy, and paste
- Improved topic navigation

A code editor is also available in the unified authoring canvas to allow bot authors to view, edit, and share the code behind a topic.

## **Enrich conversations with Adaptive Cards**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	✓Nov 15, 2022	May 2023

#### **Business value**

Enrich Power Virtual Agents conversational experiences and address business scenarios that require the bot user to interact with custom-formatted data or visual content.

#### **Feature details**

In this release wave, bot authors can create actionable and interactive rich media content using Adaptive Cards.

Cards can enrich Power Virtual Agents conversational experiences and address business scenarios that require the bot user to interact with custom-formatted data, manipulate visual content, fill a form, and more.

Bot authors can select from a set of pre-built Adaptive Card templates in Power Virtual Agents and fill them in with their data.

#### See also

Add an Adaptive Card (docs)

## Give users a natural experience with multi-modal response authoring

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	<b>✓</b> Nov 15, 2022	May 2023

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#### **Business value**

Conversational experiences can support both text and speech and have more optimized speech talk tracks (for example, more succinct) along with multiple variations to ensure the experience is more natural.

#### **Feature details**

Response authoring within the authoring canvas now supports both text and speech variations. By default, text responses will be used for speech, but you can choose to provide a speech variation which will be used for speech-enabled channels, such as telephony. Speech variations can make use of SSML optimizations to improve pronunciation and provide more control generally on the text-to-speech operation.

Responses can use variables held in bot memory, and multiple variations can be authored, which are chosen randomly for a given user to ensure a more natural experience.

#### See also

Add a speech message override (docs)

# Add a chatbot from the Dynamics 365 Customer Service admin center with one click

Enabled for	Public preview	General availability
Users, automatically	-	Jun 2023

#### **Business value**

Customer service admins, representatives, and other team members can bring Power Virtual Agents chatbots directly into their customer-service workflows more easily. This reduces cross-team dependencies and streamlines the conversational AI pieces of your digital contact center.

#### **Feature details**

Use the Dynamics 365 Customer Service admin center quick-start wizard to add a Power Virtual Agents bot into omnichannel.

You can then create messages in the Power Virtual Agents authoring canvas that use omnichannel-specific messaging capabilities, such as variables and custom actions. By integrating bot building and editing into the Dynamics 365 Customer Service workflow, you can easily keep your digital contact center administration all together.

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## Use list variables and looping in conversations

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>V</b> Nov 15, 2022	Jun 2023

#### **Business value**

Variable management ensures a wide range of datatypes can be stored at the bot or topic level, enabling topics to be more data-driven and well designed. You'll be able to create bots that better suit specific customer scenarios, based on data, and with better customization.

#### **Feature details**

Topic authors can <u>use a list variables</u> to take array outputs from Power Automate and Bot Framework skills and present them as a list of choices in a bot question.

Looping enables a group of nodes on a topic to be repeated until a condition (expressed through Power Fx) is met, which means repeating actions can be easily created within bot conversations.

#### See also

Return a list of results (docs)

# **Enhanced natural language capabilities**

## **Overview**

Power Virtual Agents is powered by conversational AI and natural language capabilities, which enable the system to understand complex language, parse it for the appropriate information, and ask for clarification when needed.

## Use conversational language understanding to improve bots

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	Jul 2023

#### **Business value**

You can use custom conversational language understanding (CLU) models in Power Virtual Agents, Microsoft's Conversational AI chatbot-building canvas, to expand and refine how your bots parse and respond to user queries. Your customers will have higher overall satisfaction, and you'll spend less time on analyzing and resolving abandoned, escalated, and failed conversations.

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#### **Feature details**

CLU enables users to build custom natural language understanding models to predict the overall intention of an incoming utterance and extract important information from it.

CLU only provides the intelligence to understand the input text for the client application and doesn't perform any actions. By creating a CLU project, developers can iteratively label utterances and train and evaluate model performance before making it available for consumption.

By integrating CLU into Power Virtual Agents, bot builders can now leverage CLU in their projects. This means bot builders will have CLU-specific support for all of the native functionalities in Power Virtual Agents, including dialog triggering, interruptions, "did you mean" interpretation, and slot filling. CLU integration can be configured with a built-in onboarding tool that can create and map CLU intents and entities to Power Virtual Agents bot topics, and can be used in combination with prebuilt entities for all supported Power Virtual Agents languages.



A picture of the UI for importing CLU models into an existing Power Virtual Agents project.

# Microsoft Dataverse

# Plan and prepare for Microsoft Dataverse in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **Microsoft Dataverse**.

#### Overview

Microsoft Dataverse is a low-code data platform that allows you to easily build scalable and interconnected applications, automations, and agents. This is achieved by using common data, security, and business logic.

## **Deliver services with agility**

Quickly add business value with an extensible data platform that uses out-of-the-box common tables, extended attributes, semantic meanings, and an open ecosystem enabled by Common Data Model.

## **Increase scale and efficiency**

Boost productivity and reduce costs by quickly developing applications, processes, and reusable data schemes. Repeatably build, validate, and deploy your applications using GitHub and Azure DevOps.

## Make your data work smarter

Get accurate insights by adding low-code AI tools to your process automation. Identify and resolve duplicated and conflicting data with a managed data platform that includes built-in business logic and rules.

## Rely on the security of a trusted platform

Protect your data with a robust security management infrastructure that provides critical security and compliance capabilities—advanced encryption, rich access control, and deep integration with Azure Active Directory.

Microsoft Dataverse

## Investment areas



#### Investment areas

#### **Dataverse infrastructure features**

Microsoft Dataverse is the default data platform for all Microsoft Power Platform and Dynamics 365 applications. Microsoft Dataverse runs on planet-scale infrastructure, which ensures availability, reliability, and the highest level of security and compliance for customer data.

## **Bridge Microsoft Power Platform to Azure data**

Customers have asked for a single, end-to-end way to work with data in Microsoft Dataverse, including running AI and machine learning, integrating with external datasets, and slicing and dicing large volumes of Dataverse data. Now, instead of using multiple tools to get the job done, you can accelerate time-to-insight with a single comprehensive solution: Azure Synapse Link for Dataverse. This solution can help you deliver on your end-to-end goals, and is already built in and available out of the box.

Azure Synapse Link for Dataverse enables seamless Dataverse integration with Azure Synapse Analytics to empower users to analyze data in the lake. With just a few clicks, you can bring your Microsoft Dataverse data to Azure Synapse Analytics and visualize data in your Azure Synapse workspace. You can also quickly start processing the data to discover insights using advanced analytics capabilities for serverless data lake exploration, code-free data integration, data flows for extract, transform, load (ETL) pipelines, and optimized Apache Spark for big data analytics.

Enterprise customers are now able to use the familiarity of T-SQL to analyze big data and gain insights, while optimizing their data transformation pipeline to leverage the deep integration of Azure Synapse with other Azure services such as Power BI Embedded, Azure CosmosDB, and Azure Machine Learning.

## **Microsoft 365 collaboration**

Microsoft Dataverse powers many collaboration capabilities, including integrations with different Microsoft 365 products like Microsoft Exchange, Outlook, and Teams. Dataverse

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enables users to collaborate with colleagues across your company without the need to switch between applications whether you're sending or receiving emails, creating or joining Teams meetings, or linking Teams chats to records.

#### **Dataverse developer environments**

Microsoft Dataverse developer environments are meant to empower makers to build rich apps on Dataverse and invite users to run apps for non-production usage. In 2023 release wave 1, we'll bring new investments that will continue to enhance maker experiences with developer environments.

## **Dataverse extensibility**

Customers can create custom logic, tables, forms, applications, .NET plugin assemblies, and more to either extend the existing capabilities of Dataverse or create new capabilities that cater to their business needs. In 2023 release wave 1, we'll be releasing the ability to create dependent assemblies for plug-ins.

## **Enterprise trust**

Hybrid workplaces involving people, devices, and apps built on data from Microsoft Dataverse require an advanced enterprise trust model, including authentication, authorization, and data exfiltration. In 2023 release wave 1, we'll continue to improve all security related investments in Dataverse.

#### **Dataverse APIs**

Microsoft Power Platform components like canvas apps, model-driven apps, and Power Automate flows depend on the APIs exposed by Microsoft Dataverse as it provides capabilities to work with business data stored inside Dataverse tables. ISVs and customers use these APIs to enhance their solutions to create integrations and custom applications. In 2023 release wave 1, we'll be improving the performance of the bulk data handling APIs.

#### **Dataverse events**

Business and data events along with virtual tables provide the shared data layer for the convergence of complementary technologies that are intended to work together. In 2023 release wave 1, we'll expand the eventing infrastructure to send in-app notifications to recipients in real-time. We'll also focus on enabling business process mining through an event analytics model. The model will provide a persisted, sequential series of events on which process mining applications, like process advisor in Power Automate, can provide rich process analytics.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Microsoft Dataverse below:

Check out the release plan

# For application administrators

User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates

release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

## Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

## What's new and planned for Microsoft Dataverse

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

## **Bridge Microsoft Power Platform to Azure data**

Azure Synapse Link for Dataverse is a comprehensive solution that enables seamless Microsoft Dataverse integration with Azure Synapse Analytics.

Feature	Enabled for	Public preview	General availability
Synapse Link for Dataverse enables choosing finance and operations app tables	Users by admins, makers, or analysts	Apr 2023	-
Receive notifications regarding the state of your Azure Synapse Link for Dataverse	Users by admins, makers, or analysts	May 2023	-
Access Dataverse audit logs in your  Data Lake storage and Synapse workspace	Users by admins, makers, or analysts	May 2023	
Use Synapse Link to integrate with Microsoft Fabric and Power BI	Users by admins, makers, or analysts	Jul 2023	-

Feature	Enabled for	Public preview	General availability
Scan, classify, and label data using Microsoft Purview	Users by admins, makers, or analysts	Feb 2023	Apr 2023
Access firewalled storage accounts using a trusted app	Admins, makers, marketers, or analysts, automatically	✓Apr 7, 2023	<b>V</b> May 8, 2023
Export Dataverse data in Parquet format	Admins, makers, marketers, or analysts, automatically	✓ Apr 28, 2023	Jun 2023

## **Dataverse APIs**

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse.

Feature	Enabled for		General availability
Microsoft Dataverse long term data retention	Admins, makers, marketers, or analysts, automatically	May 2023	-

## **Dataverse developer environments**

Microsoft Dataverse developer environments, also known as personal environments, support discovery and adoption.

Feature	Enabled for	Public preview	General availability
Makers can quickly and easily access a Dataverse environment	Users by admins, makers, or analysts	May 2023	
Create tables, import data using upload or drag-and-drop	Admins, makers, marketers, or analysts, automatically	Jun 2023	

## **Dataverse events**

These features enhance the scale and reliability of the event framework and build a common event model to enable process mining and analysis.

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Feature	Enabled for	Public preview	General availability
Receive real-time notifications in Power Apps	Users by admins, makers, or analysts	-	Jul 2023

# **Dataverse extensibility**

Dataverse is an extensible platform.

Feature	Enabled for	Public preview	General availability
Use token authentication for virtual tables	Users, automatically	Sep 2023	
Include dependent assemblies with plug-ins	Admins, makers, marketers, or analysts, automatically	✓ Mar 31, 2022	Jul 2023

## **Dataverse infrastructure features**

The Microsoft Dataverse infrastructure ensures that data is accessed with the highest level of security and reliability.

Feature	Enabled for	Public preview	General availability
Accelerate value with clean data	Admins, makers, marketers, or analysts, automatically	Apr 2023	-
Improved ALM support for virtual tables	Users by admins, makers, or analysts	Sep 2023	
Virtual table performance improvements	Users by admins, makers, or analysts	Sep 2023	
Permanently delete users with disabled status	Users by admins, makers, or analysts	<b>V</b> Dec 12, 2022	May 2023
Secure security roles by making them non-customizable	Admins, makers, marketers, or analysts, automatically	-	May 2023

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Feature	Enabled for	Public preview	General availability
Encrypt customer data in Power Platform using customer-managed encryption key	Users by admins, makers, or analysts	✓ Mar 1, 2023	Jun 2023
Maintain security role privileges for better ALM solution import	Users by admins, makers, or analysts	-	Jun 2023
Dataverse backup retention for managed environments	Users by admins, makers, or analysts	May 2023	Jun 2023
Use access checker to view all users who have access to your record	Users by admins, makers, or analysts	✓ Feb 28, 2023	Jul 2023

# **Enterprise trust**

Improve the overall security and compliance standards of Microsoft Dataverse.

Feature	Enabled for	Public preview	General availability
Limit access with IP firewall in Microsoft Dataverse	Users by admins, makers, or analysts	May 2023	Aug 2023
Instantly revoke users and enforce IP restriction with CAE	Users by admins, makers, or analysts	Jun 2023	Aug 2023
Sentinel integration with Power Platform	Users by admins, makers, or analysts	May 2023	To be announced

## **Microsoft 365 collaboration**

Microsoft Dataverse applications collaborate with Microsoft 365 applications.

Feature	Enabled for	Public preview	General availability
Approve and enable mailboxes without an administrator	Users by admins, makers, or analysts	<b>✓</b> Jan 23, 2023	<b>V</b> Apr 1, 2023

Back to Contents Microsoft Dataverse Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability</u> page.

## **Bridge Microsoft Power Platform to Azure data**

#### **Overview**

Customers have asked for a single, end-to-end way to work with data in Microsoft Dataverse, including running AI and machine learning, integrating with external datasets, and slicing and dicing large volumes of Dataverse data. Now, instead of using multiple tools to get the job done, you can accelerate time-to-insight with a single comprehensive solution: Azure Synapse Link for Dataverse. This solution can help you deliver on your end-to-end goals, and is already built in and available out of the box.

Azure Synapse Link for Dataverse enables seamless Dataverse integration with Azure Synapse Analytics to empower users to analyze data in the lake. With just a few clicks, you can bring your Microsoft Dataverse data to Azure Synapse Analytics and visualize data in your Azure Synapse workspace. You can also quickly start processing the data to discover insights using advanced analytics capabilities for serverless data lake exploration, code-free data integration, data flows for extract, transform, load (ETL) pipelines, and optimized Apache Spark for big data analytics.

Enterprise customers are now able to use the familiarity of T-SQL to analyze big data and gain insights, while optimizing their data transformation pipeline to leverage the deep integration of Azure Synapse with other Azure services such as Power BI Embedded, Azure CosmosDB, and Azure Machine Learning.

## Synapse Link for Dataverse enables choosing finance and operations app tables

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2023	-

#### **Business value**

All Dynamics 365 customers, including customers who use finance and operations apps, can work with their data in Azure Synapse Analytics using a single, integrated experience built into Microsoft Dataverse. They can choose data from all Dynamics 365 apps, including finance and operations and Dynamics 365 Sales, Service, and Marketing apps within a single integrated experience. Customers and partners can also leverage advanced features in Synapse Link for Dataverse, including support for restricted storage accounts as well as Parquet format and Delta Lake. Customers who currently use the export to data lake feature in finance and operations can plan migration to Synapse Link for Dataverse.

#### **Feature details**

If you're a finance and operations apps customer who's currently using the export to data lake feature in finance and operations, you can easily transition to Synapse Link for Dataverse.

If you're an AX 2012 or AX 2009 customer planning an upgrade to cloud-based finance and operations, you can easily query finance and operations data using Azure Synapse Analytics. You can preserve your existing data integration pipelines by accessing finance and operations data in the lake in table form.

## Receive notifications regarding the state of your Azure Synapse Link for **Dataverse**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	-

#### **Business value**

Users can subscribe to notifications to stay on top of the state of their Azure Synapse Link for Dataverse instead of manually checking the monitoring page.

#### **Feature details**

Azure Synapse Link for Dataverse has a detailed monitoring page describing link status and health. This includes synchronization status of each Microsoft Dataverse table, the number of records or changes, and details about link configuration strategy. Previously, users had to manually open the monitoring page and check the state of their link. With this feature, users

Microsoft Dataverse

can subscribe to customized notifications and easily stay informed about the health of their Azure Synapse Link.

## Access Dataverse audit logs in your Data Lake storage and Synapse workspace

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	-

#### **Business value**

Customers who use Synapse Link for Dataverse can export audit logs easily to meet the external and internal auditing, compliance, security, and governance policies that are common to many enterprises.

#### **Feature details**

Microsoft Dataverse auditing is supported on all custom and most customizable tables and columns. Audit logs are stored in Dataverse and consume log storage capacity.

If you have Azure Data Lake Storage in the same region as the Power Apps environment, you can easily export the audit logs to the storage account using Synapse Link for Dataverse and query the audit logs using Azure Synapse.

## **Use Synapse Link to integrate with Microsoft Fabric and Power BI**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jul 2023	-

#### **Business value**

Synapse Link for Dataverse is an integrated experience in Power Platform that provides integration between your data from Dynamics 365 and Power Apps with Azure data tools. Now, Synapse Link for Dataverse provides direct integration with Microsoft Fabric and Power Bl. With a few clicks, you can choose data and launch Microsoft Fabric. There is no data copy or ETL schedules to manage. The system does all the work for configuration and data movement. The system also generates an Azure Synapse lakehouse with your data as well as a SQL endpoint and a default Power BI dataset saving you hours and days of work.

#### **Feature details**

Synapse Link for Dataverse is the single, integrated experience in Microsoft Dataverse that connects Dynamics 365 and Power Apps data with Azure Synapse. Now, Synapse Link for Dataverse gets even better, enabling customers to save money on data integration costs.

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With a simple gesture, makers and data engineers can directly link their Dynamics 365 data in Dataverse with Microsoft Fabric.

Makers can launch Microsoft Fabric directly from the PowerApps maker experience. Dataverse links data securely to Microsoft Fabric with a few clicks, without the need to copy data, manage configurations or re-establish security. Citizen Data analysts can use Microsoft Fabric to work with Dataverse data by exploring with Power BI and finding insights with help from AI driven Copilots.

Data engineers can launch Microsoft Fabric using Synapse Link and work with data using Python or Spark notebooks. They can leverage Al driven Copilots built into Microsoft Fabric and get help in crafting complex calculations. Database administrators and Data analysts can work with Dynamics 365 data using SQL to write queries as well as create stored procedures and views. No need to bring a credit card or to provision your own Azure storage account. Your data never leaves Dataverse boundary and there is no data copy.

Dataverse generates shortcuts to Microsoft Fabric, generates a Synapse Lakehouse and a SQL endpoint (a data warehouse) for your data enabling next generation Power Bl capabilities. Direct integration between Dataverse and Microsoft Fabric eliminates the need to build and maintain custom ETL pipelines or use third party data integration tools.

With auto-generated Synapse Lakehouse, SQL endpoint and Power BI Lake direct datasets, you can create highly performant reports within minutes. No need to create data pipelines and run complex operations. As data gets updated in Dynamics 365, changes are reflected in Power BI reports automatically. You can easily combine Data from Dynamics and Power apps with your own data in Microsoft Fabric. Direct integration between Dataverse and Microsoft Fabric saves you days and weeks of effort.

Makers can act on the insights by extending their business processes or by building low code Apps in Power Automate, Power pages and PowerApps with the help of over 800 connectors to business apps. Insights discovered in Microsoft Fabric appear as native Dataverse tables making it easy for makers to add insights into Power Apps and Power Pages. They can repeat their success by deploying apps and smart actions across environments and geographies while governing and monitoring usage, the same robust tools and processes adopted by Dynamics enterprise customers.

## Scan, classify, and label data using Microsoft Purview

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Feb 2023	Apr 2023

#### **Business value**

This feature provides a bird's-eye view of sensitive Microsoft Dataverse data and enables customers to conform with data protection and privacy standards, regulations, and policies.

Dataverse data assets become easily discoverable for data consumers, data engineers, and data officers and become part of a unified map of data across a customer's entire data estate.

#### **Feature details**

This feature enables administrators to onboard Dataverse environments to Microsoft Purview data map and catalog. It provides administrators the capability to perform the following

- Register Dataverse environments.
- Scan and discover technical metadata, such as tables and columns.
- Automatically assign classifications and sensitivity labels to columns.
- Manually classify tables and columns.

## Access firewalled storage accounts using a trusted app

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Apr 7, 2023	<b>V</b> May 8, 2023

#### **Business value**

Allows customers to restrict network traffic to Microsoft Dataverse data using managed identity and trusted service.

#### **Feature details**

Customers in regulated environments have expressed the desire to achieve network isolation for their systems running in the Microsoft Cloud. Isolation scenarios span limiting traffic from the public internet as well as limiting traffic outside a network boundary set by the customer.

#### See also

Use managed identities for Azure with your Azure data lake storage (docs)

## **Export Dataverse data in Parquet format**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Apr 28, 2023	Jun 2023

## **Business value**

This feature enables users to query and analyze Microsoft Dataverse data efficiently with Parquet.

Microsoft Dataverse  $(\uparrow)$ 



#### **Feature details**

Delta Lake is an open source, widely used data format that is built off the Parquet data format. Parquet was designed for efficient storage and high performance, especially for large datasets. It utilizes columnar data storage as opposed to a row-based format like CSV. Parquet uses a specific compression technique for each column based on the data type. It is immutable, meaning that historical data is readily accessible and provides flexibility with a wide variety of supported encoding types.

Delta Lake provides all the benefits of the Parquet format in addition to guaranteed ACID (atomicity, consistency, isolation, and durability) transactions and time travel (data versioning). The ability to undo a change or go back to a previous version is one of the key features of transactions. Delta Lake provides snapshots of data, enabling you to revert to earlier versions of data for audits, rollbacks, or to reproduce experiments.

With Azure Synapse Link for Dataverse, you can now efficiently store and query your Dataverse data in Azure Synapse Analytics with the Delta Lake format. This helps citizen developers and data engineers alike quickly query and analyze their Dataverse data, especially for large datasets.

#### See also

Export Dataverse data in Delta Lake format (docs)

## **Dataverse APIs**

#### Overview

Microsoft Power Platform components like canvas apps, model-driven apps, and Power Automate flows depend on the APIs exposed by Microsoft Dataverse as it provides capabilities to work with business data stored inside Dataverse tables. ISVs and customers use these APIs to enhance their solutions to create integrations and custom applications. In 2023 release wave 1, we'll be improving the performance of the bulk data handling APIs.

# Microsoft Dataverse long term data retention

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	-

#### **Business value**

Customers can continue with the rapid digitization of business processes that increase live application usage and data storage, while ensuring regulatory compliance requirements are met for non-active historical data. They will accomplish this through the Microsoft Dataverse

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long-term storage capability. No IT investment is required, and it comes with enterprisegrade governance features, including GDPR support.

#### **Feature details**

Application admins can set up custom data retention policies to retain immutable records in a long-term Dataverse store and manage policies with a dashboard. Simply schedule a onetime or recurring policy with criteria on a root table. All related child tables will be autoselected by Dataverse and retained in the long-term store. Environment-level settings within the Power Platform admin center will allow admins to enable the feature for specific environments.

Users with admin roles will have access to the data and Dataverse public API. Advanced Find within the application can retrieve the data, and cold data reads will be limited and constricted.

Dynamics 365 Finance and Operations applications will separately support long-term data retention for individual functional scenarios like general ledger transactions, inventory transactions, sales orders, and more in a phased manner.

# Dataverse developer environments

#### **Overview**

Microsoft Dataverse developer environments are meant to empower makers to build rich apps on Dataverse and invite users to run apps for non-production usage. In 2023 release wave 1, we'll bring new investments that will continue to enhance maker experiences with developer environments.

# Makers can quickly and easily access a Dataverse environment

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	-

#### **Business value**

Makers can now build applications using Microsoft Dataverse in a personal environment without any additional license cost.

#### **Feature details**

As a maker you can now get a personal environment to build your application on Microsoft Dataverse without any additional license requirements. This will allow you to experience all the capabilities from connecting data, building apps, and finally running apps while using Dataverse. You can experience the capabilities of Dataverse and then use a sandbox or



production environment when you want to scale the application. This environment doesn't take capacity against your tenant capacity and is limited to 2GB storage per environment.

# Create tables, import data using upload or drag-and-drop

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-

#### **Business value**

Data integration is hard and learning the Microsoft data integration tools, such as Dataflows, Logic Apps, and Azure Data Factory, can be hard and require custom code.

#### **Feature details**

Building a solution on top of your existing business data is hard! With the new application creation and table creation experiences in make.powerapps.com you will now be able to start building your solution by just a simple drag-and-drop your data source, for example, Excel, Azure SQL Database, and so on.

**NOTE** We support Excel in preview.

#### **Dataverse events**

#### **Overview**

Business and data events along with virtual tables provide the shared data layer for the convergence of complementary technologies that are intended to work together. In 2023 release wave 1, we'll expand the eventing infrastructure to send in-app notifications to recipients in real-time. We'll also focus on enabling business process mining through an event analytics model. The model will provide a persisted, sequential series of events on which process mining applications, like process advisor in Power Automate, can provide rich process analytics.

# **Receive real-time notifications in Power Apps**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Jul 2023

#### **Business value**

Contextual communication is becoming an essential part of every business. This feature provides real-time contextual notifications to Power Apps users.

#### **Feature details**

When a lead is assigned, an opportunity changes status, there's a timeline post, the respective personnel should be notified for information and timely actions. These notifications happening in the context of a business case make the application powerful. For this feature, we're enhancing <u>in-app notifications</u> in Power Apps. These are toast notifications received within Power Apps or Dynamics 365 applications when a certain event takes place and appear in the notification center (the "bell" icon placed on the top right corner of the application header).

With 2023 release wave 1, in-app notifications will now be delivered in real time to the application user. Current delivery time is dependent on the user navigation. The client polls the notifications when the user navigates in the application, meaning the notification delivery can be slow and unpredictable. The notifications will now be pushed to the client in real time enabling business scenarios where the user must immediately be informed about events in the organization.

An additional enhancement to in-app notifications is the addition of two new action types for the notification actions. Actions on the notification card currently support requests to a URL. Support will now be added for the following action types:

- **Side pane**: An action on the notification card can open a <u>side pane</u> and load a context defined in the action parameters.
- Teams chat: An action on the notification card can open a <u>Teams chat in Dynamics 365</u>. This open an existing chat or create a new chat related to a record in the application.

# Dataverse extensibility

#### **Overview**

Customers can create custom logic, tables, forms, applications, .NET plugin assemblies, and more to either extend the existing capabilities of Dataverse or create new capabilities that cater to their business needs. In 2023 release wave 1, we'll be releasing the ability to create dependent assemblies for plug-ins.

#### Use token authentication for virtual tables

Enabled for	Public preview	General availability
Users, automatically	Sep 2023	-

#### **Business value**

This features lets you provide users with stronger security. You can validate if users attempting to access virtual table data actually have been granted access to the data in the source system.



#### **Feature details**

Currently, virtual tables rely on a single authentication model based on the connector being used and the credentials provided when creating the connection.

This feature will allow the use of token authentication when using Azure AD authentication on SQL or SharePoint as a secondary validation of access permissions to the original data source.

# Include dependent assemblies with plug-ins

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Mar 31, 2022	Jul 2023

#### **Business value**

Support for dependent assemblies with Microsoft Dataverse plug-ins allows developers to be more productive by leveraging capabilities provided by additional assemblies.

#### **Feature details**

Microsoft Dataverse plug-in developers have long used an unsupported capability provided by the <u>ILMerge utility</u> to combine a plug-in assembly plus any needed dependent assemblies together into a single .NET assembly. The resulting assembly can be registered with the web service to extend the Dataverse business logic.

The dependent assemblies capability provides a supported way for developers to include additional dependent assemblies along with the plug-in assembly when registering a plug-in with Microsoft Dataverse.

#### See also

Dependent Assembly plug-ins (docs)

#### Dataverse infrastructure features

#### **Overview**

Microsoft Dataverse is the default data platform for all Microsoft Power Platform and Dynamics 365 applications. Microsoft Dataverse runs on planet-scale infrastructure, which ensures availability, reliability, and the highest level of security and compliance for customer data.

#### Accelerate value with clean data

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2023	-

#### **Business value**

Makers can leverage more out of the data as an asset from the smarter data layer in Microsoft Dataverse. Examples include enhanced email address validation when using the email column type. This email address validation is an early adoption feature (MVP) to test product market fit for smarter data layer infused with AI models, its technical feasibility, and its technical patterns. We'll continue with smarter data deduplication features and AI-assisted enrichments to customer data.

#### **Feature details**

Makers can leverage more out of the data as an asset from the smarter data layer in Dataverse. With zero-click, makers can build smarter and contextually aware next-gen apps for their workflows with better data quality. For example, the data hygiene suite includes semantically smart data validation for email and phone number, smart data deduplication rules, and native content AI experiences fully integrated in Dataverse and Power Platform to complete the data-insights-action loop.

To start with, the existing email column type has a very basic email validation. Now, with data hygiene suite, this email column type comes with smarter validation that includes reasons for the column being invalid. Any model-driven apps and canvas apps using the email column will receive automatic validation, which is helpful in guiding users to enter better email data. Data administrators can also review any emails that are invalid on a regular basis so that they can correct them.

#### Improved ALM support for virtual tables

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

Allows users to fully support virtual tables through solution imports and reduces manual efforts after import.

#### **Feature details**

The application lifecycle management (ALM) support for virtual tables will be improved to use environment variables and to better support import and export of solutions with less



manual work for the makers after import. This will help reduce the overhead required when deploying solutions into other environments.

# Virtual table performance improvements

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

Improved productivity when using virtual tables in Microsoft Dataverse and reduce failures due to timeouts.

#### **Feature details**

Improve overall performance of create, update, delete, and retrieve actions for virtual tables. This includes table and column creation as well as data operations. This update will provide a more performant experience and reduce issues when retrieving larger data sets.

# Permanently delete users with disabled status

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>V</b> Dec 12, 2022	May 2023

#### **Business value**

Remove inactive users with disabled status in the system to comply with GDPR and to free up storage space. This also allows for historical records to be purged.

#### **Feature details**

When users have been disabled or deleted from Azure Active Directory or the Microsoft 365 admin center, they're set to **disabled** status in Microsoft Dataverse. Disabled users residing in the system not only take up storage space but prevent historical records from being purged.

This feature provides the capability to delete and remove users who have a disabled status while maintaining data integrity. It also allows compliance officers to enforce GDPR delete user requirements.

#### See also

Delete users in Power Platform (docs)



# Secure security roles by making them non-customizable

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	May 2023

#### **Business value**

To maintain SLA and a consistent user experience, makers and users can always make and run applications, respectively, using the system-provided security roles of environment maker and basic user. This SLA can only be maintained when these roles are protected from being updated.

#### **Feature details**

The environment maker and basic user security roles are managed and shipped by the platform and are marked as non-updateable. These security roles are maintained by Microsoft services and privileges are continuously updated by them to run their services smoothly. Power Platform admins can view the list of privileges of these security roles from the admin role form, but they can't update the privileges. Power Platform admins can continue to copy these privileges to another role. but they can't update the role.

# **Encrypt customer data in Power Platform using customer-managed encryption** key

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>✓</b> Mar 1, 2023	Jun 2023

#### **Business value**

This feature will allow customers to meet their data and privacy policy. All your data that is hosted in Power Platform can be encrypted at-rest using an encryption key provided by you from your own Azure key vault.

#### **Feature details**

To meet regulatory and financial data privacy policy, customers can use their own encryption key to encrypt their data at-rest hosted by Power Platform in Microsoft Dataverse. A Power Platform enterprise policy is created, which uses an Azure managed identity to access the key vault encryption key. The Power Platform enterprise policy can be applied to an individual Power Platform environment or a group of environments. All storage types for the environment, such as SQL, Azure File, Azure Cognitive Search, Azure Data Lake Storage, and Azure Cosmos DB, will use the enterprise policy's encryption key to encrypt the environment's data.

#### See also

Manage your customer-managed encryption key (docs)

# Maintain security role privileges for better ALM solution import

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Jun 2023

#### **Business value**

Support the application lifecycle management (ALM) process where security role privilege updates are honored after managed solution import.

#### Feature details

Currently, when the system predefines customizable security roles, custom security role, and privileges are shipped in upgraded managed partner solutions, all updates to security roles and privileges done by the Power Platform admin in their environment are overwritten.

With this feature, the system predefined customizable security roles, custom security role, and privileges will be merged with the updates to the security roles and privileges done by the Power Platform admin in an environment instead of overwriting the preexisting updates.

# **Dataverse backup retention for managed environments**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	Jun 2023

#### **Business value**

Enable customers with an extended backup retention period to meet compliance requirements.

#### **Feature details**

The Microsoft Dataverse extended backup retention feature will provide the option to tenant admins of managed environments to extend the system backup duration from 7 days to up to 28 days using PowerShell commands.

For more information about backup and restore of Power Platform environments, go to Back up and restore environments

Back to Contents Microsoft Dataverse

# Use access checker to view all users who have access to your record

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>✓</b> Feb 28, 2023	Jul 2023

#### **Business value**

This functionality allows the owner of a record to see a list of users who have access to their

#### **Feature details**

The owner of records can easily share them with other colleagues to collaborate in Microsoft Dataverse, but over time, it's possible to lose track of everybody the record is shared with and who has access to their records. With the record access checker feature, owners will be able to extend the record access check to include showing a list of all the users who have access to records.

#### See also

<u>Check your user access to a row</u> (docs)

# **Enterprise trust**

#### **Overview**

Hybrid workplaces involving people, devices, and apps built on data from Microsoft Dataverse require an advanced enterprise trust model, including authentication, authorization, and data exfiltration. In 2023 release wave 1, we'll continue to improve all security related investments in Dataverse.

#### Limit access with IP firewall in Microsoft Dataverse

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	Aug 2023

#### **Business value**

As an administrator, you'll be able to restrict unauthorized access to your Microsoft Dataverse APIs from IP ranges outside of your configured business ecosystem.

#### **Feature details**

You can limit access to users with **IP firewall** by IP location to reduce unauthorized access. By using the IP firewall feature, you can apply the right access controls when needed to help

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keep your organization secure and stay out of your users' way when not needed. IP firewall analyzes and enforces the IP address of each request in real time. For example, consider if the IP firewall is turned on in a Dataverse environment, and IP ranges are set with the IP address of the office location. When a user decides to access the resources from another location, such as a coffee shop, Dataverse will deny access to resources in real time.

Today, IP-based firewalls for <u>Dataverse APIs</u> don't exist, but in 2023 release wave 1, administrators will be able to configure the IP ranges for their businesses in the Power Platform admin center where Dataverse APIs can be accessed.

# Instantly revoke users and enforce IP restriction with CAE

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jun 2023	Aug 2023

#### **Business value**

With this feature, you'll be able to revoke users instantly and enforce IP restrictions using continuous access evaluation (CAE) while complying with Azure Active Directory (Azure AD) identity policy for user revocation and conditional access IP enforcement policy.

#### **Feature details**

<u>CAE</u> evaluates user critical events like user account deletion or disablement, password change, whether multi-factor authentication is enabled for the user, and conditional access policy like IP enforcement in near real time. Once the CAE detects the changes, the user is denied access to the resource.

The key benefits of CAE are:

- **User termination or password change or reset**: User session revocation will be enforced in near real time.
- **Network location change**: Conditional access location policies will be enforced in near real time.
- Token export to a machine outside of a trusted network can be prevented with conditional access location policies.

# **Sentinel integration with Power Platform**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2023	To be announced

#### **Business value**

This feature is easy to use, and you'll get more out of advanced risk and compliance features. Customers can discover the value of Sentinel-based threat analysis, discovery, and mitigating actions to be taken from the Power Platform admin center.

#### **Feature details**

Sentinel integration for Power Platform will enable Power Advisor to surface proactive threats to their data and other assets in Power Platform and provide recommendations or automations for mitigation or resolution. This will be essential for effective data protection and will help organizations comply with legal and regulatory requirements and mitigate security risks.

# Microsoft 365 collaboration

#### **Overview**

Microsoft Dataverse powers many collaboration capabilities, including integrations with different Microsoft 365 products like Microsoft Exchange, Outlook, and Teams. Dataverse enables users to collaborate with colleagues across your company without the need to switch between applications whether you're sending or receiving emails, creating or joining Teams meetings, or linking Teams chats to records.

# Approve and enable mailboxes without an administrator

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	<b>✓</b> Jan 23, 2023	✓Apr 1, 2023

#### **Business value**

If you're using Dynamics 365 with Exchange Online, a user with a **Global administrator** or **Exchange administrator** role is currently required to approve mailboxes before they can be enabled to synchronize with Dynamics 365. With this feature, users can approve their own mailboxes.

#### **Feature details**

Users will be able to approve and enable their own mailboxes without needing to involve an administrator. This means users will be able to perform actions, such as sending and receiving email with their Exchange Online mailbox.

#### See also

Approve your own user mailbox (docs)

# Al Builder

# Plan and prepare for Al Builder in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **AI Builder**.

## **Overview**

Al Builder allows citizen developers to use, customize, and govern Al models across their organization with a no-code configuration engine. By using Al models, makers can build more powerful applications and automate workflows that previously required human intervention. These applications can also reduce errors and save time in the process. Azure Al backs the capabilities in Al Builder, which allows makers to process documents, text, images, and generate predictions from structured data. Customers who have in-house Al models built by data scientists can also import them into Al Builder to make them accessible for their citizen makers in Power Platform.

A key point of focus in this release wave is facilitating model governance and licensing. We're revising our admin interfaces to make it easier to govern how AI Builder credits are used across environments. We'll also enhance model monitoring so that customers can track how AI Builder credits are used across apps and flows and by who. We also give makers the possibility to move trainable models across environments for added flexibility in deploying models across the enterprise, and supporting model versioning so that customers can improve model performance in an iterative approach. We'll also increase the breadth of pretrained document processing capabilities to allow makers to process a wider range of document types.

Use AI Builder documentation to get detailed information on how to train and deploy AI models in Power Platform and get inspired with customer stories that highlight how AI can be used to accelerate digital transformation.

For official product documentation and training for Al Builder, go to:

- Explore Al Builder
- Al Builder documentation and learning modules
- Al Builder videos on YouTube

#### Investment areas



#### Investment areas

#### **Governance and administration**

Governance and administration are key themes to enable the deployment of AI solutions at scale in the enterprise. ModelOps, or model operations, typically cover the governance and lifecycle management of AI models. Today, administrators can already control who has access to models and monitor the amount of Al Builder credits being consumed across environments. Makers can encapsulate models in Power Platform solutions to deploy them across environments. They can also share maker rights to multiple owners.

Model management capabilities will also include the ability to move trainable models across environments. This will facilitate ALM scenarios for AI models and give makers additional flexibility to retrain and optimize model performance across multiple environments. On the admin front, we'll improve governance interfaces to streamline credit management across environments and give admins added visibility into how AI models are used across environments, apps, and flows.

## **Build intelligent solutions with AI capabilities**

This area covers all AI model capabilities that are newly available to makers to build more intelligent solutions with AI. This includes expanding the breadth of AI capabilities and the integration surfaces across Microsoft where Al Builder is available.

This release wave focuses on integrating AI Builder into more product surfaces within Dynamics 365 and Microsoft 365 and making Al Builder available for external partners. New capabilities like pre-trained models for document processing (document splitter, contract processing, detect personally identifiable information) are also newly available to Power Platform makers.

#### Automate with intelligent document processing

Intelligent document processing (IDP) capabilities allow makers to capture, transform, and process data from documents (for example, email, text, Word, PDF, or scanned documents). Using technologies like computer vision, optical character recognition (OCR), natural





language processing (NLP), and machine/deep learning, the extracted data can be analyzed, categorized, transformed, and exported to external systems in an end-to-end process using Power Automate.

Our existing IDP solution can already understand how to extract data from three types of documents:

- **Structured documents**: Predefined documents with a set layout like a loan application or tax form.
- Unstructured documents: Free-form documents like a memo or contract.
- **Semi-structured documents**: Documents that combine fixed and free-form structures.

In 2023 release wave 1, we'll focus on improving out-of-the-box prebuilt functionalities to give makers the ability to process a wider range of document types and improved governance and monitoring capabilities to process documents at scale.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for Al Builder below:

Check out the release plan

# For application administrators

# User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

#### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

# What's new and planned for AI Builder

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to <u>Microsoft policy</u>.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( $\checkmark$ ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

# Automate with intelligent document processing

Intelligent document processing capabilities allow you to automate content extraction from a wide range of document types.

Feature	Enabled for	Public preview	General availability
Customize prebuilt models	Admins, makers, marketers, or analysts, automatically	Apr 2023	-
Retrain documents using the feedback loop feature	Admins, makers, marketers, or analysts, automatically	✓Nov 15, 2022	Sep 2023

# **Build intelligent solutions with AI capabilities**

New AI capabilities are available for makers in Power Platform.

Feature	Enabled for	Public preview	General availability
Use your own enterprise data in GPT actions	Admins, makers, marketers, or analysts, automatically	Sep 2023	-
Incorporate OpenAl GPT actions in Al Builder	Admins, makers, marketers, or analysts, automatically	✓Mar 16, 2023	May 2023
Create, save, and share optimized GPT prompts	Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Governance and administration**

Governance and administration themes cover the ability to monitor and deploy AI models and control how AI Builder credits are used across environments.

Feature	Enabled for	Public preview	General availability
Collaborate authoring of Al models	Admins, makers, marketers, or analysts, automatically	-	<b>V</b> Apr 17, 2023
Allocate Al Builder credits for their intended scenarios	Admins, makers, marketers, or analysts, automatically	-	Sep 2023

Feature	Enabled for	Public preview	General availability
Monitor performance of AI Builder models for admins	Admins, makers, marketers, or analysts, automatically	-	Sep 2023
Monitor usage and performance of Al Builder models	Admins, makers, marketers, or analysts, automatically	May 2023	Sep 2023

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability page</u>.

# Automate with intelligent document processing

#### Overview

Intelligent document processing (IDP) capabilities allow makers to capture, transform, and process data from documents (for example, email, text, Word, PDF, or scanned documents). Using technologies like computer vision, optical character recognition (OCR), natural language processing (NLP), and machine/deep learning, the extracted data can be analyzed, categorized, transformed, and exported to external systems in an end-to-end process using Power Automate.

Our existing IDP solution can already understand how to extract data from three types of documents:

- **Structured documents**: Predefined documents with a set layout like a loan application or tax form.
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- Semi-structured documents: Documents that combine fixed and free-form structures.

In 2023 release wave 1, we'll focus on improving out-of-the-box prebuilt functionalities to give makers the ability to process a wider range of document types and improved governance and monitoring capabilities to process documents at scale.

# **Customize prebuilt models**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2023	-

#### **Business value**

Instead of creating a new custom AI model from scratch, you can iterate on the existing invoice pre-trained model to add specific fields that interest the business. This will speed up the training process for you. Instead of customizing, training, and maintaining an entirely new model, you can add new fields to an existing model. Doing this will make it easier for a maker to customize models to fit the needs of a unique business process.

#### **Feature details**

Makers can customize the invoice prebuilt model in Al Builder. This pre-trained model is already set up to detect and process typical fields that you would generally find in an invoice. If your business requires you to process specific fields that aren't present in this pre-trained model, you'll be able to iteratively add those fields to the pre-trained model. This way, you won't have to start an entirely new custom model from scratch. For makers, this will simplify the training process. This will make it easier to customize an Al Builder document processing model to a company's unique set of business requirements.

# Retrain documents using the feedback loop feature

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	<b>✓</b> Nov 15, 2022	Sep 2023

#### **Business value**

After models in Al Builder are trained and deployed to production, it's possible that customers will use the models with new datasets that aren't optimized for them. With the feedback loop feature, documents are flagged and sent back to the training wizard queue for retraining if they didn't yield sufficient confidence scores when analyzed by Al Builder. The maker will be able to view the set of documents that require retraining and update the model to take into account these new documents. This ensures that Al Builder models maintain an optimal level of quality over time.

Al Builder 162



#### **Feature details**

The feedback loop feature is a key element of ensuring optimal quality of Al Builder document processing models over time. When an Al Builder model is used to process a document and extract its information, the model may return a low probability score. The score is indicative of a possible failure in the accuracy of the extracted content. This input will be sent to the maker in charge of the model, who will verify and correct the result, if necessary.

Users are able to view documents that weren't processed correctly by Al Builder in their training wizard. They can correctly retag the documents and update the Al Builder model to support similar documents moving forward. This ensures that an optimal level of performance is maintained over time, as makers will be notified when their Al Builder models aren't performing adequately. This allows them to take corrective action.

Additional scenarios like text processing and object detection are also supported.

#### See also

Continuously improve your model preview (docs)

# **Build intelligent solutions with AI capabilities**

#### **Overview**

This area covers all AI model capabilities that are newly available to makers to build more intelligent solutions with AI. This includes expanding the breadth of AI capabilities and the integration surfaces across Microsoft where AI Builder is available.

This release wave focuses on integrating AI Builder into more product surfaces within Dynamics 365 and Microsoft 365 and making AI Builder available for external partners. New capabilities like pre-trained models for document processing (document splitter, contract processing, detect personally identifiable information) are also newly available to Power Platform makers.

# Use your own enterprise data in GPT actions

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

Companies can leverage GPT with their own data as context, which personalizes GPT's knowledge base to an enterprise-specific setting.

#### **Feature details**

In the context of enterprise applications, the question we often hear is, "how do I build something like GPT that uses my own data as the basis for its responses?" With this new capability, makers can configure knowledge bases for use as context for the GPT actions in Al Builder. Knowledge bases support structured and unstructured data, allowing GPT to operate in the context of a given enterprise. The knowledge base includes access and security control.

# **Incorporate OpenAI GPT actions in AI Builder**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Mar 16, 2023	May 2023

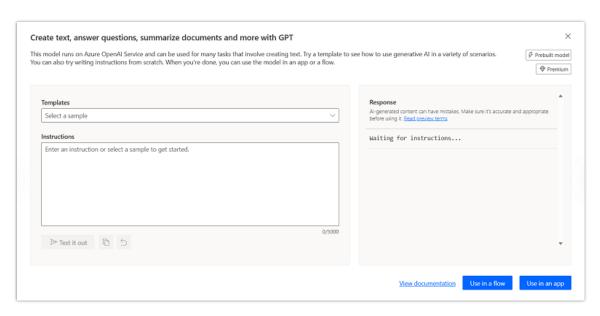
#### **Business value**

Initial user engagement around generative pre-trained transformer (GPT) technology has been tremendous. With this new capability, you can incorporate GPT into your apps and flows to build powerful automations and insightful applications. Some applicable use cases include sentiment analysis, text classification, named entity recognition, summarization, translation, customer service, content recommendation, document clustering, information extraction, and content creation. Unlock these new capabilities out-of-the-box, without any custom training.

#### **Feature details**

Al Builder is making Azure OpenAl's large language models (LLMs) available in a responsible form factor to citizen developers, starting with integrations in Power Automate and Power Apps.

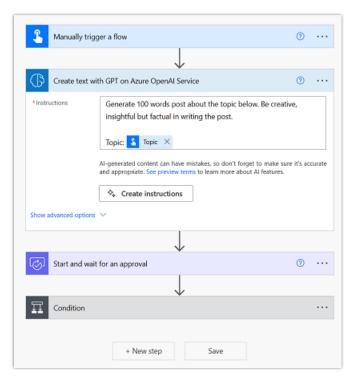
GPT text creation is available as the latest capability in Al Builder. On the Al Builder **Explore** screen, you can access the capability and try asking GPT to generate text, answer questions, and summarize documents for you.



# AI Builder Prompt Engineering user experience

Once you've crafted the correct prompt, you can automate interactions with GPT through Power Automate or integrate GPT within your Power Apps. This integration unlocks many potential use cases, including but not limited to:

- Sentiment analysis
- Text classification
- Named entity recognition
- Summarization
- Translation
- Customer service
- Content recommendation
- Document clustering
- Information extraction
- Content creation



Power Automate flow with 'Create text with GPT' action.

To get started, OpenAI GPT templates are also included in Power Automate and Power Apps. The integration includes responsible AI guardrails, and capacity management can be tracked through Al Builder's governance and administration.

#### See also

Azure OpenAl Service model overview (docs)

# Create, save, and share optimized GPT prompts

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

These capabilities allow makers to use GPT in an enterprise context with assistive experiences. These are designed to guide users in building the perfect prompt to address a given business scenario, share with others, or reuse it in similar scenarios.

#### **Feature details**

Al Builder is making Azure OpenAl's large language models available in a responsible form factor to citizen developers. To tell GPT what to do, makers need to enter a prompt or a textbased instruction that is given to the model in the GPT action card. To help you make

Al Builder 166  $(\uparrow)$ 



effective prompts, use the new assistive prompt engineering experience so that you can optimize your instructions to handle a specific use case effectively. You can also save and share prompts once you've validated that the prompt works as intended.

#### See also

How text generation in Azure OpenAl Service works (docs)

# Governance and administration

#### Overview

Governance and administration are key themes to enable the deployment of AI solutions at scale in the enterprise. ModelOps, or model operations, typically cover the governance and lifecycle management of AI models. Today, administrators can already control who has access to models and monitor the amount of Al Builder credits being consumed across environments. Makers can encapsulate models in Power Platform solutions to deploy them across environments. They can also share maker rights to multiple owners.

Model management capabilities will also include the ability to move trainable models across environments. This will facilitate ALM scenarios for AI models and give makers additional flexibility to retrain and optimize model performance across multiple environments. On the admin front, we'll improve governance interfaces to streamline credit management across environments and give admins added visibility into how AI models are used across environments, apps, and flows.

# Collaborate authoring of AI models

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	<b>✓</b> Apr 17, 2023

#### **Business value**

The collaborative authoring feature unlocks new possibilities for teams of makers who want to bring AI Builder models to production in a quick and more robust manner. By allowing you to collaboratively edit models, teams can train a broader set of documents quickly. This allows the models to reach optimal performance when teams train their Al Builder model.

#### **Feature details**

Previously, makers could make their Al models shareable to others only for use but not for editing. With the new collaborative authoring feature, you can share your models for editing, allowing multiple makers to collaborate on the training process of a model. When models require complex training processes or feedback loops to ensure optimal performance, teams of makers can collaborate so that models get to market quicker with optimal performance.

Al Builder 167  $(\uparrow)$ 



This also allows teams that have access to unique data sets to update and retrain models created by others in order to reach and maintain an optimal level of performance for the model.

#### See also

Share your AI model (docs)

#### Allocate AI Builder credits for their intended scenarios

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

Admins can choose how they use unallocated credits. They can also allocate credits ensuring to reserve it for their intended scenarios.

#### **Feature details**

A new setting is available for admins, allowing them to configure if unallocated credits are available for use. By activating the setting, admins can ensure that AI credits are only used when allocated. Admins also get better control of usage with the ability to allocate credits for specific business scenarios.

#### See also

Al Builder licensing (docs)

#### Monitor performance of Al Builder models for admins

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

Admins can monitor the usage and performance of models with preconfigured monitoring reports in the Power Platform admin center. This facilitates the setup of an Al center of excellence using AI Builder.

#### **Feature details**

Preconfigured monitoring reports are available for admins to track where AI Builder models are used, how often they're used, and at what performance level. This ensures greater tracking capabilities and allows AI Builder models to deploy more easily in a production

Al Builder 168  $(\uparrow)$ 



setting. The reports will give admins a complete view of how AI models are used across an organization. This allows finer monitoring of credit usage across models, teams, and products.

# Monitor usage and performance of Al Builder models

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	Sep 2023

#### **Business value**

Companies are able to monitor usage and performance of models with preconfigured monitoring reports. This facilitates the adoption of Al Builder in production scenarios.

#### **Feature details**

Preconfigured monitoring reports are available for you to track where Al Builder models are used, how often they're used, and at what performance level. This ensures greater tracking capabilities and allows Al Builder models to deploy more easily in a production setting.

# Governance and administration

# Plan and prepare for governance and administration in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **governance and administration**.

#### Overview

Microsoft Power Platform offers a range of governance and administration capabilities that span Power Platform and Dynamics 365 applications. These capabilities are designed to help administrators and IT professionals set up, secure, manage, govern, and monitor the use and adoption of Power Platform and its components across the enterprise. The Power Platform admin center is the unified user experience we provide for Power Platform administrators. A unified API surface and rich tooling like PowerShell cmdlets are also available to provide fully automatable management capabilities beyond the out-of-box portal experience.

Key investments for this wave include:

- Extending administrator's ability to set data policies on desktop flows.
- Enabling administrators to manage and remove the Dataverse System Administrator role more easily.
- Enhancing sharing limits in Managed Environments to include cloud flows in solutions.
- Enhance Managed Environments with pipelines allowing in-product application lifecycle management (ALM) automation to help admin, makers, and professional developers.

#### **Investment areas**



Investment areas

#### **Licensing and reporting**

Admins can manage their entitlements (capacity, user licenses, and more) and understand how they're being used across their organization.

#### Power Platform data policies and governance controls

Power Platform data policies and governance controls include experiences, services, and runtime components necessary to enforce organizational standards and to evaluate compliance at-scale across Power Platform.

In 2023 release wave 1, we'll be introducing a new classification in the data policy wizard allowing administrators to classify desktop flow action groups in a tab named **Exempt** to ensure the connectors or actions are ignored from policy enforcement.

#### **One Dynamics, One Platform**

The One Dynamics, One Platform initiative brings the user, administrative, and developer experiences for both Dynamics 365 customer relationship apps and Dynamics 365 finance and operations apps together. This enables complete, end-to-end business application experiences for users who use these apps and for admins and developers who maintain and customize these apps in the Power Platform admin center.

# **Power Platform analytics**

Power Platform analytics provides insights into signals, including usage, inventory, licenses, and more, to enable administrators to govern their Power Platform assets at scale quickly. These include capabilities like out-of-the-box reports, exporting data to other data sources, telemetry, and auditing of user activities.

#### **Managed Environments for Power Platform**

Enabling Managed Environments on some or all environments in the Power Platform admin center offers Power Platform administrators a growing set of new premium administration capabilities. Managed Environments is a new, simple way for administrators to easily get more visibility and more control to govern their low code assets.

Managed Environments offer a set of premium management capabilities that are available only on enabled environments. These premium management capabilities require admins to assign licenses to all active users in that environment. This is an on-going investment as Microsoft will continue to add more powerful and simple-to-use capabilities to govern Managed Environments.

In 2023 release wave 1, we're introducing capabilities to limit sharing of solution-aware flows, and the general availability of pipelines will simplify application lifecycle management (ALM) for admins, makers, and professional developers.

#### **Power Platform user experiences**

Power Platform user experiences include a set of user interfaces and commands that allow administrators to manage different access privileges for users to Power Platform environments and resources. These include managing security roles, business units, access control, and more.

In 2023 release wave 1, we'll make it easier for administrators to remove or manage the automatically assigned Dataverse System Administrator role in an environment.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for governance and administration below:

Check out the release plan

# For application administrators

#### User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

## Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

# What's new and planned for governance and administration

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to <u>Microsoft policy</u>.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

# **Licensing and reporting**

Admins can review usage and manage their licenses and entitlements.

Feature		Public preview	General availability
Use pay-as-you-go model in Government Community Cloud	Admins, makers, marketers, or analysts, automatically	Apr 2023	May 2023

Feature	Enabled for	Public preview	General availability
License autoclaim for Power Apps licenses	Admins, makers, marketers, or analysts, automatically	Apr 2023	Jun 2023
Get more visibility into license consumption of Power Apps	Admins, makers, marketers, or analysts, automatically	<b>V</b> Apr 14, 2023	Jun 2023
Get more visibility into license consumption of Dynamics 365 finance and operations apps	Admins, makers, marketers, or analysts, automatically	May 2023	Jul 2023
Better understand your pay-as-you-go charges	Admins, makers, marketers, or analysts, automatically	Jun 2023	Aug 2023
Get more visibility into license consumption of Power Automate	Admins, makers, marketers, or analysts, automatically	Aug 2023	Sep 2023
Get more visibility into license consumption across your entire organization	Admins, makers, marketers, or analysts, automatically	Aug 2023	Sep 2023
Use management connector in Power Automate and Logic Apps	Admins, makers, marketers, or analysts, automatically	-	Sep 2023
Allocate Dataverse storage to pay-as- you-go environments	Admins, makers, marketers, or analysts, automatically	Jul 2023	Sep 2023

# **Managed Environments for Power Platform**

Managed Environments offer premium administration capabilities for Power Platform administrators.

Feature	Enabled for	Public preview	General availability
Limit sharing of solution cloud flows in managed environments	Users by admins, makers, or analysts	Sep 2023	-
Do more with pipelines in Power Platform	Admins, makers, marketers, or analysts, automatically	-	Aug 2023

Feature	Enabled for	Public preview	General availability
Take advantage of enhancements to  Managed Environments	Admins, makers, marketers, or analysts, automatically	-	Sep 2023

# **One Dynamics, One Platform**

Administer both Dynamics 365 customer relationship apps and finance and operations apps from within the Power Platform admin center.

Feature	Enabled for	Public preview	General availability
Deploy customizations to finance and operations apps	Admins, makers, marketers, or analysts, automatically	Sep 2023	
Deploy developer sandboxes and assign them to engineers	Admins, makers, marketers, or analysts, automatically	Sep 2023	
Deploy sandbox environments with finance and operations apps	Admins, makers, marketers, or analysts, automatically	Sep 2023	

# **Power Platform analytics**

Provide visibility to customers into their low-code assets in Power Platform.

Feature	Enabled for	Public preview	General availability
See how Power Automate and Dynamics 365 Customer Service applications are performing	Admins, makers, marketers, or analysts, automatically	Jun 2023	
Discover analytics reports more easily	Users, automatically	May 2023	Jun 2023

# Power Platform data policies and governance controls

Enforce organizational policies and evaluate compliance at-scale across Power Platform.

Feature	Enabled for	Public preview	General availability
Enable tenant isolation for Azure AD-based auth connections	Admins, makers, marketers, or analysts, automatically	✓ Feb 28, 2022	✓ May 10, 2023
Automatic deletion of inactive developer environments	Users, automatically	✓ Apr 10, 2023	✓ May 15, 2023
Manage Customer Lockbox in sovereign clouds	Users by admins, makers, or analysts	-	Jul 2023

# **Power Platform user experiences**

These experiences allow administrators to govern and manage user access privileges to Power Platform resources.

Feature	Enabled for	Public preview	General availability
Easily find and complete common admin tasks	Admins, makers, marketers, or analysts, automatically	Aug 2023	-
Modern security role editor experience in the Power Platform admin center	Admins, makers, marketers, or analysts, automatically	✓ Mar 31, 2023	Jun 2023
Use PowerShell scripts to remove stale System Administrator role assignments in bulk	Admins, makers, marketers, or analysts, automatically	✓ May 1, 2023	Aug 2023
Specify who is assigned to the System Administrator role	Admins, makers, marketers, or analysts, automatically	Jun 2023	Sep 2023

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.

• **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability page</u>.

# Licensing and reporting

#### **Overview**

Admins can manage their entitlements (capacity, user licenses, and more) and understand how they're being used across their organization.

# Use pay-as-you-go model in Government Community Cloud

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2023	May 2023

#### **Business value**

This feature enables Government Community Cloud (GCC) customers to purchase Power Platform services in a pay-as-you-go model using an Azure subscription. GCC customers can take advantage of the pay-as-you-go plan, which allows them to get started building and sharing apps without any license commitment or upfront purchasing.

#### **Feature details**

This feature enables GCC customers to purchase Power Platform services in a pay-as-you-go model using an Azure subscription. Customers must have a Microsoft 365 GCC tenant and a commercial Azure subscription. Azure Government subscriptions will not work. See <u>pay-as-you-go plan</u> for details.

# **License autoclaim for Power Apps licenses**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2023	Jun 2023

#### **Business value**

License autoclaim for Power Apps will simplify license assignments for admins. This feature enables their Power Apps users to automatically claim Power Apps per user licenses when

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they're needed instead of requiring the admin to identify users who need licenses in advance.

#### **Feature details**

Admins will be able to setup an <u>autoclaim policy</u> for Power Apps per user licenses in the Microsoft 365 admin center just like they can for other Microsoft licenses. After they do so, any user in their tenant that needs a standalone Power Apps license will be automatically assigned a Power Apps per user license when they need it. For example, if a user without a standalone Power Apps license opens an app that requires a premium license, the user will automatically be assigned a Power Apps per user license.

A report of all users who have been assigned licenses under the autoclaim policy will be available in the Microsoft 365 admin center. Admins can choose to enable or disable the autoclaim policy at any time.

# **Get more visibility into license consumption of Power Apps**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Apr 14, 2023	Jun 2023

#### **Business value**

With the help of the licensing experience, admins get more visibility into the license consumption of Power Apps across their entire organization.

#### **Feature details**

The licensing experience provides insight into app usage in specific environments. The experience helps answer questions, such as:

- How many licenses have I assigned to users?
- Which users have these licenses been assigned to?
- What type of licenses are users using to launch custom apps?
- Which apps are driving which type of license usage?

# See also

View license consumption (docs)

# Get more visibility into license consumption of Dynamics 365 finance and operations apps

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	Jul 2023

#### **Business value**

With the help of the licensing experience, admins get more visibility into the license consumption of Dynamics 365 finance and operations apps across their entire organization.

#### **Feature details**

The licensing experience provides insight into user license consumption of Dynamics 365 finance and operations apps. The experience helps answers questions, such as:

- How many licenses have I assigned to users?
- Which users have these licenses been assigned to?
- Which users have roles assigned in Finance and Operations environments?
- Is there an overage with my license or role assignment?

# Better understand your pay-as-you-go charges

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	Aug 2023

#### **Business value**

Improvements to the reports related to the Power Platform pay-as-you-go plan will make it easier for you to understand the charges for your organization and optimize your investment.

#### **Feature details**

There are two mechanisms for understanding your <u>Power Platform pay-as-you-go charges</u>. You can go to:

- Azure portal to view top-level charges to your Azure subscription.
- **Power Platform admin center** to download a detailed report to understand what users, environments, apps, flows, and other features generated those charges.

We plan to make improvements to both of these experiences to make it easier for you to understand the charges.

# Get more visibility into license consumption of Power Automate

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2023	Sep 2023

#### **Business value**

Admins will have the ability to view a report which shows usage of Power Automate licenses and which users, flows, and environments are driving usage.

#### **Feature details**

The licensing experience provides insight into Power Automate usage in specific environments. The experience helps answers questions, such as:

- How many licenses have I assigned to users?
- Which users have these licenses been assigned to?
- What type of licenses are users using to execute flows?
- Which flows are driving which type of license usage?

# Get more visibility into license consumption across your entire organization

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2023	Sep 2023

#### **Business value**

With the help of the licensing experience, admins get more visibility into the license consumption across the organization.

#### **Feature details**

The licensing experience provides insight into user license consumption in your tenant. The experience helps answer questions, such as:

- How many licenses have I assigned to users?
- Which users have these licenses been assigned to?
- What type of licenses are users using to launch custom Power Apps, flows, and first-party Dynamics 365 apps?
- Which apps and flows are driving which type of license usage?
- Which users are active and which users are inactive?



# **Use management connector in Power Automate and Logic Apps**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

This new version of the management connector for administrators will always be at parity with the latest version of the <u>Power Platform API</u>. This way, customers can easily use the connector to manage their tenants and environments at scale without building software around our REST API.

#### **Feature details**

As the <u>Power Platform API</u> matures in feature capabilities across the platform, the need for the related tooling to be auto-generated and always up-to-date grows. This new version of the management connector for administrators will work and be available in Power Automate and Azure Logic Apps. This gives extra flexibility for those customers who use ARM templates and manage their tenant automation capabilities in Azure to stay in Azure. For those who don't want the additional complexity of Azure, they can stay within Power Automate and Power Platform.

# Allocate Dataverse storage to pay-as-you-go environments

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jul 2023	Sep 2023

#### **Business value**

Customers can leverage Dataverse capacity entitled to them from their Power Platform and Dynamics 365 licenses in pay-as-you-go environments. This feature enables customers to get more value out of their Power Platform investment, and makes it possible for more customers to take advantage of the flexibility provided by the pay-as-you-go plan.

#### **Feature details**

Currently, customers who turn on <u>Power Platform pay-as-you-go</u> for an environment pay for all Dataverse usage at pay-as-you-go rates for any usage above 1 GB of database and 1 GB of file storage.

This feature will allow administrators to allocate quantities of Dataverse storage from the pool of storage they receive from Dataverse entitlements included in Power Platform and Dynamics 365 licenses. When storage is allocated to an environment, pay-as-you-go charges will start after storage consumption has exceeded the given amount.

# **Managed Environments for Power Platform**

#### **Overview**

Enabling Managed Environments on some or all environments in the Power Platform admin center offers Power Platform administrators a growing set of new premium administration capabilities. Managed Environments is a new, simple way for administrators to easily get more visibility and more control to govern their low code assets.

Managed Environments offer a set of premium management capabilities that are available only on enabled environments. These premium management capabilities require admins to assign licenses to all active users in that environment. This is an on-going investment as Microsoft will continue to add more powerful and simple-to-use capabilities to govern Managed Environments.

In 2023 release wave 1, we're introducing capabilities to limit sharing of solution-aware flows, and the general availability of pipelines will simplify application lifecycle management (ALM) for admins, makers, and professional developers.

# Limit sharing of solution cloud flows in managed environments

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2023	-

#### **Business value**

Sharing limits is a new type of guardrail only available in Managed Environments that lets administrators govern how broadly users can share low code assets (such as canvas apps and solution-aware cloud flows) across the organization. It's complementary to Power Platform's data policies that prescribe the connectors with which makers can build their apps, flows, and chatbots.

#### **Feature details**

Sharing limits for canvas apps is already generally available since October 2022. It'll now include cloud flows that are stored in solutions. Admins will have access to the following rules:

- Users can only share their cloud flows with individuals.
- Users can only share their cloud flows with security groups.



# Do more with pipelines in Power Platform

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Aug 2023

#### **Business value**

Pipelines in Power Platform simplify application lifecycle management (ALM) with in-product ALM automation accessible to all makers, admins, and professional developers. Pipelines significantly reduce the barriers around adopting healthy, enterprise-grade ALM and have many new features and improvements with the upcoming release.

#### **Feature details**

Pipelines provide more control and better visibility with less effort. Pipelines continue to evolve and will soon offer many critical new capabilities and more streamlined experiences. These capabilities include:

- Set up automated deployment pipelines with less friction.
- Add low-code logic and approvals to your deployment process with cloud flows or extend pipelines using plug-ins.
- Schedule deployments for a later date and time.
- Deploy using service principals so that citizen developers don't require elevated permissions within production environments.
- Custom-tailor deployment processes to meet the needs of your organization.
- Developers can do more with additional command line capabilities and build task support.
- Admins have better visibility and auditing capabilities within the streamlined management experience.
- More control over how solutions are managed across various connected environments.

#### See also

Overview of pipelines in Power Platform (docs)

# **Take advantage of enhancements to Managed Environments**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

Managed Environments enable a set of governance capabilities that simplify, automate, and streamline IT administration of Power Platform. Admins can enable Managed Environments on any environment with just a few clicks, and they'll immediately get more visibility and more control to better manage all their low-code assets at scale.

Managed Environments is an ongoing investment to add powerful and simple-to-use management capabilities that empower Power Platform administrators.

#### **Feature details**

In the first wave of Managed Environments, we're introducing a new set of capabilities, including:

- Providing a one-click activation experience from the Power Platform admin center and the option to downgrade to a standard environment.
- Enabling system administrators to enable Managed Environments, in addition to global administrators and Power Platform administrators.
- Enhancing the downgrade experience with built-in validation to inform the administrator what features are in use and need to be removed before downgrading.

# One Dynamics, One Platform

#### **Overview**

The One Dynamics, One Platform initiative brings the user, administrative, and developer experiences for both Dynamics 365 customer relationship apps and Dynamics 365 finance and operations apps together. This enables complete, end-to-end business application experiences for users who use these apps and for admins and developers who maintain and customize these apps in the Power Platform admin center.

#### Deploy customizations to finance and operations apps

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

This feature enables administrators to operate their business in a single admin center for both ERP and CRM applications.

#### **Feature details**

This feature enables admins to deploy customizations to environments managed in the Power Platform admin center using Power Platform Command Line Interface, Azure DevOps tasks, and Visual Studio. Visual Studio will only be used when the target environment has the X++ developer tools installed. Otherwise, other tools can be utilized for sandbox and production environments.

# Deploy developer sandboxes and assign them to engineers

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

This feature enables administrators to operate their business in a single admin center for both ERP and CRM applications.

#### **Feature details**

With this feature, you can choose a template when creating new environments that include Finance and Operations apps, as well as X++ developer tools. This will allow an X++ engineer to connect their instance of Visual Studio to the environment and build customizations.

You can deploy the environment, assign the System Customizer role to the engineer, and hand over the environment connection information.

# Deploy sandbox environments with finance and operations apps

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

This feature enables administrators to operate their business in a single admin center for both ERP and CRM applications.

#### **Feature details**

This feature enables administrators to deploy new environments using the Power Platform admin center, as well as PowerShell and Power Platform Command Line Interface that have templates defined, which include Dynamics 365 finance and operations apps. Provisioning will create a single, unified environment with features like dual-write, business events, and preconfigured virtual tables.

# **Power Platform analytics**

#### **Overview**

Power Platform analytics provides insights into signals, including usage, inventory, licenses, and more, to enable administrators to govern their Power Platform assets at scale quickly. These include capabilities like out-of-the-box reports, exporting data to other data sources, telemetry, and auditing of user activities.

# See how Power Automate and Dynamics 365 Customer Service applications are performing

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	-

#### **Business value**

This feature provides the ability for customers to proactively understand how Power Automate and Dynamics 365 Customer Service applications are performing. It also enables customers to review data to determine the cause of an incident.

#### **Feature details**

This feature extends the Data Export feature in the Power Platform admin center so that it delivers Power Automate and Dynamics 365 Customer Service signals to Application Insights in Azure Monitor. In addition to the new signals, customers may filter specific Power Automate signals, such as cloud flow runs, triggers, and actions.

Additional enhancements to the feature include:

- The ability to provide a friendly name to an Application Insights export package.
- Additional columns with sorting capability when running the Application Insights Management page.

# Discover analytics reports more easily

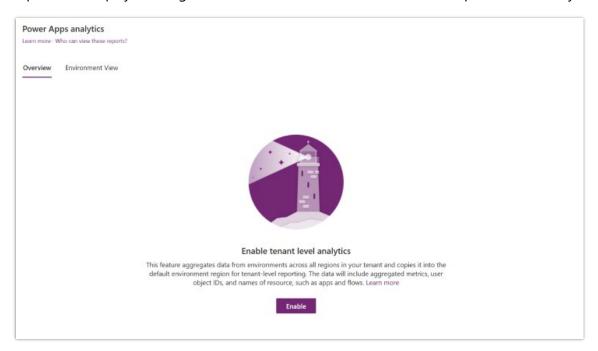
Enabled for	Public preview	General availability
Users, automatically	May 2023	Jun 2023

#### **Business value**

This feature improves the discoverability of tenant and environment-level reports in the Power Platform admin center.

#### **Feature details**

Experience a new and improved user interface in the Power Platform admin center for interacting with Power Apps and Power Automate analytics reports. The new and improved experience helps you navigate across tenant and environment-level reports more easily.



Landing page for the improved analytics experience for admins.

# Power Platform data policies and governance controls

# **Overview**

Power Platform data policies and governance controls include experiences, services, and runtime components necessary to enforce organizational standards and to evaluate compliance at-scale across Power Platform.

In 2023 release wave 1, we'll be introducing a new classification in the data policy wizard allowing administrators to classify desktop flow action groups in a tab named **Exempt** to ensure the connectors or actions are ignored from policy enforcement.

#### **Enable tenant isolation for Azure AD-based auth connections**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Feb 28, 2022	<b>✓</b> May 10, 2023

#### **Business value**

Admins can manage data exfiltration and infiltration risks for Azure AD-based connectors in their tenants by turning on tenant isolation for Microsoft Power Platform connections. This will prohibit connections from your tenant to external tenants. It will block other tenants from establishing Power Platform connections to your tenant.

For legitimate business use cases where these cross-tenant connections are required, admins can specify an allowed list of tenants that are exempt from tenant isolation. Admins can also specify the direction of permitted cross-tenant connections (inbound from external tenant, outbound from your tenant, or both).

#### Feature details

Enable/disable tenant isolation using the self-serve capability in the Power Platform admin center: When tenant isolation is turned on, all Azure AD-based connectors can't be used to create cross-tenant connections to or from your tenant. Previously, customers had to create a support ticket to enable tenant isolation. Now, we're allowing you to manage your own tenant isolation settings through the Power Platform admin center.

Choose an allowed list of tenants that are exempt from tenant isolation: This new capability within tenant isolation allows legitimate business scenarios to continue connecting to explicitly-identified tenants, even as everything else is disallowed. The wildcard character (\*) is supported if all tenants must be enabled in an inbound or outbound direction, instead of identifying specific tenants.

#### See also

Establishing a DLP strategy (docs)

# **Automatic deletion of inactive developer environments**

Enabled for	Public preview	General availability
Users, automatically	✓Apr 10, 2023	✓May 15, 2023

#### **Business value**

Inactive developer environments are automatically disabled and then deleted to free up resources for improved performance.

#### **Feature details**

Power Platform provides a cleanup mechanism that automatically removes inactive developer environments from your tenant. A developer environment is considered inactive if it hasn't been used for 90 days. An inactive developer environment is first disabled, and the

administrator or owner is notified. If the administrator or owner doesn't act for the next 30 days, the developer environment is automatically deleted.

#### See also

Environment cleanup based on inactivity (docs)

# **Manage Customer Lockbox in sovereign clouds**

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Jul 2023

#### **Business value**

Customer Lockbox for Microsoft Power Platform allows organizations to control temporary, just-in-time access to their environments. This enables Microsoft engineers to help solve critical support requests.

#### **Feature details**

There are three core capabilities included with Customer Lockbox for Power Platform:

- For the duration of the preview, customers can configure a lockbox policy that will apply to customer data stored in all environments in the tenant.
- On the rare occasion that Microsoft needs to temporarily access data in those lockboxprotected environments to resolve a critical issue, administrators will be notified. Admins can visit the Power Platform admin center to approve or reject the data access request.
- Actions related to accepting, denying, or expiration of a lockbox request are recorded automatically in Microsoft 365 Defender for customer audit.

# **Power Platform user experiences**

# **Overview**

Power Platform user experiences include a set of user interfaces and commands that allow administrators to manage different access privileges for users to Power Platform environments and resources. These include managing security roles, business units, access control, and more.

In 2023 release wave 1, we'll make it easier for administrators to remove or manage the automatically assigned Dataverse System Administrator role in an environment.

# Easily find and complete common admin tasks

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2023	-

#### **Business value**

This feature brings all admin settings under a single Power Platform admin center experience and makes it easier to find and complete common admin tasks. This feature reduces the need for legacy systems and improves usability and discovery of settings across Power Platform.

#### **Feature details**

Today, there are over 200 settings to administer Power Platform apps and services. Customers have to navigate a broad range of legacy experiences to manage the platform. With this feature, we'll unify all settings under a single Power Platform admin center experience and make it easier to find and complete common admin tasks.

# Modern security role editor experience in the Power Platform admin center

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓Mar 31, 2023	Jun 2023

#### **Business value**

Admins can manage security roles and privileges using the modern security role editor in the Power Platform admin center. The modern experience is more accessible and replaces the need to navigate to the experience in the legacy web client.

#### **Feature details**

Admins can use a modern, streamlined, and simplified experience to manage security roles and privileges in the Power Platform admin center. This will enable admins to easily manage roles and privileges without the need to use the legacy web client.

#### See also

Security roles and privileges (docs)

# Use PowerShell scripts to remove stale System Administrator role assignments in bulk

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	<b>✓</b> May 1, 2023	Aug 2023

#### **Business value**

This feature enables you to have better control over security in Dataverse environments. You can easily produce a list of users assigned to the System Administrator role and remove assignments, as needed.

#### **Feature details**

With this feature, you can use PowerShell scripts to remove stale System Administrator role assignments in Dataverse environments in bulk. Specifically, you'll be able to:

- Review a list of users assigned to the System Administrator role and decide who must be removed from the role.
- Execute PowerShell commands to remove users from the System Administrator role in one or more environments.

The PowerShell scripts are available in GitHub.

#### See also

Microsoft.PowerPlatform.UserManagement.Powershell scripts (docs)

# Specify who is assigned to the System Administrator role

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2023	Sep 2023

#### **Business value**

This feature enables you to govern environments better and be compliant with regulatory requirements.

# **Feature details**

As part of our journey to support Azure Privileged Identity Management (PIM) in Power Platform, tenant admins will no longer be automatically assigned to the System Administrator role in all Dataverse environments.

With this feature:



- Global Administrators and Power Platform Administrators can control who is assigned to the System Administrator role in an environment.
- Tenant admins (Global Administrators, Power Platform Administrators, and Dynamics 365 Administrators) aren't automatically assigned to the System Administrator role.
- Tenant admins will be able to perform System Administrator tasks in emergency situations.

# Pro development

# Plan and prepare for pro development in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **pro development**.

# Overview

Microsoft Power Platform offers a rich spectrum of extensibility points and tooling capabilities that provide code-first developers with great experience for Power Platform application development. This experience enables enterprises to iterate faster and establish fusion development as a new standard where low-code and code-first developers can collaborate and build without limits.

For 2023 release wave 1, we'll continue our investments in our Visual Studio Code extension, GitHub Actions, and Azure DevOps build tools to support building and deploying custom connectors and provide deeper integration with Microsoft Azure.

For official product documentation for pro development, go to:

- Microsoft Power Platform Build Tools for Azure DevOps
- GitHub Actions for Microsoft Power Platform
- Power Platform Tools extension

## **Investment areas**



Investment areas

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#### **Power Platform code-first development**

Code-first development on Microsoft Power Platform enables professional developers to participate and stretch the capabilities of Power Platform. As a code-first developer, you can enable fusion teams where low-code and code-first approaches intersect. Fusion development offers great experiences for the professional developer when extending Power Platform and provides a no-cliffs application development experience.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for pro development below:

Check out the release plan

# For application administrators

# User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

#### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

# What's new and planned for pro development

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may** change and projected functionality may not be released. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (V) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

# **Power Platform code-first development**

Rich tooling and experiences for the professional developer to simplify extending Microsoft Power Platform by providing a no-cliffs application development experience.

Pro development  $(\uparrow)$ 

Feature	Enabled for	Public preview	General availability
Cloud runtime for finance and operations and Dataverse application development	Users, automatically	Apr 2023	-
Make solution export source code repository friendly	Users, automatically	Nov 30, 2022	<b>V</b> Apr 1, 2023
Code-first developer support for pipelines	Users, automatically	<b>V</b> Dec 8, 2022	<b>✓</b> Apr 1, 2023
Catalog reusable components and templates	Admins, makers, marketers, or analysts, automatically	May 2023	Jul 2023
Create an integrated API plus connector development experience in Visual Studio	Users, automatically	✓Apr 11, 2023	Aug 2023
Experience combined Power Platform and Finance and Operations Visual Studio tools	Users, automatically	May 2023	Sep 2023

# Description of **Enabled for** column values:

- Users, automatically: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the International availability guide. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability</u> page.

# Power Platform code-first development

#### **Overview**

Code-first development on Microsoft Power Platform enables professional developers to participate and stretch the capabilities of Power Platform. As a code-first developer, you can

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enable fusion teams where low-code and code-first approaches intersect. Fusion development offers great experiences for the professional developer when extending Power Platform and provides a no-cliffs application development experience.

# **Cloud runtime for finance and operations and Dataverse application** development

Enabled for	Public preview	General availability
Users, automatically	Apr 2023	-

#### **Business value**

Partners and developers can create applications that can access backend apps like Dynamics 365 Finance and Operations and frontend cloud-deployed services like Dynamics 365 Sales, Marketing, and Service.

#### **Feature details**

As part of the transformation from on-premises to cloud-hosted traditional backend systems, such as ERP and the explosion of novel cloud-based customer experience frontend applications, customers are increasingly discovering scenarios where integrating information from both sides provides exponential benefits in terms of customer value, process innovation, and enterprise alignment.

Microsoft is uniquely positioned to deliver a compelling story for features that span across the traditional enterprise silos. Our portfolio of mature frontend and backend applications and our leading Azure and AI capabilities can be game changers for enterprises embracing the next level of digital transformation.

A set of robust developer tools that enable cross-cutting scenarios is a key component of the value Microsoft brings to the table. We can meet developers where they are and provide a common set of infrastructure, APIs, SDKs, and tools to radically accelerate the development of applications that run the whole enterprise gamut of backend and frontend systems. The Visual Studio integration of Dataverse with Dynamics 365 Finance and Operations apps is a key part of this strategy. Visual Studio will streamline the developer experience for both Customer Engagement and Finance and Operations apps developers alike by removing the need for a local virtual machine (VM) and enabling development that targets cloud instances with both Dataverse and finance and operations apps preconfigured and ready to work together.

This feature will allow developers to create Finance and Operations applications against a normal cloud-deployed Finance and Operations app runtime instead of a Finance and Operations app instance running in a VM. Visual Studio installed anywhere can connect to a

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Finance and Operations app development environment in the cloud, which in turn, is paired with a Dataverse instance. This feature is also a step towards eliminating cloud-hosted VMs.

# Make solution export source code repository friendly

Enabled for	Public preview	General availability
Users, automatically	✓Nov 30, 2022	✓Apr 1, 2023

#### **Business value**

Governance focused customers will now be able to export and store Microsoft Power Platform solutions in Source Code Control system and the solution.xml file will be less noisy during diff/merge

#### **Feature details**

Today, when exporting and storing Microsoft Power Platform solutions in Git version control, customers can't branch and merge due to unnecessary files from Power Platform causing conflicts, even if just a small solution component is changed. This feature enables customers to successfully branch and merge the relevant solution files and adds support for auditing Power Platform assets properly in Source Code Control system. Our first step in this process to address the solution.xml and make it less noisy, this is our first step towards making some of the artifacts less noisy in the solution file.

# Code-first developer support for pipelines

Enabled for	Public preview	General availability
Users, automatically	<b>V</b> Dec 8, 2022	✓Apr 1, 2023

#### **Business value**

Developers are provided with the required code-first tools to use the Power Platform's new pipelines capability without having to leave their favorite tooling environments. By using this new tooling, developers can realize the added value of the Power Platform's pipelines capability.

#### **Feature details**

Pipelines for Power Platform is a new product capability that enables makers to request app deployments. We'll provide developers with command line tools, Azure DevOps tasks, and GitHub Actions to enable interaction with pipelines. Code-first developers who already have sophisticated tooling will want to leverage this capability in conjunction with what they have. This capability allows for true fusion development by bringing in the citizen developer into

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the deployment process thereby enabling collaboration between code-first and citizen developers. During the public preview release, this feature will support command line only, while Azure DevOps and GitHub support will be available by the general availability release.

#### See also

Pipeline table reference (docs)

# **Catalog reusable components and templates**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2023	Jul 2023

#### **Business value**

We're helping developers and makers be more productive, and streamline development overall, by offering the ability to publish, curate, and discover Microsoft Power Platform artifacts in a catalog that can be governed and managed. This feature enables acquisition of approved artifacts, and speeds up development cycles, as makers have easy access to such reusable artifacts right where they need it and when they need it.

#### **Feature details**

Organizations with an interest in adopting Microsoft Power Platform have a need to find and distribute approved artifacts such as apps, flows, and bots so they are available to their organization. The new catalog in Power Platform makes this process much easier.

The catalog enables the following in an organization:

- Share artifacts internally.
- Find artifacts that are organization-approved and follow best practices.
- Adopt Power Platform with ease of access to approved artifacts, increase productivity, and lower knowledge barrier to adoption.
- Securely manage and govern approved artifacts in compliance with organization policies.

#### See also

<u>Catalog in Power Platform</u>

# Create an integrated API plus connector development experience in Visual Studio

Enabled for	Public preview	General availability
Users, automatically	<b>✓</b> Apr 11, 2023	Aug 2023

#### **Business value**

Code-first developers will now be able to create both APIs and connectors from within Microsoft Visual Studio, thereby minimizing context switching when developing custom connectors for Microsoft Power Platform.

#### **Feature details**

Today, when code-first developers build Microsoft Azure Functions or APIs, they can register such capabilities directly in Azure without having to leave their Visual Studio development environment. Our goal is to extend that capability to allow creation of custom connectors from within Visual Studio without having to leave Visual Studio, thereby allowing a complete end-to-end experience in custom connector development.

#### See also

<u>Create a Custom Connector for your Web API from within Visual Studio</u> (blog) Visual Studio connected service preview (docs)

# **Experience combined Power Platform and Finance and Operations Visual Studio** tools

Enabled for	Public preview	General availability
Users, automatically	May 2023	Sep 2023

#### **Business value**

Empower users and simplify working across Microsoft Dataverse, Customer Engagement, and Finance and Operations by using a single tool and a consolidated environment.

#### **Feature details**

We're continuing the ongoing work to align experiences across Microsoft Dataverse, Dynamics 365 apps, and Finance and Operations by consolidating today's disparate developer tools into single packages. This tooling can easily be installed in every developer's Visual Studio or Visual Studio Code environment.

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This feature begins our consolidation work by providing a single Visual Studio extension installer for both Power Platform Tools and Dynamics 365 Finance and Operations, thereby removing friction for developers that need to work in both environments. This feature will also complete the initial phase of our work on a new developer experience for Finance and Operations based on cloud runtimes and developer tools that don't require a VHD or a Cloud Hosted Environment to work. Over the upcoming release waves, we'll focus on creating consistent experiences that modernize and consolidate the user experience.

# ISV experiences

# Plan and prepare for ISV experiences in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **ISV experiences**.

# Overview

ISV experiences provide global software vendors and ISVs with the necessary tools and capabilities required to build applications using Microsoft Power Platform and Microsoft Dynamics 365, or to embed low-code capabilities into existing products. We also offer capabilities to monitor and manage applications after deployment to customers and publishing to Microsoft AppSource. Using ISV Studio you can monitor, install, and use published applications.

In the last release wave, we made it simpler to sell apps and iterate faster through license pay-as-you-go for Power Automate. In this wave, we'll continue adding support for additional products, starting with Power Apps. We will also make it faster to submit updates to apps to improve the value of automated application updates introduced last year.

For official product documentation, go to:

**ISV Studio** 

#### **Investment** areas



Investment areas

#### **Enable Power Platform ISVs to scale better**

In 2023 release wave 1, we're making it even simpler to use Microsoft Power Platform to scale your business and reach more customers. Building on the Azure Pay-As-You-Go meters

ISV experiences 200 **(**1)

announced in 2022 release wave 2, as an ISV you'll now be able to sell your IP by charging the consumed Power Platform units directly to your own Azure subscription without having to ask your customers to procure the required Power Platform licenses themselves.

If you're an existing ISV on another platform or an Azure SaaS ISV, you can also offer low code options to your customers by embedding predefined business process templates into your software and enable your customers to take advantage of all the capabilities of a low code platform with zero friction.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for ISV experiences below:

Check out the release plan

# For application administrators

# User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

# Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

# What's new and planned for ISV experiences

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to <u>Microsoft policy</u>.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( $\checkmark$ ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

#### **Enable Power Platform ISVs to scale better**

Focused on optimizing how ISVs building on Microsoft Power Platform can scale better.

Feature		Public preview	General availability
Access ISV embedded connector reporting	Admins, makers, marketers, or analysts, automatically	<b>✓</b> Apr 1, 2023	-

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
- Admins, makers, marketers, or analysts, automatically: These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
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For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability page</u>.

# **Enable Power Platform ISVs to scale better**

#### **Overview**

In 2023 release wave 1, we're making it even simpler to use Microsoft Power Platform to scale your business and reach more customers. Building on the Azure Pay-As-You-Go meters announced in 2022 release wave 2, as an ISV you'll now be able to sell your IP by charging the consumed Power Platform units directly to your own Azure subscription without having to ask your customers to procure the required Power Platform licenses themselves.

If you're an existing ISV on another platform or an Azure SaaS ISV, you can also offer low code options to your customers by embedding predefined business process templates into your software and enable your customers to take advantage of all the capabilities of a low code platform with zero friction.

# **Access ISV embedded connector reporting**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	<b>✓</b> Apr 1, 2023	-

#### **Business value**

The embedded connector feature introduces a new cost structure for participating ISVs based on customer usage of embedded licenses. From a practical view, the connector usage data needs to be visible to you to rationalize the billing charges incurred. The new embedded connector consumption report provides evidence for billing charges based on actual connector usage data you incur.

#### **Feature details**

As an ISV, you are billed for usage charges of embedded connectors based on Power Automate flow consumption integrated into your solutions. When enrolled in the ISV Embedded Connector Reporting program, this feature provides you with a report to view usage data tied to these consumption charges. The generated report is made available to you in ISV Studio, which provides analytics on how your published apps are doing in terms of installs, failures, and usage metrics.

#### See also

Power Automate Embed Pay-as-you-go for ISVs (docs)

# Data integration

# Plan and prepare for data integration in 2023 release wave 1

**IMPORTANT** The 2023 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2023 to September 2023. In this article, you'll find the product overview and what's new and planned for **data integration**.

# Overview

Data integration is foundational for the Microsoft Intelligent Data Platform, enabling data connectivity, transformation, and integration across hundreds of enterprise-critical cloud and on-premises data sources. Power Query enables users of Power BI, Excel, Azure Synapse, Power Apps, Insights Apps, and other Microsoft products and services to ingest and transform data from hundreds of sources into the Microsoft data ecosystem.

In this upcoming release wave, we'll deliver various big data performance and high scale improvements to connectivity scenarios from Azure Synapse, Dataverse, Snowflake, Databricks, Google BigQuery, and Amazon Redshift, as well as many other Power Query connectors.

You can also expect several enhancements to the on-premises and VNet data gateways capabilities, delivering best-in-class hybrid data connectivity to users across multiple Microsoft cloud products and services.

Power Query experiences will also be enhanced with several new capabilities across Get Data and the Data Transformation experiences in the Power Query Editor, making it even easier and more productive for users to work on their data prep tasks in a visual authoring environment.

We're also releasing significant improvements to offer a new generation of Dataflows to Microsoft Data Cloud, supporting Power Platform, Dynamics 365, and beyond.

#### **Investment** areas



Investment areas

# **Power Query connectors**

Power Query connectors enable users to quickly connect to hundreds of applications, websites, databases, online services, and systems of record with the ease of low-code experiences. Every connector is built following Microsoft's best practices for seamless integration and use.

#### **Power Query Online**

Power Query Online is the data connectivity and data preparation experience for users across a wide variety of Microsoft products and services, including Power BI, Excel, Dynamics 365 Customer Insights, and more in a web-based environment. This experience integrates into a wide variety of Microsoft products and services, including dataflows in Power BI, Power Apps, Dynamic 365 Insights Applications, and several more. For more information, go to <a href="Power Query">Power Query</a>.

#### **Dataflows**

Dataflows provide a low-code self-service data preparation experience using Power Query, including automation and monitoring capabilities that enable users across Microsoft Power BI, Power Apps, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

# **Power Query Desktop**

Power Query Desktop is the data connectivity and data preparation experience for desktop users. This experience integrates within a wide variety of products and services, including Power BI Desktop, Excel, SQL Server developer tools, and more. For more information, go to <u>Power Query</u>.

To learn more about the entire set of capabilities being delivered during this release wave, check out the release plan for data integration below:

Check out the release plan

# For application administrators

#### User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

#### Features that must be enabled by application administrators

This release wave contains features that must be enabled or configured by administrators, makers, or business analysts to be available for their users. For the complete list, look for all features tagged "Users by admins, makers, or analysts" in the release plan.

# What's new and planned for data integration

This topic lists features that are planned to release from April 2023 through September 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to Microsoft policy.

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark ( ) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

#### **Dataflows**

Dataflows is a low-code data preparation experience using Power Query to integrate data across Power BI, Power Platform, Dynamics 365, and Azure.

Feature	Enabled for	Public preview	General availability
Employ features from the next generation of Power BI dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2023	

# **Power Query connectors**

Power Query connectors enable connectivity to hundreds of applications, websites, databases, online services, and systems of record, with low-code experiences.

Feature	Enabled for	Public preview	General availability
Add Azure AD-Based SSO for Oracle in DirectQuery	Admins, makers, marketers, or analysts, automatically	Sep 2023	
Browse for SharePoint lists in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2023	-
Browse SharePoint libraries and files in Power Query	Admins, makers, marketers, or analysts, automatically	Sep 2023	-
Support custom connectors in Power BI dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2023

# **Power Query Desktop**

Power Query is the data connectivity and data preparation experience for users across a wide variety of Microsoft products and services.

Feature		Public preview	General availability
Use the new Power Query experience in Power BI Desktop	Admins, makers, marketers, or analysts, automatically	Sep 2023	-

# **Power Query Online**

Power Query Online is the data connectivity and data preparation experience provided as a web-based environment.

Feature	Enabled for	Public preview	General availability
Choose from recommended data transformations	Users, automatically	Aug 2023	-
Split one query into multiple with conditional split	Users, automatically	Sep 2023	-

Description of **Enabled for** column values:

- **Users, automatically**: These features include changes to the user experience and are enabled automatically.
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- **Users by admins, makers, or analysts**: These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the <u>International availability guide</u>. For more information about geographic areas and datacenters (regions), go to the <u>Dynamics 365 and Microsoft Power Platform availability page</u>.

# **Dataflows**

#### **Overview**

Dataflows provide a low-code self-service data preparation experience using Power Query, including automation and monitoring capabilities that enable users across Microsoft Power BI, Power Apps, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

# **Employ features from the next generation of Power BI dataflows**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

Dataflows are a self-service, cloud-based data preparation technology that helps customers bring the world's data into Power BI. Power BI creators of dataflows, for example, can promote reusability of data transformation and reduce load on data sources by centralizing data prep tasks into dataflows that other Power BI creators can take advantage of when building datasets in Power BI, Excel workbooks, and more.

#### **Feature details**

A new generation of Power BI dataflows improve on existing experiences and features in the following ways:

- The AutoSave dataflow feature automatically saves any edits to dataflows to the cloud, into a draft dataflow, so you can continue editing at a later time.
- The background publishing feature defers query validation to the background, allowing you to publish the dataflow without waiting for the potentially lengthy validation process to complete. If any validation errors are encountered, they're reported through the dataflow experience.
- An improved dataflow debugging and monitoring experience reduces the time it takes to investigate and fix refresh errors.
- We've added support for loading dataflow output to new destinations and support for loading data from data sources in VNets.

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# **Power Query connectors**

#### **Overview**

Power Query connectors enable users to quickly connect to hundreds of applications, websites, databases, online services, and systems of record with the ease of low-code experiences. Every connector is built following Microsoft's best practices for seamless integration and use.

# Add Azure AD-Based SSO for Oracle in DirectQuery

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

A major enterprise customer ask is the ability to use Azure Active Directory-based single sign-on for Power BI DirectQuery in the Oracle connector. In this wave, you'll be able to connect to Oracle data in Power BI by using Azure AD-based SSO for Power BI DirectQuery.

#### **Feature details**

You'll be able to use Azure Active Directory-based single sign-on for Power BI DirectQuery to connect to Oracle data in Power BI experiences. Onboarding this feature may require rebuilding of certain queries and reports.

#### **Browse for SharePoint lists in Power Query Online and dataflows**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

This feature speeds up the process of selecting SharePoint Online lists and SharePoint lists because you won't need to manually type the required site URL.

#### **Feature details**

Previously, when using the SharePoint list connector, you needed to know or find the correct URL to find your lists. We've simplified that process, so you have a direct way to browse your SharePoint content for the lists you're seeking.

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# **Browse SharePoint libraries and files in Power Query**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

The process for connecting to your SharePoint libraries and files has now been simplified, letting you browse for the libraries and files directly in Power Query.

#### **Feature details**

Currently, finding the correct URL to use to get data from a file store in SharePoint can be difficult. We've simplified that process, so you have a way to browse your SharePoint libraries and the files within them directly in Power Query.

# **Support custom connectors in Power BI dataflows**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2023

#### **Business value**

You'll be able to use your custom connectors in Power BI dataflows experiences through the use of an on-premises data gateway.

#### **Feature details**

We're adding support for custom connectors in Power BI dataflows through the use of an on-premises data gateway. This support lets you validate and use your custom Power Query connector in Power Query Online and dataflows before certification.

# **Power Query Desktop**

# **Overview**

Power Query Desktop is the data connectivity and data preparation experience for desktop users. This experience integrates within a wide variety of products and services, including Power BI Desktop, Excel, SQL Server developer tools, and more. For more information, go to Power Query.

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# **Use the new Power Query experience in Power BI Desktop**

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2023	-

#### **Business value**

You can use the new Power Query experience, derived from the Power Query Online experience, inside of Power BI Desktop and take advantage of over two year's worth of new features, enhancements, and bug fixes related to the Power Query experience.

#### **Feature details**

The new Power Query experience in Power BI desktop brings you multiple new features, enhancements, and bug fixes that were previously only available in Power Query Online. Some of these features are:

- Diagram view
- Query plan
- Query folding indicators
- Schema view
- New fuzzy matching capabilities

# **Power Query Online**

#### Overview

Power Query Online is the data connectivity and data preparation experience for users across a wide variety of Microsoft products and services, including Power BI, Excel, Dynamics 365 Customer Insights, and more in a web-based environment. This experience integrates into a wide variety of Microsoft products and services, including dataflows in Power BI, Power Apps, Dynamic 365 Insights Applications, and several more. For more information, go to Power Query.

#### Choose from recommended data transformations

Enabled for	Public preview	General availability
Users, automatically	Aug 2023	-

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#### **Business value**

New users will find a new experience in Power Query that lets them expedite their journey through data preparation by providing a set of suggested transformations based on the data preview of a particular step in the Power Query Editor.

#### **Feature details**

Power Query Online will provide a new experience where users will be given a set of suggested steps that they can pick from, with a clear description of what the suggested step tries to accomplish and a data preview of the data output for their data. This new experience focuses on delivering the user a quick and visual experience to address common data preparation scenarios.

# Split one query into multiple with conditional split

Enabled for	Public preview	General availability
Users, automatically	Sep 2023	-

#### **Business value**

Users have commonly been requesting accelerators for common tasks in Power Query. One of the major requests is an accelerator to manage and expedite the process of creating query references. Conditional split delivers on this ask with a new dialog to split a query into multiple queries based on conditions through a single, rich dialog.

#### **Feature details**

Conditional split accelerates the process of creating query references from a single query by allowing the user to select the query and create new query references from that query through a single and intuitive dialog. The dialog provides a way to define the name of the queries to be created, and each of these queries will be created following the conditions set by the user.

The user will be able to manage this conditional split component to add or remove the queries created as the output of the process.

# Deprecation of Power Platform apps

A feature or capability that's deprecated is one that we intend to remove in a future release. The feature or capability will continue to work and will be fully supported until it's officially removed. After it's removed, the feature or capability will no longer work. Deprecation notifications can span a few months or years.

We encourage you to use this information, along with the release plans, to prepare for future releases. This notice is intended to give you sufficient time to plan and update your code before a deprecated feature or capability is removed.

- A deprecated feature is not in active development and may be removed in a future update.
- A removed feature is no longer available in the product.

For the current lists of Power Platform deprecations, including for Power Apps, Microsoft Dataverse, Power Automate, and Al Builder, visit:

• Important changes (deprecations) coming in Power Apps and Power Automate

# Other deprecations

For the lists of other deprecations, visit:

- Sales
- Customer Service
- Field Service
- Finance and operations apps
- Universal Resource Scheduling
- Healthcare accelerator
- Financial services accelerator

# See also

- Dynamics 365 and Microsoft Cloud for Industries 2022 release wave 2 plan
- <u>Dynamics 365 and Microsoft Power Platform release plans</u>
- Microsoft Lifecycle Policy



