K2's Accounting Automation

What About Randy?

- 40+ years of technology experience, top-rated speaker for almost 40 years
- Top 25 Thought Leaders in Accounting 2011-2024
- 2004-2023 Accounting Today 100 Most Influential in Accounting for twenty years
- Inducted Accounting Hall of Fame, Feb 2011
- Monthly columns on technology in CPAPractice Advisor, weekly podcasts on technology
- Published author of six books, From Hutchinson, KS
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Major Topics

- Advanced Automation Strategies: Best practices for starting or enhancing your automation journey
- Key Tools for Automation: Exploring the latest features in Zoho, Zapier, Microsoft, and other tools
- Practical Automation in Finance: Automating tasks in accounts payable, banking, and approval workflows
- Navigating Common Pitfalls: Identifying and avoiding typical obstacles in automation projects

Learning Objectives

- Outline the primary benefits of advanced automation in business processes
- Select appropriate automation tools for data extraction and transformation
- Identify Microsoft 365 plans and other tools that offer powerful automation capabilities like Power Automate
- Compare and contrast the functionalities and applications of Power Automate and Zapier
- Recognize business tasks that are prime candidates for automation

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Let's get started…

WHY THE RUSH TO AUTOMATION?

Automation Isn't New…

- One could argue that **automation dates to the early days of manufacturing lines**…Ford's Model T, for instance
  - Ford standardized how workers built the vehicle and, because of that, they were able to **mass produce the Model T at a lower per-unit cost**
  - Further, **standardization helped to increase the quality and reliability of the vehicle**
- Today's automation efforts seek to do the same: *work efficiently, with higher quality and reduced errors*

The Labor Shortage: A New Driver

- Today's **labor shortage has created an additional driver for automation efforts**
  - *There simply are not enough qualified workers to do all the work that needs to be done*
  - *This condition was going to happen with or without COVID*
- Consider the chart on the next slide…

US Birth Rate From 1950
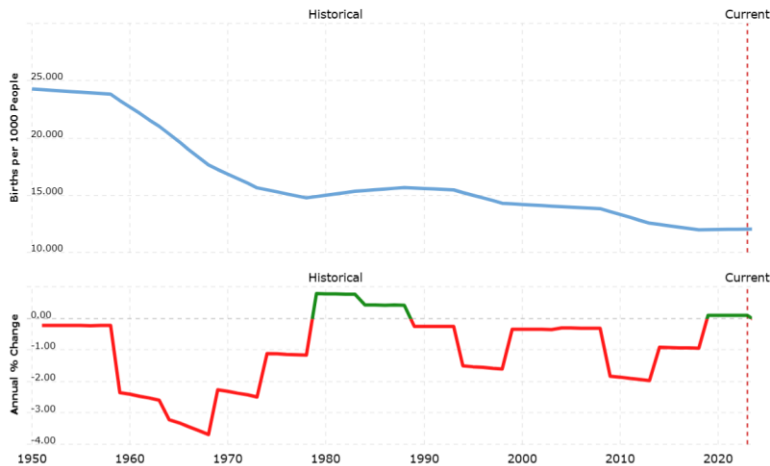
- The **birth rate in the US (and most other countries) has declined precipitously** since 1950
- Today, 12.023 people are born each year per 1,000 people in the population

Source:Macrotrends.net

Automation Is Critical For Success

- What can/should you automate?
  - Look for transactions with **one or more of the following characteristics**

Repetitive transactions	Transactions requiring entry into a database	Standardized transactions with little variability
• Monthly journal entries	• Entering W-2 forms into a personal tax return	• Accounts payable bills from the same vendor

Automation Benefits

Time savings

Improved internal control

Better accuracy

Faster turnaround times

Improved customer/client service

Automation Risks

- Data access paradox – creating barriers to high-quality data
- New cybersecurity threats – privileged accounts are trusted
- Magnified data management issues – real-time needed to scale
- Complacency – once in place, not reviewed
- Governance isn't a given – review workflows and guardrails
- Overdependence on automation – institutional knowledge loss
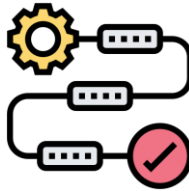
The core foundation of efficiency and effectiveness

INTEGRATION AND AUTOMATION

Relationship Between Integration And Automation

Integration Automation
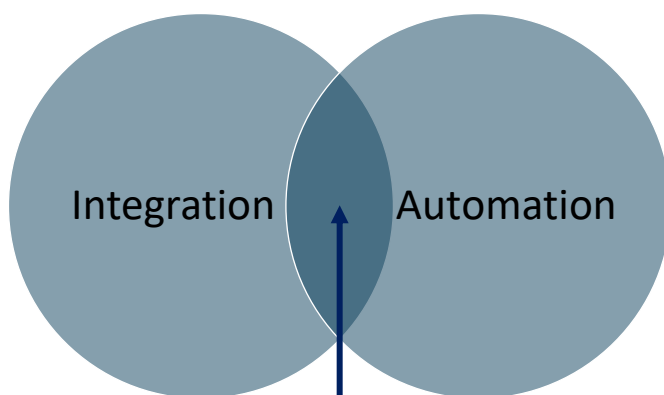
Let's explore this space. Where integration and automation come together

- We're going to explore topics that intersect integration and automation
- We will hopefully give you the skills to simplify data sharing
- We will discuss the various tools that can perform work on your behalf
- Hopefully, you will learn new apps, services, techniques, and more to help you save time and effort

What Is Integration?

- Integration allows data/information to be easily shared between systems without human intervention
- The integration process is usually automated and occurs on an "events basis" (e.g., issuing an invoice, creating a customer record) or on a "scheduled basis" (e.g., once an hour, once a week, etc.)
- Generally, integration programming follows the same workflow procedures as if a human operator had done the work themselves. It's about moving data between systems

What Is Automation?

- In business, automation is focused on the performance of a task without the need for human labor
- Humans design automation procedures, but the work is performed between systems. Once initiated, it will continuously run on its own until intervention is required
- An example of simple automation would be the thermostat in your home or fridge. It will maintain the temperature once set
- A complex automation would be your car's traction control system that automatically adjusts based on multiple real-world conditions

# Why Are Integration And Automation Important And Useful?

- **Cost Savings -** Integration between systems helps reduce cost in the long run as it reduces manual effort
- **Error Reduction -** The integration will automate your data workflow. It will do exactly what you tell it to do every time
- **Scalability & Efficiency -** Data sharing will help your organization scale faster and automate low-value tasks
- **Standardization -** Integrating the various systems across your organization will encourage you to streamline and standardize your operations/data
- **Security -** Automation is excellent at keeping information private as humans aren't generally involved

Opportunities For Personal Integration

- Using Outlook rules to categorize, label, and organize your email Inbox
- Using Alexa to turn off the lights in your home at the end of the day as you get in bed
- Using Amazon or HP to order replacement toner/paper for your printer when running low
- Using Microsoft Power Automate to automatically process changes from your accounting system to your various other company systems
- Using a Stream Deck to launch your favorite applications at the push of a button
- **Any frequently done task is a great candidate for automation and integration**
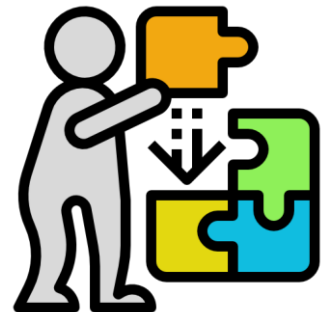
When Should You Not Integrate And Automate Your Data

Generally, integration between systems is considered a good thing. However, there are some exceptions. Some things to consider:

- **Highly Manual & Complex -** Transactions that are highly varied and require substantial human review. For example, evaluating artwork or listening to audio
- **Not Standard -** When the data format isn't consistent and can't be standardized
- **Some Systems Don't Support Integration -** Some older and legacy systems don't have the necessary components to allow data to be systematically imported or exported
- **Changing Requirements -** Generally, you don't want to start integrating data until all the requirements are established and agreed to
- **Upfront Costs -** Integration projects can have a higher up-front cost. Generally, these costs are one-time and fixed. However, the price can be cost-prohibitive for some projects

Features Of Good Integration

- **Scalability in the Future -** Can it grow with your organization?
- **Complete Traceability -** Can you trace a transaction from start to finish? Can you see where the data is going?
- **Failure Recovery -** Are there safeguards to ensure the system can recover and data isn't lost?
- **System Upgrades -** Can you change systems inside your organization without causing significant disruption? For example, changing accounting systems
- **Change in Business Process -** Can your integration change as your organization changes? Is it flexible enough to deal with minor changes to the data without requiring significant alterations?
- Learn more about the features of good integration at https://www.techtarget.com/searchdatamanagement/feature/How-to-evaluate-the-features-of-a-data-integration-product

What To Look For When Integrating

- **Repetitive** - Tasks that are done a lot or in high frequency
- **Simple** - Tasks that are clearly defined and standardized
- **Timely** - A task that needs to be done on a schedule where timeliness matters
- **Prone to Error** - Tasks are usually prone to clerical or human errors
- **Security** - Tasks involving sensitive data that would not be suitable for humans to be involved (e.g., storing a password, charging a credit card, etc.)
- **Stored in a System** - Tasks that are already contained inside a system and a database
- The 25 things every business should automate
  http://bit.ly/2w7dT9M

Discover Your Repetitive Tasks

- Make a list of daily, weekly, and monthly tasks
- Determine how many times each task is completed per day
- Are those tasks completed the same way every time?
- What are the requirements of tasks?
  - What do they require to be completed?
- Who is responsible for completing that task?
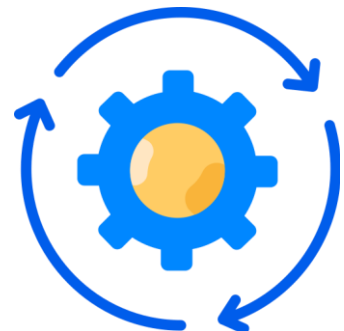
Evaluate Your Repetitive Tasks

- Determine what would be gained by automating the task
- Will automation reduce errors?
- Will automation save time?
- Will it allow a workflow to be tracked more easily?
- Will a human double-check still be required?
- Analyzing why you want to automate a task helps you find the right tool to automate the task with

Getting Started With Integration And Automation For Personal Work

There are several tools and services which you can start using. From the novice to the expert, there is a toolset for you

- **Integration Platforms** - IFTTT, Zapier, and Power Automate, n8n, Zoho Flow
- **Desktop Tools** - Excel, Word, Outlook, Adobe Acrobat DC, Calendly, Liscio, and more
- **Intelligent Virtual Assistants** - Amazon Alexa, Google Home, and Apple Siri

Three Primary Types Of Automation

Digital Process Automation	Robotic Process Automation	Business Process Automation
• DPA seeks to digitize end-to-end processes • Purpose is to optimize and streamline workflows • Often automates content flows from completed forms	• Uses technology to automate tasks human workers might perform • Examples include extracting data, form-filling, moving files from one storage location to another	• Generally, BPA is more complex than either DPA or RPA • BPA for example might be used to automate credit approval decisions

Examples

- DPA
  - A customer or client fills in an on-line form. DPA could be used to extract and store that data elsewhere. This should be a relatively simple process because the fillable form structures the data
- RPA
  - A public accounting firm might use RPA to extract data from clients' tax documents such as W-2s, 1099's, and K-1s and automatically populate a tax return with the data
- BPA
  - Automating A/P workflows through automatically approving payments

ODBC – An Automation Facilitator

- Automation efforts sometimes require **linking data from one database or application to another**
- This task is sometimes completed by **Open Database Connectivity (ODBC)**, somewhat of a "legacy" technology
- ODBC is a **vendor-neutral way of linking data** from one location to another
- A common use of ODBC is **automating reporting processes, such as linking accounting data to Excel for reporting purposes**

LET'S SEE AN EXAMPLE…

Using ODBC To Link Data

- Perhaps you want to create a report in Power BI or even Excel that **uses data from your QuickBooks Desktop database**
  - Of course, **you want to link the data**, not export it/import
  - By linking **you can refresh your report on demand**
- To do this using ODBC, you'll need a connector such as one available from CData

Using ODBC To Link Data

- In Excel and with QuickBooks open, click **Get Data** from the **Data** tab of the Ribbon
- Choose **From Other Sources**, **From ODBC**
- Specify the **CData QuickBooks Source**
- **Expand the folders**
- **Click the table** to link to Excel
- Create your report
- Once created, you only need to **refresh the report, not rebuild**

Using ODBC To Link Data

Microsoft, Apple, And Google Already Have Automation Built Into Their Tools

USEFUL AUTOMATION & INTEGRATION TOOLS FOR BUSINESS

Often There Is Automation Inside Applications You're Already Using

Most applications have various methods to automate routine tasks or make complicated actions easier

- **Templates -** You memorize commonly used or customized formats and reports
- **Macros -** You can record your actions and keystrokes and play them back
- **Rules & Filters -** You can set up procedures to categorize and organize your work
- **Communication -** You can set up actions to communicate about your work through email or chat
- **Integration with third-party tools -** It's common to integrate external tools to provide additional functionality or data
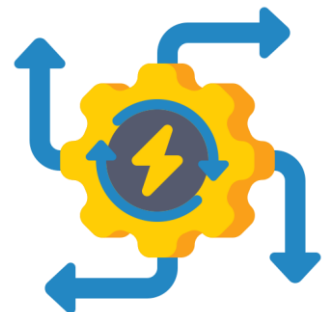

Examples Of Built-In Automation

You can find automation everywhere!

- Categorizing email through rules or filters in your preferred Email Client
- Saving your common searches or views in Explorer, Outlook, etc.
- Recording actions with a macro in documents and spreadsheets
- Creating templates of your commonly used documents in Microsoft Office, Google Workspace, etc.
- Using simple batch, Bash, or PowerShell Scripts in your operating system
- Use Windows Task Scheduler or iOS Background Task to launch tasks automatically
- Adding your commonly used functions to the quick access toolbar in Office
- Using the sharing functionality of any application

Microsoft Excel

Examples of integration and automation features

- Macros and user-defined functions can automate the tasks you repeatedly do
- Power Automate can significantly improve your process of extracting, transforming, and loading data inside of Excel
- There are countless third-party add-ins to assist with reporting and processing inside the application
- You can use the quick action toolbar to pin your most-used shortcuts
- Flash Fill can automatically fill your data when it recognizes a pattern
- Analyze Data and Recommended Pivot Tables can help you better understand your data

Microsoft Word

Examples of integration and automation features

- You can use Styles to easily, quickly, and consistently apply visual appearance to your documents and presentations
- You can use the quick action toolbar to pin your most-used shortcuts
- The "reuse content" and template function allows you to leverage and repurpose previously written content/documents
- Mail merge, table of content, etc., functionality automatically performs complicated actions that take forever to accomplish manually
- There are countless third-party tools available in the Microsoft Store to extend Word's capabilities
- You can request signatures on documents with the Adobe Acrobat DC plugin

Microsoft Outlook

Quick steps and rules for automation

- Quick Steps apply multiple actions at the same time to email messages. This helps you quickly manage your mailbox

- For example, if you frequently move messages to a specific folder, you can use a Quick Step to move the message in one click. Or, if you forward messages to your manager or peers, a one-click Quick Step can simplify the task

- You can also use rules to apply actions automatically to future incoming messages

- You can use the quick action toolbar to pin your most-used shortcuts

- There are countless third-party tools available in the Microsoft Store to extend Outlook's capabilities
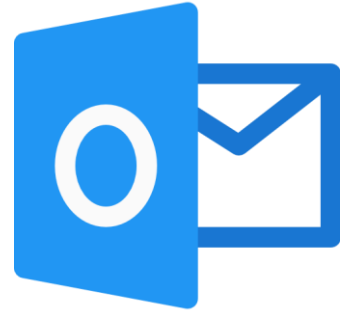
Automation And Integration Option Inside Microsoft Teams

- Microsoft Teams is the "grand central station" of communication. It brings together chat, voice, video, and file collaboration for an organization

- It has a ton of automation and integration functionality throughout the application. It offers excellent connectivity to other applications both in and outside the 365 ecosystems

- Just using Teams, you can have access to communicate with your whole organization, collaborate on documents in real-time, access data in third-party systems, approve documents, and more

Connectors Inside Teams

Connect Teams to Anything!

- In a nutshell, connectors allow you to connect with Teams to external applications
- Connectors keep your team current by delivering content and updates from services you frequently use directly into a channel. With connectors, your Teams users can receive updates from popular services such as Trello, Wunderlist, GitHub, and Azure DevOps Services in their Teams chats
- Use Third-party apps to create automation: Flow bot, Zapier, Slack
- Use Connectors to pull status updates into Teams from non-Microsoft products

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Approvals Inside Teams

Review and document your staff's work

- The Approvals app provides a simple way to bring auditing, compliance, accountability, and workflows structured and unstructured Approvals in Teams
- Approvals hub manages all approvals, including those in Power Automate, SharePoint, and Microsoft Dynamics 365
- Create approvals templates for yourself or your entire organization
- Approval requests are directly inside Teams
- Can trigger approvals from 1000+ connectors or your LOB connector
- Learn more at https://bit.ly/3De6x2i

Adobe Acrobat DC

Tons of automation inside your favorite PDF tool

Adobe Acrobat DC is hands down the best tool to create, edit, and organize PDF documents. There are also some fantastic automation tools inside the application which you should know about:

- Integration with Microsoft Office
- E-Signature with Adobe Sign
- Sharing and send for comments
- Custom multi-actions

Integration With Microsoft Office

Adobe Acrobat DC

Easily create and share PDFs right inside Microsoft Office applications. Functionality between applications differs, but generally, you can:

- One click create a PDF. You can create a password-protected PDF as well as choose the quality
- Create and share a PDF
- Mail merge a PDF
- Create and send for review
- Create PDF and run custom action

eSignature & Adobe Acrobat Pro DC

Easily Send your documents to be reviewed and signed

- eSignature is now provided within Adobe Sign inside Adobe Acrobat Pro DC
- Easily convert any document into a signature document, right inside the application
- According to a 3-year Forrester TEI Total Economy Impact Study in 2019, E-signatures speed up cycle times by 28x
- Companies saved $6/document processed
- Companies saved 125 hours/employee across 3 years

Adobe Sign Features

- Adobe Sign integrates with the Microsoft Suite, Salesforce, Workday, Zoho CRM, and more
- Adobe Sign can be integrated with industry-specific security standards
- Adobe Sign provides real-time visibility on documents out for signature
- It will alert you when documents have been signed
- Allows you to create and manage templates for frequently used forms
- Can send a document to multiple recipients, and Adobe will customize it for each person
- Allows for custom branding in documents

Calendly

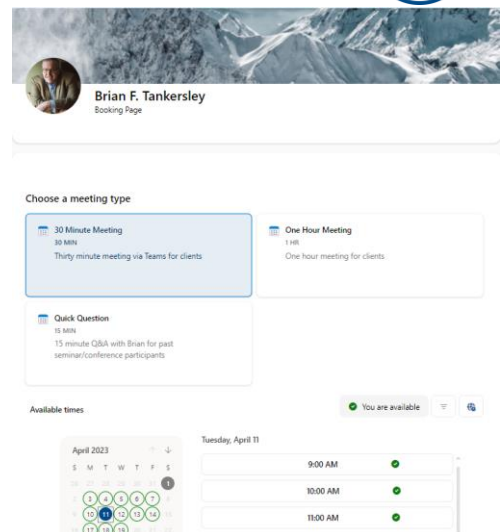*Schedule meetings without the back-and-forth emails*

- Calendly takes the headache out of scheduling meetings and events. Your team or clients schedule appointments with you based on your real-time availability
- **Create simple rules -** Let Calendly know your availability preferences, and it'll do the work for you
- **Share your link -** Send guests your Calendly link or embed it on your website
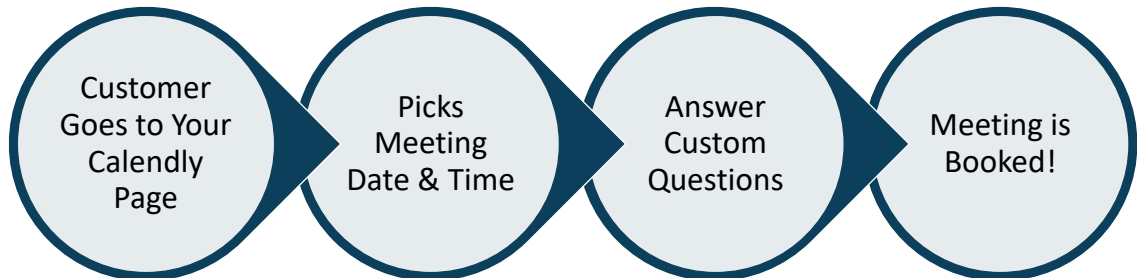- **Get booked -** They pick a time, and the event is added to your calendar

Microsoft Bookings

- Bookings is a tool which integrates with your Microsoft 365 calendar to create a website with links for self-service appointment scheduling
- It can be enabled as an app by your Microsoft 365 Admin in:
  - Office 365: A3, A5, E1, E3, E5, F1, F3
  - Microsoft 365: A3, A5, E3, E5, F1, F3
  - MS 365 Business Standard
  - MS 365 Business Premium
- A companion Bookings app for Android/iOS is also available online

Booking Meetings With Calendly

A client or staff booking a meeting with you

Customer Goes to Your Calendly Page → **Picks Meeting Date & Time** → **Answer Custom Questions** → **Meeting is Booked!**

- The client sees a listing of your different meeting types
- They choose a meeting type (e.g., tax, audit, etc.)
- Each meeting type can have unique characteristics

- The client sees your up-to-the-minute availability coming from 365, Google or both
- They pick a date and time that works for them, but they only can choose the times your available

- You can ask questions such as the intention of the meeting, collect payment, or anything else
- Can choose the location of the meeting, virtual or a physical location

- When the user schedules the meeting, an email is sent to you and them
- A calendar invitation with all event details is sent to everybody

K2 Enterprises

Booking Meetings With Calendly

Sending a meeting request to someone

Using Outlook or Gmail → **Browse Your Current Availability** → **Copy and Paste Into Your Email** → **Client Picks Meeting Date & Time**
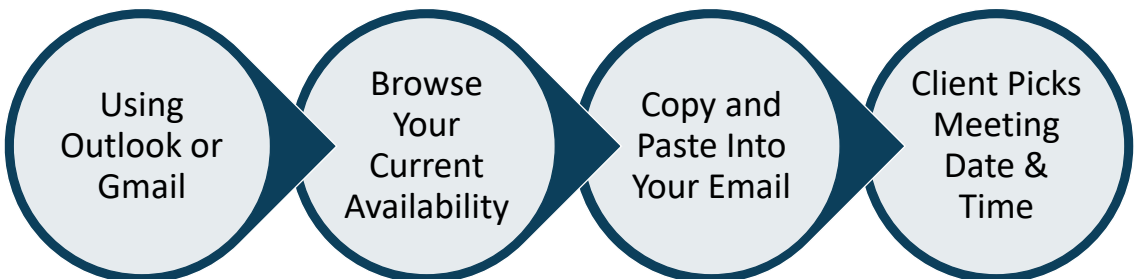
- Compose an email to a client
- Insert a meeting request from Calendly

- Calendly will show you your current availability
- You can pick specific dates and times that that you would like to meet. Giving the client some options

- Calendly will prepare a meeting request which you can easily include with your email message

- The client receives your email and picks a date and time from your proposed selected

K2 Enterprises

Calendly Advanced Features

Calendly is loaded with incredible functionality!

Calendly has several advanced workflow tools to help people manage their meetings more effectively, including:

- Custom availability schedules to match your work hours
- Automated event notifications (SMS and email) before and after the event
- Multi-step and multi-action workflow for calendar bookings
- Fantastic customization of your Calendly page and emails
- Group meetings with multiple people on your team
- Collect credit card payments before meetings
- Integrations with common sales and marketing tools such as HubSpot, Mailchimp, Slack, Salesforce, etc.

Calendly Meeting Workflow

Making everybody's life simpler and easier

- **Automate reminders and follow-ups -** Calendly puts your entire meeting workflow on autopilot, sending everything from reminder emails to thank you notes, so you can focus on the work only you can do. It's like getting an assistant, even if you're a business of one
- **On-demand scheduling -** Anybody can schedule meetings in just a few clicks – whenever the moment is right. And cancellations go down because rescheduling is easy, fast, and on their terms
- **Integration with Gmail and Outlook -** They have deep integration with 365 and Gmail for both calendar and email
- Learn more at https://calendly.com/

Document Management & Client Portal

All your client's documents in one central place

- A client portal can simplify your life by simplifying and streamlining how you distribute documents to clients into a single point of contact

- **Improved productivity -** Often client portals allow you to send documents to clients in just a few clicks. Much faster than printing and mailing or email

- **Improved security -** Email is not the most secure method of sending and receiving documents. A portal is preferred as you 100% know the document is in a secured place and to the correct person. The client will also access the portal with a strong password and multi-factor authentication

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Liscio For Easy And Fast CPA Firm Document Management

- **Need a document?** No problem. Liscio enables clients to respond quickly right from their smartphones. They can scan and send documents on the go – you get them as a high-quality PDF

- **Email is the new snail mail -** Clients want to text. And it's too easy for urgent business to get buried in email. Liscio's Real-Time Messaging is a secure hotline between you and your clients

- **Task tracking -** Always know the who, what, and when with easy-to-track progress and ownership. Client-facing tasks with text alerts and automated mobile reminders for overdue items keep clients on schedule

- **Integrated signature -** eSign on-screen or print, sign, and snap a picture. Compliant eSignature, communication, task tracking, and files mean no more hopping between apps

- Integrations with many standard business tools, including QuickBooks Online, One Drive, Google Drive, Outlook, Adobe Sign, Zoom, Calendly, and more!
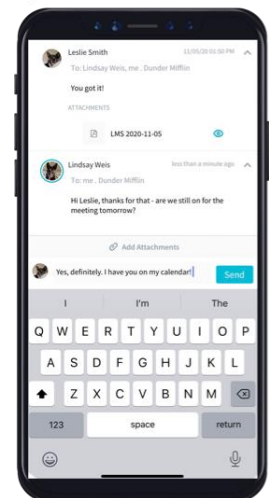
Liscio Pricing And Features

- Tons of features at a fantastic price!
- Unlimited Clients
- Unlimited File Storage
- Mobile Apps (Firm and Client)
- In-App Scanning
- Zoom Integration
- Engagement Letters
- Client-Facing Tasks
- In-Network Messaging
- Text Message Alerts
- Learn more at https://liscio.me/

Pricing Plans

Annual plan | Monthly plan

Core
$50 /month
Pricing per user license

- All-in-one Portal
- Two-Way Texting · $25/line
- Timeline View
- Email Integration

Request a Demo

Pro — Popular
$75 /month
Pricing per user license

- All Core Features
- Two-Way Texting · $15/line
- Build-your-own Requests
- PDF Editor (Coming Soon!)

Request a Demo

Enterprise
Contact Us
Contact a Liscio Expert for a Quote

- All Core and Pro Plan Features
- Email Intelligence + Internal Auditing
- Enterprise Integrations

Request a Demo

Change Detection

Get automatically notified when a website changes

- Ever need to keep up a website? Maybe you want to know when your favorite band announces new tour dates? Perhaps you want to know when a law or regulation changes?
- Change Detection will regularly and automatically check websites for additions, changes, and deletions of content
- When it detects something has changed, it will notify you through email, Teams, or other methods
- It's a free and open-source tool, but you would need to host and install it yourself. Alternatively, there are paid plans which include installation and hosting
- Learn more at https://changedetection.io
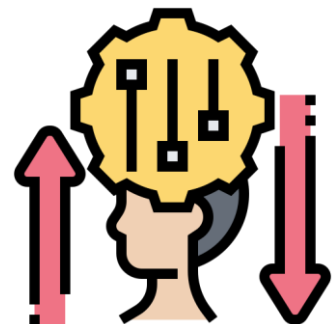
Change Detection

Examples of how you can use this awesome service

- Products and services have a change in pricing
- Governmental department updates (changes are often only on their websites)
- New software releases, security advisories when you're not on their mailing list
- Festivals with changes
- Real-estate listing changes
- University/organization news from their website

Automation In Accounting Apps

Data entry, such as scanning vendor bills into accounts payable

Automatically **routing documents for approvals**

Matching documents, such as A/P bills to purchase orders to receiving reports

Using smartphones to take pictures of T&E employee expense reporting

And, of course, **bank feeds**

Built-In Automation

- An increasing number of **accounting platforms offer built-in automation options**
  - You only need to activate them and customize them to your needs
- Further, **many of these tools allow you to create custom automation routines**

Built-In Automation
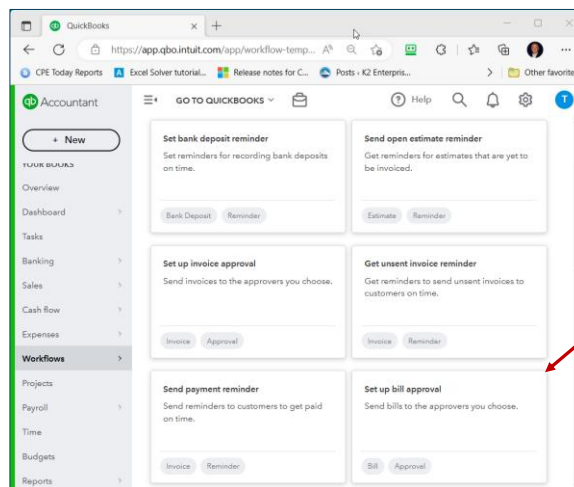
Built-In Automation

You Can Create Custom Automations

CONSIDER THE IMPROVEMENT TO INTERNAL CONTROL AND EFFICIENCY!

POWER QUERY

Power Query And Automation

- Microsoft's **Power Query tool offers automation opportunities** that are readily adaptable to many situations
- Think of Power Query as a "generic" tool you can use to automate many of your **data extraction and manipulation needs**
- Fortunately, **Power Query became "fully-baked" into Excel beginning with the 2016 release** of the application

Power Query And Automation

- What can we do with Power Query?
  - **Link** data from external data sources
  - **Manipulate** that data with "transformations"
  - **Combine** data
  - **Create** "refreshable" reports
  - **Construct** data models
- From an automation perspective, all the above mean **if we can get a "project" – often a report – right one time, _we never have to rebuild it…we merely refresh it_**

An Example…

- Use Power Query to link data from multiple tables in a database, **delete unnecessary columns**, **join the tables** in a data model, and **summarize the data** using a PivotTable
- Steps
  - **Data, Get Data, From Database, From Microsoft Access Database, AdventureWorks Data.accdb, Import**
  - Choose **Select Multiple Items**
  - Select the **Sales_Customer**, **SalesOrderHeader**, and **SalesOrderDetails** tables
  - Click **Transform Data**

An Example…Continued

- **Apply transformations** such as sorting, filtering, deleting columns, adding user-defined calculations, etc.
- Click **Close and Load**
- **Utilize PowerPivot to join the tables into a data model**
- **Generate your report**

A Simple Data Model
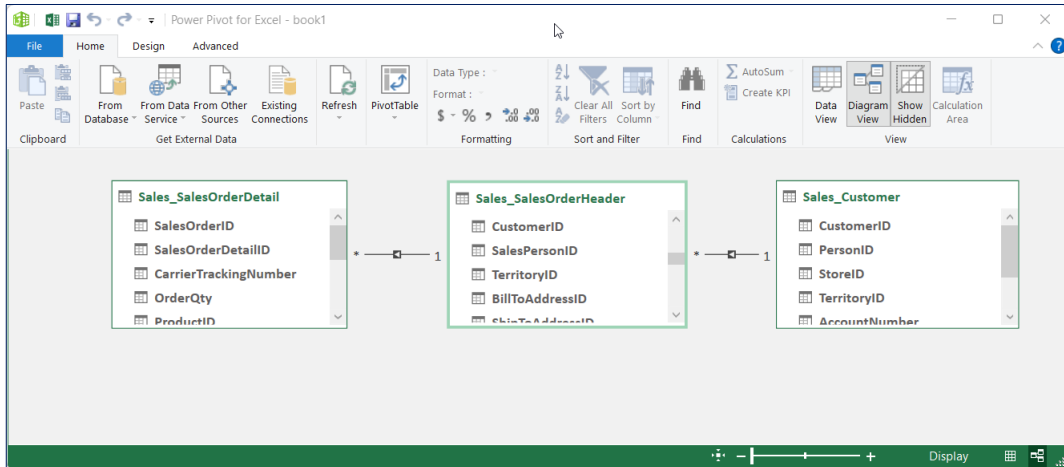
The Resulting PivotTable Report

Why Do We Go Through These Steps?

- Because once you do, **you never have to create your reports again**!

- Remember, **the data links to the report**…therefore, you can simply **refresh on demand**
  - Alternatively, you can put your queries on **timed updates or auto-update whenever you open the workbook**
  - Further, you can **combine data from multiple data sources!**

- ***Reports are repeatable tasks…automate them!***

Take care of what's essential. Automate the rest

POWER AUTOMATE FOR EVEN MORE POWER AND CONTROL

Power Automate Is Part Of Microsoft's Power Platform
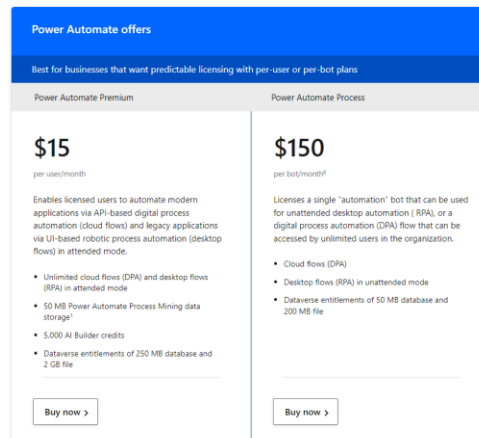
- The Power Platform includes **Power BI**, **Power Apps**, **Power Pages**, **Power Automate**, and **Power Virtual Agents**

- You can **use these tools in a stand-alone environment or in tandem** to analyze data, automate processes, and create apps and virtual agents

- With just a little bit of study and guidance, **most users can become moderately proficient** in a relative short time frame

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Introducing Power Automate

- As its name implies, Power Automate is an automation platform available from Microsoft
- Microsoft includes Power Automate with most business-oriented Microsoft 365 subscription plans
- However, if you don't have a 365 plan, you can acquire Power BI capabilities without a 365 subscription
  - https://powerautomate.microsoft.com/en-us/pricing/

Power Automate pricing

Power Automate offers

Best for businesses that want predictable licensing with per-user or per-bot plans

Power Automate Premium	Power Automate Process
$15	**$150**
per user/month	per bot/month†
Enables licensed users to automate modern applications via API-based digital process automation (cloud flows) and legacy applications via UI-based robotic process automation (desktop flows) in attended mode.	Licenses a single "automation" bot that can be used for unattended desktop automation (RPA), or a digital process automation (DPA) flow that can be accessed by unlimited users in the organization.
• Unlimited cloud flows (DPA) and desktop flows (RPA) in attended mode	• Cloud flows (DPA)
• 50 MB Power Automate Process Mining data storage†	• Desktop flows (RPA) in unattended mode
• 5,000 AI Builder credits	• Dataverse entitlements of 50 MB database and 200 MB file
• Dataverse entitlements of 250 MB database and 2 GB file	
Buy now ›	Buy now ›

Where Does The Power Platform Stand?

Source: Gartner (August 2022)

Power Automate And "Flows"

- In Power Automate, "**flow" to describes the automated workflows run in the service**
- The three primary types of flows are:
  1. **Automated flows**, which occur when a specific event – "trigger" – happens or occurs
  2. **Instant cloud flows**, which run when a manual trigger occurs
 3. **Scheduled cloud flows**, which run on a designated schedule

Typical Cloud Flows In PA

Flow type	Use case	Automation target
Automated flows	Create an automation that is triggered by an event, such as the arrival of an email from a specific person or a mention of your company on social media	Connectors for cloud or on-premises services connect your accounts and enable them to talk to each other
Instant flows	Start an automation with a click of a button. You can automate for repetitive tasks from your Desktop or Mobile devices. For example, instantly send a reminder to the team with a push of a button from your mobile device	Wide range of tasks such as requesting an approval, an action in Teams or SharePoint
Scheduled flows	Schedule an automation such as daily data upload to SharePoint or a database	Tasks that need to be automated on a schedule

K2 Enterprises

Power Automate Templates

- Like similar tools, **Power Automate provides templates you can use "as-is" or customize for specific needs**
  - For most beginners, this is the right place to start
- Of course, **you can also build your own flows from "scratch"** if there is a suitable template from which to get started
- **Power Automate also provides numerous connectors** enabling you to connect to Microsoft and non-Microsoft data sources

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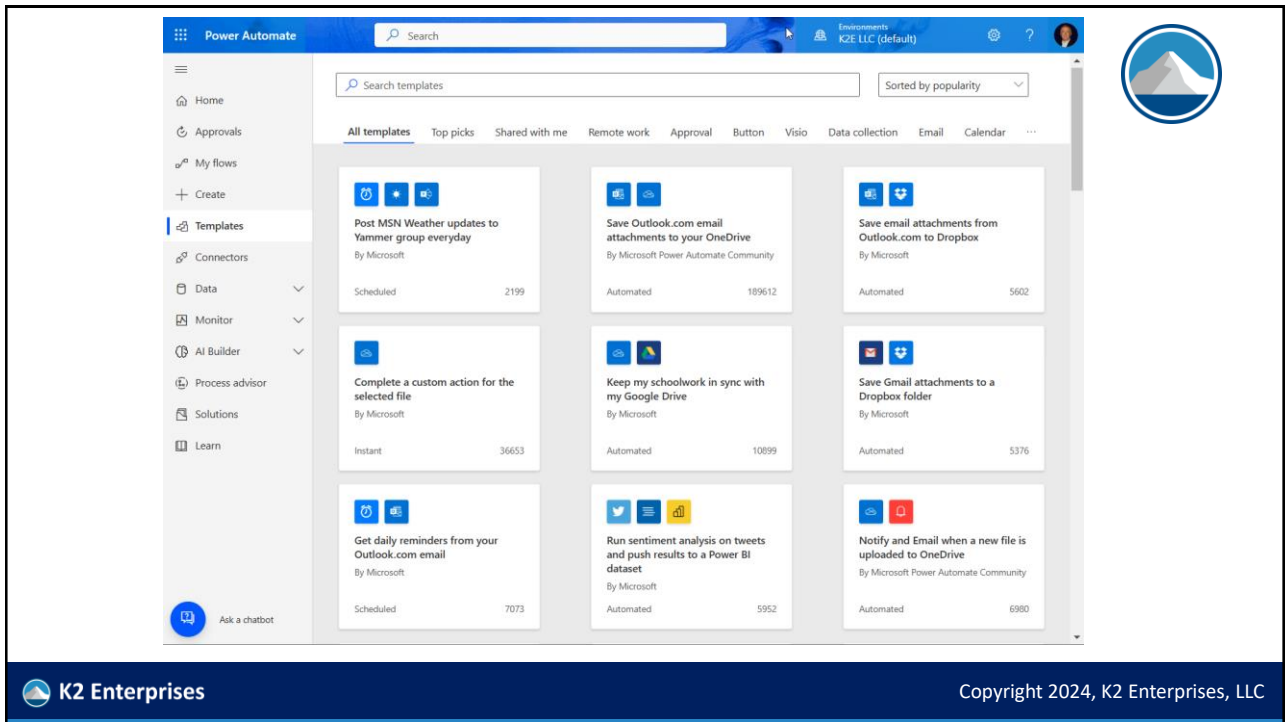
Power Automate Connectors

- **Power Automate has hundreds of connectors available** to allow you to connect to your data
- **Many of these connectors are available at no charge**
  - However, there are fees for others
- You will **use connectors to access the data you want to incorporate** into your Power Automate flows
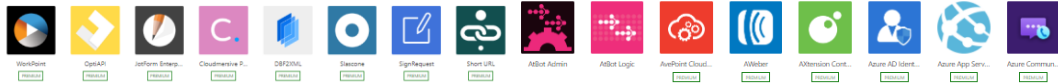
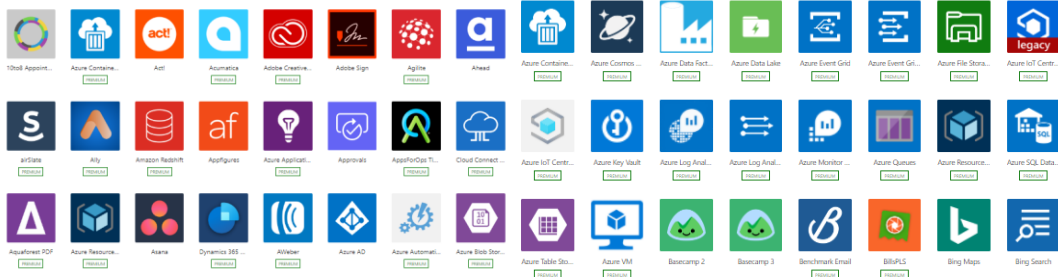# Power Automate Connectors

Connect Power Automate with everything!
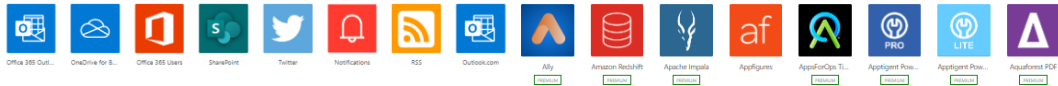
Examples Of PA Templates

Start an approval when a file is added to Sharepoint
By Microsoft

Auto Approve Time Off Requests
By Microsoft

Send a customized email when a new file is added
By Microsoft

Notify a team when Planner tasks change status
By Microsoft

Get today's weather forecast for my current location
By Microsoft

Click a button to track work hours and work location in Google Sheets
By Microsoft

Send an email when an event is added, updated or deleted in Outlook
By Microsoft Power Automate Community

Save comments on Instagram posts to Google Sheets after one day
By Microsoft

Welcome new teams members and share their bio
By Microsoft

Email me with a list of upcoming Calendar events
By Microsoft

Protect a PDF document with a password and send via email
By PDF Blocks
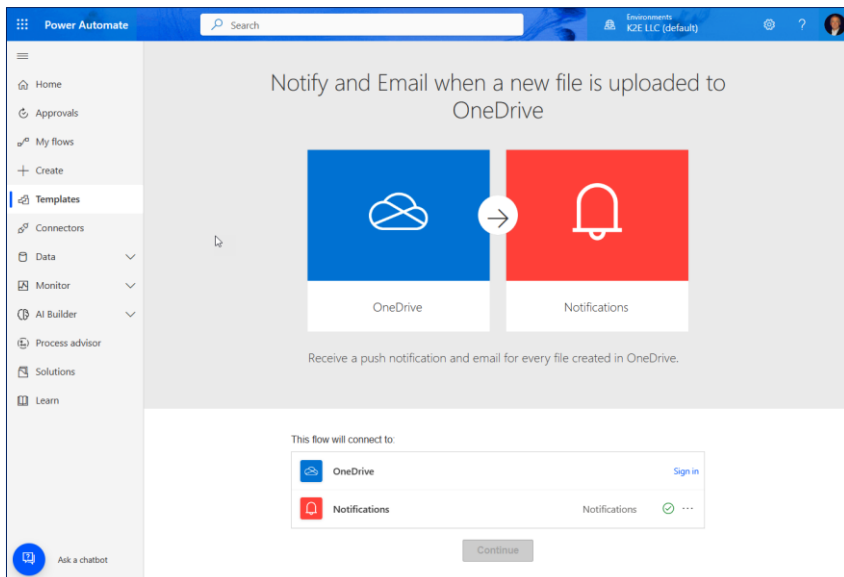
Select A Template To Use
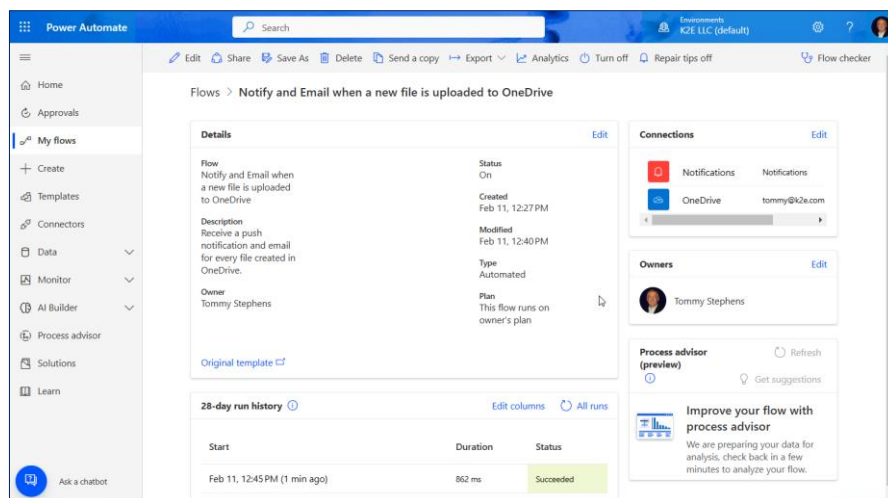
Configure The Template And Use It

Useful Power Automate Scenarios

- Automating data entry via Forms
- Alerts when particular events occur
- Receive a notification when a file stored in OneDrive for Business is updated
- Automatically route documents for approval
- Start an approval process when a file is added to OneDrive
- Get signatures via Adobe Acrobat Sign whenever a file is created in SharePoint

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Office 365 Enterprise Plans

Compare Office 365 enterprise plans
https://www.microsoft.com/en-us/microsoft-365/enterprise/office365-plans-and-pricing

Microsoft 365 Enterprise Plans

Compare Microsoft 365 enterprise plans
https://www.microsoft.com/en-us/microsoft-365/enterprise/microsoft365-plans-and-pricing

Power Automate Pricing Options

Integration Platform as a Service
IPAAS TOOLS

Integration Platform As A Service
Trigger and action workflow tools

- Will have a "trigger" that will initiate a series of actions in other systems
- Web and app-based integration tools allow for data sharing and integration with minimal technical and coding expertise
- Virtually all configuration is done on the mobile handset or a webpage using your favorite browser
- The tool takes care of all the security, authentication, and data management. To you, it's a black box
- Great option for simple integration projects, just getting started or exploring options
- Virtually all the logic and programming needed to connect services are provided to you. No need to learn any programming, but it will help

Example Using QuickBooks And HubSpot CRM

Easily push and pull data between systems

iPaaS tools can be used to automate several routine business functions around the accounting system. For example:

- Trigger, a new customer is created in QBO. Action, iPaaS tool creates the customer record in HubSpot

- Trigger, the sales team updated the customer address in HubSpot. Action, iPaaS tool updates the customer address in QBO

- Trigger, a new invoice is created in QBO. Action, iPaaS tool posts a message in Teams to let the sales team know

- Trigger, an invoice is paid in QBO. Action, iPaaS tool updates the customer record showing the invoice as being paid in QBO and updates an Excel workbook tracking AR

Triggers & Actions With iPaaS Tools

Trigger	Action #1	Action #2	Action #3
QuickBooks • Creating of a new customer record • Customer name, address, email, etc.	**HubSpot CRM** • Create an associated record from QuickBooks data	**Microsoft Teams** • Send channel message to sales and accounting teams	**Microsoft Excel** • A row in client spreadsheet with new customer data
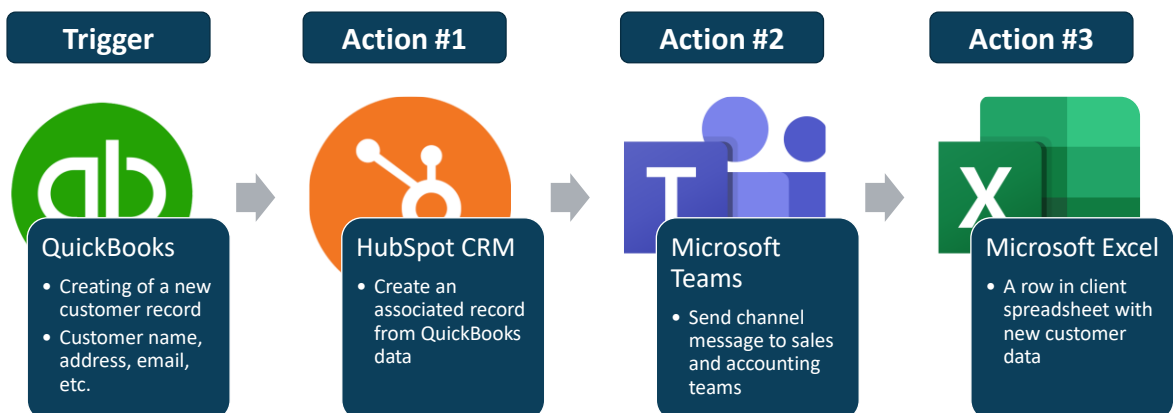
Examples Of Triggers And Actions

Triggers
Start the automation workflow

- A new order is placed on your company's e-commerce system
- A row is updated on a commonly used spreadsheet
- An email is received in your Inbox
- A new customer record is created in your accounting system
- A new lead requests a meeting with your sales team

Actions
Steps in the automation workflow

- A new invoice is created in QuickBooks with the order information
- A message is sent on Teams or Slack
- An email attachment is copied to SharePoint or Google Drive
- A specific spreadsheet is updated with new information
- A calendar invitation is created and sent to relevant parties

Integration And Data Sharing Tools

Major examples of this category of tool

- **Power Automate -** A powerful tool to connect resources inside and out of the Microsoft ecosystem of products
- **If This, Then That (IFTTT) -** A fantastic option for the home, IoT, and personal projects
- **Zapier -** Great option when many integration touchpoints are required and mostly web-based
- **n8n (pronounced n-eight-n) -** An awesome option that utilizes FREE and open-source technology
- **Zoho Flow -** A great option for users who are already leveraging the power of Zoho

Comparison Of Integration Tools

	Power Automate	IFTTT	Zapier	N8n	Zoho Flow
Primary User Case	Business	Personal	Business	Personal and Business	Business
Price (month/user)	$15 to $150	Free and Paid Plans	Free up to $69/Month	Free and Paid Plans	$24-41
Number of Integrations	Hundreds	Hundreds	Thousands	Hundreds	Hundreds
Ease of Use	Medium	Easy	Medium	Medium	Medium

Other iPaaS tools you should consider checking out

ZAPIER, IFTTT, N8N, ZOHO FLOW AND OTHERS

Other Simple Automation Options

- Microsoft isn't the only game in town regarding automation
- For example, you can use tools like **Automation Anywhere**, **Blue Prism**, and others for more sophisticated projects
- You can also use tools like **Zapier** and **IFTTT** for simpler automation projects
- Check for correct connectors in the various tools, and combine automation options if required

Zapier, For Example

- Zapier is another in the list of **"low-code, no-code" solutions**
- With this platform, you can take advantage of thousands of pre-built templates – known as *Zaps* – **to automate many business and personal tasks**
- You can **also use Zapier to create custom automations** for a variety of purposes

Zapier Integrations

- Zapier **integrates with many applications**, including
  - Google Sheets, Microsoft Outlook, Salesforce, Shopify, YouTube, Stripe, Microsoft Excel, QuickBooks Online, Xero, Constant Contact, Zoho CRM, LinkedIn, DocuSign, Square, OneDrive, Survey Monkey, ShipStation, eBay, PayPal, Zoho Books...
  - **Over 7,000 integrations are available**, many with pre-built Zaps that are ready-to-run

How To Build A Zap
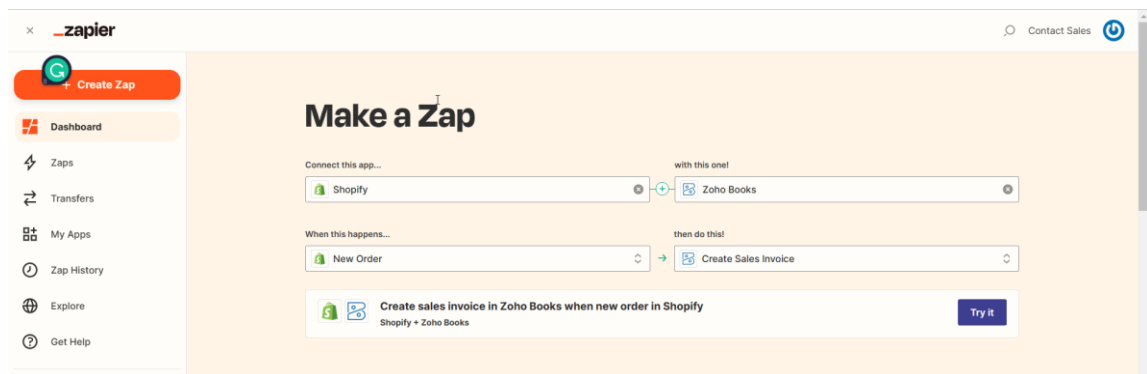
Zapier

Connect your apps and automate workflows

- Zapier allows you to integrate various applications to share data
- Zapier works off the principle of triggers and actions
- Triggers initiate a workflow. For example, receiving an email or creating an invoice
- Actions are operations that occur in other systems. For example, updating a customer record in your CRM or sending a channel message in Slack
- Workflows are designed visually, and the only application needed is a web browser
- Try it out today. Check out at https://zapier.com

Zapier

Features and highlights of the solution

- **Start Workflows from Any App -** Pick a Trigger that sets your Zap into motion
- **Finish Routine Tasks Automatically -** Zaps complete Actions while you solve more important problems
- **Simple, Fill-In-The-Blank Setup -** Point, click, automate. Go from idea to workflow in minutes
- Works with over 7,000 web services

Zaps connect the apps you use every day

TRIGGER
When I get a new email in **Gmail**

ACTION
Copy the attachment from **Gmail** to **Dropbox**

ACTION
Alert me in **Slack** about the new **Dropbox** file

Understanding Zapier's Pricing

There are three main drivers for determining the monthly pricing for Zapier

- **Zaps -** These are separate workflows. A zap can be a single integration between two services, or it can be between many services
- **Tasks Per Month -** How many times your workflows can run in each month
- **Update Interval -** How often a specific Zap will run an associated workflow

Read more at https://zapier.com/pricing

Zapier Pricing Model

- **Free** Zaps/Workflows run up to 100 tasks per month at 15-minute intervals
- **Professional Plan -** $49 per month for unlimited Zaps/Workflows, which run up to 2000 tasks per month at 2-minute intervals

Zoho Flow

- Point and click integration within the incredible ecosystem of Zoho products
- Supports a wide range of connections, especially within Zoho. Outside services include Cloud.com ShareFile, QuickBooks, Stripe, Calendly, Google calendar, etc650+ services are supported
- Automation designer is simple and effective. Easy to learn and quick to get started
- The solution is more affordable compared to competitors, either $24 or $41 per month for the entire organization
- Learn more at https://www.zoho.com/flow/

Most Popular

STANDARD	PROFESSIONAL
US$24	US$41
/month, billed annually	/month, billed annually
5k tasks/month	10k tasks/month
START MY FREE TRIAL	START MY FREE TRIAL
Standard plan features:	All in standard, plus:
✓ 60-day flow history	✓ 90-day flow history
✓ 15-mins polling	✓ 5-mins polling
✓ Base apps	✓ Premium apps
✓ Custom functions	✓ On prem integration
✓ Logic and utilities	✓ Auto rerun

Zoho Flow

Tie your apps together, set yourself free
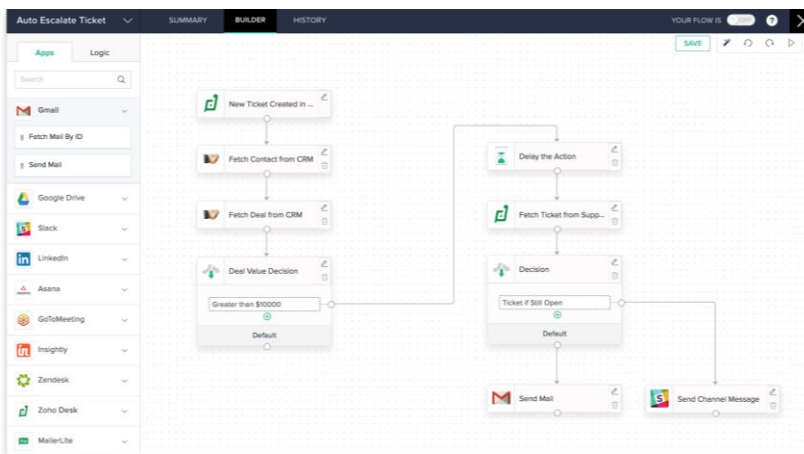
- Connect your critical applications
- Automate extensively with multi-step flows
- Make it all happen on a dynamic builder
- Off-the-shelf solutions

Zoho And Automation

- The Zoho platform offers many options for automating tasks
- For example, consider the following options
  - Scanning and importing A/P transactions into **Books**
  - Creating custom workflows using **Flow**
  - Enabling automation in **Campaigns** for **autoresponders** and **custom workflows**
  - Use **Survey** to collect information and link that information into **Sheets** for analysis and reporting
  - Forwarding receipts to **Expense** for auto-entry into expense reports

If This Then That (IFTTT)

Quickly and easily automate your favorite apps and devices

- IFTTT probably created the iPaaS category of tools. Their tool has been around since 2011
- IFTTT is a service that enables users to connect different web applications (e.g., Facebook, Dropbox, etc.) together through simple conditional statements known as applets
- You can connect just about any Internet service to any other service to share data or notifications
- Primarily aimed for personal use and home automation. Good for your personal stuff
- The individual workflows are called applets
- Learn more at https://www.ifttt.com

Get the weather forecast every day at 7:00 AM

wu Weather Underground

475.2k

Text your lost Android phone to turn the ringer volume up 100%

by calumptrck

350.3k

Music button
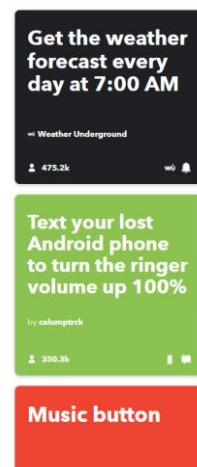
IFTTT – What Can You Do With It?

IFTTT can be used to accomplish various tasks to automate and simplify your personal life. For example:

- Every day at 07:00 AM, get an iOS notification with weather conditions and forecast for today
- If the Apple stock price dips below $350, send me an email
- Automatically download tagged photos of yourself from social media to your personal Dropbox account
- Backup your phone's contact records to Google Sheets
- Track your work hours to a Google calendar

IFTTT Pricing Options

- Check out their free plan if you're just getting started
- The Pro plan is probably good enough for most folks' personal use. You can have 20 integration workflows (applets)

n8n Community Edition

Free iPaaS automation for your projects

- **Free and open -** You can run n8n free with their fair-code license, whether in the bedroom or boardroom

- **Easily extendable -** Create your nodes to integrate third-party services or in-house tools. Learn how from our community, docs and tutorials

- **Your data stays with you -** Run n8n locally or in the cloud. You decide who gets access and keep complete control of your data

- Learn more at https://n8n.io/

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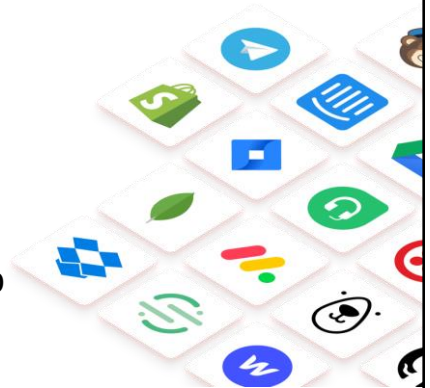
n8n Community Edition

Free iPaaS automation for your projects

- While free, it might not be as easy to use as other iPaaS tools, especially if you're using the tool locally

- It doesn't have as many connectors as other tools, but it gives you much more freedom in using the tool and more advanced capabilities

- They offer hundreds of pre-built workflows to help you learn how to use the tool

- As the tool can be self-hosted, you get 100% control over the security and data

- If you're going to use this tool for your business, you should consider their hosted business edition, https://n8n.cloud. It's virtually the same as the community edition, but it is delivered as a managed service

Notify on New Emails with Invoices
by jon-n8n about 1 month ago

Validate Website of New Companies in CRM (Hubspot)
by jon-n8n about 1 month ago

Notify on Social Media when New Order is Added (WooCommerce)
by jon-n8n about 1 month ago

CData

The universal data connectivity platform

- If your iPaaS tool doesn't provide native access to your data you might need a "helper tool" to allow you to get access
- CData makes connectors to all the most used business and accounting applications. Their connectors give you access to your data that would otherwise be unreachable
- Their drivers can be used for everything from automation to reporting in Power BI
- Learn more at https://www.cdata.com/

Summary

- Almost **every business of every size can benefit today from automating various business processes and practices**
- An increasing number of applications – such as accounting applications – offer built-in automation offering **improved internal control and efficiency**
- But you can use other tools, such as **Power Automate**, **Zapier**, and **Automation Anywhere** to create your own automations
- No matter the tool(s) you use, ***now is the time to automate!***

Push a button and do things!
ELGATO'S STREAM DECK

Elgato Stream Deck

- A Stream Deck is an external programmable "hotkey" USB keyboard. Each button does something different and has a tiny customizable screen
- The Stream Deck allows you to easily program your most frequently used shortcuts to keys on the device The screen and keys can be completely customized to any user, use case, and application
- For example, you could use keys to trigger actions in Excel or to launch commonly used files. You can even program more complicated actions that could automate time entries. The possibilities are endless!
- It's the last mile of personal automation and truly transformative when you embrace it fully
- It can be used on both Mac and PC
- Learn more at https://bit.ly/36zUCjx

What Can You Do With A Stream Deck?

You can use it for virtually anything!

- Automation of time and billing. Press a button to start a timer and accurately track clients on client projects
- Perform complicated actions in Excel, Word, and other Office applications. One button press can initiate complex workflow in any application
- Launch your commonly used applications and files
- Open standard websites and folders on your computer
- Easily respond to emails with pre-built text snippets
- Schedule appointments in Outlook and Google Calendar
- Test your Internet connection with a speed test
- Move applications between multiple monitors with a press of a button

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How The Stream Deck Works

Some tips to help you get started

- **First, objectively think about your workflow -** What applications are you using? What are you doing within those applications?
- **Break down tasks into basic actions -** With an application, what are the most common activities you are doing? Map those actions to buttons on the Stream Deck
- **Group everyday actions together into profiles -** Create profiles for each application or function you do. For example, a profile-specific for Excel, your favorite websites, or preparing a financial statement
- A profile allows you to access targeted functionality easily

Which Stream Deck Is Right For You? What Should You Get?

- **Stream Deck Mini** - $59 – 6 buttons. This would be useful for straightforward workflows but is probably too small for most operations
- **Stream Deck** - $149 – 15 buttons. This is the standard size and will be a good option for most users
- **Stream Deck XL** - $199 – 32 buttons. This larger size will be significantly appreciated by power users who want a higher level of configuration
- Additional options would be the mobile app ($24.99/year) for iOS and Android Additionally, the Stream Deck Pedal ($89) is for foot control of actions

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Buttons, Action, Plugins, & Profiles

Making your Stream Deck uniquely yours

- **Buttons** are the visual representation of an action. They can have a custom name, icon and locate anywhere on the Stream Deck
- **Actions** do something for you. For example, it can be opening an application, launching a website, etc.
- **Multi-Actions** allow you to do multiple things at once. For example, you can open multiple applications with a single button push. Alternatively, you could send an email with a push-button and archive the message
- **Folders** contain multiple buttons to make organization easy
- **Plugins** are third-party tools that extend the Stream Deck's underlying functionality. The community submits many plugins for free
- **Profiles** are like big folders but are more easily navigable

How To Use A Stream Deck

Profiles   Devices   Canvas   Store   Preferences

Property Inspector   Actions List
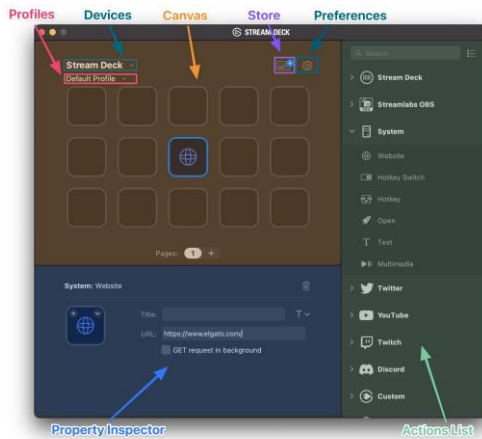
- **Actions list:** sidebar containing a list of all the actions provided by the installed plugins
- **Canvas:** grid displaying the keys containing actions (the size of the grid will change depending on the device)
- **Property Inspector:** form area, available to the currently selected key in the canvas where you can customize the icon, title, and action settings
- **Devices:** dropdown showing available devices
- **Profiles:** user stored key layouts selected from a dropdown on the canvas
- **Store:** store button that navigates to the app store where users can find plugins, assets, etc. to use with their Stream Deck
- **Preferences:** opens a menu where you can change Stream Deck settings

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Some of the most useful and helpful tools for your Stream Deck

STREAM DECK PLUGIN RECOMMENDATIONS

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System & User Plugins

Tools to help better manage your system

- **Windows Mover & Resizer -** Allows you to control the position and size of application windows on your Windows PC. Maximize/Minimize windows or change height, width, and position. Supports moving applications across multiple screens https://bit.ly/353mE6i

- **WinTools -** An advanced set of useful plugins for controlling Windows. Control the volume of your Windows apps from the Stream Deck. Use the 'Explorer Scratch Pad' to quickly cycle between common folders https://bit.ly/3ItQwXc

- **SuperMacro -** Keyboard and Mouse simulator that supports creating advanced keystroke macros https://bit.ly/3wrtxtf

- **Advanced Launcher -** Smart application launcher for the Stream Deck with a bunch of customizable options

- **Speed Test -** Run a Speedtest.Net speed test directly from your Stream Deck https://bit.ly/36RffaC

Commerce & Business Plugins

Tools to help you in the workplace

- **Stock Ticker -** View live quotes of your favorite stocks directly on the Stream Deck https://bit.ly/36wSAAF

- **Zoom -** Control virtually every aspect of Zoom for web conferencing https://bit.ly/3ughGf4

- **World Time -** Displays the local time in cities around the world

- **PowerPoint -** Control your presentations right from your Stream Deck, change slides, and more! https://bit.ly/3wmNW2J

- **iCal Support -** Easily see yours or anybody else's next appointment https://bit.ly/3L15aqr

- **Clockify for Timekeeping -** Push-button time tracking for billing and productivity management https://bit.ly/351mEnb

Personal & Home Plugins

Tools to help you around the house

- **IFTTT -** Trigger events to occur in IFTTT at the push of a button https://bit.ly/3CYVhXA

- **Weather -** Check the weather in your community or anywhere else in the world https://bit.ly/3it3M3M

- **Spotify Integration -** Full integration with Spotify. Control your music directly from the Stream Deck https://bit.ly/3DkMEqj

- **Countdown Timer -** Set a timer on your Stream Deck, and it will start flashing in a color of your choice when the time is up

- **Stop Watch -** A simple Stopwatch for your Stream Deck

Profiles For Business Applications

- Check out some fantastic pre-built Stream Deck profiles for commonly used business applications such as Excel, Word, Outlook, PowerPoint, and Zoom

- Manage these typical applications with the push of a button

- Layouts for both the 15 and 32 key Stream Deck

- Check out https://richday.uk/ to download the profiles for free

Amazon Alexa, Google Home, and Apple Siri
INTELLIGENT VIRTUAL ASSISTANT (IVA)

Examples Of Things To Do With IVAs

You can ask them just about anything!

IVAs can be used for both personal and business tasks. It will tell you if it can't answer the question or perform the action

- Turn lights and appliances on and off
- Adjust your thermostat in your home or office
- Get sports and breaking news updates
- Control your smart TV or other appliances
- Give you the recent price of a stock or currency
- Read to you from a book or start your favorite podcast
- Schedule appointments on your calendar
- Call your friends and family

Hardware IVAs In Today's Market

- Amazon Alexa Devices
  https://amzn.to/3N7DGkS
- Google Nest Devices
  https://bit.ly/3ujEday
- Apple HomePod Devices
  https://apple.co/3tpjWBo
- Sonos Speakers (Alexa or Google)
  https://bit.ly/3Jtzdqw
- Bose Speakers (Alex or Google)
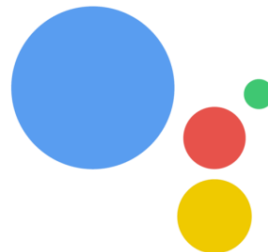 https://bose.life/3N9ve4p

Software IVAs In Today's Market

Often you can run an IVA on your computer as well. Typical computer IVAs include:

- Amazon Alexa (App) built into various computers and devices

- Google Assistant (App) built into various computers and devices

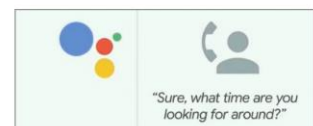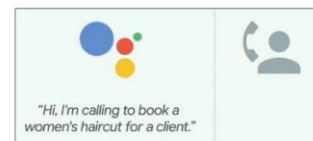- Apple Siri on Mac and iOS Devices

Google Assistant

- Google Assistant is available in more than 90 countries and over 30 languages and is used by more than 500 million users monthly
- Works on phones, smart speakers, smart displays, cars, TVs, laptops, watches, and more
- Find my phone function
- Open apps with your voice
- Have web pages read allowed
- Pull information from other Google apps and services: Keep, Calendar, and Gmail
- Set or Assign Reminders
- Ask it virtually any question under the sun!

Google Duplex

- Powers a new Google Assistant feature
- Allows a computer to call and make appointments, reservations
- Sounds more like a human than a robot
- Duplex can call any US business with info listed on Google
- Businesses can opt-out of receiving Duplex calls in their Google My Business account
- Works in 49 of the 50 states (Louisiana is not allowing it), Argentina, Australia, Brazil, Canada, Chile, Colombia, France, India, Japan, Mexico, New Zealand, Peru, Spain, UK, and Venezuela

"Hi, I'm calling to book a women's haircut for a client."

"Sure, what time are you looking for around?"

Amazon Alexa

- Similar features to Google Assistant Routines
- Manage home devices
- Create Smart Home groups to control devices easier
- Using Home groups gives on/off capabilities only
- Have Alexa tell you about upcoming appointments
- Manage announcements
- Automatically play music, give traffic or weather updates
- Use the Wait command to pause in between actions
- Select which device you want to perform any given action

Magic Mirror

The open-source modular mirror system

- A magic mirror is a FREE, open-source intelligent display system that can display information about your life, work, and family. While not technically an IVA, it's super helpful and insightful
- It can display your upcoming calendar appointments, emails in your Inbox, billable time, favorite photos, and more!
- It is endlessly configurable and can be completely customized to meet the user's exact needs
- All you need is a spare display and a Raspberry Pi. The software is free
- Check out https://magicmirror.builders/ for more information

Steve's Magic Mirror In Action

Current Time

Current Weather

Weather Forecast

Time Across the World

Favorite Photos

Live Webcam Feed of Bald Eagles in Big Bear

Upcoming Schedule

News Headlines

Conclusion & Summary

Improving personal effectiveness and efficiency

- You have many options to implement automation and integration in your personal and work life

- You can use iPaaS tools to easily share data between your most used applications and cloud platforms

- There are tons of automation and integration options in your existing tools such as Excel, Acrobat, etc.

- The Elgato Stream Deck can provide push-button automation to virtually any application and significantly speed up your workflow

- You can talk to IVAs and have them answer questions or perform tasks on your behalf