Microsoft

Microsoft Power Platform

2023 RELEASE WAVE 1 PLAN

Features releasing from April 2023 through September 2023

Contents

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 online or download the document as a PDF file (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 as well as 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

Power BI 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

Power Apps 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

Power Pages 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

Power Automate 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

Power Virtual Agents 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

Microsoft Dataverse 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.

AI Builder

AI Builder 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 AI 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.

Pro development 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.

ISV experiences 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

Data integration 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 Microsoft policy).

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 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, Dynamics 365, and Microsoft Cloud for Industry release plans are published in Danish, Dutch, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese (Brazilian), Spanish, and Swedish.
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 Microsoft Power Platform community forum. We'll use your feedback to make improvements.

2023 release wave 1 features available for early access

This topic lists the features that can be enabled for testing in your environment beginning **January 30, 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

- Cloud for Industry 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
Look up records easily with modern advanced find	Users, automatically	Jan 30, 2023	Apr 2023
Power BI quick reports in Power Apps enabled by default	Users, automatically	Jan 30, 2023	Apr 2023
View offline sync icon in the navigation bar	Users, automatically	Jan 30, 2023	Apr 2023

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.
User community	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 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.

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	Enabled for	Public preview	General availability
Send unique report per recipient with paginated report email subscriptions	Users, automatically	Sep 2023	

Feature	Enabled for	Public preview	General availability
Automate migration from Azure Analysis Services to Power BI Premium	Users by admins, makers, or analysts	-	Apr 2023
Balance user queries with query scale-out	Users, automatically	-	Sep 2023

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	Apr 2023	-
Author calculation groups	Users, automatically	May 2023	
Integrate Power BI into Teams meetings	Users, automatically	Jul 2023	-
Multitask more easily in the Power BI app for Teams	Users, automatically	Jul 2023	-
Restrict access to content in the Power BI service using sensitivity labels	Users by admins, makers, or analysts	Sep 2023	-
Navigate the model view using accessibility features	Users, automatically	Sep 2023	
Enable Microsoft Purview DLP policies for Power BI datamarts	Users by admins, makers, or analysts	Sep 2023	-
Control visual formatting with improved capabilities	Users by admins, makers, or analysts	Sep 2023	
Explore single visuals with quick create	Users by admins, makers, or analysts	Sep 2023	
View files from Power BI service within Power BI Desktop	Users by admins, makers, or analysts	Sep 2023	

Feature	Enabled for	Public preview	General availability
Optimize presets in Power BI Desktop	Admins, makers, marketers, or analysts, automatically	-	Apr 2023
Edit relationships in the properties pane	Admins, makers, marketers, or analysts, automatically	-	Apr 2023
Combine existing mapping visuals into one with Azure Maps	Users by admins, makers, or analysts	-	Sep 2023
Create and share paginated reports on the web	Users, automatically	Jul 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 Dynamics 365 and Microsoft Power Platform availability page.

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.

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	-	Apr 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.
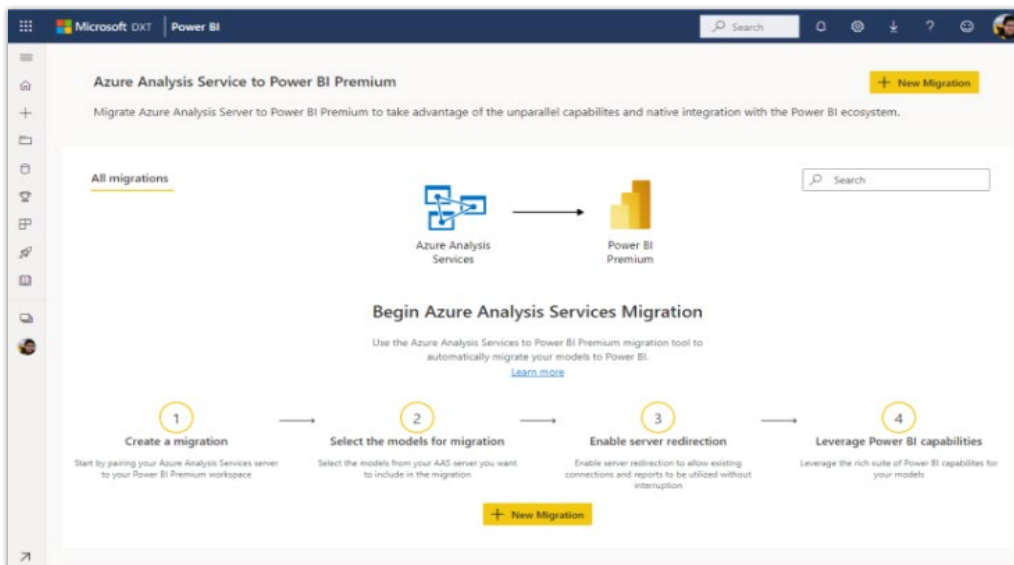
Azure Analysis Services to Power BI Premium automated migration experience.

See also

[Migrate Azure Analysis Services to Power BI](#) (docs)

Balance user queries with query scale-out

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

Business value

Support high user-concurrency workloads for large-scale deployments of semantic models (datasets) in Power BI Premium. Management of query scale-out in Power BI Premium is largely automated for customers.

Feature details

Query scale-out in Power BI Premium enables user queries to be load balanced across multiple dataset read replicas in a pool of Power BI Premium Gen2 nodes. This speeds up query response times for high user-concurrency workloads.

Additionally, dataset refresh operations enjoy increased isolation from the read replicas to protect user queries and improve performance.

Management of query scale-out in Power BI Premium is highly automated compared to other platforms, such as Azure Analysis Services. Adding and removing read replicas is performed dynamically based on usage.
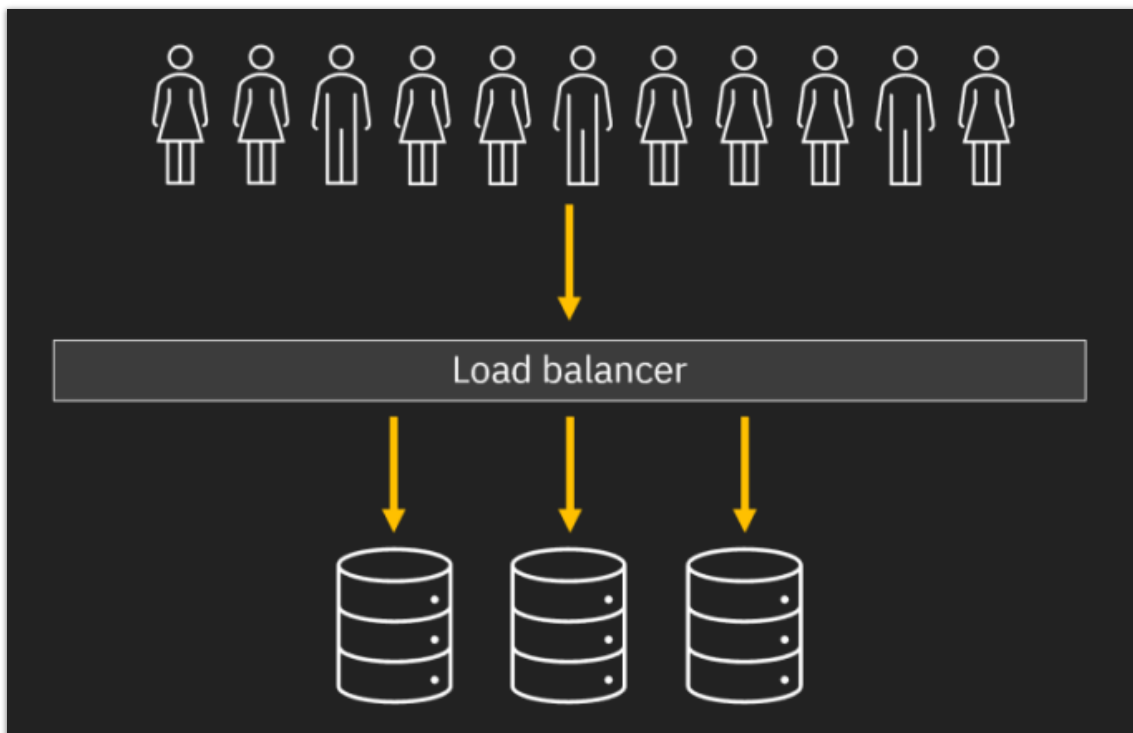
Query scale out architecture

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	Apr 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.

Author calculation groups

Enabled for	Public preview	General availability
Users, automatically	May 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-to-date (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.

Integrate Power BI into Teams meetings

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

Business value

Power BI is adding the ability to include Power BI content seamlessly in meetings and presentations. Modern work requires keeping everyone up to date and using relevant data to make decisions. That's why so many organizations use Power BI in Microsoft Teams so that users have access to data when and where decisions are made.

Feature details

Power BI is adding new in-meeting experiences for Microsoft Teams. Users can add content like reports to Teams meetings by adding the Power BI tab to their meetings.

When users join a meeting with Power BI added, they'll get new experiences that make it easier to find reports quickly, organize reports for attendees, and help them present those reports during meetings.

By making collaborating in meetings easier, more people can use data to make decisions and find the relevant data that supports their objectives.

Power BI app in a Teams meeting with the new in-meeting side pane.

Multitask more easily in the Power BI app for Teams

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

Business value

Power BI is improving multitasking in the Power BI app for Teams. This makes you more productive by saving you time. It also increases your satisfaction because you can respond quickly to your colleagues without losing the work you were doing.

Feature details

Users in Microsoft Teams are often switching between tasks, chats, meetings, and so much more. Now, Power BI is improving multi-tasking user experiences in this fast-paced environment.

New capabilities for multi-tasking in teams include:

Keep your place for one hour. When you navigate to a chat, meeting, or channel from viewing a report in the Power BI personal app in Teams, Power BI will remember where you were. If you navigate back to the Power BI personal app within an hour, a common

multitasking scenario, Power BI will automatically take you back to the report and page you were on.

Back button support in Teams Desktop. When a user uses the Power BI personal app in teams, they often view multiple reports. With this improvement you can use the back button in Teams Desktop to navigate back to previous content you saw in the Power BI personal app in the same session.

Caching to improve performance. When you switch from the Power BI app in Teams to another app or part of Microsoft Teams, Power BI will use the Teams caching infrastructure so that when you come back to the Power BI app, it'll load faster. For frequent users of Power BI who multitask or switch between using Power BI in the personal app, in meetings, or in channels, this performance enhancement will make for a smoother experience.

Restrict access to content in the Power BI service using sensitivity labels

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

Business value

Your information protection strategy is driven by your business needs. Many organizations must comply with regulations, laws, and business practices. Additionally, organizations need to protect proprietary information, such as data for specific projects. Microsoft Purview Information Protection (formerly Microsoft Information Protection), when enabled in Power BI, provides a framework, process, and capabilities you can use to accomplish your specific business objectives. With Information protection in Power BI, you can apply sensitivity labels on data in the Power BI service and in Power BI Desktop and protect it as it travels from Azure or Office to Power BI, then within Power BI, and finally as it is exported from Power BI to Office. The new enhancement enables security admins to apply protection settings to Power BI items and spares users the complex burden of specifying protection settings on their own.

Feature details

Microsoft Purview Information Protection (formerly Microsoft Information Protection) provides an easy way for your users to classify critical content in Power BI without compromising productivity or the ability to collaborate. Sensitivity labels from Microsoft Purview Information Protection can be applied in both Power BI Desktop and the Power BI service, making it possible to protect your sensitive data from the moment you first start developing your content on through to when it's being accessed from Excel using a live connection. Sensitivity labels are retained as you move your content back and forth between Desktop and the service in the form of *.pbix* files.

When labeled data leaves Power BI, either by export to Excel, PowerPoint, PDF, or *.pbix* files, or using other supported export scenarios such as Analyze in Excel or live connection PivotTables in Excel, Power BI automatically applies the label to the exported files and protects the data according to the label's file encryption settings. This way your sensitive data remains protected, even when it leaves Power BI.

Sensitivity labels on reports, dashboards, datasets, and dataflows are visible from many places in the Power BI service. Sensitivity labels on reports and dashboards are also visible in the Power BI iOS and Android mobile apps and in embedded visuals. In Desktop, you can see the sensitivity label in the status bar. Until now, the sensitivity labels did not affect access in the Power BI service. The new enhancement introduced in this release enables security admins to apply protection settings to Power BI items in the service. This spares users the complex burden of specifying protection settings on their own to control access in the Power BI service.

Now, sensitivity labels can be used to help protect items in the Power BI service similar to how sensitivity labels help protect files in many Office apps. For example, a security admin could specify which Azure Active Directory (Azure AD) security groups are allowed to access Power BI items that have a "Confidential \ All Employees" label, in order to allow access to employees only. Then, when a user applies that label to a Power BI item (for example, a dataset, report, and more) the protection settings configured by the security admin will automatically be applied to the item, making it so that it can be shared with employees, while sharing with guest users from external organizations will be blocked.

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.

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 guidelines 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](#)

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.

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.

View files from Power BI service within Power BI Desktop

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

Business value

To help with ease of use, this feature allows Power BI Desktop users to view and interact with files stored in the Power BI service.

Feature details

The Power BI Desktop will now support consumption experiences for users, allowing them to view and interact with files. Previously, a user would need to download the file from the service and then open it inside Power BI. If the file had changed, they would need to manually update or refresh the contents.

Optimize presets in Power BI Desktop

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Apr 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	-	Apr 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.
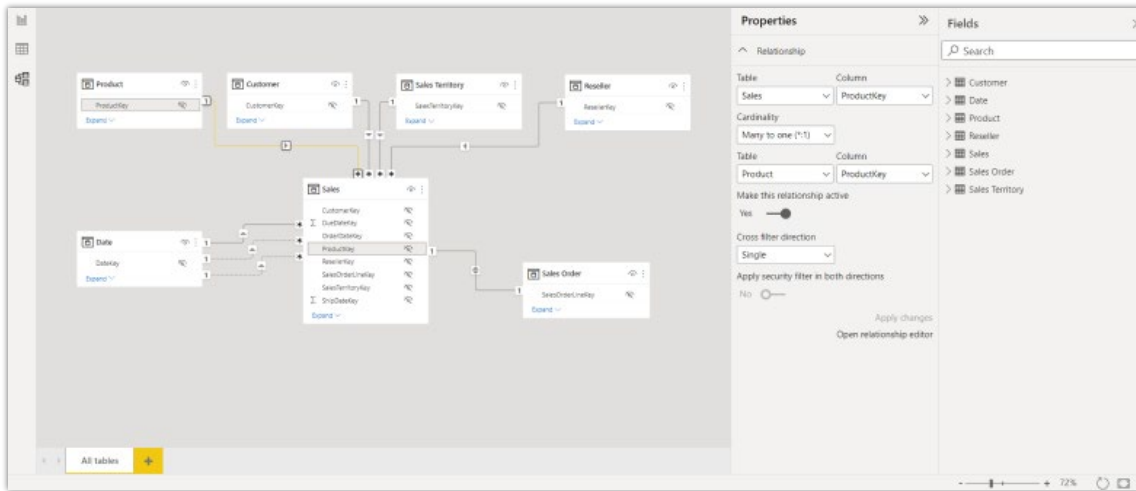
Relationship editing in the properties pane.

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 on the web

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

Business value

Create invoices, financial statements, and other operational reports with low code, drag-and-drop experiences 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 an invoice as follows:

NOTE The steps outlined below are only indicative. The final experience may not be the same.

In the **Editing** mode in the Power BI service,

1.   Insert your company logo by selecting **Picture** in the **Insert** menu.

2.   Add a text box with your company name and address. Add another text box with the recipient's name and address.

3.   Add a text box and enter the Invoice number.

4.   Insert a table that contains the details by selecting **Table** on the **Insert** ribbon. The table insertion is similar to the Formatted Table experience.

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

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.
User community	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
Run automated tests for custom pages and model-driven apps	Users by admins, makers, or analysts	May 2023	-	
Test Power Apps in CICD pipelines	Admins, makers, marketers, or analysts, automatically	May 2023	-	
Reuse Power Fx formulas with user defined functions	Admins, makers, marketers, or analysts, automatically	Jun 2023	-	-
Enhance delegation for UpdateIf and RemoveIf	Admins, makers, marketers, or analysts, automatically	Apr 2023	-	Apr 2023
Coauthor with other makers in the modern app designer	Users by admins, makers, or analysts	✔ Sep 29, 2022	-	Apr 2023
Add table columns to forms and views automatically	Admins, makers, marketers, or analysts, automatically	Jan 2023	-	Apr 2023
Turn existing artifacts into working apps with Express design in Figma	Users by admins, makers, or analysts	✔ May 8, 2022	-	Apr 2023
Be more productive with modern app designer improvements	Users by admins, makers, or analysts	-	-	Apr 2023

Feature	Enabled for	Public preview	Early access*	General availability
Create virtual tables easily in Maker Portal	Admins, makers, marketers, or analysts, automatically	Jan 2023	-	Apr 2023
Drag and drop to build responsive pages more easily	Users by admins, makers, or analysts	Jul 2023	-	Sep 2023

Modern user experiences

Modern and easy user experiences promote maximum productivity.

Feature	Enabled for	Public preview	Early access*	General availability
Look up records easily with modern advanced find	Users, automatically	-	Jan 2023	Apr 2023
Power BI quick reports in Power Apps enabled by default	Users, automatically	-	Jan 2023	Apr 2023
View offline sync icon in the navigation bar	Users, automatically	-	Jan 2023	Apr 2023
Enjoy the new look and feel for model-driven Power Apps	Users by admins, makers, or analysts	Jan 2023	-	Apr 2023
Build canvas apps by using new and refreshed controls	Users by admins, makers, or analysts	Feb 2023	-	Jun 2023

* You are able to opt into some features as part of early access on January 30, 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 Dynamics 365 and Microsoft Power Platform availability 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.

Run automated tests for custom pages and model-driven apps

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

Business value

Test Engine is the future of testing Power Apps. With its initial launch in late 2022, the open-source Test Engine project took the first step in realizing a unified testing solution for Power Platform, provided makers the capability to write tests in Power Fx for their canvas apps and run them locally. We're enhancing Test Engine, to ensure makers have the tools they need to ensure the quality of their apps, with support for local testing of model-driven apps and custom pages, providing one way to test Power Apps of all types.

Feature details

Testing is an important part of the software development life cycle. 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 do not break or alter the app experience becomes even more critical. Our mission is to empower all app makers 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 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 for model-driven apps and custom pages. Now, makers can use one unified tool to write and execute tests for all types of Power Apps.

YAML and Power Fx based test plan definition.

Test Power Apps in CICD pipelines

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

Business value

Test Engine is the future of testing Power Apps. With its initial launch in late 2022, the open-source 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.
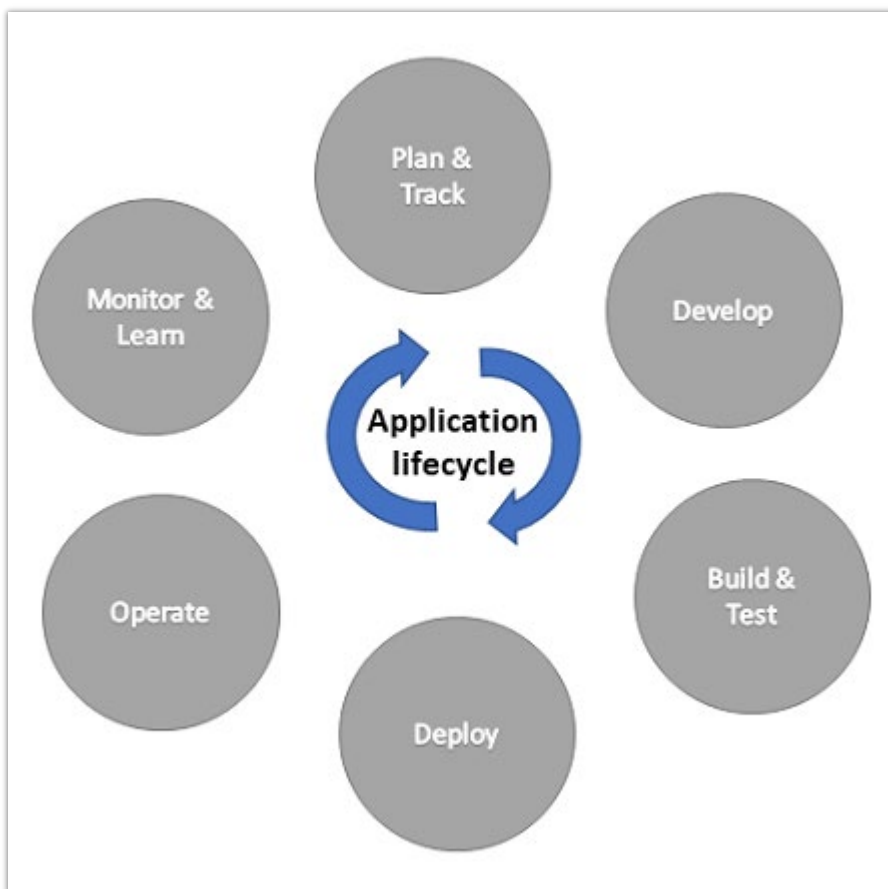
Add automated app testing into your Power Apps ALM processes.

Reuse Power Fx formulas with user defined functions

Enabled for	Public preview	Early access	General 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.

Enhance delegation for UpdateIf and RemoveIf

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

Coauthor with other makers in the modern app designer

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✔️ Sep 29, 2022	-	Apr 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)

Add table columns to forms and views automatically

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

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	✔ May 8, 2022	-	Apr 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

[Express design](#) (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.

Create virtual tables easily in Maker Portal

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Jan 2023	-	Apr 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.
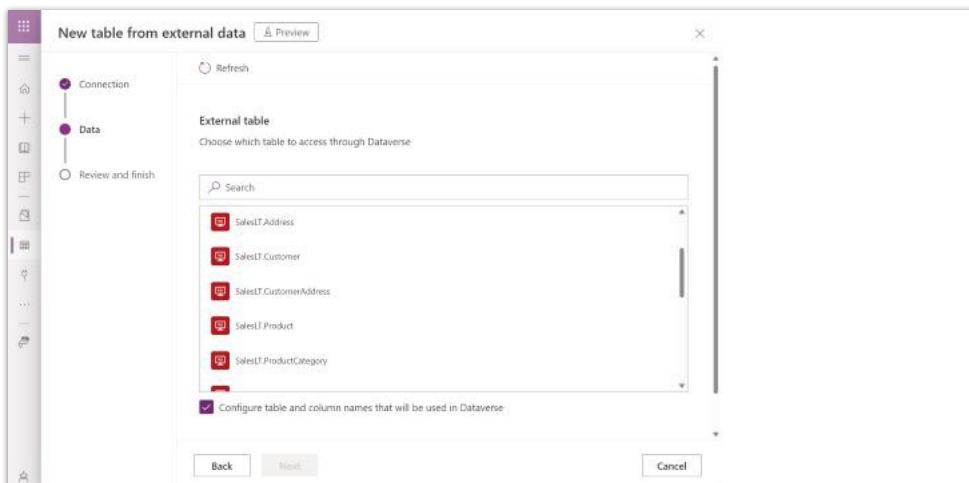
Screenshot of creation wizard pick a table.

Drag and drop to build responsive pages more easily

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

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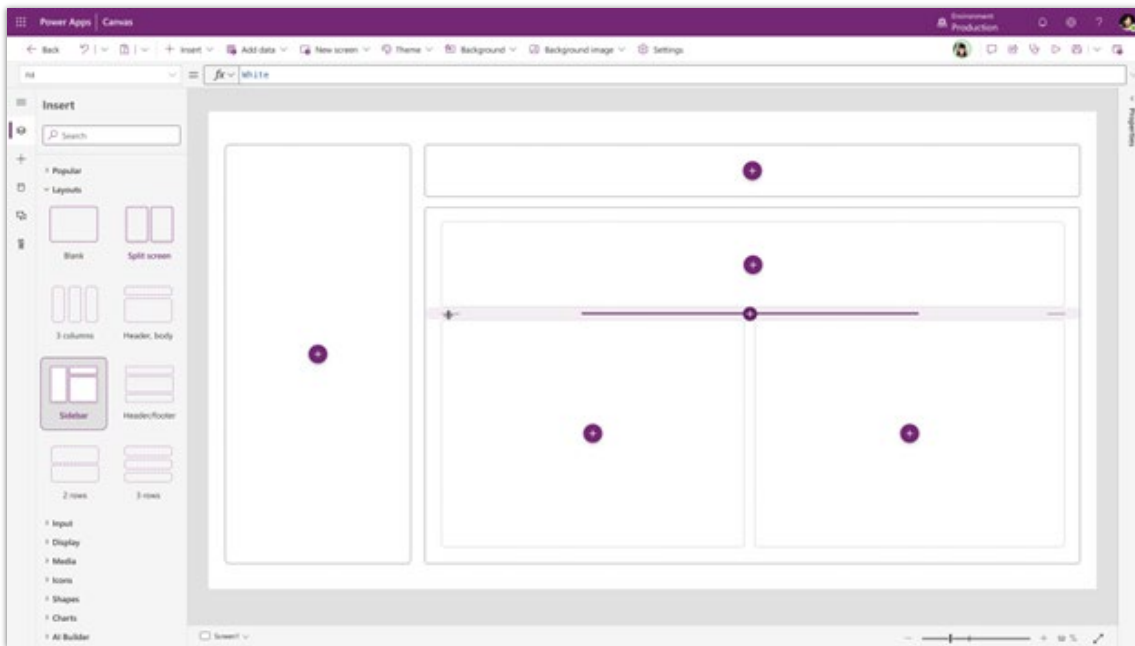
Screenshot of the Power Apps Canvas studio and responsive layouts with spacer tools.

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.

Look up records easily with modern advanced find

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Jan 2023	Apr 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**.
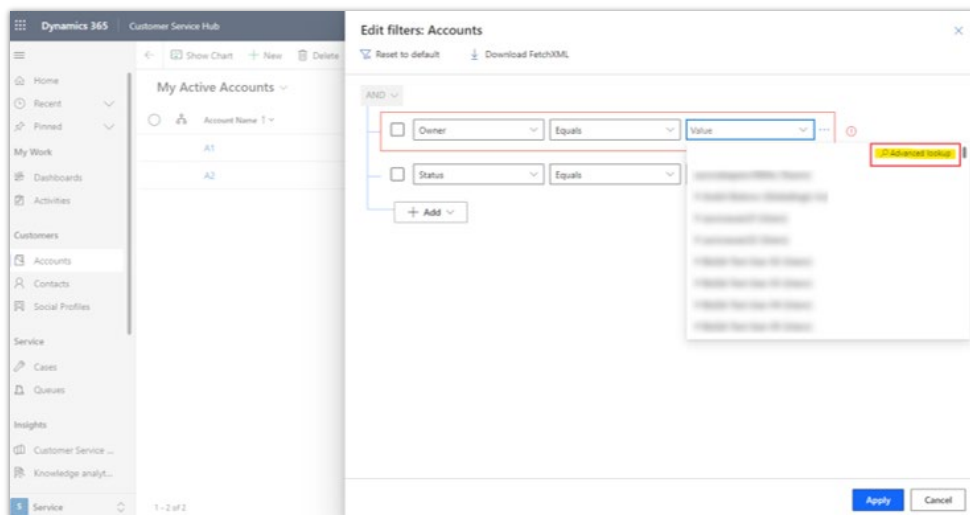
Advanced lookup option in Edit filters.
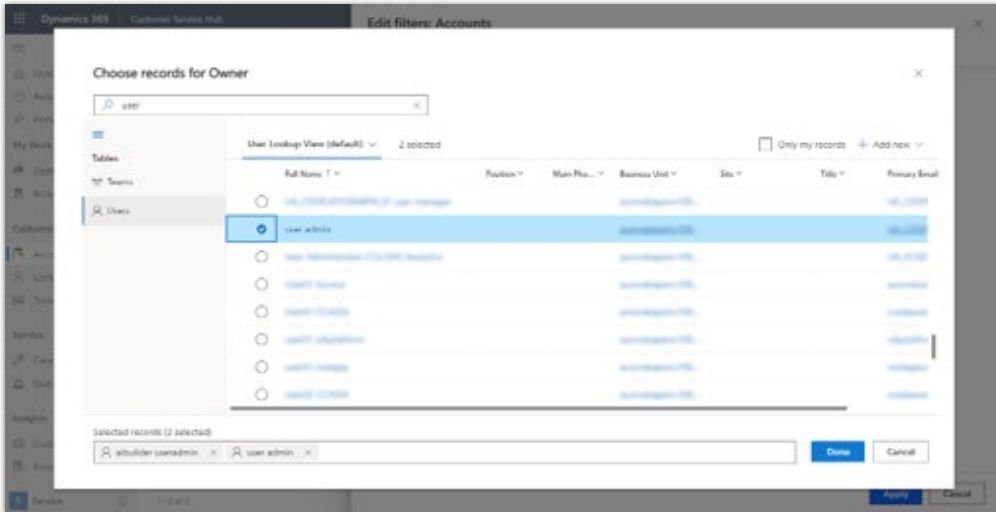
Advanced lookup in Edit filters.

Power BI quick reports in Power Apps enabled by default

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Jan 2023	Apr 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.

View offline sync icon in the navigation bar

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Jan 2023	Apr 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.

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	Jan 2023	-	Apr 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. The updated user interface is a per app, opt-in feature. When 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.

Build canvas apps by using new and refreshed controls

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Feb 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.

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

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

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.

Administration and governance

As an administrator, you are 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.

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

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.

- 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.
User community	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 (✔) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Administration and governance

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

Feature	Enabled for	Public preview	General availability
Implement data loss prevention policies	Users by admins, makers, or analysts	Apr 2023	Jun 2023
Provide website inventory data for tenants and environments	Admins, makers, marketers, or analysts, automatically	-	Jun 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	Apr 2023	
Use Bootstrap version 5 in Power Pages	Users by admins, makers, or analysts	Jun 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	Apr 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 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 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.

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

Implement data loss prevention policies

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2023	Jun 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 a data policy. By configuring this data policy, admins can avoid accidental exposure of their organizational data by makers to anonymous users.

Feature details

Currently, administrators don't have control over Power Pages for restricting data access to anonymous users. This data policy configured from the Power Platform admin center will prevent makers from unintentionally exposing organizational data to anonymous users, as it'll enforce authentication for all users.
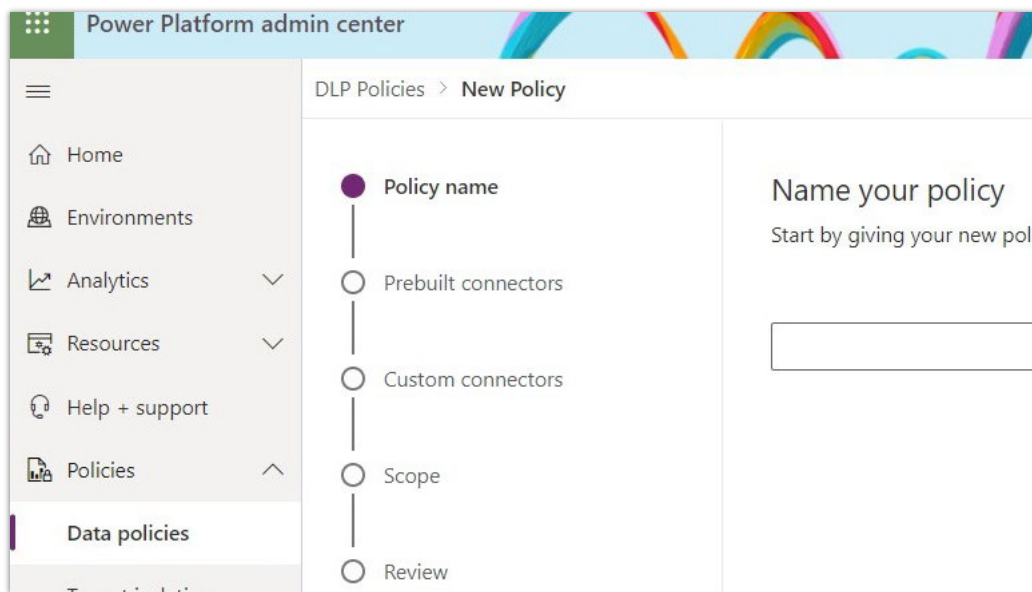
Configuring a new data policy.
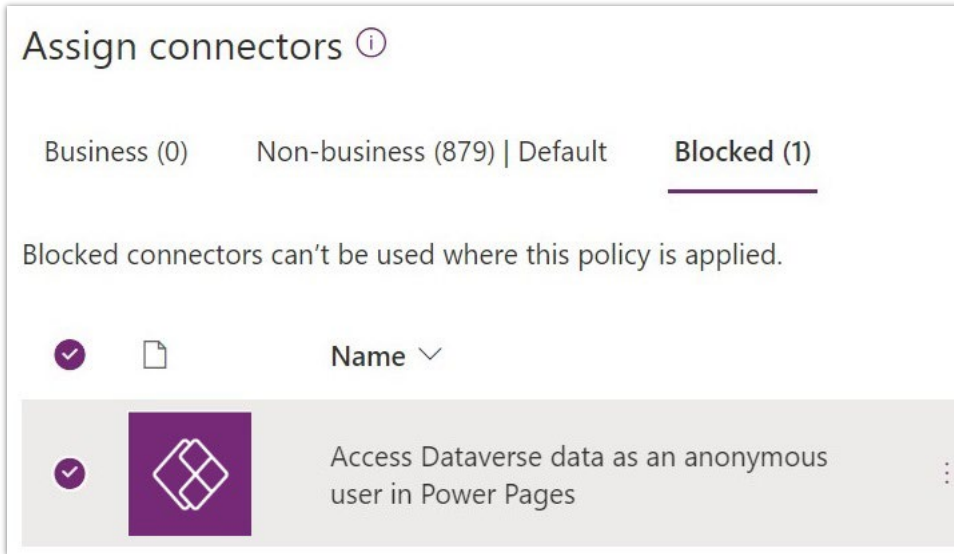
Blocking anonymous access.

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.
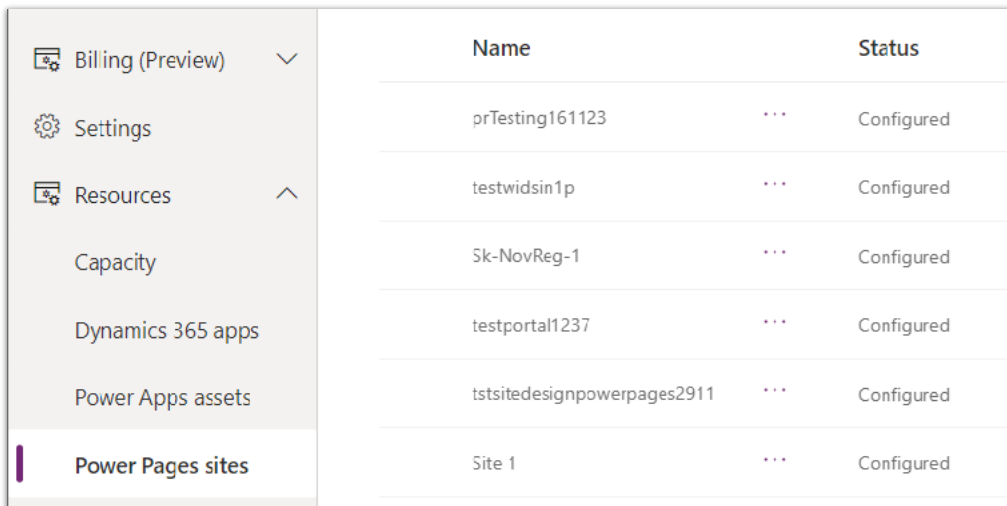
Feature details

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
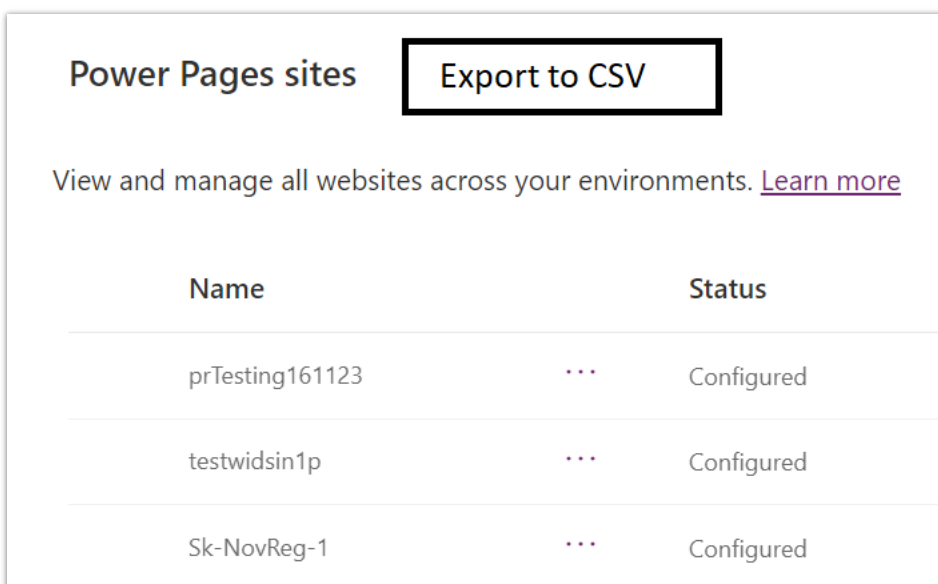
This new feature provides the following:

- 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.

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.

Use cloud flows with Power Pages sites

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 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.
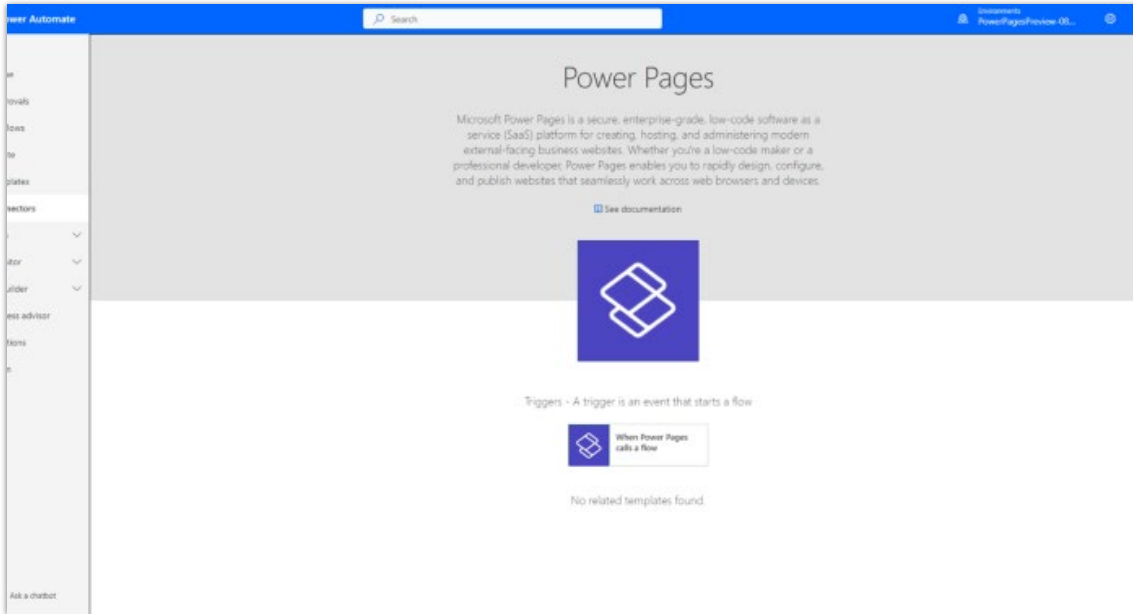
Screenshot of Power Pages connector.

Use Bootstrap version 5 in Power Pages

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

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	Apr 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.
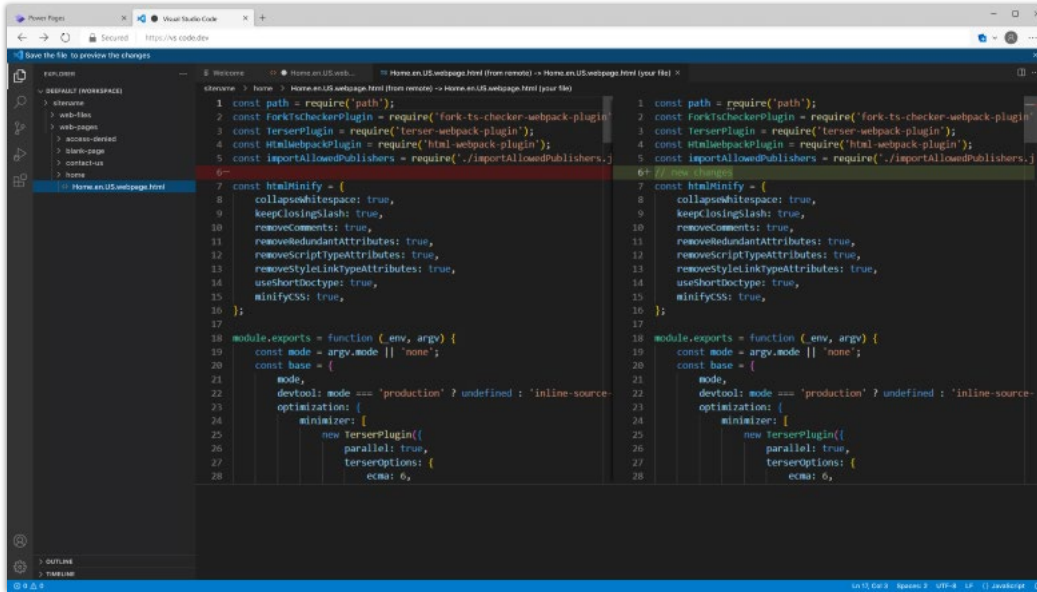
View conflicts and avoid accidental overwrites.

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.

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

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

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

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.

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.

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.
User community	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 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.

Cloud flows

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

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	-	-
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	-	-
Use natural language to create flows	Admins, makers, marketers, or analysts, automatically	-	-	May 2023
Generate expressions from examples	Admins, makers, marketers, or analysts, automatically	✔️Oct 10, 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	Mar 2023	-	May 2023

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	Apr 2023	-	
Monitor ROI performance in desktop flows	Admins, makers, marketers, or analysts, automatically	Sep 2023	-	
Pass complex data between parent and child desktop flows	Admins, makers, marketers, or analysts, automatically	Sep 2023	-	

Feature	Enabled for	Public preview	Early access*	General availability
Support direct connectivity with Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	Sep 2023	-	-
Introduce UISpy to work with UI elements	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2023
Learn about Power Automate for desktop on the login screen	Admins, makers, marketers, or analysts, automatically	-	-	May 2023
Manage work queues for desktop flows	Admins, makers, marketers, or analysts, automatically	May 2023	-	Sep 2023

* You are able to opt into some features as part of early access on January 30, 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.

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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.

Push cloud flow execution data into Application Insights

Enabled for	Public preview	Early access	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.

Monitor performance for cloud and desktop flow activities

Enabled for	Public preview	Early access	General 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 preview	Early access	General 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.

Use natural language to create flows

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

Generate expressions from examples

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	✔ 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.

See also

Format data by examples preview (docs)

Define sequential approvals in Power Automate

Enabled for	Public preview	Early access	General 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.
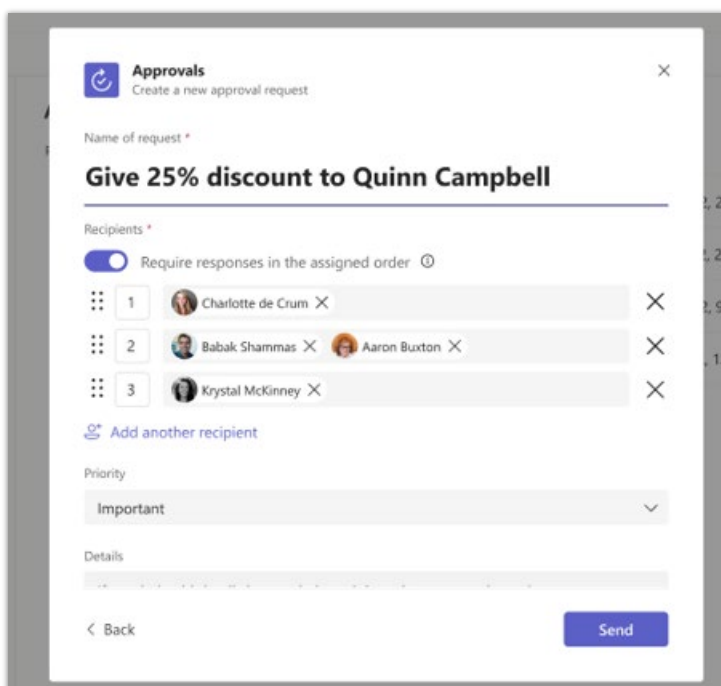
Screenshot of the sequential approvals dialog.

Use native integration for flows in Excel

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Mar 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.

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 preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2023	-	-

Business value

Desktop flow users aren't limited to hard-coded credentials to use desktop flows. It's now possible to set up a connection without providing a password, providing a more flexible application lifecycle management (ALM) for 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 the Power Automate portal and can be used to launch a desktop automation.

Monitor ROI performance in desktop flows

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

Business value

With this new feature, CoE and business teams can define return on investment (ROI) characteristics and closely monitor pre and post automation performances.

Feature details

Deciding on which automation project to invest time and resources requires a well-defined automation backlog that has been prioritized based on impact and complexity of automations and should be aligned with strategic corporate objectives.

You can consider the resulting ROI and operational insights this new feature brings in future decision-making processes about which automation projects to start next.

Pass complex data between parent and child desktop flows

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

Business value

Before this feature, Power Automate for desktop didn't support passing Excel or browser handle IDs initiated in a desktop flow between a parent and a child flow. The addition of this feature avoids the use of workarounds to handle such scenarios.

Feature details

Using parent and child flows is a great way for customers to reuse logic between their various workflows. It helps to avoid creating large, hard-to-maintain flows and enables you to have smaller, more manageable units. A key part of child flows is the ability to pass information from the parent. This functionality was limited in the past for some data types. Now, Power Automate for desktop supports passing Excel and browser instance handle IDs between parent and child desktop flows.

Support direct connectivity with Power Automate for desktop

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

Business value

Direct connectivity within Power Automate for desktop eliminates the requirement to install the machine runtime app, which was previously used for attended runtime scenarios.

Feature details

Direct connectivity with Power Automate for desktop allows users to run desktop flows initiated in the cloud directly through the desktop console. This feature eliminates the requirement to install the machine runtime app, which was previously used to register machines and during the runtime of cloud flows.

Introduce UISpy to work with UI elements

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

Learn about Power Automate for desktop on the login screen

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

Business value

This feature improves the login screen of Power Automate for desktop, so that users can understand the product value before logging in.

Feature details

Power Automate for desktop has a new informative login screen that allows users who might not be familiar with the product to understand its value, core features, and endless possibilities for automation.

Manage work queues for desktop flows

Enabled for	Public preview	Early access	General 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 RBAC support

- Work queue interactions are supported through new actions in Power Automate for desktop

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

Power Virtual Agents enable anyone in your organization to create AI-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

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.

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.

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.

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.
Licensing	Improve your understanding of how to license Power Virtual Agents.
Product documentation	Find documentation for Power Virtual Agents.
User community	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.

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 (✔) 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

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
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
Use list variables and looping in conversations	Users by admins, makers, or analysts	✔ Nov 15, 2022	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.

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.

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)

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.

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	✔ Nov 15, 2022	May 2023

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)

Use list variables and looping in conversations

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	✅ 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 [use a list variables](#) 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)

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.

Investment areas

Investment areas

Microsoft 365 collaboration

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.

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 personal environments

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

Power Fx in Dataverse

[Microsoft Power Fx](#) provides the extensibility capabilities at the business logic layer of the Dataverse platform. In 2023 release wave 1, we'll continue making investments that will enable makers to use Power Fx in Dataverse.

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.

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.

Dataverse APIs

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse.

Feature	Enabled for	Public preview	General availability
Optimize data ingestion performance with CreateMultiple and UpdateMultiple APIs	Users by admins, makers, or analysts	-	May 2023
Send alerts when Dataverse API hits usage limit	Admins, makers, marketers, or analysts, automatically	Jul 2023	Sep 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.

Feature	Enabled for	Public preview	General availability
Use process mining with events	Admins, makers, marketers, or analysts, automatically	Mar 2023	Apr 2023
Receive real-time notifications in Power Apps	Users by admins, makers, or analysts	Feb 2023	Jun 2023

Dataverse extensibility

Dataverse is an extensible platform.

Feature	Enabled for	Public preview	General availability
Include dependent assemblies with plug-ins	Admins, makers, marketers, or analysts, automatically	✔ Mar 31, 2022	Apr 2023

Dataverse personal environments

Microsoft Dataverse personal environments support discovery and adoption.

Feature	Enabled for	Public preview	General availability
Do more with enhancements to personal environments	Users by admins, makers, or analysts	Apr 2023	
Governing personal environments	Users by admins, makers, or analysts	Apr 2023	
Makers can quickly and easily access a Dataverse environment	Users by admins, makers, or analysts	Apr 2023	

Enterprise trust

Improve the overall security and compliance standards of Microsoft Dataverse.

Feature	Enabled for	Public preview	General availability
Delegate subnets for outbound connectivity from customer plug-ins	Users by admins, makers, or analysts	Apr 2023	-
Instantly revoke users and enforce IP restriction with CAE	Users by admins, makers, or analysts	Apr 2023	Aug 2023

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	-	Apr 2023
Associate activities with other activities	Users by admins, makers, or analysts	Feb 2023	Apr 2023

Power Fx in Dataverse

Microsoft Dataverse provides a formula-based, low-code experience with Power Fx.

Feature	Enabled for	Public preview	General availability
Implement calculated column capabilities inside formula columns	Users by admins, makers, or analysts	Jun 2023	Aug 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.

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.

Optimize data ingestion performance with CreateMultiple and UpdateMultiple APIs

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

Business value

This feature improves your customer experience by handling large scale bulk operations by optimizing performance.

Feature details

To optimize bulk data operation performance, we're introducing three new messages: `CreateMultiple`, `UpdateMultiple`, and `UpsertMultiple`. These messages improve performance in three ways:

1. These messages apply changes to the database for all the records at the same time rather than a sequence of individual row operations.

2. Common internal operations, such as authorization checks, would be performed once for each request.

3. With these messages, you'll be able to apply business logic with plug-ins that are invoked just one time and apply logic to all the records in the operation.

When these messages are used and the business logic is designed to work with multiple records, the efficiency of the bulk operation is optimized.

Any business logic that uses the existing `Create` or `Update` single messages is still applied when the `CreateMultiple` and `UpdateMultiple` messages are used and there is a performance benefit; however, performance optimization requires that existing logic for single operations be moved to support multiple operations.

For tables where bulk operations are common, we'll recommend all new business logic for `Create` and `Update` messages be moved to the `CreateMultiple` and `UpdateMultiple` messages. Any existing logic for these messages should be migrated to use the messages that support multiple operations. Internal Dataverse logic will be modified to be optimized for this pattern.

Tables that aren't used with bulk operations can continue to have business logic triggered by the individual `Create` and `Update` messages. This pattern isn't deprecated, but it can't achieve higher throughput.

These new messages won't replace existing API patterns using `$batch` or `ExecuteMultiple`. The existing API patterns will continue to enable sending multiple requests that are processed individually. Because each operation is processed individually, they support continue-on-error capabilities that the new `CreateMultiple` and `UpdateMultiple` messages won't. You'll use these new messages when you have a high degree of confidence that all operations will succeed, and performance must be optimized.

A `DeleteMultiple` message isn't included with this feature because delete operations frequently involve cascading operations that can't be reconciled in a limited period.

Send alerts when Dataverse API hits usage limit

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

Business value

Improve your customer experience by providing clear alerts and call to action when the service hits the service protection limits.

Feature details

Customers encountering slowness often perceive this as a platform issue and report incidents, which causes dissatisfaction. In reality, however, you would have either reached licensing or API service protection limits or component limits, such as a connector's daily execution limits. Today, there's no clear indication provided in the admin portal that clearly articulates the causation.

This feature will be achieved by:

- Triggering proactive alerts in Power Apps, so both the user and admin can plan accordingly (for example, health cards in the Power Platform admin center or a yellow banner inside Dataverse).

- Surface throttling reports that help you navigate from the organization level down to the API requests level.

- Surface recommendations where a recommendation engine must evaluate the following limits:

- Has the user exceeded the component limit per day, such as from a connector? If yes, recommend the purchase of additional licenses to increase the limit.

- Has anyone in the environment exceeded service protection limits? If yes, then the recommended best practices are: Use batch operations, increase concurrency, improve batch size, and set your anti-affinity.

- Has the environment exceeded the allocated tenant units? If yes, provide a recommendation to purchase additional licenses.

- If none of the above, then open a support ticket for further investigation.

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.

Use process mining with events

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Mar 2023	Apr 2023

Business value

Process mining enables deep analysis of business processes, identifying bottlenecks, and opportunities for process optimization. This feature provides native platform capabilities for streaming your business events to a managed data lake and capture those events in a standard schema.

Feature details

Process mining helps to analyze simple to complex business processes present in the business applications and solutions we use every day. The objective of process mining is to help our customers identify process bottlenecks, create opportunities to optimize their business processes, and reduce handling costs.

The event store in the lake will provide a persisted, sequential series of events on which process mining applications (for example, process advisor in Power Automate) to use to provide rich process analytics.

Receive real-time notifications in Power Apps

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Feb 2023	Jun 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, or someone mentions the other, 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. We can see three types of notifications being widely encouraged and used. They are:

1. **In-app notifications**. In-app notifications are ones that are received within Power Apps or Dynamics 365 applications when a certain event takes place. The event can happen in the current system or an external system. All the notifications appear in the notification center (the "bell" icon placed on the top right corner of the application header). The user can go to the notification center and access all of the notifications received. In-app notifications are deleted after a certain duration (the default is 14 days or as set by the notification sender). The user can also delete the notification after reading. The notification can be a simple message or a message with actions. A notification has the option to become a toast or an action.

    - **Toast**: A toast notification is a message that appears in a small floating panel and disappears after a stipulated time. Today, toast notifications appear for conversation assignments, conversation escalations, and conversation transfer scenarios.

    - **Action**: The notification can contain actions to navigate or act on the notification.

2. **External notifications**. External notifications are ones that are received in a third-party application when a certain event takes place. These third-party applications use a Microsoft CCaaS solution (built as custom APIs on Microsoft Dataverse) for real-time communication between the customer (C2) and agent (C1). External notifications can also be a simple message or a message with action. It has the option to become a toast (notification) or an action (alert notification). The definitions are the same as described above. Notifications for live chat, WhatsApp call/chat are typical examples.

3.   **Push notifications**. Push notifications are ones that appear on a mobile device for a given application. Based on the user's mobile settings, an alert is displayed on the app icon. Push notifications help bring a user's attention to an app which is often not in use when the notification is received and allows opening the app to respond to the notification.

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.

Include dependent assemblies with plug-ins

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✅ Mar 31, 2022	Apr 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 ILMerge utility 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 personal environments

Overview

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

Do more with enhancements to personal environments

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

Business value

Makers can now do more in Microsoft Dataverse environments with SharePoint lists.

Feature details

"Personal environment" is another name used for a developer environment, which can be created at make.powerapps.com. You can do more in a personal environment than ever before as we continue making improvements in Dataverse experiences. For example, you'll now be able to use your SharePoint list more effectively by accessing choices, Boolean, and attachment data.

Governing personal environments

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

Business value

As a Power Platform admin, you can govern the creation of personal environments in your tenant.

Feature details

"Personal environment" is another name used for a developer environment, which can be created by makers at make.powerapps.com. As makers start creating personal environments, Power Platform admins might want to manage the personal environments within their tenant. Although personal environments are beneficial to makers, Power Platform administrators will be able to control their creation. To that end, controls will be given to

Power Platform admins to enable or disable personal environments for the makers in the tenant, along with additional controls, such as assigning labels to the personal environment.

Makers can quickly and easily access a Dataverse environment

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

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.

Delegate subnets for outbound connectivity from customer plug-ins

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

Business value

This feature provides enterprise trust readiness along with network isolation capabilities.

Feature details

Outbound interactions between Microsoft Dataverse and a customer's on-premises deployments will now use the Microsoft Azure backbone instead of the public internet. This feature applies to connections from customer plug-ins only.

The IT administrator will now be able to establish a network enterprise policy for outbound connections and link their VNet/subnet with their Power Platform environment to route plug-in outbound traffic securely through the Azure backbone.

This feature will initially be released with a programmatic interface. However, a graphical user interface to configure the feature is planned for the future.

For more information, go to What is subnet delegation?.

Instantly revoke users and enforce IP restriction with CAE

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

CAE 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.

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	-	Apr 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.

Associate activities with other activities

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

Business value

Activity records like emails, appointments, tasks, calls, and Teams chats can be associated to **business records**, such as accounts, contacts, leads, and opportunities. Previously, however, it wasn't possible to associate an activity record to another activity record. With this feature, users will be able to associate activity records with other activity records (for example, a Teams chat with a task).

Feature details

Users will be able to associate an activity record with another activity record using the **Regarding lookup column (field)**. This means a user can perform actions like associating a Teams chat activity to a task or an appointment activity.

Power Fx in Dataverse

Overview

[Microsoft Power Fx](#) provides the extensibility capabilities at the business logic layer of the Dataverse platform. In 2023 release wave 1, we'll continue making investments that will enable makers to use Power Fx in Dataverse.

Implement calculated column capabilities inside formula columns

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

Business value

This feature gives you the ability to define more calculations inside the formula columns that the legacy calculated field supports, so makers get to define these calculations in one place.

Feature details

The goal of this feature is to address calculated columns capabilities that aren't currently supported inside the formula columns to eventually replace the classic calculated columns feature.

Here are some of the known gaps that formula columns don't support today:

- Creation of currency fields
- Support date and time with user local and time zone
- Support for choice columns
- Ability to set precisions for decimals

AI Builder

Plan and prepare for AI 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

AI Builder allows citizen developers to use, customize, and govern AI models across their organization with a no-code configuration engine. By using AI 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 AI backs the capabilities in AI Builder, which allows makers to process documents, text, images, and generate predictions from structured data. Customers who have in-house AI models built by data scientists can also import them into AI 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 pre-trained 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 AI Builder, go to:

- [Explore AI Builder](#)

- [AI Builder documentation and learning modules](#)

- [AI Builder videos on YouTube](#)

Investment areas

Investment areas

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.

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 AI 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.

To learn more about the entire set of capabilities being delivered during this release wave, **check out the release plan for AI 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 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.

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
Review workflows using validation station	Admins, makers, marketers, or analysts, automatically	Apr 2023	-
Classify documents with custom AI models	Admins, makers, marketers, or analysts, automatically	Jun 2023	-
Retrain documents using the feedback loop feature	Admins, makers, marketers, or analysts, automatically	Nov 2022	Apr 2023
Detect complex documents with document splitter	Admins, makers, marketers, or analysts, automatically	Jun 2023	Sep 2023
Easily process contracts using a prebuilt model	Admins, makers, marketers, or analysts, automatically	Jun 2023	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
Models and datasets support versioning and rollback	Admins, makers, marketers, or analysts, automatically	Apr 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 Dynamics 365 and Microsoft Power Platform availability page.

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.
- **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.

Review workflows using validation station

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

Business value

When companies automate their document data extraction process using AI, it's typical that some data isn't predicted correctly (for example, low document quality, unexpected layout, overlapping fields, and more). In this case, a validation station will help humans review the predicted data and fix it, if needed, to avoid processing incorrect data downstream. It'll also allow improvement in model performance with a retagging experience.

Feature details

The human in the loop feature covers four aspects:

- **Requesting the review**: A new Power Automate action card is available to send documents for human review. Ideally, this action is used within a condition that checks validity of predicted data. This action is also included in AI Builder templates accessible from the model home page. AI Builder human review is based on Power Automate approvals, which power the possibility to assign and reassign review to individuals or groups.

- **Getting notifications for reviews**: AI Builder human review also benefits from the approvals Outlook and Teams notifications for reviews with the possibility to have quick actions from the notifications' details.

- **Listing reviews**: Reviews are listed as part of approvals.

- **Doing the review**: A prebuilt validation station is available to help reviewers check data that's been predicted from a document and possibly fix it. This validation station also allows users to improve document tags.

Classify documents with custom AI models

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

Business value

Classify documents so they're easily stored and categorized in a document processing flow.

Feature details

You can custom train an AI model to classify documents. For example, documents with different types of invoices might arrive to a single file share or shared mailbox. With this capability, users can create flows that appropriately route these documents.

Retrain documents using the feedback loop feature

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

Business value

After models in AI 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 AI 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 AI Builder models maintain an optimal level of quality over time.

Feature details

The feedback loop feature is a key element of ensuring optimal quality of AI Builder document processing models over time. When an AI 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 AI Builder in their training wizard. They can correctly retag the documents and update the AI 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 AI Builder models aren't performing adequately. This allows them to take corrective action.

Additional scenarios like text processing and object detection are also supported.

Detect complex documents with document splitter

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

Business value

You can benefit from an easier solution to process complex documents that contain multiple sub-documents.

Feature details

Using the Azure Cognitive Services new *document splitter* capability, you can automatically detect when multiple documents are contained within a document. This includes being able to process documents through prebuilt models or custom models.

Easily process contracts using a prebuilt model

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

Business value

You can easily process contracts when you want to extract standard data entities from contracts.

Feature details

Using the *contract processing* prebuilt capability, you can extract standard metadata from contracts without the need to build a custom model. For document processing workflows that don't require extracting custom business fields, this simplifies the model setup process for makers.

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 AI 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.

Models and datasets support versioning and rollback

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

Business value

Supporting multiple versions of the same model enables makers to compare the performance of different models for the same scenario. This facilitates enterprise adoption for production processes that require fine-tuning models based on new data.

Feature details

Makers can iterate on different versions for the same model. This allows them to fine-tune model performance and control which version of the AI Builder model they want to deploy to different environments. Moving trainable models across environments is supported with data set versioning. You can also rollback the model state to a previous version to restore the state of the training data and republish the previous version.

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

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.

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 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.

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-aware cloud flows in managed environments	Users by admins, makers, or analysts	Feb 2023	Apr 2023
Simplify ALM with pipelines	Admins, makers, marketers, or analysts, automatically	-	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
Automatic deletion of inactive developer environments	Users, automatically	Feb 2023	Apr 2023
Exempt data groups in DLP policies	Admins, makers, marketers, or analysts, automatically	Mar 2023	Jun 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
Manually assign System Administrator role to tenant administrator	Admins, makers, marketers, or analysts, automatically	Apr 2023	Apr 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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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.

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-aware cloud flows in managed environments

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

Business value

With sharing limits, your admins can control how broadly makers can share their cloud flows within your organization.

Feature details

The existing sharing limits for canvas apps located in managed environments will now equally apply to cloud flows that are stored into solutions. Admins will have the option to configure:

- no sharing limits
- only allow sharing with security groups
- exclude sharing with security groups

Simplify ALM with pipelines

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jun 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 general availability release.

Feature details

Pipelines provide more control and better visibility with less effort. Building on the public preview release, the general availability release of pipelines will offer many critical new capabilities with 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)

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.

Automatic deletion of inactive developer environments

Enabled for	Public preview	General availability
Users, automatically	Feb 2023	Apr 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.

Exempt data groups in DLP policies

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

Business value

Admins can leverage the new **Exempt** category to consult the desktop flow action groups that aren't yet governed, and they can progressively place them in the other data groups of their data policy at their own pace.

Feature details

Connectors that are in the **Exempt** category are ignored by the data policy. For example, if a connector is placed in the **Blocked** category, it can't be used when building an app or flow. However, if the connector is placed in the **Exempt** category, it can be freely used when building an app or flow irrespective of the connectors placed in other data groups.

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.

Manually assign System Administrator role to tenant administrator

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

Business value

Empower customers to manually assign and manage high-privileged security roles to appropriate users in their environment.

Feature details

Currently, the **System Administrator** role is automatically assigned to any user in Power Platform who has the **Global Administrator**, **Power Platform Administrator**, or **Dynamics 365 Administrator** role in Azure Active Directory (Azure AD).

With this feature, the auto assignment of the security role won't happen. Power Platform customers must manually assign and manage the **System Administrator** role for appropriate users in their environment. We'll provide guidance on how to identify users with this security role assigned and how customers can remove this role from users who shouldn't have this role.

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

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 (✔) 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.

Feature	Enabled for	Public preview	General availability
Deploy and manage apps on non-Microsoft CICD systems	Users, automatically	Mar 2023	Jun 2023
Create an integrated API plus connector development experience in Visual Studio	Users, automatically	Apr 2023	Jun 2023
Make solution export source code repository friendly	Users, automatically	Mar 2023	Jul 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.

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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.

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 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.

Deploy and manage apps on non-Microsoft CICD systems

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

Business value

Customers who are Microsoft Power Platform users, but have non-Microsoft CI/CD systems, can now use such systems to deploy Power Platform applications.

Feature details

Large financial services organizations don't want vendor lock-in. We're providing Microsoft Power Platform customers with the ability to use their existing CI/CD systems to deploy and manage Power Platform applications in their software delivery supply chain.

Create an integrated API plus connector development experience in Visual Studio

Enabled for	Public preview	General availability
Users, automatically	Apr 2023	Jun 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.

Make solution export source code repository friendly

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

Business value

Governance focused customers will now be able to export and store Microsoft Power Platform solutions in Source Code Control Systems (SCCS) with added support for version control branching and merging.

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 SCCS.

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.

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 2023 release wave 1, we'll make it simpler to sell apps and iterate faster through the addition of license pay-as-you-go for ISVs, and automated application updates.

For official product documentation, go to:

- ISV Studio

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 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 Power Query.

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.

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.

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.

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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	Apr 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
Use the SQL Server Analysis Services connector in Power BI dataflows	Admins, makers, marketers, or analysts, automatically	Apr 2023	-
Apply versioning fields and rich text columns in SharePoint Online List	Admins, makers, marketers, or analysts, automatically	Apr 2023	

Feature	Enabled for	Public preview	General availability
Update Google Analytics connector to use V4 Data API	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
Natural language interface generates new Power Query steps	Users, automatically	Apr 2023	-
Split one query into multiple with conditional split	Users, automatically	Apr 2023	-
Choose from recommended data transformations	Users, automatically	Apr 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.

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	Apr 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.

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.

Use the SQL Server Analysis Services connector in Power BI dataflows

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

Business value

With the release of this connector in Power BI dataflows, you can connect to and load your business data from SQL Server Analysis Services for use in Power BI dataflows.

Feature details

It's important to have similar experiences and functionalities in every Power Query instance. With this feature, you'll be able to use the SQL Server Analysis Services connector in Power BI dataflows, along with its availability in Power Query Desktop today.

Apply versioning fields and rich text columns in SharePoint Online List

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

Business value

Users and customers have continually asked that versioning fields and rich text column support be added to the Power Query SharePoint Online list connector.

Feature details

We'll implement support for versioning fields and rich text columns in the implementation of SharePoint Online List 2.0, eliminating parity gaps with the implementation of SharePoint Online List 1.0.

Update Google Analytics connector to use V4 Data API

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

Business value

With the update of this connector, you can connect to and load your business data from Google Analytics 4 Data API for use in Power Query Experiences.

Feature details

The current Google Analytics connector doesn't use the Google Analytics 4 Data API, and users have indicated that there is a strong desire to use features of that API. Therefore, we're updating the Google Analytics connector to use the Google Analytics 4 Data API.

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.

Natural language interface generates new Power Query steps

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

Business value

Users are most commonly using the search bar to find answers or provide guidance for common data preparation actions that they'd like to perform. The search box in Power Query Online currently only supports a basic search functionality. This new feature tries to expand the capabilities by being able to interpret what the user types in their natural language and provides a set of suggested steps that they can choose from to insert into their query.

Feature details

A new feature for the global search box in Power Query Online that infuses the GPT-3 technology enables the user to type a request or desired action in their natural language.

The feature is then able to interpret such input into a suggestion or a series of suggestions for actions or transformation steps that can be added to the user's query.

Split one query into multiple with conditional split

Enabled for	Public preview	General availability
Users, automatically	Apr 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.

Choose from recommended data transformations

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

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.

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 AI 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

- Dynamics 365 and Microsoft Power Platform release plans

- Microsoft Lifecycle Policy

Got feedback?

Share your feedback on a community forum for Dynamics 365 or Power Platform. We'll use your feedback to make improvements. To find out about updates to these release notes, follow us on Twitter @MSFTDynamics365.

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