



Microsoft Power Platform

2022 RELEASE WAVE 2 PLAN

Features releasing from October 2022 through March 2023

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Microsoft Power Platform: 2022 release wave 2 plan

The Microsoft Power Platform release plan for the 2022 release wave 2 describes new features releasing from **October 2022** through **March 2023** for 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. You can either browse the release plan [online](#) or download the document as a [PDF file](#).

The Dynamics 365 and industry clouds features shipping in the 2022 release wave 2 have been summarized in a separate [release plan](#) as well as a downloadable [PDF](#).

2022 release wave 2 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.

Power BI

[Power BI](#) continues to invest in empowering every individual, team, and organization to drive a data culture. Creation experience is improved by aligning our experiences with Office and enabling datasets authoring on the web. By bringing Power Query diagram view into Power BI Desktop, creators can use a no code experience to perform ETL on their data. For teams, we're bringing enhancements to Metrics focused on enterprise needs and integration with **Viva Goals**. In addition, big data experience is increased through automatic aggregations, query scale out, data protection capabilities through DLP and providing improved visibility into activity to admins.

Power Apps

[Power Apps](#) will expand governance capabilities to allow organizations to enable, manage, and support citizen development across the entire organization. Makers and developers of all skill levels will be more productive over Microsoft Dataverse in a unified studio, with modern experiences to build and manage data and logic, as well as infused intelligence to support development, enrich data, and optimize user experiences. In addition to ensuring trust and the ability to leverage rich data experiences, both makers and users will benefit from out-of-the-box collaboration capabilities to enable users to be more productive when working together.

Power Pages

[Power Pages](#) continues to invest in bringing more out-of-the-box capabilities to support both low-code/no-code development and professional developers. Some of the salient capabilities in this release allow makers to have additional capabilities to work with forms and lists using the design studio and get them started quickly using additional solution templates. There are enhancements for professional developers to do more with the sites using Microsoft Power Platform CLI tool and Visual Studio Code as well as for administrators to better administer and govern their Power Pages sites.

Power Automate

[Power Automate](#) is more accessible than ever with new experiences to help users of every skill level build out their cloud and desktop flows. Organizations need to automate their deployments of Power Automate, so there are additional enhancements for application lifecycle management (ALM), and with the increased usage of robotic process automation (RPA), we're adding features to make it easier to manage machines in Azure and the credentials of your users and accounts.

Power Virtual Agents

[Power Virtual Agents](#) brings improvements in the authoring experience with commenting, Power Pages integration, data loss prevention options, proactive bot update messaging in Microsoft Teams, and more. 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 ultimately answer a user's questions.

Microsoft Dataverse

[Microsoft Dataverse](#) continues investment in Azure Synapse Link. Customers will be able to unlock deeper insights from Dataverse data using the power of Azure Synapse. Deeper integration with Azure Active Directory will simplify sharing while improving governance and security. Enhancements to Dataverse data modeling will allow customers to build new types of applications leveraging rich and intelligent data types.

AI Builder

[AI Builder](#) continues to enable citizen developers to use and customize AI capabilities to build more intelligent apps and workflows. Lifecycle and governance of AI Builder models will be improved with enhanced versioning, deployment, and monitoring capabilities. Makers will also benefit from new features for Intelligent Document and Text Processing like the ability to manage human in the loop validation, easier integration of large data sets for

automated e-mail processing, and the ability to process contracts and multi-page tables in documents.

Governance and administration and ISV experiences

[Governance and administration](#) is introducing the Managed Environments for Power Platform, a new way to get more visibility, control more with less effort, and simplify governance of low code assets. Separately, we're introducing a unique set of enterprise capabilities for regulated customers, including Customer Lockbox, Customer Managed Keys, and new Network Isolation enhancements to ensure our services meet the requirements of the EU Data Boundary initiative. We'll be extending the Azure Pay-As-You-Go service to more products allowing Power Pages and Power Automate to be purchased based on how much the organization consumes, and we'll be adding reporting for admins to understand more about how licenses are being consumed across the organization.

[Pro development](#) is excited about the ease with which professional developers can now participate in app development. With Power Platform Tools for Visual Studio code available in GitHub Codespaces, support for automated installs from AppSource, developer environments can be ready in seconds rather than hours with no additional tooling required on the machine. With deeper support for creation and deployment of custom connectors and required connections in a target environment, fully automated CI/CD can be setup with ease using GitHub or Azure DevOps.

[ISV experiences](#) can now iterate much faster. With automated application updates, ISVs can focus on building great applications and ship at scale without the manual overhead of coordinating updates with each customer manually. With this capability, customers can rest assured that the latest release will be deployed without manual effort.

Data integration

[Data integration](#) will 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. Several enhancements, like additional security roles, logs and diagnostics for VNet will also be included in this wave. Within the Power Query Editor and transformation experience, you can expect new transforms and capabilities to simplify your visual data prep 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 and beyond. Finally, we're excited to share a new data integration story empowering aligned data integration scenarios to Microsoft Data Cloud across both citizen and professional developers.

Key dates for the 2022 release wave 2

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 2022 release wave 2.

Milestone	Date	Description
Release plans available	July 12, 2022	Learn about the new capabilities coming in the 2022 release wave 2 (October 2022 – March 2023) across Dynamics 365 and industry clouds and Microsoft Power Platform.
Early access available	August 1, 2022	Test and validate new features and capabilities that will be a part of the 2022 release wave 2, coming in October, before they get enabled automatically for your users. You can view the Microsoft Power Platform 2022 release wave 2 early access features now.
Release plans available in 11 additional languages	July 29, 2022	The Dynamics 365 and industry clouds and Power Platform release plans are published in Danish, Dutch, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese (Brazilian), Spanish, and Swedish.
General availability	October 1, 2022	Production deployment for the 2022 release wave 2 begins. Regional deployments will start on October 1, 2022.

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 2022 release wave 2.

Let us know your thoughts. Share your feedback in the [Microsoft Power Platform community forum](#). We'll use your feedback to make improvements.

2022 release wave 2 features available for early access

This topic lists the features that can be enabled for testing in your environment beginning **August 1, 2022**. 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 2022 release wave 2 updates](#).

IMPORTANT If you are using Dynamics 365 apps, such as Sales, Service, Marketing, Finance, Supply Chain Management, Business Central, and Commerce, there are early access features that could impact your users. For Dynamics 365 early access features, go to [2022 release wave 2 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
Appointment description supports rich text	Users, automatically	Aug 1, 2022	Oct 2022
Create and join Teams meetings in-app or from appointments	Users, automatically	Aug 1, 2022	Oct 2022
Easily configure mobile offline for modern converged apps	Users, automatically	Aug 1, 2022	Nov 2022
Easily copy links to records	Users, automatically	Aug 1, 2022	Oct 2022
Filter grid data, save results as view	Users, automatically	Aug 1, 2022	Oct 2022
Model-driven app client toasts moved to the toast stack	Users, automatically	Aug 1, 2022	Oct 2022

Feature	Enabled for	Early access	General availability
Modern advanced find turned on by default	Users, automatically	Aug 1, 2022	Oct 2022
View only relevant activities in dropdown	Users, automatically	Aug 1, 2022	Oct 2022
View your colleague's presence	Users, automatically	Aug 1, 2022	Oct 2022

Power BI

Plan and prepare for Power BI in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 of 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 October 2022 through March 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
Query scale-out	Admins, makers, marketers, or analysts, automatically	Mar 2023	

Feature	Enabled for	Public preview	General availability
Data protection enhancements - highlighting centralized Power BI DLP policies	Users by admins, makers, or analysts	✓ Apr 30, 2022	Dec 2022
Hybrid tables	Admins, makers, marketers, or analysts, automatically	-	Mar 2023
Log analytics for analysis services engine events	Users by admins, makers, or analysts	-	Mar 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
Use an SDK to enable quick creation for third parties	Users, automatically	Oct 2022	-
Replace Get data experience in the Power BI service	Users, automatically	Nov 2022	-
Dataset authoring in the Power BI Service	Users, automatically	Dec 2022	-
Improvements to download Power BI for large models	Admins, makers, marketers, or analysts, automatically	Dec 2022	-
Power Query Diagram view in Power BI Desktop	Admins, makers, marketers, or analysts, automatically	Mar 2023	-
Mobile visual formatting	Users by admins, makers, or analysts	-	Oct 2022
Create quick reports on datasets with multiple tables	Users, automatically	-	Feb 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.

Query scale-out

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

Data protection enhancements - highlighting centralized Power BI DLP policies

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	✓ Apr 30, 2022	Dec 2022

Business value

This feature enables organizations to control and protect their sensitive enterprise data by leveraging Microsoft's leading security solutions for information protection, threat protection, and cloud app security.

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 365 Data Loss Prevention (DLP) policies enable enterprise customers to implement policies for Office, Teams, SharePoint, and more. We identified that Microsoft 365 DLP can be leveraged to meet some of the top-ask security requirements of Enterprise customers,

specifically from Financial Services and Healthcare sectors. For example, the ability to detect and get alerts upon upload of PII data.

We've recently worked closely with Microsoft 365 Compliance to release a **public preview** of DLP policies for Power BI. The preview includes 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, along with automatic admin actions, such as alerts to security admins and custom policy tips for users.

In 2022 release plan 2, we plan to focus on **bringing DLP policies in Power BI to general availability** and on delivering a number of other enhancements.

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

- [Data protection in Power BI](#)
- [Sensitivity labels in Power BI](#)
- [Using Microsoft Defender for Cloud Apps controls in Power BI](#)

See also

[Data loss prevention policies for Power BI](#) (docs)

Hybrid tables

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

Business value

Hybrid tables combine the performance of VertiPaq in-memory caches with the capabilities of DirectQuery, allowing users to unlock massive datasets for real-time, interactive analysis.

Feature details

Hybrid tables will contain in-memory VertiPaq caches of historical data for blazing-fast performance. In the same table, real-time data will be queried in DirectQuery mode and dynamically combined with cached data. The DirectQuery range can be limited to only the necessary real-time data, which improves the performance of queries on big-data sources. When combined with Power BI's automatic page refresh feature, hybrid tables will unlock massive datasets with billions of rows for interactive analysis while providing a great solution for real-time requirements.

Log analytics for analysis services engine events

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

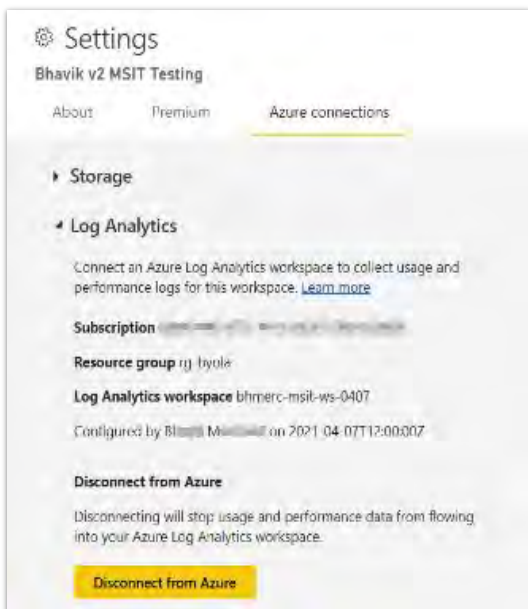
Business value

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

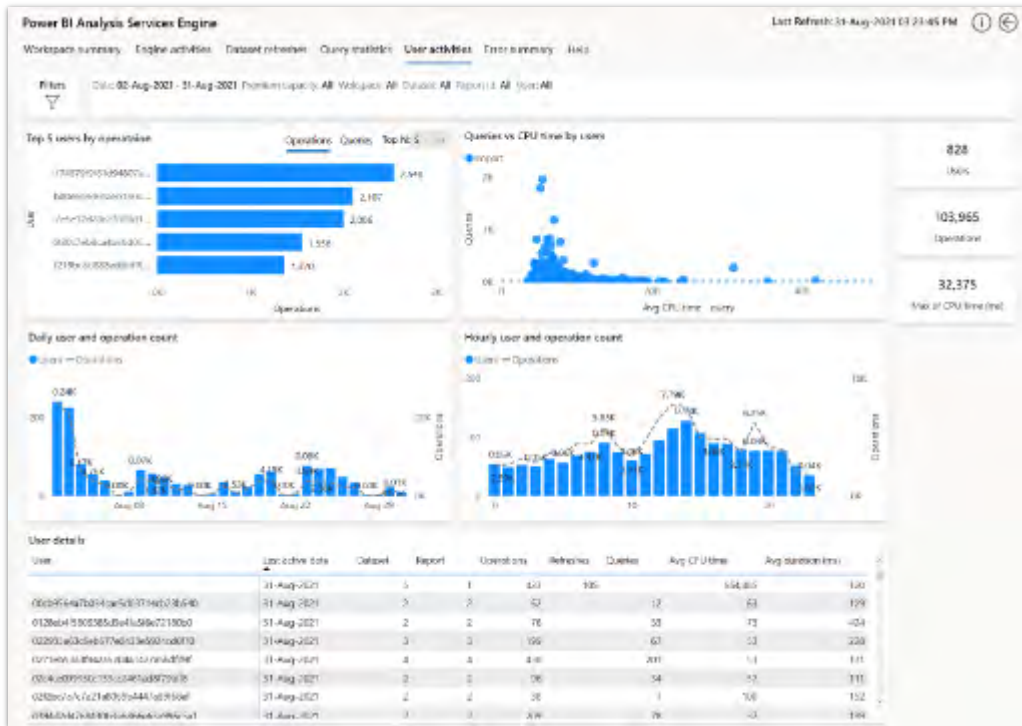
Feature details

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

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



Screenshot of workspace configuration for Azure Log Analytics.



Screenshot of user activities for Analysis Services engine.

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.

Use an SDK to enable quick creation for third parties

Enabled for	Public preview	General availability
Users, automatically	Oct 2022	-

Business value

Power BI is making available an SDK to add Power BI **quick create** experiences within third-party offerings. Developers can add a new capability to their product that helps users of their product get started with data analysis in Power BI on data from their application.

Feature details

The Power BI **quick create** SDK enables third parties to add an experience similar to the quick visualize options that Power BI has added to Dynamics and SharePoint lists. With the

SDK, developers can embed an experience in their application that connects to data in their application or exports a table to Power BI, and it automatically generates a basic Power BI report for the data. Within the quick create experience, users can then explore data to customize the report and save it to Power BI.

Replace Get data experience in the Power BI service

Enabled for	Public preview	General availability
Users, automatically	Nov 2022	-

Business value

The current **Get data** experience in Power BI is being improved in both discoverability and usability. This will help both self-service and pro users of Power BI create content more easily and successfully in the Power BI service.

Feature details

The **Get data** experience improvements coming in 2022 release wave 2 include:

- changing the entry point for **Get data** to better fit within the overall Power BI create experiences
- streamlining how users create new reports in Power BI
- simplifying how users select data for new reports

Dataset authoring in the Power BI Service

Enabled for	Public preview	General availability
Users, automatically	Dec 2022	-

Business value

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

Feature details

Now, Power BI allows users to navigate to a dataset and edit the dataset using the model view interface found inside Power BI Desktop. This will allow users to work and collaborate simultaneously on the same dataset. In 2022 release wave 2, we'll allow users to take an existing dataset and modify it, including:

- Measures
- Role Level Security
- Format strings
- Relationships

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

Improvements to download Power BI for large models

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Dec 2022	-

Business value

Now, Power BI Service will allow users to download reports and datasets in different configurations depending on the data volumes. Also, Power BI will support the ability to choose which type of file should be downloaded, including **PBIX**, **PBIT**, and **live connected report**. This will allow users to treat the service version as the source of the truth and unlocks many authoring scenarios when working with the desktop and the web to make edits.

Feature details

In 2022 release wave 2, Power BI will allow users to save or download a copy of a Power BI report or dataset. Initially, there will be three options:

1. **Download a PBIX:** This option will allow users to download a Power BI file, which contains the data and the report definition (if the report option was selected). This is great for scenarios where the data is small and manageable and if you need the ability to snapshot the data at a point in time.
2. **Download PBIT:** This option will allow users to download a Power BI file with the underlying model but without data. This is extremely useful for when the dataset is too large, but you would like to make a small edit offline and then publish back.
3. **Download live connected report:** In several scenarios, you may want to actually keep the dataset in the Power BI Service but instead create or adjust the current report. This option will download a PBIX with a live connection to the Power BI Service.

We're also adding the ability for you to save a copy of a dataset in the service (instead of downloading) just in case you wish to take a backup or snapshot.

Power Query Diagram view in Power BI Desktop

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

Business value

Around 90% of the information transmitted to our brain is visual, and it's processed 60,000x faster than text. A visual interface can provide more clarity in less time. With data preparation being the most time-consuming task in analytics and BI, it's become increasingly important to provide a visual interface to prepare data.

The **Diagram View** in Power Query reimagines self-service data prep and provides an interface to easily prepare and transform your data and visualize the data preparation process. This simplifies the experience for citizen data analysts to quickly create queries and understand the flow of data – both the "big picture view" of how the queries are related and the "detailed view" around specific data preparation steps within a query.

Feature details

Diagram View gives you a visual interface to create, view, or modify your queries. Within Diagram View, customers can connect to many different types of data sources as always, using the **Get Data** experience. There are now three ways by which you can shape and combine data:

1. Using the "+" button in the Diagram View
2. Using the "Ribbon" (existing method)
3. Using the "Data Preview" (existing method)

In 2022 release wave 2, Power Query in Power BI Desktop will resemble Power Query online including the enhanced Get Data experience and other bug fixes and feature enhancements.



Screen of Power Query Diagram View.

Mobile visual formatting

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Oct 2022

Business value

Report creators can now design great Power BI reports optimized for the Power BI mobile apps by formatting visuals specifically for mobile layout.

Feature details

This feature provides more flexibility and design options for creating reports that look great on mobile devices. With the general availability of mobile visual formatting, we're making the visual format pane available in mobile layout view for all reports.

See also

[About mobile-optimized Power BI reports](#) (docs)

Create quick reports on datasets with multiple tables

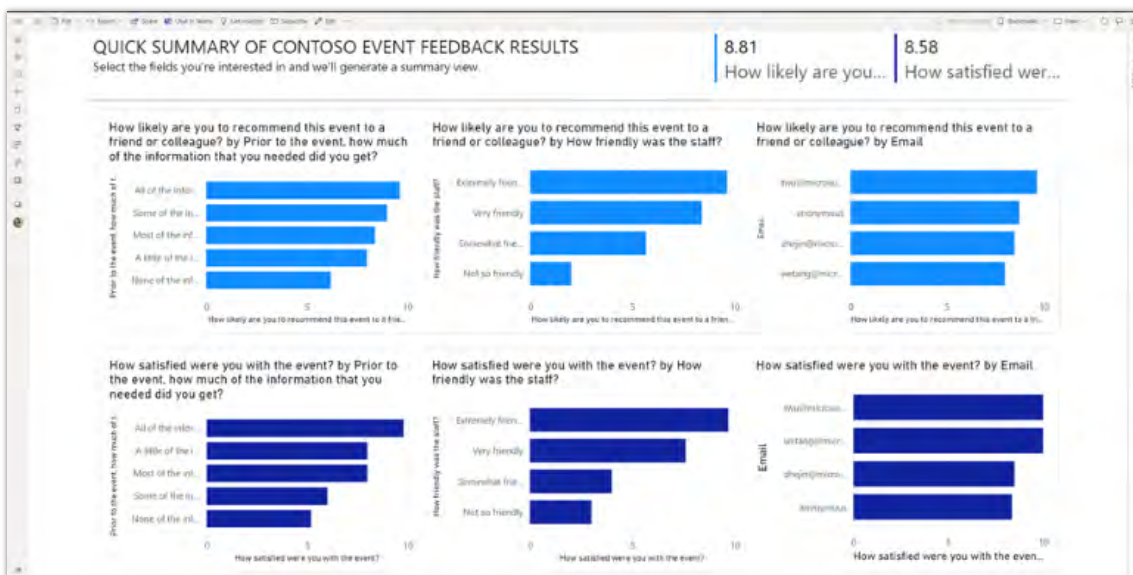
Enabled for	Public preview	General availability
Users, automatically	-	Feb 2023

Business value

The Power BI **quick create** experience helps users get started with Power BI report authoring by automatically generating a report for users based on their data. This functionality is currently only available when data is limited to a single table. This new feature brings our AI-driven automatic report creation capabilities to datasets with more than one table.

Feature details

This feature builds on the current **quick create** functionality in Power BI by enabling users to auto-generate reports for datasets with multiple tables. The quick create feature automatically analyzes selected data or datasets to pick interesting fields to include in auto-generated report layouts. This helps users get started with both report authoring and data analysis by providing a visual and interactive starting point within a Power BI report.



Visuals generated by the quick create experience for datasets with more than one table.

Power Apps

Plan and prepare for Power Apps in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 2022 release wave 2:

- **Trust:** Secure and governable enterprise apps are critical to creating trust with your users and enterprise IT teams.
- **Data:** Makers and developers of all skill levels will be more productive over Microsoft Dataverse, multiply their productivity with fusion teams, and leverage intelligence to assist development.
- **Fusion:** Power Apps will add built-in collaboration for end users and integration with Microsoft 365 to allow teams to collaborate and act on business data, as well as key updates to modernize user experiences.
- **Intelligence:** Organizations can now build and deliver flagship apps to the entire company through Power Apps with offline and standalone apps.

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

- [Power Apps docs](#)
- [Power Apps training on Microsoft Learn](#)

Investment areas



Investment areas

Fusion of components, composition, and collaboration

Power Apps allows everyone to be productive by supporting a collaborative environment for fusion teams to bring together the best of their assets and skills into a single solution. Power Apps will invest in ensuring makers can work collaboratively on an app, bringing together the skills, insights, and knowledge of multiple makers into a single application in real time. We'll also ensure that skills across highly visual custom UI, data and model driven UI, and code-first components can all be leveraged in a single application.

Every system connected

Dataverse and the ecosystem of connectors allows organizations to build apps that leverage data from multiple sources, including Dataverse and data from Microsoft and third-party sources. To continue to enable makers to build applications including a rich set of data from multiple sources, we'll continue to improve our Dataverse experiences to manage and leverage data within the platform, simplifying virtual tables and connections to external data sources, and improving offline capabilities to ensure data can be used in apps regardless of connectivity.

Collaborative workloads

Power Apps will continue to ensure that app users are as productive as they can be. This will be achieved through a modern and simple experience and enabling collaboration between users. Power Apps will ensure that app experiences are familiar and allow users to leverage both collaboration with team members in their apps and work with data from their apps in their existing tools like Microsoft Teams.

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.

Helpful links	Description
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 October 2022 through March 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.

Collaborative workloads

Collaborative workloads let users leverage app experiences and data, allowing them to collaborate with team members using existing tools like Teams.

Feature	Enabled for	Public preview	Early access*	General availability
Grid control support for grouping, aggregation, nested grids	Users by admins, makers, or analysts	Oct 2022	-	
Filter grid data, save results as view	Users, automatically	-	Aug 2022	Oct 2022
Modern advanced find turned on by default	Users, automatically	-	Aug 2022	Oct 2022
Power BI quick reports in Power Apps	Admins, makers, marketers, or analysts, automatically	Aug 2022	-	Oct 2022

Feature	Enabled for	Public preview	Early access*	General availability
View form updates to command bar, business process flow, header, and tabs	Admins, makers, marketers, or analysts, automatically	Aug 2022	-	Oct 2022
Model-driven app client toasts moved to the toast stack	Users, automatically	-	Aug 2022	Oct 2022
Use Teams chat with others in app	Users by admins, makers, or analysts	Oct 2022	-	Mar 2023

Every system connected

Power Apps enables organizations to remove data silos and connect every system for consistent and reliable access to data.

Feature	Enabled for	Public preview	Early access*	General availability
Dataverse tables integrated inside Power Apps Studio	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022
Easily configure mobile offline for modern converged apps	Users, automatically	-	Aug 2022	Nov 2022
Connect to external data from Dataverse	Admins, makers, marketers, or analysts, automatically	Oct 2022	-	Jan 2023

Fusion of components, composition, and collaboration

Fusion of components, composition, and collaboration brings together the skills, insights, and knowledge of makers into a single application.

Feature	Enabled for	Public preview	Early access*	General availability
Custom pages are responsive by default with rich layouts	Admins, makers, marketers, or analysts, automatically	Oct 2022	-	

Feature	Enabled for	Public preview	Early access*	General availability
Appointment description supports rich text	Users, automatically	-	Aug 2022	Oct 2022
Create and join Teams meetings in-app or from appointments	Users, automatically	-	Aug 2022	Oct 2022
Easily copy links to records	Users, automatically	-	Aug 2022	Oct 2022
View only relevant activities in dropdown	Users, automatically	-	Aug 2022	Oct 2022
View your colleague's presence	Users, automatically	Aug 2022	-	Oct 2022

* You are able to opt into some features as part of early access on August 1, 2022, 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](#).

Collaborative workloads

Overview

Power Apps will continue to ensure that app users are as productive as they can be. This will be achieved through a modern and simple experience and enabling collaboration between users. Power Apps will ensure that app experiences are familiar and allow users to leverage both collaboration with team members in their apps and work with data from their apps in their existing tools like Microsoft Teams.

Grid control support for grouping, aggregation, nested grids

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Oct 2022	-	-

Business value

You can be more productive in the grid by being able to access related records without leaving the grid and by getting meaningful insights into your data through grouping and aggregation capabilities.

Feature details

The **Power Apps grid control** for model-driven apps entered a public preview stage during the [last release wave](#) and featured the following capabilities:

- **Infinite scrolling:** Users no longer need to page to see more records. Instead, users can continue scrolling to get to the row(s) they are interested in. The grid can be configured to use paging buttons instead by the maker if desired.
- **Inline editing within views and subgrids:** In addition to being available for read-only scenarios, this control can also be used as an editable grid. When editing is enabled by the maker, users can be more productive by making edits directly in the grid instead of having to make changes in the corresponding form.
- **Customizable cells:** If the default visualization for the cells in one or more columns doesn't meet your needs, makers can create custom cell renderers and editors to modify how cells look when showing data and when users are editing data.

Building on this effort, the **Power apps grid control** is now being extended in the following ways to not only reach parity with the legacy read-only and editable grids but also provide even more advanced functionality. It's important to note that these capabilities are available regardless of whether the grid is being used in read-only or editable mode.

- **Nested grids:** Expand a row to see a grid of related records. Multiple rows in the grid can be expanded simultaneously.
- **Grouping:** Organize tabular data in interesting ways by grouping the data based on one column. Each group of rows can then be expanded and collapsed as desired.
- **Aggregation:** Get meaningful insights into tabular data by enabling aggregation on one or more numeric columns in a grid. For each column, users can choose to see the total, minimum value, maximum value, or average of values from that column. If grouping has been applied to the group, then this aggregate value will also be displayed for each group.

Filter grid data, save results as view

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

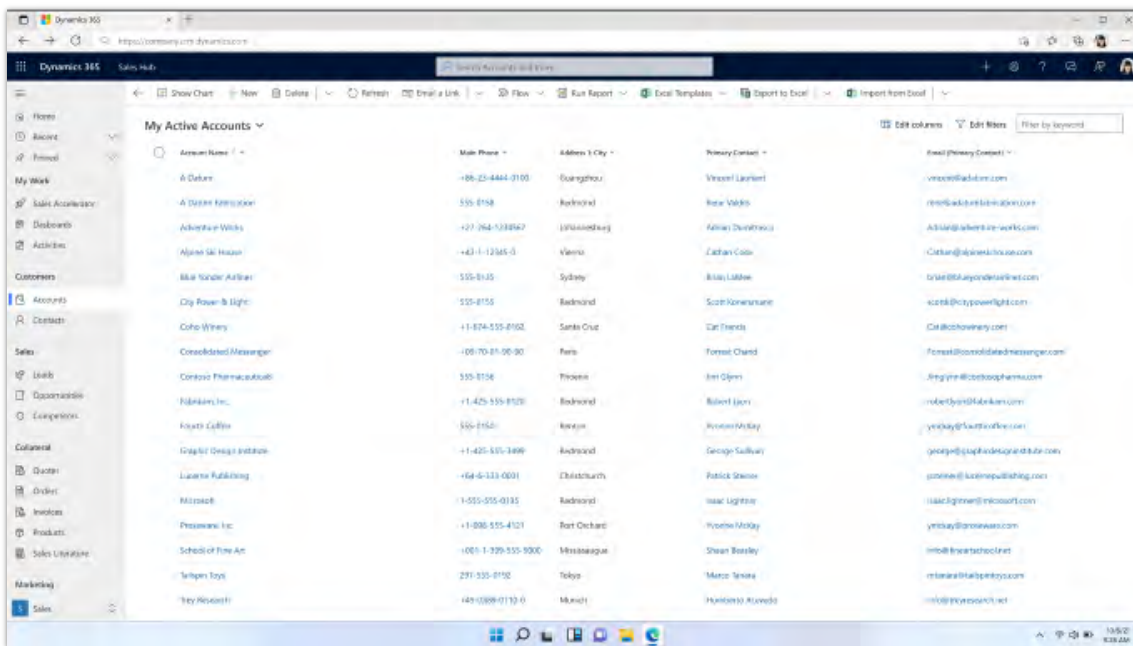
Business value

Updates to placeholder text and the ability to save quick find filters as a view allow users to create powerful personal views.

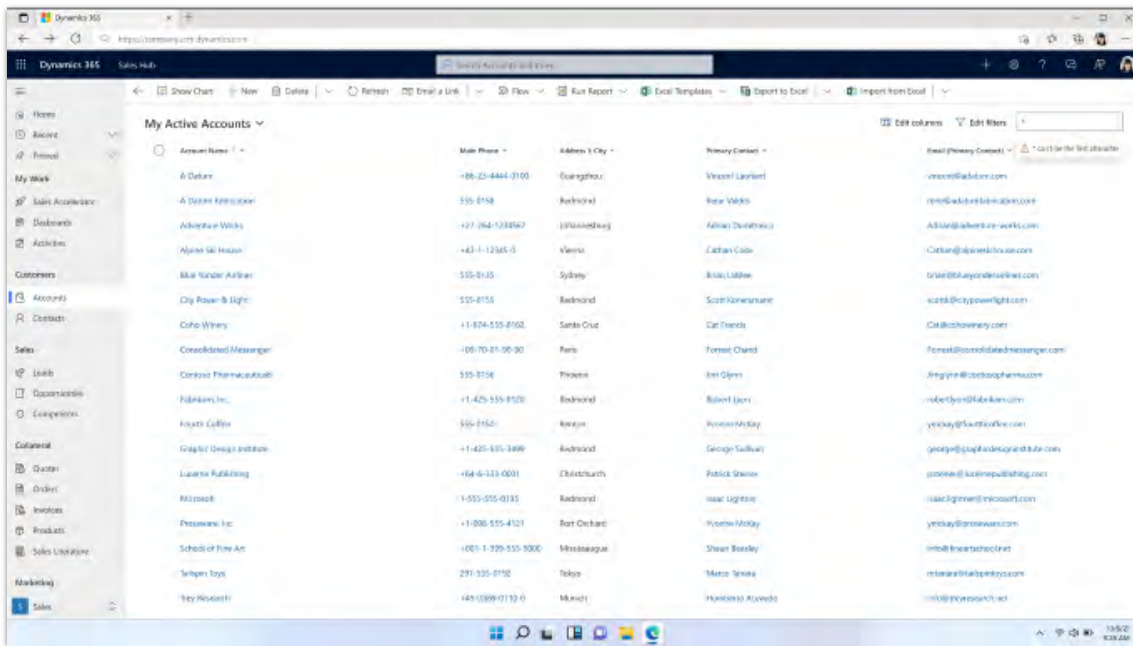
Feature details

The following usability enhancements to grids in model-driven apps allow you to be more productive when you're exploring data ad-hoc:

- The placeholder text in grid search is updated to filter by keyword which indicates how it can be used.
- When you filter by keyword, you can save the quick find filter conditions as a personal view.
- When Dataverse search is enabled, invalid queries, such as searches that begin with an asterisk are blocked.



Screen of filter by keyword.



Screen of non-performant query optimization.

Modern advanced find turned on by default

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

Business value

With modern advanced find, you can access any table in a model-driven app through search and use advanced filters to explore the data easily. Be more productive with navigation by searching for a view by its name in the enhanced view selector. The new view management experience will provide you with options to share views so you can collaborate with your team easily. Managing views is simpler with personalization options to build your own set of views.

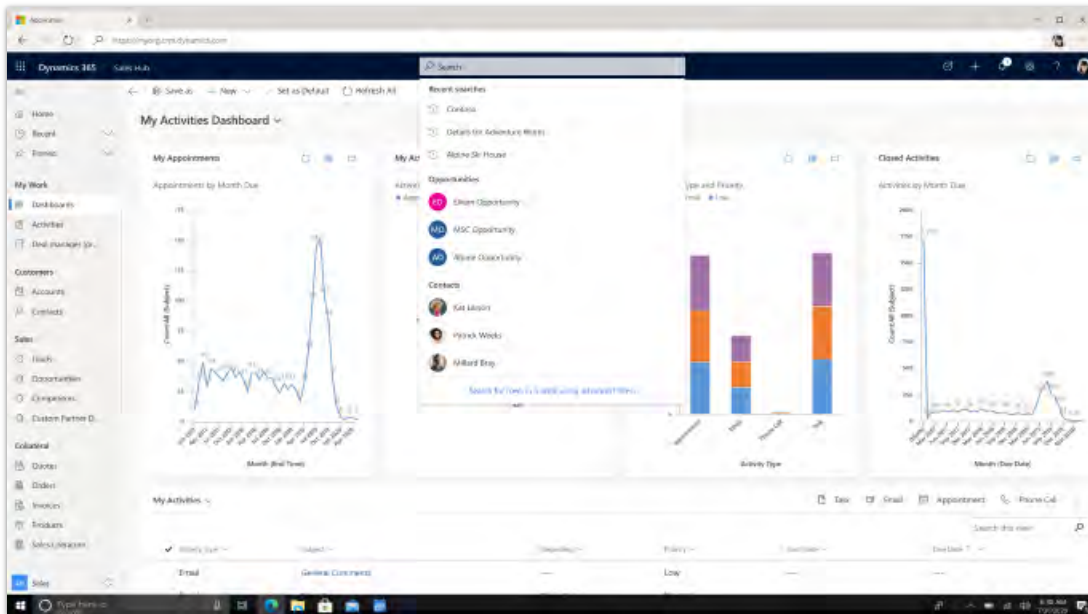
Feature details

With modern advanced find you can:

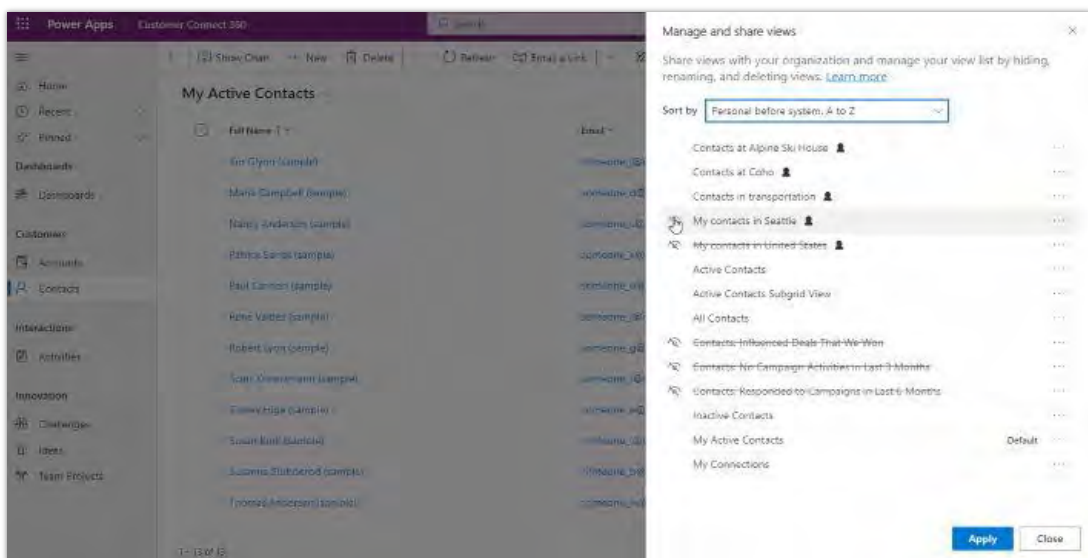
- Explore any table in a model-driven app through structured search and filters.
- Edit columns and filter data and construct views that will help you apply the right lens to your data.
- Search for a view and easily find the view that you’re looking for with the enhanced view selector.

- Managing views is simpler with personalization options that let you build your own set of views. You can hide views and order them differently. Your personalized view list travels with you across all apps and devices both in online mode and in offline mode.
- Collaborate with your team by sharing views easily and managing the views shared with you.

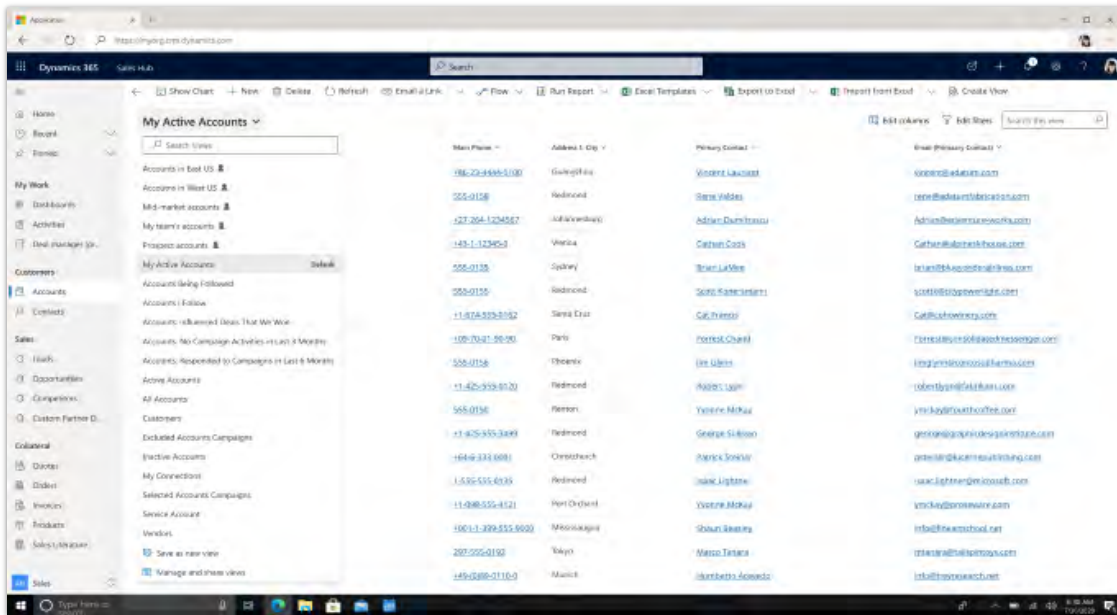
All the new capabilities will replace the legacy advanced find experience.



Screen of modern advanced find entry point.



Screen of modern advanced find hide view.



Screen of modern advanced find view selector.

Power BI quick reports in Power Apps

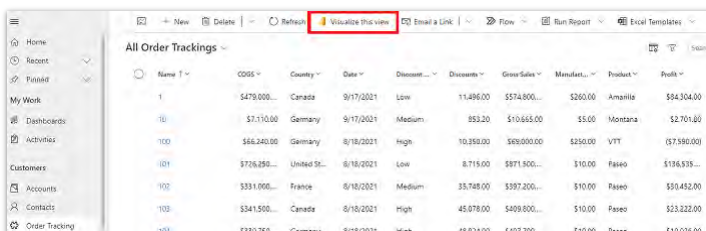
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2022	-	Oct 2022

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 on an existing app is generally available. All new apps have this capability enabled by default, with the app setting still available for makers to disable.

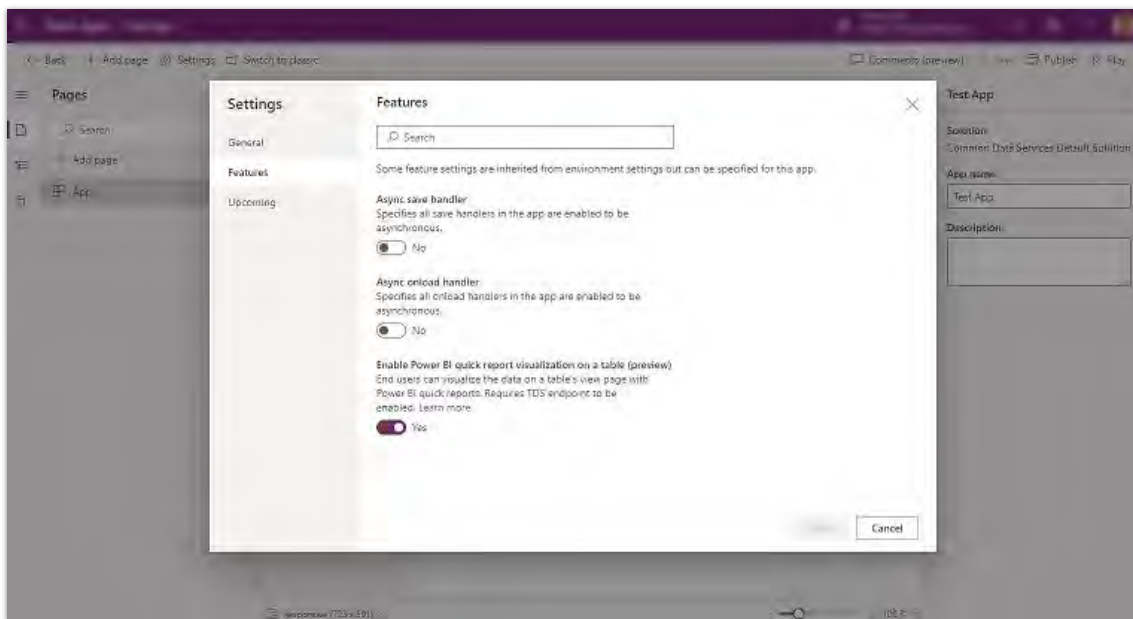


Screen of visualize this view.

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

- Create a Power BI quick report, starting from a view with just one button-click. The Power BI service generates visuals and a layout intelligently based on the underlying data.
- Make any necessary modifications to visuals or the filters or the 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.

A subset of these capabilities is already available as a preview.



Screen of app settings.

View form updates to command bar, business process flow, header, and tabs

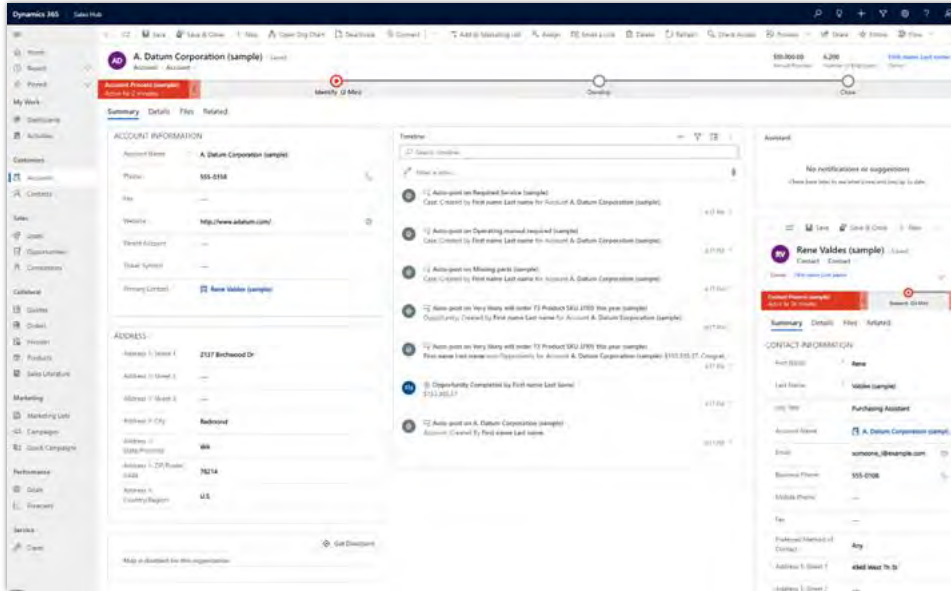
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2022	-	Oct 2022

Business value

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

Feature details

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



Screen of form component control with BOF, commands, and header.

Model-driven app client toasts moved to the toast stack

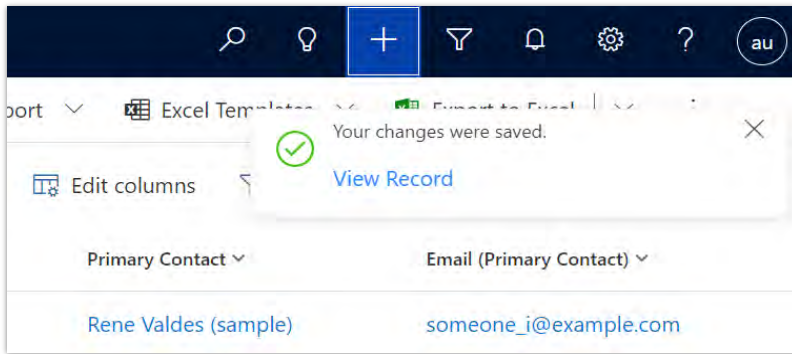
Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

Business value

This feature improves the user experience by using a single location for all toast notifications.

Feature details

With the in-app notification feature, we introduced a toast stack in the upper-corner of model-driven apps. When in-app notification is enabled for an app, both the in-app notification toasts and the client toasts are shown in the unified toast stack. With this release, we're moving the client-side toasts (like quick create **View Record**) from the lower center to the toast stack.



Screen of client-side toasts displayed in upper right corner within the toast stack.

Use Teams chat with others in app

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Oct 2022	-	Mar 2023

Business value

Start multiple Teams chats with anyone else who is working on the same record without leaving your app.

Feature details

Start multiple Teams chats with colleagues without leaving your model-driven app. You can easily find existing chats related to a record or start a new one with anyone else who is working on the same record.

All chats are shown in a side-panel on the right. The chats are tracked as chat activities in the timeline and activities views.

Note: This feature will be available in preview for all stand-alone model-driven apps.

Every system connected

Overview

Dataverse and the ecosystem of connectors allows organizations to build apps that leverage data from multiple sources, including Dataverse and data from Microsoft and third-party sources. To continue to enable makers to build applications including a rich set of data from multiple sources, we'll continue to improve our Dataverse experiences to manage and leverage data within the platform, simplifying virtual tables and connections to external data sources, and improving offline capabilities to ensure data can be used in apps regardless of connectivity.

Dataverse tables integrated inside Power Apps Studio

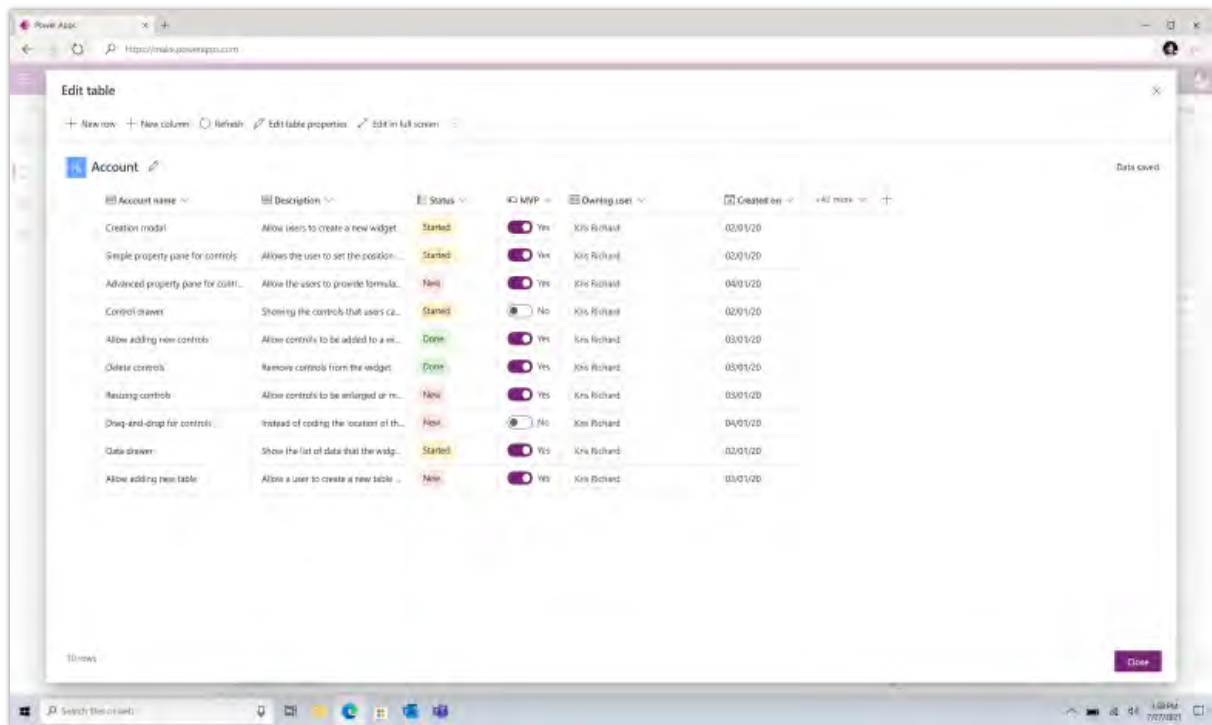
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

Working with Dataverse tables inside Power Apps Studio will make your app building experience easy and efficient to create or update both data and metadata.

Feature details

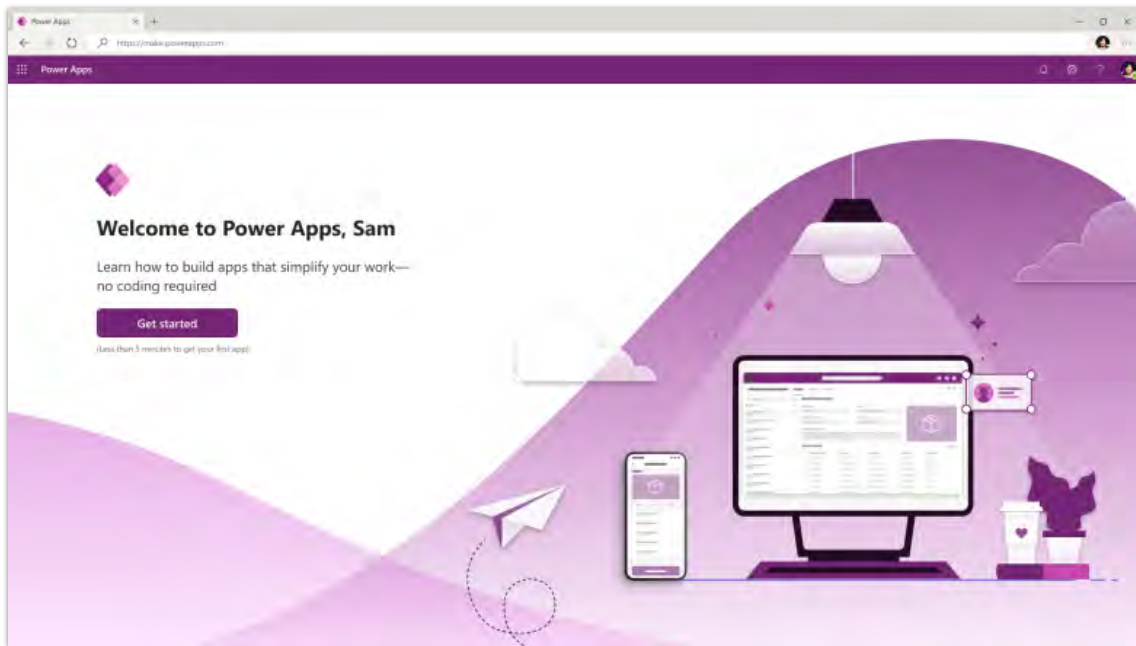
Everyone will be able to easily get started with Microsoft Dataverse using a familiar, table-centric experience directly within the Power Apps, including a fresh onboarding experience for new makers.



Screen of edit table accounts.

Included capabilities:

- Familiar table experiences in Power Apps, app designers, other Power Platform products, and within Microsoft Teams.
- Dataverse will also support Power Fx calculated columns, making a much wider audience of citizen developers able to build powerful tables.
- New makers are guided with the experience of how Power Apps works through examples while building their first app that uses Dataverse data.



Screen of guided onboarding.

Easily configure mobile offline for modern converged apps

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Nov 2022

Business value

The offline capability for custom pages helps further enable mobile scenarios.

Feature details

Modern converged applications have basic offline capabilities for custom pages. Custom pages have offline capabilities for all data types except files and images. Using the new offline infrastructure built for model-driven apps, the offline capabilities include incremental syncing, network detection, and data that persists across sessions. Updated UI to manage the

offline profile (a specification of which tables and what filters are used) accompanies this feature. Offline profiles can be auto generated based on the tables currently in the application or you can use a previously created profile. Early preview will be in August.

Connect to external data from Dataverse

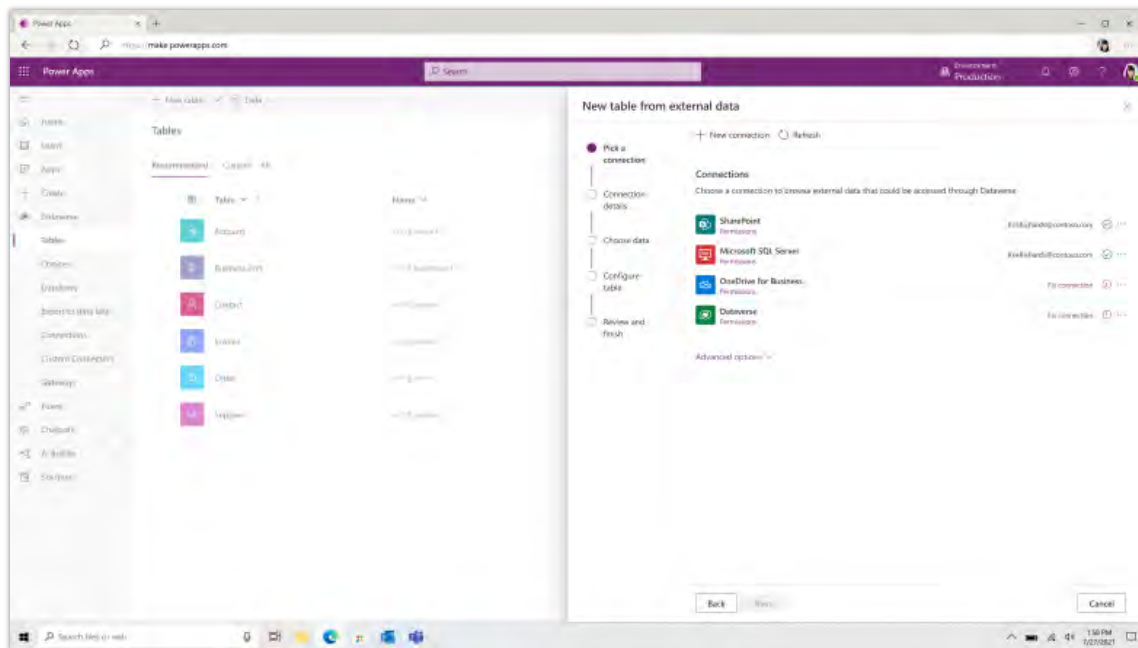
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-	Jan 2023

Business value

Connect existing data sources, such as SQL Server, Excel file, or Microsoft List with Microsoft Dataverse and interact with that external data as if it's part of Dataverse.

Feature details

Microsoft Dataverse has supported virtual tables for a long time. They're extremely powerful but can be difficult to set up. With this release, you'll be able to create tables in Dataverse that surface external data by leveraging simple connections to find the external data. For example, a Dataverse table with data from an Excel workbook in OneDrive or a SQL Server in Azure.



Screen of creating a table using a tabular connector.

Depending on the connection, a table will be automatically generated with the correct schema and integration. You can do all this through a simple wizard in Power Apps, which gives you as much control as you need over configuring the details while creating the Dataverse table.

Fusion of components, composition, and collaboration

Overview

Power Apps allows everyone to be productive by supporting a collaborative environment for fusion teams to bring together the best of their assets and skills into a single solution. Power Apps will invest in ensuring makers can work collaboratively on an app, bringing together the skills, insights, and knowledge of multiple makers into a single application in real time. We'll also ensure that skills across highly visual custom UI, data and model driven UI, and code-first components can all be leveraged in a single application.

Custom pages are responsive by default with rich layouts

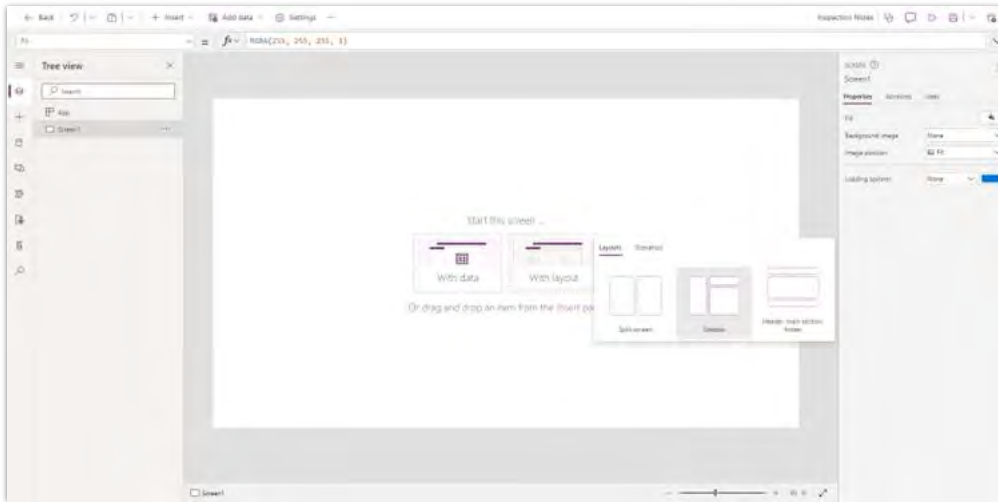
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-	-

Business value

Makers can accelerate development by adding responsive custom pages in their converged apps while maintaining granular control over design.

Feature details

Custom pages brought the power and control of canvas apps to the model-driven world. Custom pages are now being extended to introduce more tools to support makers creating responsive layouts quickly while still maintaining the precision of canvas apps.



A screenshot of the custom page editor in the Modern App Designer showing responsive layout options.

- **Responsive layout templates:** Choose from a selection of rich responsive layouts for rapid, responsive custom page development.
- **Easy layout configuration:** Easily move controls from one responsive section to another in layouts and maintain the control and precision of canvas app development.
- **Multiple form factor support:** Support desktop, mobile and other form factors automatically with a single custom page just as you are accustomed to with model-driven apps.

Appointment description supports rich text

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

Business value

Include rich text descriptions in your appointments, including links to online meetings.

Feature details

You can now add links, lists, and other rich text in your appointment description with the new rich text editor control. This feature is now automatically enabled for all apps and can be disabled in Power Platform admin console under the environment settings. Previously, the feature was an opt-in setting in the environment.



Screen of rich text editor in appointment form.

Create and join Teams meetings in-app or from appointments

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

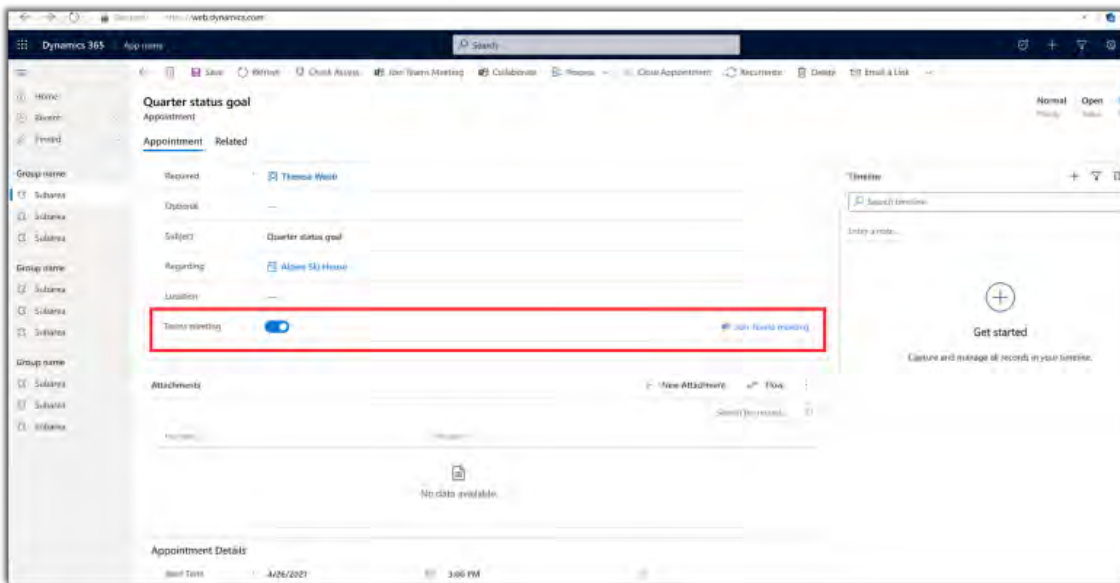
Business value

With the capability to join meetings directly from Power Apps, you can now save time with just one button click.

Feature details

Easily add Microsoft Teams meetings from an appointment in your model-driven app. You can also join a Teams meeting with a single button-click from the appointment or the timeline control.

While this feature was an opt-in through the environment settings earlier, it's now enabled by default for all appointments in tenants that use Teams.



Screen of join Teams meeting option in appointment form.

Easily copy links to records

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

Business value

This feature supports new features to improve productivity with better sharing of links.

Feature details

Share records as easy as Office documents. The new share button allows you to easily copy a link to the record and email links to records.

This feature is now automatically enabled for all records. Previously, it could be previewed by enabling the **Collaboration preview** feature in environment settings.

View only relevant activities in dropdown

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Aug 2022	Oct 2022

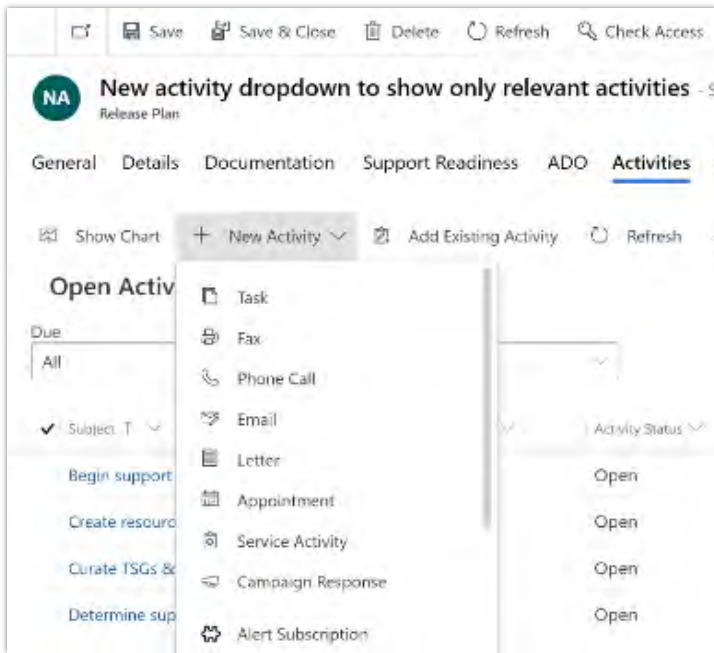
Business value

Improve productivity by showing only relevant tables in the drop-down list.

Feature details

The **New Activity** drop-down list will only show activities that are relevant to the app. Activities that aren't included in the app metadata now are hidden from the **New Activity** command.

This feature is now automatically enabled for all apps and can be disabled in Power Platform admin console under, environment settings. Previously, the feature was an opt-in setting in the environment.



Screen of new activity dropdown.

View your colleague’s presence

Enabled for	Public preview	Early access	General availability
Users, automatically	Aug 2022	-	Oct 2022

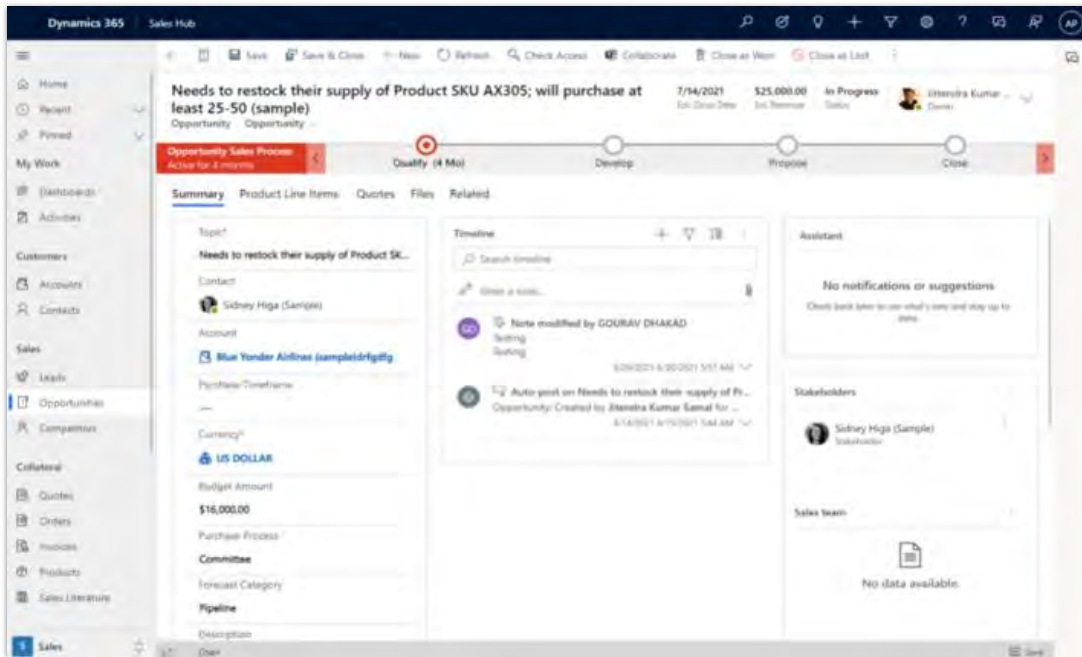
Business value

Collaborate with colleagues by viewing their availability in multiple places.

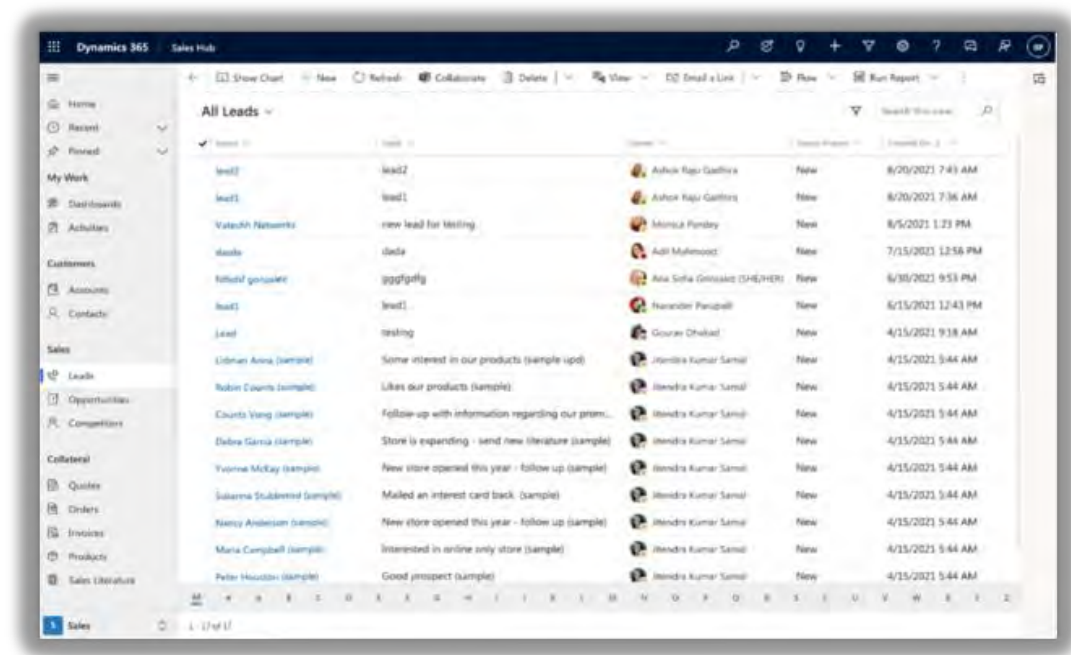
Feature details

You can now view your colleague’s picture and online presence by default in all model-driven apps. This feature will be available in the record owner field, grids where users are shown, and lookup controls that show user information.

For the release, this feature will be in general availability. Previously, this feature was only available in preview, and it needed to be enabled in your environment settings.



Screen of persona control in lookup and owner field.



Screen of persona control in grid.

Power Pages

Plan and prepare for Power Pages in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 business websites. Whether you are 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 2022 release wave 2 plan focuses on enhancements to the core platform and new capabilities in the areas of templates, design studio, administration, and professional development experiences.

Investment areas



Investment areas

Design studio

Power Pages design studio provides a simplified experience to create and customize a website. As a maker, you can use the **Pages**, **Styling**, **Data**, and **Setup** workspaces to customize many aspects of your website within a single interface.

Power Pages Home provides a single view of all your websites in an environment and allows you to create additional sites using the available templates.

Learn hub helps makers learn how to build sites end-to-end through documentation, guided tutorials, and videos.

Administration and governance

Administration and governance capabilities enable administrators to efficiently manage, configure, and maintain websites. These features allow administrators 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 (for example, SharePoint and Power BI), restrict access by IP address, enable maintenance mode, and other administration options.

Template hub and prebuilt templates

The template hub provides a set of predefined industry-specific and cross-industry website patterns available to makers when creating new sites. The new sites created from these templates have a set of working features and functionalities to address business scenarios. Makers can modify the sites created from templates to reflect their brand and customize the functionality to address their own requirements.

In 2022 release wave 2, makers will be able to select the Dynamics 365 templates from within the template hub. There will also be more templates added to address more industry scenarios.

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 October 2022 through March 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
Portals admin center updates improve usability	Admins, makers, marketers, or analysts, automatically	Dec 2022	

Design studio

Power Pages design studio gives makers a simplified no-code/low-code experience to create a website.

Feature	Enabled for	Public preview	General availability
Configure basic forms in design studio	Users by admins, makers, or analysts	-	Oct 2022
Configure data grids in design studio	Users by admins, makers, or analysts	-	Oct 2022
Learn hub enhancements	Admins, makers, marketers, or analysts, automatically	-	Feb 2023

Template hub and prebuilt templates

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

Feature	Enabled for	Public preview	General availability
Select Dynamics 365 website templates in the template hub	Admins, makers, marketers, or analysts, automatically	Oct 2022	
Select new Power Pages site templates	Admins, makers, marketers, or analysts, automatically	Oct 2022	

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

Administration and governance capabilities enable administrators to efficiently manage, configure, and maintain websites. These features allow administrators 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 (for example, SharePoint and Power BI), restrict access by IP address, enable maintenance mode, and other administration options.

Portals admin center updates improve usability

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Dec 2022	-

Business value

The Power Pages administration experience is refreshed for improved usability and consistency with improvements to the portals admin center.

Feature details

The existing portals admin center experience will be refreshed to make it more intuitive and easier to use. With this feature, we're creating a simplified experience for administrators with enhancements, such as:

- A simplified overview area
- Task oriented user flow

Design studio

Overview

Power Pages design studio provides a simplified experience to create and customize a website. As a maker, you can use the **Pages**, **Styling**, **Data**, and **Setup** workspaces to customize many aspects of your website within a single interface.

Power Pages Home provides a single view of all your websites in an environment and allows you to create additional sites using the available templates.

Learn hub helps makers learn how to build sites end-to-end through documentation, guided tutorials, and videos.

Configure basic forms in design studio

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Oct 2022

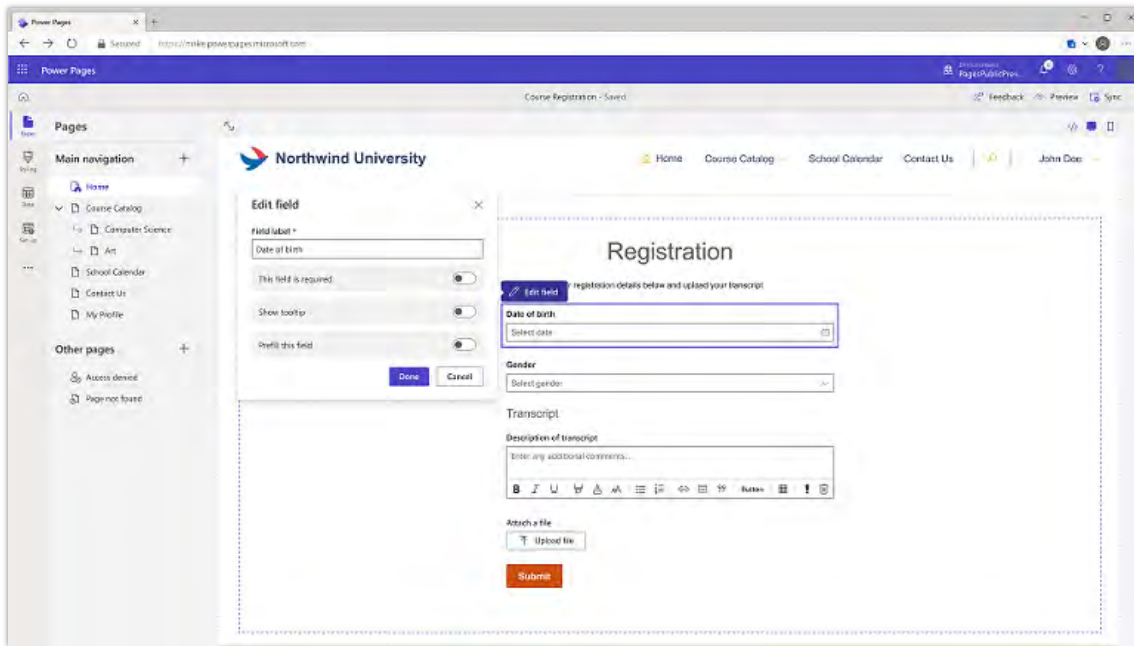
Business value

With this feature, makers can configure advanced customizations for basic forms within the Power Pages design studio.

Feature details

Makers will be able to build and configure their basic forms from the Power Pages design studio. These new capabilities include:

- A simplified experience for adding file upload support to a form.
- Form column configurations, including updating a label and adding a tooltip to a column.
- No-code styling user interfaces for basic forms.



Screen showing form field configuration in Power Pages design studio.

Configure data grids in design studio

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Oct 2022

Business value

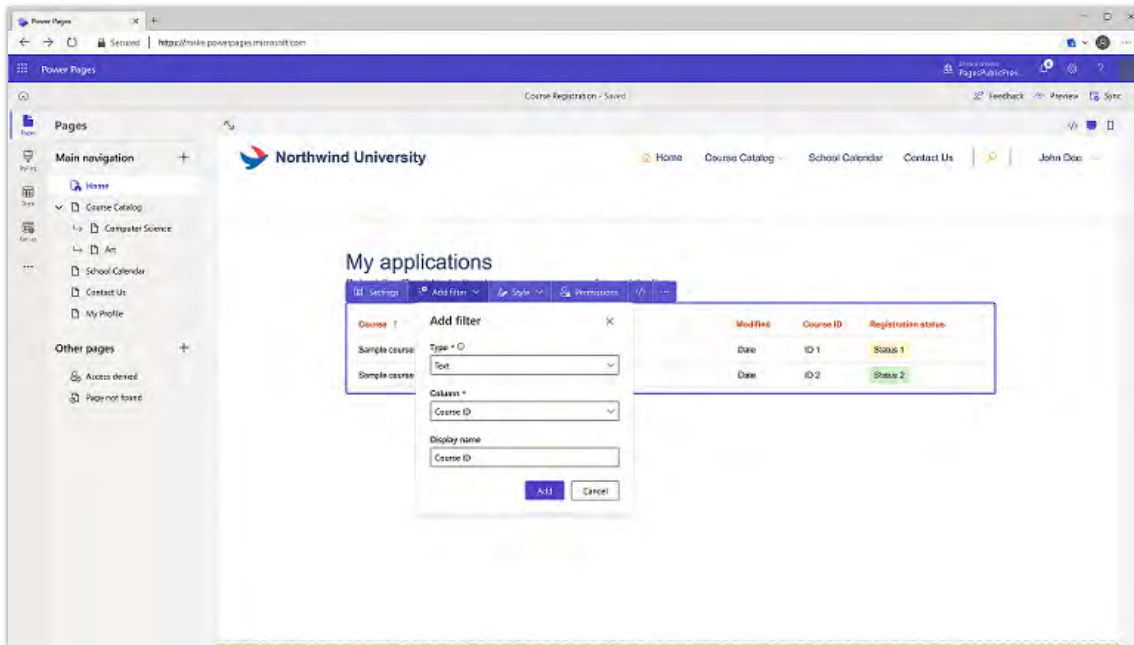
This feature will enable makers to do advanced customizations of data grid components (formerly known as lists) within Power Pages design studio.

Feature details

Makers will be able to configure and style data grid components in the design studio.

New capabilities include:

- Support for metadata filtering of column data present in the data grid component.
- Grid action styling, such as the create button to add a new row to the data grid.
- Row action customizations, such as icons customizations for edit and delete rows.



Screen showing adding a metadata filter to a data grid on a webpage in Power Pages design studio.

Learn hub enhancements

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

Business value

This feature will introduce additional capabilities within the Learn hub experience that will enable makers and administrators to access guided learning and video tutorials about Power Pages.

Feature details

In 2022 release wave 2, we'll be enhancing the Learn hub and adding the following capabilities:

- Step-by-step guided learning for administrators and makers, highlighting key Power Pages capabilities.
- Short tutorial videos for administrators and makers highlighting key Power Pages capabilities.

Template hub and prebuilt templates

Overview

The template hub provides a set of predefined industry-specific and cross-industry website patterns available to makers when creating new sites. The new sites created from these templates have a set of working features and functionalities to address business scenarios. Makers can modify the sites created from templates to reflect their brand and customize the functionality to address their own requirements.

In 2022 release wave 2, makers will be able to select the Dynamics 365 templates from within the template hub. There will also be more templates added to address more industry scenarios.

Select Dynamics 365 website templates in the template hub

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-

Business value

This feature will enable makers to create Dynamics 365 website templates from within the template hub. Dynamics 365 website templates will extend various Dynamics 365 apps to enable user-facing functionality.

Feature details

With this feature, makers can create websites using various Dynamics 365 website templates from the template hub to extend their Dynamics 365 applications, such as:

- Customer self-service
- Partner
- Community
- Employee self-service

Environments with Dynamics 365 customer service and omnichannel will be able to create customer self-service, community, and employee self-service sites. Environments with Dynamics 365 Sales will be able to install the partner management template.

Select new Power Pages site templates

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-

Business value

Prebuilt site templates provide a strategic investment to showcase the potential of what a maker can build with Power Pages. Two new prebuilt solution templates and a blank starter canvas will be enabled for makers to create new sites from the template hub.

Feature details

This feature will enable two new prebuilt website templates and a blank starter canvas. These templates will be focused on the following scenarios:

- **Blank starter canvas:** Used mainly by professional developer makers. It has a header, footer, and one section component. This will allow developers to create customized sites seamlessly without needing to delete and modify page templates.
- **Permit Application submission template:** Highlights an application submission pattern and showcases how to create a complex multi-step form inside a website.
- **New Employee Onboarding template:** Features a checklist tracker pattern and showcases how to create a series of steps as forms that can be completed in any order.

Power Automate

Plan and prepare for Power Automate in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 is 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 2022 release wave 2 around the following four themes.

- **Automation for everyone – exactly where you need it:** Today, the way that many people discover Power Automate is through integrations in other products, like Windows 11, SharePoint, or Microsoft Teams. During this release wave, we're making it easier to get started with automation through any application that you use in Windows or Microsoft 365.
- **Hyperscale Cloud RPA:** From our biggest enterprise customers to small and medium organizations, everyone is increasing the scale of their RPA deployments. We'll make it easier to roll out RPA at scale - with features to make it easier to manage your machines and the credentials for your users and accounts in Azure.
- **Automation that lets you sleep at night:** Fundamentally, the service must never go down. We'll deliver consumer-quality end-to-end experiences, and ultimately, everything about the platform needs to just work. All features will be reliable and consumable, and automatable by default (adhering to the API-first approach), so that you can "set it and forget it."
- **Anyone can get started:** We'll make it easier for anyone to get started with automation when they launch Power Automate for desktop or go to PowerAutomate.com for the first time. In addition to relevant first-run experiences, we'll add more intelligence throughout the product, making it easier to process even complex documents.

For official product documentation and training for Power Automate, go to the following documents.

- [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 2022 release wave 2, 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 to 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. This product area includes:

- 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.

Power Automate was first released in 2016, and it's updated on a weekly basis. In 2022 release wave 2, 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.
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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 October 2022 through March 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](#).

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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
Improvements to the flow sharing experience	Admins, makers, marketers, or analysts, automatically	Mar 2023	-	

Feature	Enabled for	Public preview	Early access*	General availability
Use customer-managed encryption key for data at rest	Admins, makers, marketers, or analysts, automatically	Mar 2023	-	-
Improvements to the OData editor in cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022
Support for sequential approvals in Power Automate	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022
The Parse JSON action now handles null objects	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022
Greater control over connection reference creation and reuse	Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022
Improved experience for editing expressions	Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023
Improved experience for selecting dynamic values	Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023
Improved Power Automate mobile app for iOS	Admins, makers, marketers, or analysts, automatically	-	-	Mar 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
Enroll hosted machines in Intune	Admins, makers, marketers, or analysts, automatically	Oct 2022	-	
Run hosted RPA bots	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022
Set a selector based on text and use of operators	Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022



Feature	Enabled for	Public preview	Early access*	General availability
Use desktop flow signing	Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022
Enable minimal flow log details	Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022
More resilient UI automation in Citrix environments	Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022
Use credentials from Azure Key Vault in desktop flow connections	Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022
Improved runtime error messages for UI, Web, Excel, and mouse and keyboard actions	Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022
Share flows from within Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022
Troubleshooter for connectivity issues in Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022
View desktop flow properties in Power Automate for desktop console	Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022
Simplify selectors of UI elements	Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023
Use web automation to access cross-domain iFrames	Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023
Use SharePoint Connector in Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	Sep 2022	-	Mar 2023

* You are able to opt into some features as part of early access on August 1, 2022, including all mandatory changes that affect users. To learn more, go to [Early access FAQ](#).

Description of **Enabled for** column values:

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- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
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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. This product area includes:

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- 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.

Power Automate was first released in 2016, and it's updated on a weekly basis. In 2022 release wave 2, 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.

Improvements to the flow sharing experience

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

Business value

We've improved how you can share flows with others, so it'll be easier for your team members to use flows that you build. In 2022 release wave 2, you'll be able to send your flows in a Teams message or using a shareable link.

Feature details

We've added more capabilities to improve how you can share flows with others. For example, this feature allows you to send someone a flow using a shareable link, or you can share flows by sending them in a Teams message to a person, group, or channel. Also, you can include a personalized message to the person/group with whom you're sharing a flow. In this message, you can specify why you're sharing the flow, what it does, if you want them to collaborate with you or take any action on it, and so on.

Use customer-managed encryption key for data at rest

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

Business value

This feature provides greater data privacy and data protection when using Power Automate.

Feature details

Customers can use their own encryption keys that reside in their Azure Key Vault to encrypt all customer data Power Automate uses. Internally, Power Automate builds on many Azure services, including Logic Apps, Azure Storage, Azure Cosmos DB, Azure Cognitive Search, and more. No matter where the data is saved, it'll now be completely encrypted using these keys. Customers are also able to use different keys on different Power Platform environments.

Improvements to the OData editor in cloud flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

This feature provides easier filtering in actions like the SharePoint **Get Items** action that previously required OData syntax.

Feature details

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

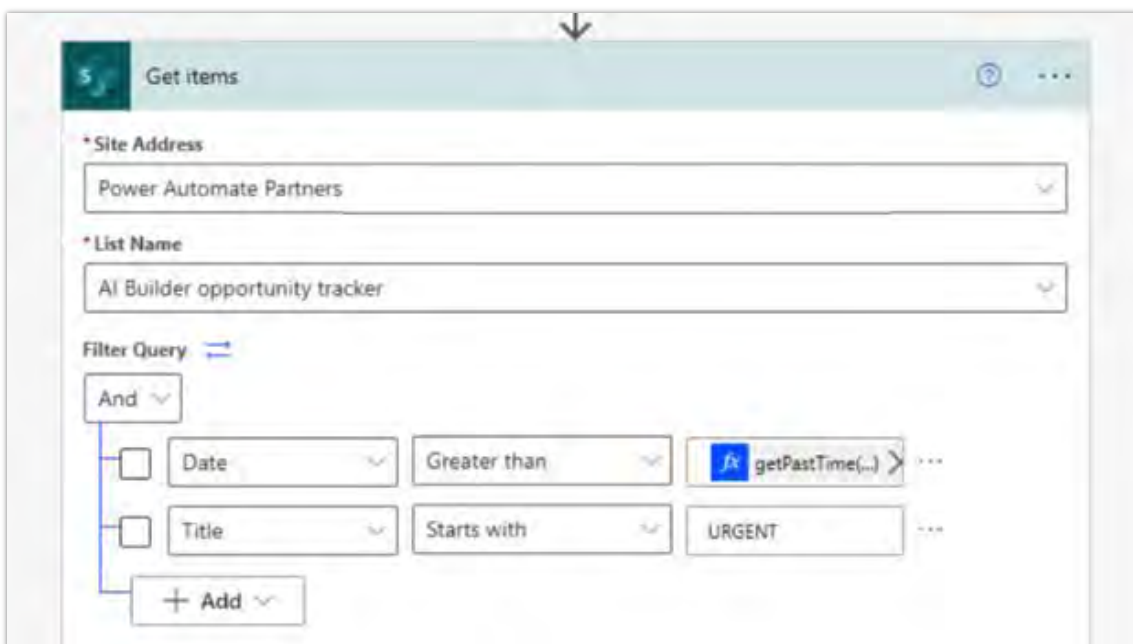


Image of the Get Items for SharePoint showing the new OData query options.

Support for sequential approvals in Power Automate

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

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

Feature details

With this feature, makers can define multiple levels/stages in an approval flow from within Microsoft Teams or from within Power Automate. Makers can define who needs to approve a flow at different levels/stages. The approval request goes to the next level/stage after all the approvers in a previous stage approve the flow. If someone rejects the flow at any stage, it's considered rejected, and it isn't passed on to subsequent stages. All approvers can see the history of the approvals at each stage and the outcome.

The Parse JSON action now handles null objects

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

Customers often use Power Automate to read data from a variety of formats, including JSON. This feature unblocks customers who encounter null values in the JSON parsing action.

Feature details

Currently, cloud flows don't handle null values in the **Parse JSON** action. For example, if you want to parse a JSON object, and you specify multiple fields in the JSON schema, you'll get an error if one of those fields isn't present in the parsed JSON object. When the **Parse JSON** action encounters a null object, it's difficult for users to troubleshoot and requires makers to explicitly handle null values in their flows.

In 2022 release wave 2, we'll add support to handle null values in the **Parse JSON** action. Makers will no longer receive an error message that states that the "Schema Validation failed" if there are nulls in their JSON.

Greater control over connection reference creation and reuse

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022

Business value

Connection references are an important cornerstone of the application lifecycle management (ALM) process for solution flows. This feature gives more control to cloud flow authors when creating and reusing connection references during flow creation.

Feature details

Currently, when you create flows, the connection references are automatically created or reused. This automatic creation can result in the use of connection references in other solutions and the creation of connection references in the wrong solution.

In 2022 release wave 2, cloud flow authors will have greater control over connection reference creation and selection.

Improved experience for editing expressions

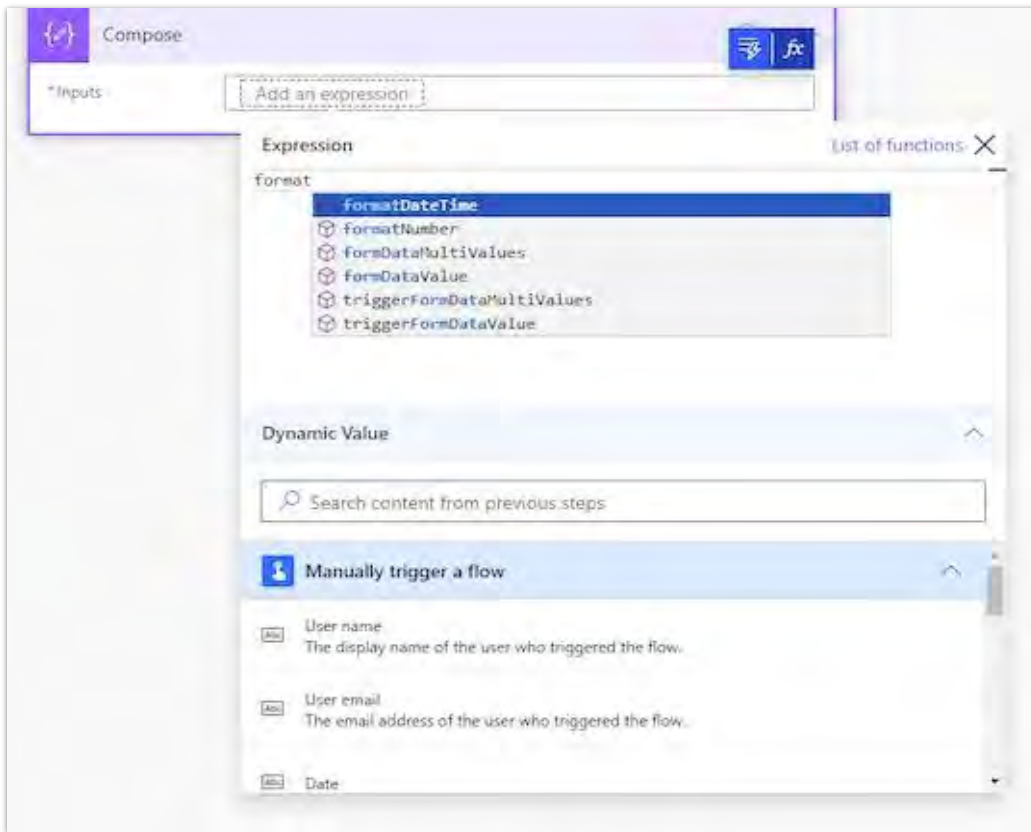
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023

Business value

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

Feature details

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



Screen of improved expression editor.

Improved experience for selecting dynamic values

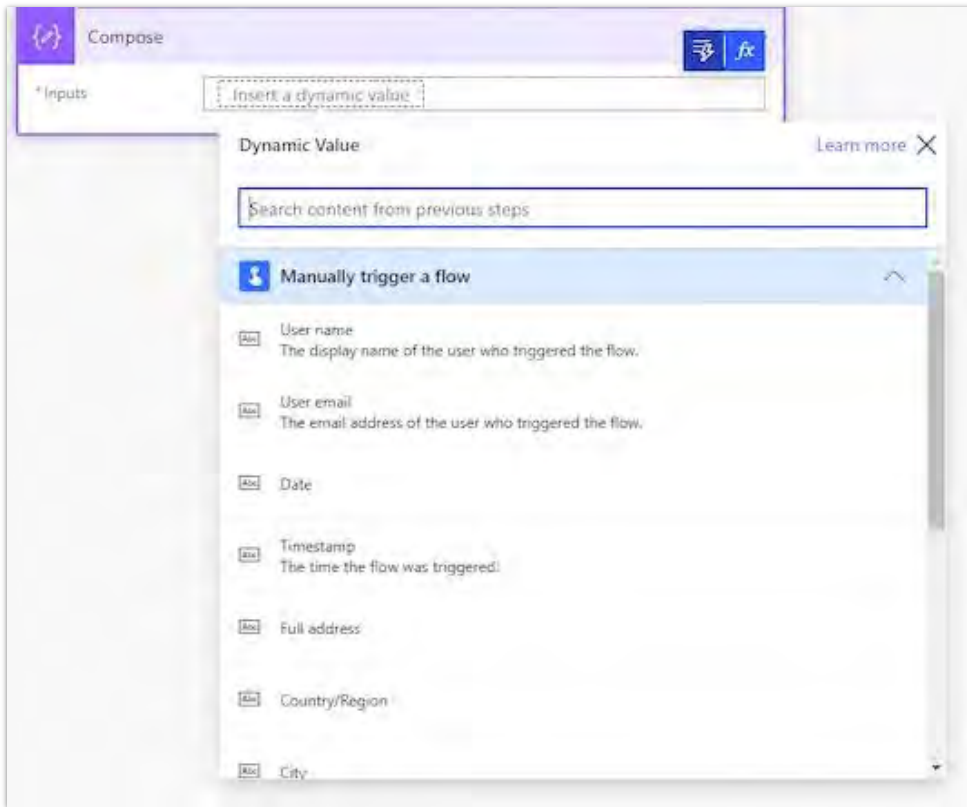
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023

Business value

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

Feature details

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



Screen of the new dynamic values token picker.

Improved Power Automate mobile app for iOS

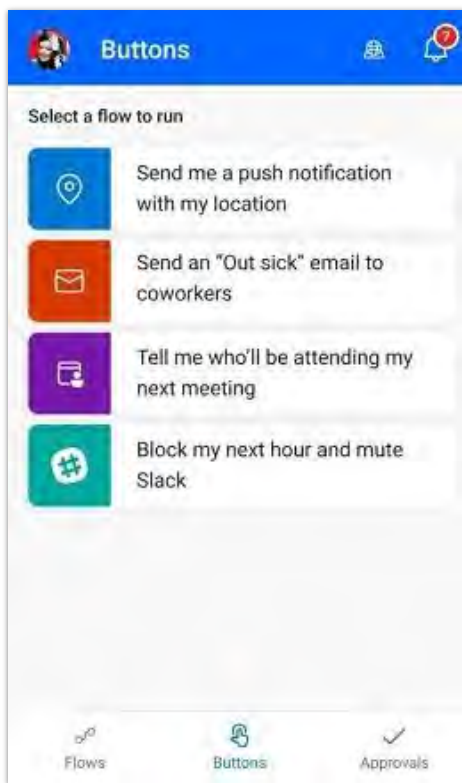
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Mar 2023

Business value

Improvements to the Power Automate mobile app for iOS provides a more usable and modern experience.

Feature details

The new version of the Power Automate mobile app for iOS provides an updated, modern experience for users on their iPhones. This experience aligns the mobile app with the Power Automate website experience. Users can receive notifications, trigger instant flows on the go, and create widgets (shortcuts to trigger instant flows from the home screen on their mobile home screen). You can view your list of approvals more quickly with the new design, too. The fast rollout of new features and updates will be supported as well.



Screenshot of Power Automate iOS mobile app.

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 2022 release wave 2, 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 to 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.

Enroll hosted machines in Intune

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-	-

Business value

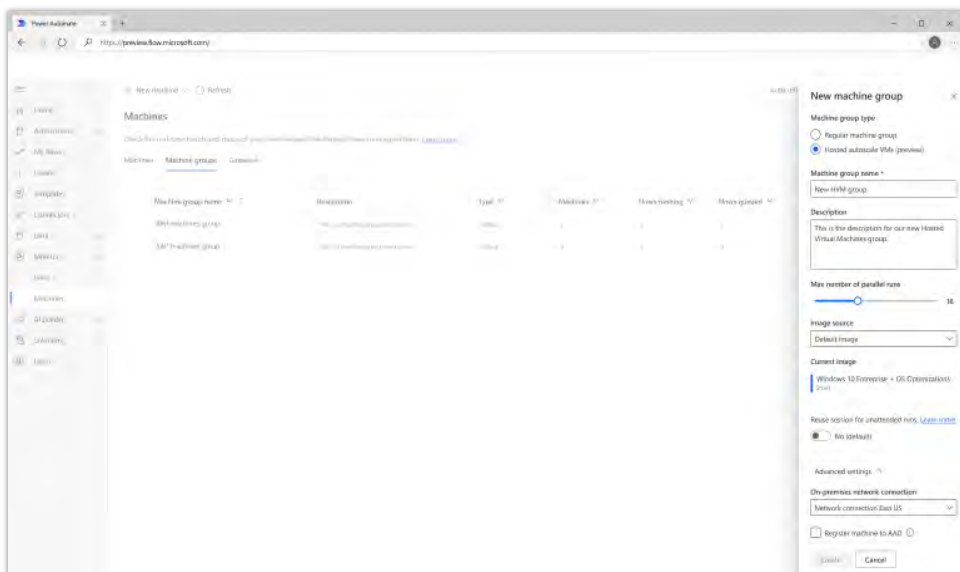
This feature enables the Intune enrollment for all machines created in a hosted machine group. Also, it allows hosted machine groups to access on-premises resources using virtual networks.

Feature details

Hosted machine groups get improved with:

- Automatic Intune enrollment for all created machines
- The ability to set up a virtual network to access on-premises resources

Organizations can use these features to ensure that the machines running their desktop flows can securely access their network's resources, a common need for legacy applications.



Screenshot of hosted machine groups with on-premises network access.

Run hosted RPA bots

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

Users can quickly and easily run desktop flows using fully managed virtual machines. This feature also allows customers to dynamically scale up and down the virtual machine used to run their automation.

Feature details

Since Power Automate launched desktop flows, our [robotic process automation](#) (RPA) capability in 2019, we've continued listening to your feedback and exploring ways we can further democratize automation for all.

With the release of [Power Automate for desktop](#), automating repetitive, mundane tasks across legacy and modern systems became an easier reality. Now included for free in the [Microsoft Store](#) for Windows 10 users and built-in to [Windows 11](#), users can begin using attended RPA bots right on their desktop—at no additional cost.

We're taking the next step in our journey with the preview of hosted RPA bots, now available in Power Automate. As a true software as a service (SaaS) for RPA, unattended RPA bots can now be created and automatically scaled across hosted virtual machines powered by Microsoft Azure.

Gone are the days of strenuous approval cycles and costly deployment. With Power Automate's hosted RPA bots, just create a group of bots by setting up basic parameters and use it to get virtual machines scaled automatically for your unattended RPA scenarios—with no Azure subscription required.

Power Automate will handle every aspect of machine management for you, helping focus your time where it's needed most.



Screen of new machine group.

Set a selector based on text and use of operators

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Oct 2022

Business value

Users can now create simpler selectors for UI elements in an easier and more straightforward manner.

Feature details

UI elements are essential to capture accurately. This new feature optionally allows users to add selectors based on text while capturing elements without needing to go into the selector editor and edit using CSS like :contains().

Use desktop flow signing

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022

Business value

Organizations gain an additional layer of trust with cloud storage and flow orchestration by signing desktop flows before they're stored in Microsoft Dataverse and verifying the signatures at runtime.

Feature details

Power Automate admins gain the ability to enable desktop flow signing and signature verification at runtime at an environment level. In doing so, the organization's admins manage valid certificates, which can be used to sign and verify desktop flows. This functionality adds an additional layer to ensure that an unauthorized user hasn't tampered with desktop flows running in attended or unattended mode.

Enable minimal flow log details

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022

Business value

This new option allows admins to disable input and output details from being posted in flow run logs to ensure sensitive data isn't accidentally posted.

Feature details

Power Automate admins can limit the amount of action-related detail posted in cloud or desktop flow run logs. This feature includes an environment-level setting to exclude detailed input and output values for each posted event in the flow log.

At the desktop flow level, this feature ensures that no sensitive information is accidentally posted in run logs, whether a maker marks an input/output variable as sensitive or not.

Thank you for your idea

Thank you for submitting this idea. We listened to your idea, along with comments and votes, to help us decide what to add to our product roadmap.

More resilient UI automation in Citrix environments

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022

Business value

Power Automate improves the support for UI automation on Citrix environments by having a lightweight runtime inside the target Citrix environment.

Feature details

Today, customers can automate Citrix systems using image recognition with desktop flows. Although image recognition is flexible and can work for any system, it isn't as reliable as UI automation, which leverages the UI elements using accessibility APIs.

With this feature, we improved the support for UI automation on Citrix environments by having a lightweight runtime inside the target Citrix environment. This runtime is able to communicate with the Citrix session and thus directly access UI elements, bringing direct addressability to controls that bypasses the need for image-based lookup where possible. Customers have a choice to use either this lightweight runtime approach or existing image processing for performing their automation.

Use credentials from Azure Key Vault in desktop flow connections

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Nov 2022

Business value

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

Feature details

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

Improved runtime error messages for UI, Web, Excel and mouse and keyboard actions

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022

Business value

Users will be offered a straightforward explanation about what went wrong with their actions and have access to remediation steps, so that they don't always need to resort to support help.

Feature details

Currently, it's not always easy to understand what went wrong and what needs to be done to fix runtime errors. This feature provides more descriptive error messages, including troubleshooting steps, either incorporated in the error dialog or with links to knowledge articles for assistance.

The runtime error messages for the following modules will be improved:

- UI automation
- Web automation
- Mouse and keyboard
- Excel

Share flows from within Power Automate for desktop

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022

Business value

Customers will be able to share desktop flows directly within the Power Automate for desktop console.

Feature details

This feature implements new sharing functionality in the Power Automate for desktop console. This feature allows makers to directly share desktop flows with their colleagues without having to go to the Power Automate website.

Troubleshooter for connectivity issues in Power Automate for desktop

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022

Business value

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

Feature details

The troubleshooting and diagnostic tool gives the maker the ability to select an issue to troubleshoot with a standalone application.

The first phase of this tool checks basic connectivity requirements, like being able to connect to the proper public endpoints, which are needed for Power Automate to work properly.

View desktop flow properties in Power Automate for desktop console

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Dec 2022

Business value

Customers will be able to manage the properties of a desktop flow easily through the Power Automate for desktop console.

Feature details

A new properties page will be available for desktop flows in the Power Automate for desktop console. This page will make it possible to view and edit properties, such as flow details, sharing details, flow triggers, and resolutions for unattended runs.

Simplify selectors of UI elements

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

Business value

The UI automation is faster, both design and runtime, and the UI elements selector editing is now easier.

Feature details

The generated selectors for any UI element captured by Power Automate for desktop are now simpler. The minimum number of nodes should be included in the selector in order Power Automate for desktop to be able to locate the specific UI element.

Use web automation to access cross-domain iFrames

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

Business value

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

Feature details

Although web automation is an important feature in desktop flows, some web pages can be extremely complicated to automate because of nested iFrames. With this feature, Power Automate for desktop can capture iFrames elements, unblocking scenarios where automations need to work with iFrames on web pages.

Use SharePoint Connector in Power Automate for desktop

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

Business value

The new SharePoint actions in Power Automate for desktop increase the speed and ease of use of desktop automations.

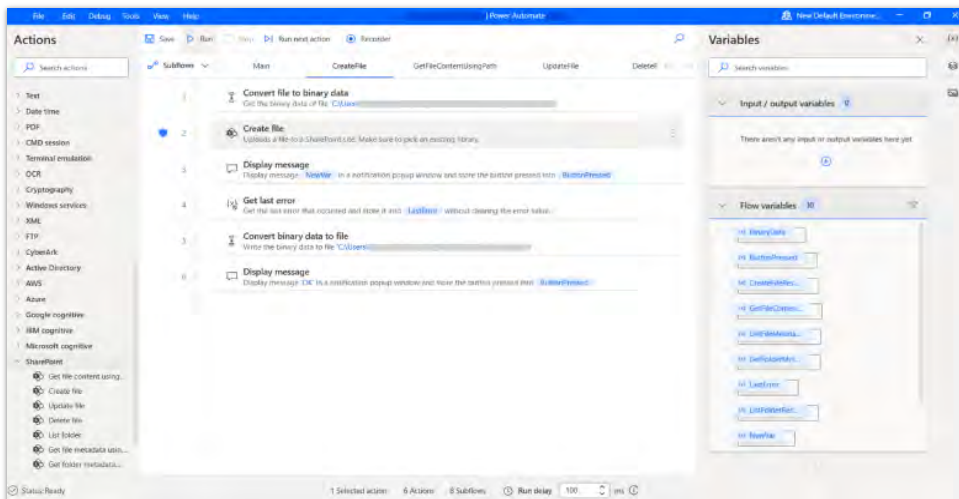
Feature details

The SharePoint Connector is the first cloud connector coming to desktop flows. It brings the power of the cloud right inside desktop automations.

With the SharePoint Connector in Power Automate for desktop, you can combine actions from both desktop (for example, extract data from web page) and the SharePoint Connector (for example, update a SharePoint list), all within a single desktop flow.

You get improved performance when looping between a desktop action (for example, reading from an SAP GUI or an Excel file from the local drive) and a SharePoint action (for example, uploading a file to SharePoint) compared to having them in separate cloud flows and desktop flows.

The SharePoint Connector is more discoverable for users who start their automation journey in Power Automate for desktop.



Screenshot of SharePoint actions in the action list within Power Automate for desktop.

Power Virtual Agents

Plan and prepare for Power Virtual Agents in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 2023. In this article, you'll find the product overview and what's new and planned for **Power Virtual Agents**.

Overview

Power Virtual Agents enables 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.

With deep integration with Power Automate and the Microsoft Bot Framework, authors can extend their bots to integrate with API backends, which will enable the 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 2022 release wave 2 brings improvements in the authoring experience with topic overlap detection available in all Power Virtual Agents languages, author adaptive cards, multi-modal response authoring, and more.

Investment areas



Investment areas

Bot configuration

Bots can be configured to suit the individual needs of an organization and to provide further extensibility with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, integration with Microsoft Teams, Facebook, and other channels, and more.

Service and runtime

Power Virtual Agents continues to ensure it meets strict compliance and governance needs. Power Virtual Agents will be available for US Government customers in the Government Community Cloud (High) environment, as well as in our Germany and United Arab Emirates regions.

Power Virtual Agents will make it easier to govern your Microsoft Teams-based environments costs by offering inactivity-based environment deletion — cleaning up those environments that are in disuse — allowing your organization to focus on only active projects.

Core authoring

Creating a bot with Power Virtual Agents is easy to do with the no-code authoring canvas, and there are several ways you can manage how topics interact, how you want the conversation to flow, and what it should feel like.

It's easy to test the bot without having to fully deploy the bot whenever you make a small change. There are also lesson topics that guide you through topic authoring from simple to complex scenarios as well as default system topics. You can also choose what language you want your bot to use. Variables and entities make your bot more capable of understanding your users, and rich content makes your bot more relatable and easier to use.

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 October 2022 through March 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
Create bots from existing online support content	Admins, makers, marketers, or analysts, automatically	-	Oct 2022
Trigger bot topics by events	Admins, makers, marketers, or analysts, automatically	Aug 2022	Nov 2022
Use Power FX expressions in authoring canvas	Admins, makers, marketers, or analysts, automatically	Aug 2022	Nov 2022
Use multi-digit DTMF input	Users, automatically	Nov 2022	Mar 2023
Notify Teams users about query updates	Admins, makers, marketers, or analysts, automatically	✓ Oct 29, 2021	Mar 2023
Use voice responses over telephony channel	Users by admins, makers, or analysts	Nov 2022	Mar 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
Use multi-modal response authoring	Admins, makers, marketers, or analysts, automatically	Aug 2022	Nov 2022
Use Adaptive Cards in Power Virtual Agents	Users by admins, makers, or analysts	Aug 2022	Nov 2022
Use list variables and looping in conversations	Users by admins, makers, or analysts	Aug 2022	Nov 2022

Service and runtime

Power Virtual Agents will be available for United States Government users in the Government Community Cloud (High) environment.

Feature	Enabled for	Public preview	General availability
Create bots in new datacenters	Users, automatically	-	Nov 2022

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

Bots can be configured to suit the individual needs of an organization and to provide further extensibility with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, integration with Microsoft Teams, Facebook, and other channels, and more.

Create bots from existing online support content

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Oct 2022

Business value

Speed up your initial development time by automatically filling bots with simple topics from a website when they're created.

Feature details

As soon as you create a bot, it can use AI natural language capabilities to extract relevant topic and answer information from your website. This means bots will be production ready as soon as you create them, as they'll be able to respond to simple questions without the bot author needing to perform extensive content manipulation or topic authoring.

Trigger bot topics by events

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

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 information 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	Aug 2022	Nov 2022

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.

Use multi-digit DTMF input

Enabled for	Public preview	General availability
Users, automatically	Nov 2022	Mar 2023

Business value

Enable voice customers to answer bot questions using their phone keypads with multi-digit DTMF inputs. This reduces the time needed inputting long multi-character sequences and lowers errors.

Feature details

Authors will be able to set per-node multi-digit DTMF input options, including using a set number of digits, or terminator characters ("*" or "#"). Customers can enter their answers using a phone keypad, making for faster interactions with less errors.

Notify Teams users about query updates

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓ Oct 29, 2021	Mar 2023

Business value

Let your bot reach users proactively by notifying them when a time-off request is approved or send reminders for daily health check-ins.

Feature details

We're adding the ability to send proactive messages from a bot to its users in a Teams chat by using a Power Automate workflow. For example, a bot user might ask the bot *Has my budget been approved?* to which the answer is *Not yet*.

Now, instead of the user having to ask the question again every day, you can create a Power Automate flow that notifies the user that the response to their question has changed, and what the new response is.

See also

[Send proactive messages and cards in Microsoft Teams](#) (docs)

Use voice responses over telephony channel

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

Business value

We've improved the experience of your customers when they use a bot with the telephony channel. In 2022 release wave 2, you can get insights for improving your interactive voice response (IVR) solution in the Power Virtual Agents built-in analytics.

Feature details

Today, you can build intelligent, no code chatbots in Power Virtual Agents that help your customers or employees get the right information or resolve their problem as soon as possible, over their preferred messaging channels.

In this release wave, Power Virtual Agents will add the ability to optimize your chatbots for voice interactions and make the bots available over telephony, whether that's on an existing phone number or a new phone number you get specifically for this purpose.

Core authoring

Overview

Creating a bot with Power Virtual Agents is easy to do with the no-code authoring canvas, and there are several ways you can manage how topics interact, how you want the conversation to flow, and what it should feel like.

It's easy to test the bot without having to fully deploy it whenever you make a small change. There are also lesson topics that guide you through topic authoring from simple to complex scenarios as well as default system topics. You can also choose what language you want your bot to use. Variables and entities make your bot more capable of understanding your users, and rich content makes your bot more relatable and easier to use.

Use multi-modal response authoring

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

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 ensuring 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, ensuring a more natural experience.

Use Adaptive Cards in Power Virtual Agents

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Aug 2022	Nov 2022

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.

Use list variables and looping in conversations

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Aug 2022	Nov 2022

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.

Service and runtime

Overview

Power Virtual Agents continues to ensure it meets strict compliance and governance needs. Power Virtual Agents will be available for US Government customers in the Government Community Cloud (High) environment, as well as in our Germany and United Arab Emirates regions.

Power Virtual Agents will make it easier to govern your Microsoft Teams-based environments costs by offering inactivity-based environment deletion — cleaning up those environments that are in disuse — allowing your organization to focus on only active projects.

Create bots in new datacenters

Enabled for	Public preview	General availability
Users, automatically	-	Nov 2022

Business value

Grow your business by creating bots in new locations that cater to that location's specific needs or scenarios.

Feature details

Power Virtual Agents can be [deployed into different Microsoft Azure datacenters, which are also referred to as regions](#). You can create a bot in your tenant's location by default, or you can choose the datacenter you want to use when you're setting up your environment.

With this release, we're adding Germany and United Arab Emirates (UAE) to the list of datacenters that you can choose when creating an environment for your bot.

Microsoft Dataverse

Plan and prepare for Microsoft Dataverse in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 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

Power Apps collaboration

We're building real-time collaboration infrastructure inside Microsoft Dataverse using Azure Fluid Relay services to fuel the co-presence and co-authoring capabilities for Power Apps makers and Unified Interface users. The infrastructure is scalable for third-party collaboration scenarios and becomes foundational for the expanding collaboration capabilities like commenting and notifications to minimize the collaboration gap between fusion teams.

Virtual tables

Virtual tables allow Microsoft Dataverse to surface data stored outside of the Dataverse relational storage for use in Power Platform. Data accessed through a virtual table looks and acts like a native Dataverse table. For example, your SQL Server data can be accessed through Dataverse tables, using Dataverse APIs and plugins and can have relationships to your native Dataverse tables like accounts, contacts, or other custom tables you create.

Virtual tables can be used to connect to tabular data (SQL, Excel, SharePoint), non-tabular data (data lake, Azure Cosmos DB, SAP), data accessed through direct OData calls, or custom connections that users can craft to meet their needs.

Dataverse APIs

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse. Canvas apps, model-driven apps, and Microsoft Power Automate depend on Dataverse APIs. ISVs and customers use our APIs to create integrations and custom applications. Dataverse APIs provide capabilities to work with business data in your Microsoft Dataverse tables and perform specialized operations on that data.

Microsoft 365 collaboration

Microsoft Dataverse powers many collaboration capabilities, including integrations with different Microsoft 365 products, such as Microsoft Exchange, Outlook, and Teams. Whether you are sending/receiving emails, creating/joining Teams meetings, or linking Teams chats to

records, Dataverse enables users to collaborate with colleagues across your company without needing to switch between applications.

Dataverse extensibility

Microsoft Dataverse is an extensible data source. Customers can create custom logic, tables, forms, applications, .NET plugin assemblies, and so on to either extend the existing capabilities or create new capabilities that cater to their business needs. Low-code extensibility in Dataverse takes extensibility to fusion development teams, thereby making extensibility an easy-to-use experience.

Dataverse events

Business events and data events along with virtual tables provide the shared data layer for convergence of complementary technologies that are intended to work together. In 2022 release wave 2, we'll continue to grow the Microsoft Dataverse event platform capabilities by enhancing the performance, reliability, and scale of the event framework.

We'll also build on the event framework, 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 October 2022 through March 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
Dataverse VNet injection for outbound connectivity	Users by admins, makers, or analysts	Sep 2022	Nov 2022
Use optimized APIs for bulk data operations	Users by admins, makers, or analysts	Oct 2022	Jan 2023
Enable conditional plug-in execution for improved efficiency	Admins, makers, marketers, or analysts, automatically	Dec 2022	Jan 2023

Dataverse events

We'll 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
Send more business events	Admins, makers, marketers, or analysts, automatically	-	Oct 2022
Use process mining with events	Admins, makers, marketers, or analysts, automatically	Sep 2022	Oct 2022

Dataverse extensibility

Dataverse is an extensible platform.

Feature	Enabled for	Public preview	General availability
Dependent assemblies support for plug-ins	Users by admins, makers, or analysts	Jun 2022	Oct 2022
Enable Power Fx in Dataverse business rules	Users by admins, makers, or analysts	Sep 2022	Nov 2022

Microsoft 365 collaboration

Dataverse applications collaborate with Microsoft 365 applications.

Feature	Enabled for	Public preview	General availability
Delegate mailbox approval process	Users by admins, makers, or analysts	Sep 2022	Oct 2022

Power Apps collaboration

We're supporting Power Apps makers and Unified Interface users by building real-time collaboration within Microsoft Dataverse.

Feature	Enabled for	Public preview	General availability
Collaborate using co-presence, co-authoring	Users, automatically	Aug 2022	Oct 2022

Virtual tables

Use virtual tables to surface data from external data sources in Dataverse.

Feature	Enabled for	Public preview	General availability
Connector provider for non-tabular virtual tables	Users, automatically	Dec 2022	Mar 2023

Feature	Enabled for	Public preview	General availability
Virtual tables between Dataverse instances	Users, automatically	Jan 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](#).

Dataverse APIs

Overview

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse. Canvas apps, model-driven apps, and Microsoft Power Automate depend on Dataverse APIs. ISVs and customers use our APIs to create integrations and custom applications. Dataverse APIs provide capabilities to work with business data in your Microsoft Dataverse tables and perform specialized operations on that data.

Dataverse VNet injection for outbound connectivity

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2022	Nov 2022

Business value

For enhanced security, customers calling Microsoft Dataverse from on-premises deployments will now use the Microsoft Azure backbone instead of the public internet.

Feature details

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

This feature will initially be released with a programmatic interface; however, a graphical user interface to configure the feature is planned.

Use optimized APIs for bulk data operations

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Oct 2022	Jan 2023

Business value

These new APIs enable significantly greater throughput for operations on multiple records.

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`, `Update`, or `Upsert` single messages is still applied when the `CreateMultiple`, `UpdateMultiple`, and `UpsertMultiple` 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`, `Update`, and `Upsert` messages be moved to the `CreateMultiple`, `UpdateMultiple`, and `UpsertMultiple` 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, Update, and Upsert 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`, `UpdateMultiple`, and `UpsertMultiple` 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.

Enable conditional execution for improved plug-in execution efficiency

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Dec 2022	Jan 2023

Business value

Improved system run-time performance is now available by enabling plug-in conditional execution.

Feature details

Plug-in calls are presently unconditional, which requires Microsoft Dataverse to execute each plug-in call and return the execution results back to the caller as a response message. For improved system performance, we're now enabling conditional execution of plug-ins so that Dataverse can execute the plug-in only when the specified condition is met. The condition is provided during the plug-in registration process.

This feature reduces the Dataverse call handling mechanics and improves plug-in execution efficiency.

Dataverse events

Overview

Business events and data events along with virtual tables provide the shared data layer for convergence of complementary technologies that are intended to work together. In 2022 release wave 2, we'll continue to grow the Microsoft Dataverse event platform capabilities by enhancing the performance, reliability, and scale of the event framework.

We'll also build on the event framework, 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.

Send more business events

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Oct 2022

Business value

External events will be ingested more quickly, leading to more responsive business processes.

Feature details

External business events use custom APIs that are configured so that no synchronous logic or data operations occur in Dataverse. Applications send external business events to Dataverse so that logic can be applied asynchronously.

These custom APIs are configured in this way:

- No plug-in type is registered for the main operation.
- The [Allowed Custom Processing Step Type property](#) is set to **Async Only**.
- There are no response properties.

This feature recognizes the unique configuration of these custom APIs and optimizes how Dataverse responds to these events. Without any synchronous logic or data operations in the custom API, these events can't be cancelled. Knowing this, Dataverse will immediately respond to indicate that the event was accepted, skipping the time required for the logic that usually must occur to confirm the full processing of synchronous data or logic operations.

This results in a significant increase in the rate that applications can send events to Dataverse.

For more information, go to:

- [Microsoft Dataverse business events](#)
- [Create and use custom APIs](#)

Use process mining with events

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	Oct 2022

Business value

Process mining enables deep analysis of business processes, identifying bottlenecks and opportunities for process optimization.

Feature details

Process mining helps to analyze simple to complex business processes present in 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.

This feature provides native platform capabilities for streaming your business events to a managed data lake and capture those events in a standard schema.

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

Dataverse extensibility

Overview

Microsoft Dataverse is an extensible data source. Customers can create custom logic, tables, forms, applications, .NET plugin assemblies, and so on to either extend the existing capabilities or create new capabilities that cater to their business needs. Low-code extensibility in Dataverse takes extensibility to fusion development teams, thereby making extensibility an easy-to-use experience.

Dependent assemblies support for plug-ins

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jun 2022	Oct 2022

Business value

Enhanced plug-in functionality can now be added through the inclusion of dependent assemblies during the plug-in build and registration processes.

Feature details

This feature allows customers to include dependent assemblies as part of the plug-in build and registration processes. Customers can include all required plug-in assemblies into a NuGet package and register that package during the plug-in registration process using supported tools or solutions.

Another feature benefit is savings on system capacity utilization as these NuGet packages will be part of Microsoft Azure file store instead of the relational database. The NuGet package is stored on an Azure file store during the plug-in registration process after the plug-in assembly and plug-in type validations are run.

This feature makes use of sandbox plug-ins to decode the plug-in package and run the plug-in's business logic.

Enable Power Fx in Dataverse business rules

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2022	Nov 2022

Business value

This capability will bring an improvement to the maker experience when working with business rules in Microsoft Dataverse.

Feature details

Today, business rules creation is a no-code and/or pro-developer's experience. No-code designer experiences are often limited to simple conditions or rules. We're expanding the business rule definition experience to low-code using Power Fx which is the low-code language that will be used across Microsoft Power Platform. It's a general-purpose, strong-typed, declarative, and functional programming language. This capability will enable fusion teams to write advanced business rules in Dataverse without having to go through the full development application lifecycle management (ALM).

Microsoft 365 collaboration

Overview

Microsoft Dataverse powers many collaboration capabilities, including integrations with different Microsoft 365 products, such as Microsoft Exchange, Outlook, and Teams. Whether you are sending/receiving emails, creating/joining Teams meetings, or linking Teams chats to records, Dataverse enables users to collaborate with colleagues across your company without needing to switch between applications.

Delegate mailbox approval process

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2022	Oct 2022

Business value

If you're using Dynamics 365 with Exchange Online, a user with a global or Exchange administrator role is currently required to approve mailboxes before they can be enabled to synchronize with Dynamics 365. New Dynamics 365 users may be added on a regular basis and your company may want to delegate the mailbox approval process to someone who doesn't have a global or Exchange administrator role.

Feature details

A global or Exchange administrator will be able to delegate the mailbox approval process to other users or a team. A user who has been granted this delegate access will be able to approve a mailbox without needing to be a global or Exchange administrator.

Power Apps collaboration

Overview

We're building real-time collaboration infrastructure inside Microsoft Dataverse using Azure Fluid Relay services to fuel the co-presence and co-authoring capabilities for Power Apps makers and Unified Interface users. The infrastructure is scalable for third-party collaboration scenarios and becomes foundational for the expanding collaboration capabilities like commenting and notifications to minimize the collaboration gap between fusion teams.

Collaborate using co-presence, co-authoring

Enabled for	Public preview	General availability
Users, automatically	Aug 2022	Oct 2022

Business value

This feature facilitates real-time collaboration for co-presence and co-authoring scenarios for model-driven apps, thus empowering and encouraging fusion teams to be more collaborative and productive.

Feature details

A key part of enabling organization-wide adoption of low code is involving existing professional developers in the movement and empowering fusion teams of developers and

citizens to work together. Enabling Microsoft Dataverse as the real-time collaboration platform helps to bring the fusion team players and experiences together, allowing both citizen and professional developers to start their work in the tool of their choice, yet seamlessly collaborate and jointly deliver value as part of the digital transportation journey.

Core to the fusion team experience is the ability to build collaboratively alongside multiple colleagues at the same time. In 2022 release wave 2, we'll enable co-presence and co-authoring experience for makers and co-presence experience for users. Makers will be able to see other people in real time as they build apps and make simultaneous edits across different pages of the same app. This will bring the high-productivity collaborative experiences that users have become accustomed to in document co-authoring to the world of software development, which has traditionally relied on the slower and asynchronous process of branching, merging, and compiling for teams of collaborators.

Virtual tables

Overview

Virtual tables allow Microsoft Dataverse to surface data stored outside of the Dataverse relational storage for use in Power Platform. Data accessed through a virtual table looks and acts like a native Dataverse table. For example, your SQL Server data can be accessed through Dataverse tables, using Dataverse APIs and plugins and can have relationships to your native Dataverse tables like accounts, contacts, or other custom tables you create.

Virtual tables can be used to connect to tabular data (SQL, Excel, SharePoint), non-tabular data (data lake, Azure Cosmos DB, SAP), data accessed through direct OData calls, or custom connections that users can craft to meet their needs.

Connector provider for non-tabular virtual tables

Enabled for	Public preview	General availability
Users, automatically	Dec 2022	Mar 2023

Business value

Provide an easier way to create virtual tables that connect to non-tabular data sources, such as Azure Data Lake, Azure Cosmos DB, and many more.

Feature details

Users will be able to use a connector provider to build virtual tables that can use data from sources that don't use a standard tabular format. These data sources include Azure Data Lake, Azure Cosmos DB, Azure Blob Storage, and other sources. The connector providers will remove the need to code API plugins to access the data.

Virtual tables between Dataverse instances

Enabled for	Public preview	General availability
Users, automatically	Jan 2023	To be announced

Business value

Users will be able to use virtual tables between two different Microsoft Dataverse environments. This feature will help organizations who have multiple organizations share key data within apps.

Feature details

With this feature, users will be able to create a virtual table in one Dataverse environment that can provide access to data in a different Dataverse environment. This allows users who may have multiple Dataverse organizations to use existing data and avoid duplicate content across organizations.

AI Builder

Plan and prepare for AI Builder in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 in no-code. By leveraging AI models, makers can build more powerful applications and automate workflows that previously required human intervention, which reduces errors and increases time savings. AI Builder provides makers with access to AI capabilities centered around processing documents, text, images, and structured data, and the ability to import AI models created by data scientists into Microsoft Power Platform. AI Builder is natively integrated in Power Platform, which allows makers to securely and reliably benefit from the breakthrough AI technology built by Microsoft to infuse it in their own apps and flows.

AI Builder is investing in several areas for this wave:

- **Intelligent document processing:** Today, makers can already leverage prebuilt models to process documents (for example, invoices, receipts, identity documents, and business cards). They can also custom train their own AI models to process structured, semi-structured, and unstructured document content. We're increasing the breadth of capabilities supported to allow makers to detect signatures in documents, classify documents, and remove personally identifiable information in documents. We're also improving the ability to detect tables that span across multiple pages in structured forms. Finally, we're making it easier to build custom AI models by allowing makers to iterate from a prebuilt model instead of training a new model from scratch.
- **Model ops:** Model ops includes the lifecycle and governance of AI models managed through AI Builder. We're improving model monitoring capabilities to better track how models are used across an organization. We're also improving the feedback loop component by adding a human in the loop validation station. This allows the feedback loop to integrate with a broader set of model capabilities, including text. Another core part of how models are governed in an organization relates to model versioning. We'll enable support for multiple versions of a given model, including the ability to test, deploy, and roll back models and their training sets.
- **Text processing:** AI Builder will provide a default solution for text processing that enables the classification and routing of customer feedback through email. This will include key updates to building text classification models with AI Builder, including the

ability to manage datasets with more than 5,000 records, and the ability to provide datasets that have been previously tagged.

Investment areas



Investment areas

Intelligent document processing

In 2022 release wave 2, we'll focus on expanding document processing capabilities to support:

- Enhanced performance of table extraction spanning across multiple pages for structured documents.
- Document classification.
- Identifying personally identifiable information.
- Detecting signatures.

Model ops

This area focuses on improving the set of lifecycle and governance capabilities for AI Builder models. In 2022 release wave 2, we'll support enhanced model monitoring capabilities and improved versioning and deployment capabilities for AI Builder models.

AI capabilities for makers

This area covers all AI model capabilities that are newly available to makers to build more intelligent apps and flows. In 2022 release wave 2, we'll provide new capabilities that allow makers to automatically build localized and accessible apps. We'll also focus on extending the set of text processing capabilities so that makers can easily build text automation 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 October 2022 through March 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.

AI capabilities for makers

New AI capabilities are available for makers in Power Platform.

Feature	Enabled for	Public preview	General availability
Static accessibility text for images in Power Apps	Admins, makers, marketers, or analysts, automatically	Oct 2022	To be announced

Intelligent document processing

Intelligent document processing capabilities allow you to extract and process text-based content from documents.

Feature	Enabled for	Public preview	General availability
Utilize document classification	Admins, makers, marketers, or analysts, automatically	Mar 2023	
Extract content from multipage tables in document processing	Admins, makers, marketers, or analysts, automatically	-	Dec 2022
Detect signatures in document processing	Admins, makers, marketers, or analysts, automatically	-	Mar 2023

Model ops

We're improving the lifecycle and governance of AI Builder models.

Feature	Enabled for	Public preview	General availability
Use validation station in workflows that require human validation	Admins, makers, marketers, or analysts, automatically	Dec 2022	-
Monitor and track usage of AI Builder models enhanced	Admins, makers, marketers, or analysts, automatically	Jan 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](#).

AI capabilities for makers

Overview

This area covers all AI model capabilities that are newly available to makers to build more intelligent apps and flows. In 2022 release wave 2, we'll provide new capabilities that allow makers to automatically build localized and accessible apps. We'll also focus on extending the set of text processing capabilities so that makers can easily build text automation flows.

Static accessibility text for images in Power Apps

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	To be announced

Business value

During build time in Power Apps, we'll automatically caption images using a pre-trained image description model in AI Builder.

Feature details

We won't charge makers for automatically adding captions when they add images to apps, and makers will be able to retroactively add this feature to existing apps using the accessibility checker.

Intelligent document processing

Overview

In 2022 release wave 2, we'll focus on expanding document processing capabilities to support:

- Enhanced performance of table extraction spanning across multiple pages for structured documents.
- Document classification.
- Identifying personally identifiable information.
- Detecting signatures.

Utilize document classification

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

Business value

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

Feature details

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

Extract content from multipage tables in document processing

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Dec 2022

Business value

A new multipage tagging feature enables companies to automate processing of complex documents that include structured forms with tables that span across multiple pages.

Feature details

An experimental feature currently exists in AI Builder that allows you to extract content from multipage tables. The feature is limited and doesn't always detect tables accurately if they span more than two or three pages.

With our new multipage tagging feature, we're now able to reliably extract content from multipage tables so that you can deploy AI Builder document processing in production for the most complex documents.

See also

[Process multipage tables in document processing experimental](#) (docs)

Detect signatures in document processing

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

Business value

Many documents in the enterprise require proof of signature. The signature detection feature enables the automation of a broader set of document-based processes that require signatures.

Feature details

AI Builder document processing allows you to detect the presence of a signature. This capability supports training a document processing model to detect if a signature is present at a specific location in the document. This enables you to process a wider range of document types (for example, contracts and purchase orders) for your hyperautomation scenarios.

Model ops

Overview

This area focuses on improving the set of lifecycle and governance capabilities for AI Builder models. In 2022 release wave 2, we'll support enhanced model monitoring capabilities and improved versioning and deployment capabilities for AI Builder models.

Use validation station in workflows that require human validation

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Dec 2022	-

Business value

A validation station built into the intelligent document processing workflow allows improved model performance and ability to build intelligent processing workflows that require human validation.

Feature details

A validation station built into the intelligent document processing workflow allows users to easily review documents and make corrections to extracted fields that improve the model's accuracy. The validation station is built on top of Power Apps and includes a document approval flow.

Monitor and track usage of AI Builder models enhanced

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

Business value

Companies are able to monitor usage and performance of models with preconfigured monitoring reports. This facilitates the adoption of AI Builder in production scenarios.

Feature details

Preconfigured monitoring reports are available for you to track where AI Builder models are used, how often they're used, and at what performance level. This ensures greater tracking capabilities and allows AI Builder models to deploy more easily in a production setting.

Governance and administration

Plan and prepare for governance and administration in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 and Microsoft Dataverse. These capabilities are designed to help administrators and IT professionals set up, secure, manage, govern, and monitor the use and adoption of Microsoft Power Platform and its components across the enterprise. The Power Platform admin center is the unified user experience we provide for Microsoft 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:

- Improve admin's ability to understand organization use of licenses and easily assign licenses to users.
- Continue adding more products available to be "paid per use" using an Azure subscription.
- Bring Finance and Operations trial support into the Power Platform admin center for unified trial management.
- Deliver EU Data Boundary compliance across services.

Investment areas



Investment areas

Admin settings

Admins use a range of settings to govern and manage apps and services. These settings span across all the products in the Dynamics product families.

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 October 2022 through March 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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Admin settings

Settings found in the Power Platform admin center allow admins to govern and manage apps and services.

Feature	Enabled for	Public preview	General availability
Manage business units, teams, and access team templates in the Power Platform admin center	Admins, makers, marketers, or analysts, automatically	Oct 2022	-
Modern security role editor experience in the Power Platform admin center	Admins, makers, marketers, or analysts, automatically	Oct 2022	-

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Admin settings

Overview

Admins use a range of settings to govern and manage apps and services. These settings span across all the products in the Dynamics 365 product families.

Manage business units, teams, and access team templates in the Power Platform admin center

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-

Business value

Provide a modern admin experience for administrators by replacing the legacy web client that doesn't meet accessibility needs and centralize the user management experience to manage business units, Dataverse teams, and access team templates.

Feature details

We'll provide a modern, intuitive UI experience within the Power Platform admin center, upgrading the legacy web client UI for managing business units, Dataverse teams, and access team templates. This will remove the need for administrators to navigate to the legacy web client and instead perform all management operations in the Power Platform admin center.

Modern security role editor experience in the Power Platform admin center

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-

Business value

Admins can manage security roles and privileges in the modern security role editor in the Power Platform admin center. The modern experience is more accessible and replaces the need to navigate to the experience in the legacy web client.

Feature details

We'll provide a modern, streamlined, and simplified experience for admins to manage security roles and privileges in the Power Platform admin center. We'll remove the need to go to the legacy web client to manage roles and privileges.

Pro development

Plan and prepare for pro development in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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 professional (pro) developers with a 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 2022 release wave 2, we'll invest in improvements to the Visual Studio Code extension, GitHub Actions, and Azure DevOps build tools to support building and deploying custom connectors and deeper integration with Microsoft Azure. In addition, we'll enable new capabilities for developers to publish to a central catalog for a much simpler and scalable experience across environments.

Investment areas



Investment areas

Fusion development

Fusion development is where low code and code first intersect. Fusion development offers great experiences for the professional developer when extending Microsoft Power Platform and provides a true no-cliffs application development and automation experience.

Microsoft Power Platform connectors

Microsoft Power Platform provides connectivity to over 600 external data sources. The connector platform has two key objectives:

- Provide a platform that allows partners and customers to develop connectors efficiently.
- Provide a rich set of connectors for customers.

As part of platform investments, we provide a rich set of tools, samples, and documentation to help partners and customers build connectors. In 2022 release wave 2, we're enabling seamless application lifecycle management for custom connectors and connections to ease the rollout of various solutions to different environments. We've improved our certification processes and tools for connectors so partners can get their connectors certified and make them available on the platform. A key investment is to leverage the larger community through the Independent Publisher connector program.

Along with strengthening the ISV community's ability to create their own connectors, we plan to continue to invest in enterprise-grade data connectors like SQL Server, SAP, Oracle Database, and Outlook.

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

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What's new and planned for pro development

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Fusion development

Rich tooling and experiences for the professional developer to simplify extending Microsoft Power Platform by providing a true no-cliffs application development and automation experience.

Feature	Enabled for	Public preview	General availability
Ability to pack and unpack canvas applications as part of Solution packager	Users, automatically	Oct 2022	
Improving the Visual Studio Code UI improvements	Users, automatically	Oct 2022	
Deploy dependent components with chatbots and topics using automated ALM processes	Users, automatically	Oct 2022	
Automate connection creation using Azure DevOps and GitHub Actions	Users, automatically	Nov 2022	

Microsoft Power Platform connectors

The connector platform provides a rich set of connectors for customers and enables partners and customers to develop connectors efficiently.

Feature	Enabled for	Public preview	General availability
Cloud runtime for F&O and Dataverse application development	Users, automatically	Oct 2022	-

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Fusion development

Overview

Fusion development is where low code and code first intersect. Fusion development offers great experiences for the professional developer when extending Microsoft Power Platform and provides a true no-cliffs application development and automation experience.

Ability to pack and unpack canvas applications as part of Solution packager

Enabled for	Public preview	General availability
Users, automatically	Oct 2022	-

Business value

This feature supports the enhanced viewing of canvas apps in a source code friendly way in support of Application Lifecycle Management (ALM).

Feature details

Customers wanting to implement source code as the single source of truth have been struggling with Microsoft Power Platform where they aren't able to see the differences between the various canvas applications that have been persisted to source code. In spring of 2021, we released a preview capability and new sub-command in the Power Platform CLI that enabled the packing or unpacking of a canvas app file. We're glad to announce that we've gotten rid of the canvas pack and unpack commands and incorporated that capability into standard solution packaging and unpacking commands. This greatly simplifies the process of packing and unpacking canvas applications.

Improving the Visual Studio Code UI improvements

Enabled for	Public preview	General availability
Users, automatically	Oct 2022	-

Business value

In 2022 release wave 2, we'll be making improvements to the user interface experience of Power Platform Tools for Visual Studio Code.

Feature details

Announcing more interactive capabilities for the code-first developer in Microsoft Power Platform Tools for Visual Studio Code. Ever since the general availability announcement of the first release, developers have been asking us to add more interactive experiences within Visual Studio Code than just command line support. We're now announcing new capabilities to initialize solutions, packages, and Power Apps component framework controls in addition to being able to synchronize assets, and we're making the entire development experience very fluid.

Deploy dependent components with chatbots and topics using automated ALM processes

Enabled for	Public preview	General availability
Users, automatically	Oct 2022	-

Business value

In this release, we've made improvements to the deployment experience for Power Virtual Agents.

Feature details

Previously, when deploying Power Virtual Agent solutions, dependent components had to be manually installed after solution import. With this new capability, not only can customers deploy a chatbot using application lifecycle management (ALM) pipelines, but the solution dependent components will also be automatically installed. This new capability removes the need to manually install dependent components after solution import resulting in a ready to use chatbot after deployment.

Automate connection creation using Azure DevOps and GitHub Actions

Enabled for	Public preview	General availability
Users, automatically	Nov 2022	-

Business value

In 2022 release wave 2, we've added improvements to the overall application deployment experience for better application scaling.

Feature details

Customers who wanted to scale their applications with Microsoft Power Platform have been able to create connectors in their target environment but not the connections

(authentication profile) that allow those connectors to access their data source as they move applications from one environment to another. Now, with connections being in Microsoft Dataverse, customers can create connections for the corresponding connector in the target environment using automated Continuous Integration/Continuous Delivery (CI/CD) to scale their applications. Creating connections as part of their automated CI/CD pipelines allows organizations to implement governance controls and make sure that, regardless of the environment they deploy to, the application would always work with the relevant data sources for the application in the target environment.

Microsoft Power Platform connectors

Overview

Microsoft Power Platform provides connectivity to over 600 external data sources. The connector platform has two key objectives:

- Provide a platform that allows partners and customers to develop connectors efficiently.
- Provide a rich set of connectors for customers.

As part of platform investments, we provide a rich set of tools, samples, and documentation to help partners and customers build connectors. In 2022 release wave 2, we're enabling seamless application lifecycle management for custom connectors and connections to ease the rollout of various solutions to different environments. We've improved our certification processes and tools for connectors so partners can get their connectors certified and make them available on the platform. A key investment is to leverage the larger community through the Independent Publisher connector program.

Along with strengthening the ISV community's ability to create their own connectors, we plan to continue to invest in enterprise-grade data connectors like SQL Server, SAP, Oracle Database, and Outlook.

Cloud runtime for Finance and Operations and Dataverse application development

Enabled for	Public preview	General availability
Users, automatically	Oct 2022	-

Business value

Partners and developers will be able to create applications that can access backend (Dynamics 365 Finance and Operations) and frontend (Dynamics 365 Sales, Marketing, and Service) cloud deployed services.

Feature details

As part of the transformation from on-premises to cloud hosted traditional backend systems, such as ERP and the explosion of novel cloud-based customer experience (CE) frontend applications, customers are increasingly discovering scenarios where integrating information from both sides provides exponential benefits in terms of customer value, process innovation, and enterprise alignment.

Microsoft is uniquely positioned to deliver a compelling story for features that span across the traditional enterprise silos. Our portfolio of mature frontend and backend applications and our leading Azure and AI capabilities can be game changers for enterprises embracing the next level of digital transformation.

A set of robust developer tools that enable cross-cutting scenarios is a key component of the value Microsoft brings to the table. We can meet developers where they are and provide a common set of infrastructure, APIs, SDKs, and tools to radically accelerate the development of applications that run the whole enterprise gamut of backend and frontend systems. The Visual Studio integration of Dataverse with Dynamics 365 Finance and Operations is a key part of this strategy. Visual Studio will streamline the developer experience for both CE and Finance and Operations developers alike by removing the need for a local virtual machine (VM) and enabling development that targets cloud instances with both Dataverse and Finance and Operations preconfigured and ready to work together.

This feature will allow developers to create Finance and Operations applications against a normal cloud deployed Finance and Operations (UNO) runtime instead of a Finance and Operations instance running in a VM. Visual Studio installed anywhere can connect to a Finance and Operations development environment in the cloud, which, in turn, is paired with a Dataverse instance. This feature is also a step towards eliminating cloud hosted VMs.

ISV experiences

Plan and prepare for ISV experiences in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 2023. In this article, you'll find the product overview and what's new and planned for **ISV experiences**.

Overview

Microsoft Power Platform ISV experiences provide a way to empower ISVs with the necessary tools and features they need to build, monitor, and manage their applications before and after publishing to Microsoft AppSource. Using [ISV Studio](#), an ISV can seamlessly monitor the success of their published apps while obtaining the information they need to increase customer growth and satisfaction. In this release, ISVs can iterate faster with automated application updates, and customers receive the latest app release without manual effort - similar to how Dynamics 365 apps are updated today.

Investment areas



Investment areas

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

[Check out the release plan](#)

For application administrators

User-impacting features to the user experience enabled automatically

User-impacting features should be reviewed by application administrators. This facilitates release change management and enables successful onboarding of new capabilities released

to market. For the complete list, look for all features tagged "Users, automatically" in the release plan.

Features that must be enabled by application administrators

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

What's new and planned for ISV experiences

This topic lists features that are planned to release from October 2022 through March 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.

Feature	Enabled for	Public preview	General availability
Auto-update AppSource installed ISV applications	Admins, makers, marketers, or analysts, automatically	Oct 2022	

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](#).

Auto-update AppSource installed ISV applications

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Oct 2022	-

Business value

This feature reduces the manual effort required to keep every single customer of an ISV updated to the latest application release by the ISV.

Feature details

With this new opt-in capability, administrators can decide which ISV applications are updated automatically. In addition, an option is provided to automatically update sandbox or test environments before enabling this auto-update application feature in production environments.

Data integration

Plan and prepare for data integration in 2022 release wave 2

IMPORTANT The 2022 release wave 2 plan covers all new functionalities planned to be delivered to market from October 2022 to March 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, and other Microsoft products and services to ingest and transform data from hundreds of sources into the Microsoft data ecosystem with the M language. In this upcoming release wave, we will 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, like additional security roles, logs, and diagnostics for VNET. Within the Power Query Editor and transformation experience in Power Query Online and Dataflows, you can expect new transforms and capabilities to simplify your visual data prep in a visual authoring environment.

Investment areas



Investment areas

Dataflows

Dataflows provides a low-code self-service data preparation experience using Power Query, including orchestration, automation, and monitoring capabilities that enable users across Microsoft Power BI, Power Platform, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

Power Query Online

Power Query Online is the data connectivity and data preparation experience for online users. This experience covers a wide variety of Microsoft products and services, including dataflows in Power BI, Power Platform, Dynamic 365 Insights Applications, and several more. For more information go to [Power Query](#).

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 October 2022 through March 2023. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

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

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

Dataflows

Dataflows is a low-code data preparation experience using Power Query to integrate data across Power BI, Power Platform, Dynamics 365, and Azure.

Feature	Enabled for	Public preview	General availability
Apply actions to dataflows	Admins, makers, marketers, or analysts, automatically	Nov 2022	-
Load data into Azure Data Lake with dataflows	Users by admins, makers, or analysts	Nov 2022	
Load data to SharePoint in CSV format with dataflows	Users by admins, makers, or analysts	Nov 2022	
Load to Azure SQL database with dataflows	Users by admins, makers, or analysts	Nov 2022	
Load your data to Azure Data Explorer with dataflows	Admins, makers, marketers, or analysts, automatically	Nov 2022	

Power Query Online

Power Query is the data connectivity and data preparation experience for users across a wide variety of Microsoft products and services, including Power BI, Excel, Customer Insights, and more.

Feature	Enabled for	Public preview	General availability
Define Azure Data Explorer KQL queries and views without coding	Admins, makers, marketers, or analysts, automatically	Nov 2022	-
Save and curate a personal query collection in Power Query	Admins, makers, marketers, or analysts, automatically	Mar 2023	-
Browse for SharePoint lists in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Mar 2023
Browse SharePoint libraries and files in Power Query	Admins, makers, marketers, or analysts, automatically	-	Mar 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 provides a low-code self-service data preparation experience using Power Query, including orchestration, automation, and monitoring capabilities that enable users across Microsoft Power BI, Power Platform, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

Apply actions to dataflows

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

Business value

You can develop dataflows more easily with extensible ETL pipelines with less effort and more flexibility.

Feature details

This feature provides the ability to apply actions, such as for/each and conditional branching, to Power Query dataflows from within the familiar Power Query editor. This feature also lets you create more robust and flexible extract, transform, and load (ETL) pipelines in Power Query dataflows.

Load data into Azure Data Lake with dataflows

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Nov 2022	-

Business value

You can use dataflows to store your data in Azure Data Lake.

Feature details

With this new feature, you can load your data into Azure Data Lake by using dataflows. Flexible options include the ability to control the update methods (for example, append and replace) for loading, and support for comma-separated values (CSV) or Parquet file formats.

Load data to SharePoint in CSV format with dataflows

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Nov 2022	-

Business value

In addition to the standard Power BI data lake option, you can use dataflows to store your data in SharePoint sites.

Feature details

With this new feature, you can load your data into any SharePoint folder in comma-separated values (CSV) format by using dataflows. There are also options to control the update methods (for example, append and overwrite) for loading, giving you great flexibility.

The default destination to load your data is the Power BI data lake, with SharePoint available as an additional destination.

Load to Azure SQL database with dataflows

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Nov 2022	-

Business value

In addition to the standard Power BI data lake as a destination, you can use dataflows to store your data in Azure SQL.

Feature details

With this new feature, you can load your data into any Azure SQL database by using dataflows. You can create new tables or load to existing tables with mapping. There are also options to control the update methods (for example, append or replace) for loading, so you have flexibility with how your data is loaded.

The default destination to load your data is the Power BI data lake, with Azure SQL as an additional destination.

Load your data to Azure Data Explorer with dataflows

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

Business value

Users can use dataflows to store their data in Azure Data Explorer.

Feature details

With this new feature, you can use dataflows to ingest and transform data, then load the final results into Azure Data Explorer. Data can be loaded into new tables or mapped to existing tables within Azure Data Explorer.

Power Query Online

Overview

Power Query Online is the data connectivity and data preparation experience for online users. This experience covers a wide variety of Microsoft products and services, including dataflows in Power BI, Power Platform, Dynamic 365 Insights Applications, and several more. For more information go to [Power Query](#).

Define Azure Data Explorer KQL queries and views without coding

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

Business value

This feature allows Azure Data Explorer database creators to seamlessly define Kusto Query Language (KQL) views and queries through a no-code Power Query experience.

Feature details

Azure Data Explorer provides best-in-class experiences for creating no-code KQL queries and views in Power Query, enabling you to manage your business data in Azure Data Explorer databases that can be accessed and used by other members of your organization.

Save and curate a personal query collection in Power Query

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

Business value

With this feature, you can personalize your own Power Query experience by curating and managing your own query gallery.

Feature details

You can now tailor your Power Query experience by curating a personal query gallery to help you easily reuse queries at a later time. This gallery lets you access your saved queries directly in Power Query instead of needing to copy and paste from other sources.

You can add, edit, and remove queries from the gallery.

Browse for SharePoint lists in Power Query Online and dataflows

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

Business value

This feature speeds up the process of selecting SharePoint Online lists and SharePoint lists because you won't need to manually type the required site URL.

Feature details

Previously, when using the SharePoint list connector, you needed to know or find the correct URL to find your lists. In 2022 release wave 2, we've simplified that process, so you have a direct way to browse your SharePoint content for the lists you're seeking.

Browse SharePoint libraries and files in Power Query

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

Business value

You can easily browse SharePoint libraries and files directly in Power Query.

Feature details

Currently, finding the correct URL to use to get data from a file store in SharePoint can be difficult. In 2022 release wave 2, we've simplified that process, so you have a way to browse your SharePoint libraries and the files within them directly in Power Query.

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.

