



Power Automate

Our Agenda

- HCL-PowerObjects
- Power Automate Overview
- RPA Overview
- Governance & Security
- Use Cases & Demo
- Development & Migration



Solution About HCL-PowerObjects

PowerObjects is the Microsoft Business Applications COE at HCL, 100% focused on Microsoft Business Applications through our four pillars of Service, Support, A&S and R&D!

- Founded in 1993, acquired by HCL Technologies in 2015
- Largest dedicated, global practice of over 1300+ employees
- One of Top 5 Microsoft Global SIs for Microsoft
- Microsoft Partner of the Year over 30 times in last 10 years
- 1 Million+ Active Dynamics Users and over 1,200 companies using our IP
- An ERP practice that has more than doubled every year for the last three years







Multi-award winner

- ◆ 2020 (Business Applications) Technology Innovator of the Year
- 2020 Customer Service Global Partner of the Year
- 2019 Customer Service Global Partner of the Year
- 2019 Financial Services Global Partner of the Year
- 2019 Power Platform North America Partner of the Year



Invest in Power Platform

Typical and ideal scenario when it comes to implementation

App More Process
Automation

Process
Automation

Adopt & Support

Adopt & Support



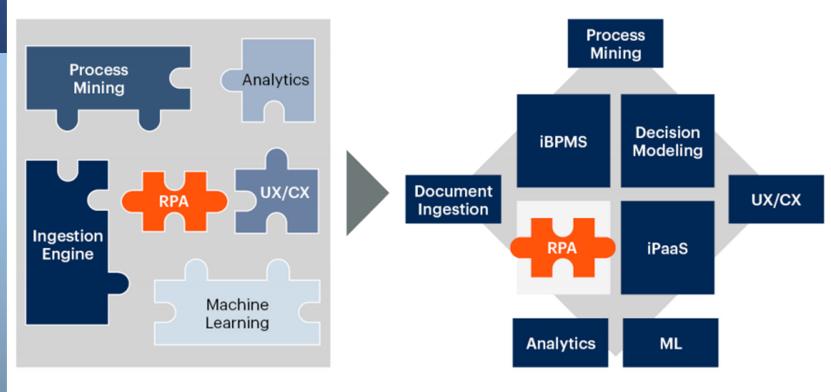




Evolution From Task-Based to Complemented RPA (CoRPA) to Digital Ops Toolbox

Complemented RPA (CoRPA)

Digital Ops Technology Toolbox

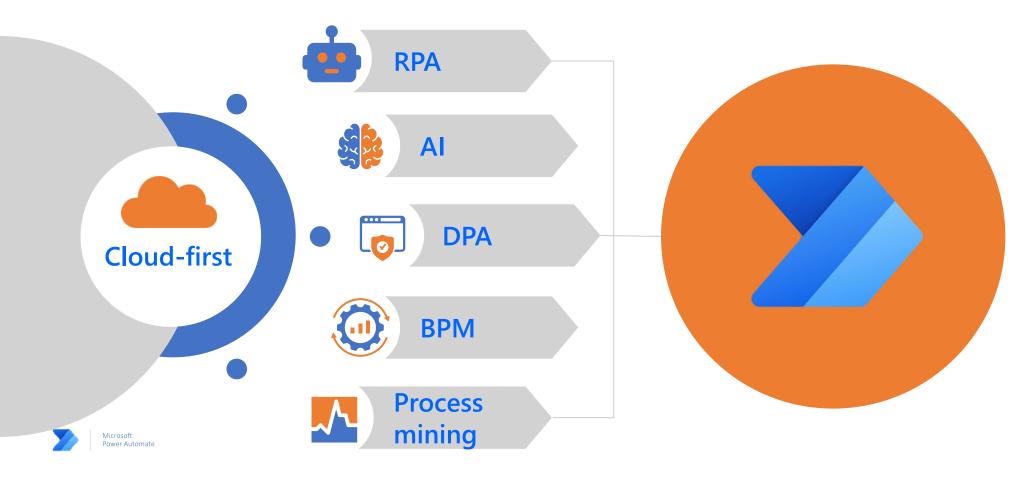


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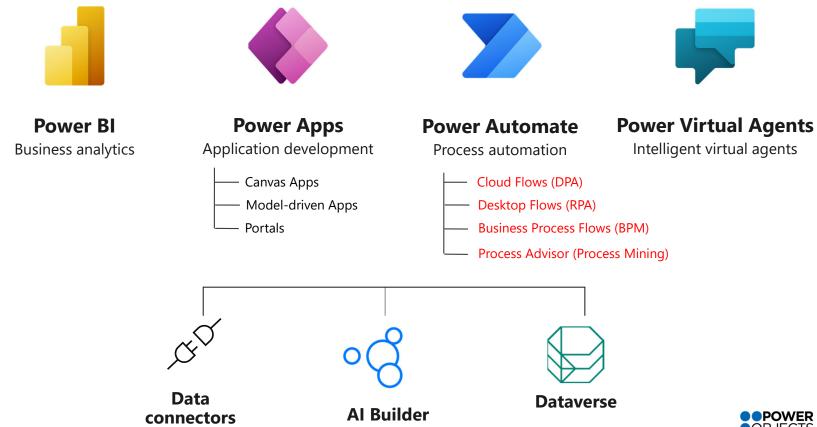
Convergence into one intelligent automation platform

Automation is not an island





Power Automate - Cloud & Desktop













Microsoft 365

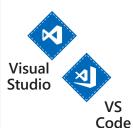
Teams

Every User

Every Developer (Low Code)



Pro Developer (Code First)



Power **Platform**



Power Apps

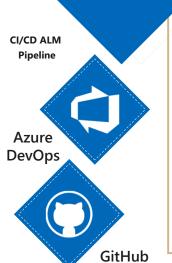
Power Automate



Power Virtual Agents



Power BI



Azure services















Bot

Analysis Services

API Management Functions

Azure

Kubernetes Service

Logic Apps

Services

Framework

Azure / Office **Data Services**



Microsoft Graph



Microsoft **Dataverse**



Azure Synapse Analytics



Cosmos DB

Integration





















Rich Mobile Power Apps

Embedded Power Apps

Secured Web Portals

Mixed Reality Experiences

Power Virtual Agents

Analytics with PowerBI

Microsoft Teams

Microsoft Project

Microsoft Dynamics 365

Microsoft 365 **Products**



Microsoft **Approvals**



ΑI Builder

USER EXPERIENCES

PROCESS AUTOMATION









Power Automate Process Flows (BPM)



Power Automate Desktop Flows (RPA)











Dataverse





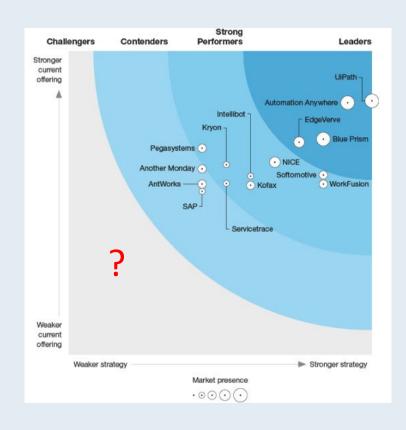


Native Integration Native Integration Native Integration to Microsoft 365 to Dynamics 365 to Microsoft Azure

On-Premises Data Gateways



Forrester Wave RPA - Q4 2019 vs. Q1 2021











Gartner Magic Quadrant - Q2 2019 vs. Q2 2021

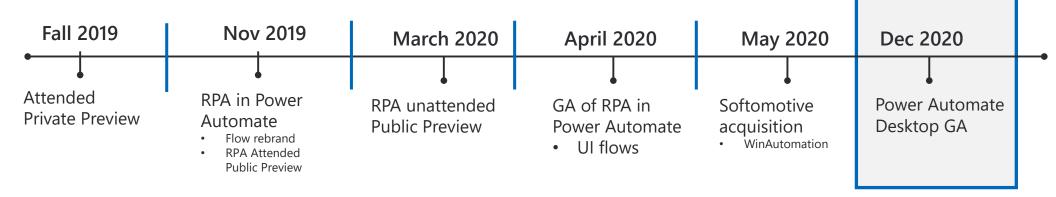








Power Automate - RPA timeline







43 languages



What you can do with Power Automate Desktop

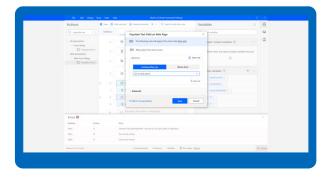












Automate locally

Focus on work that matters to you and your team. With flexibility to run your automations in either attended or unattended mode, automate local and legacy applications.

Build with ease

Drive organic adoption of RPA across your organization with one of the most user-friendly platforms for building desktop automations, with simple step recorders and an intuitive drag-and-drop designer.

Process Discovery

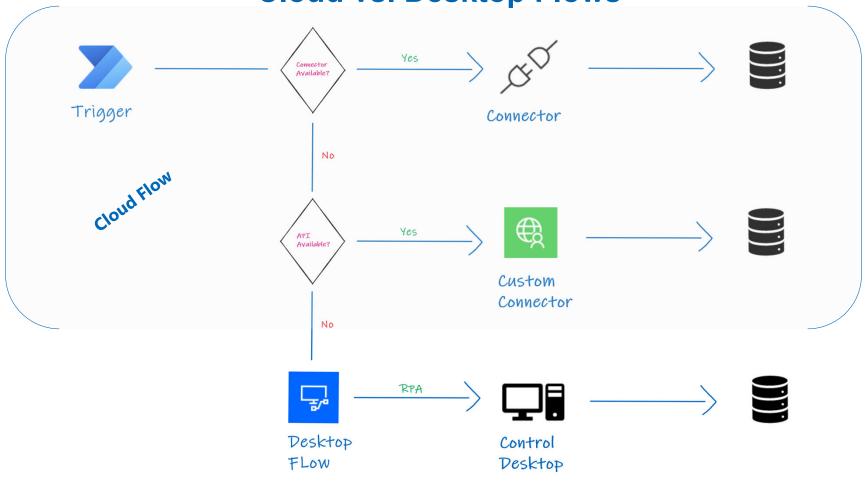
Save time deciding which processes to automate by using the new process advisor tool to automatically incorporate processes into the designer.





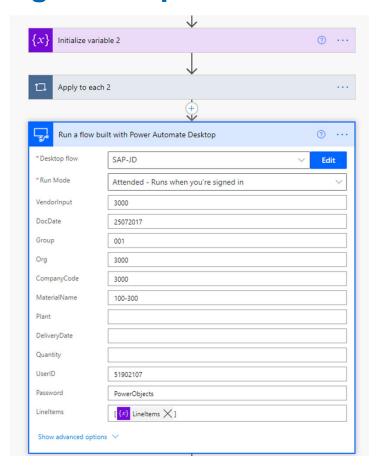


Cloud vs. Desktop Flows





Triggering Desktop Flow From Cloud Flow









What is RPA?

Robotic process automation (RPA) is a productivity tool that allows a user to configure one or more scripts (referred to as "bots") to activate specific keystrokes in an automated fashion.

The result is that the bots can be used to mimic or emulate selected tasks (transaction steps) within an overall business or IT process.

These may include manipulating data, passing data to and from different applications, triggering responses, or executing transactions. RPA uses a combination of user interface interaction and descriptor technologies.



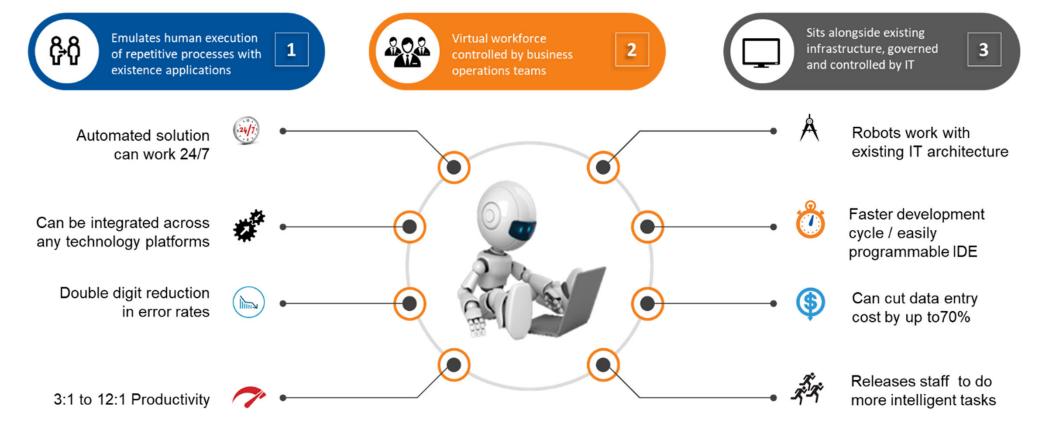




Robotic Process Automation (RPA)

	Attended Human initiated	Unattended Fully automated	
Overview	Drive efficiencies and automate manual, individual tasks across desktop and web	Accelerate the automation of high-volume and tedious tasks without lifting a finger	
Scenario	On-demand task automation	Automate company processes at scale	
Audience	Citizen developer in business unit	Automation specialist in a Center of Excellence dedicated to RPA	
Requirement	User signed in on their device/human initiated	Jobs on dedicated machines/robots do the work	

Why RPA?



OBJECTS

HCL



Focus on High Value Activities







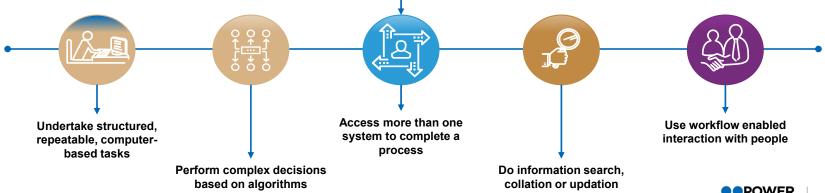


When to use RPA?

- Data entry and validation, data consolidation
 - File and data manipulation
 - Automated formatting
 - Multi-format message creation
 - UI manipulation
 - Web scraping

- Text mining
 - Uploading and exporting
 - Downloading and importing
 - Workflow acceleration
 - Currency/exchange rate processing
 - Reconciliations... and many more

Robotics Automation can be effectively used by teams and individuals who:







Sample RPA Use Cases Across The Enterprise

Finance and Accounting	Sourcing and Procurement	Regulatory and Compliance	Financial Risk Management	Cyber Risk and Resilience
Fixed Asset Accounting Calculate asset depreciation Procure to Pay (AP) Manage incoming vendor invoices Process vendor payments Handle vendor inquiries/disputes Order to Cash (AR) Establish sales quotes. Validate sales orders Monitor customer credit Create and distribute customer invoice Process customer payments and apply cash Record to Report (GL) Record journal entries GL account reconciliation Intercompany transactions Maintain accounting master data Travel and Expense Audit expense reports	Contract Management Systematically vetting of contract details and populating appropriate metadata is captured in straight through processing systems Invoice Processing Scanning invoices and automatically preparing payment file using logic and rules to validate invoices and route to appropriate teams to manage exceptions (no middleman) Reconciliation Automatic evaluation of open orders or non-receipts through business logic and rules route to appropriate team for resolution or close item Spend Analytics Robust spend analytics tools to allow for a single stop for supplier management, contract compliance and spend data	Licensing and Registrations Data entry and validation for U4 Form and other jurisdictional forms Transfer amendments Personal Account Dealing Periodic disclosure attestations with changes. Review of account openings with paper statements. Paper trade entry Paper statement uploading to accounts Transfer disclosures Outside Affiliations and Private Investments Affiliations and investment reviewing with papers artefacts and responses from other functions within the organization Periodic disclosure attestations Transfer disclosures Gifts and Entertainment Reconciliation of the gifts and entertainment to expense system	Risk Change Explain Identification and explanation of exposure movements Determination of data-related or business-related causes for exposure movement Limits Management Perform evaluation of credit limits Determine causes for limit breaches Recommend or perform remediation action based on circumstance Risk Reporting Aggregate and segment data for standard reports (e.g., Top 50 Counterparty Report) Data Quality Execute timeliness, accuracy, and comprehensiveness checks, and initiate remediation actions where required Data Quality Control Testing Ongoing evaluation of real-time, in-line controls, or post-process controls on data	Control Assessment Analyze standardized control evidence to substantiate effectiveness Activity Tracking Examine system logs to identify suspicious or illegal activity Client On boarding / Know Your Customers Validate customer due diligence info and enter into account opening system Reporting Compile information into standard reporting formats, and act on results Data Reconciliation Reconcile processes, risks, and controls across operational risk management and business process management systems. Anti-Money Laundering (AML) Suspicious activity report prep based on AML monitoring outcomes Comprehensive Capital Analysis Review Run models, and prepare reporting based on model outputs







Integrate automation, more securely



Security and compliance

Build in an environment founded on **security** and compliance.



Identity management

Access secure, cloud-based identity and management services via Azure Active Directory (AD) native integration.



Enterprise-grade governance

Apply enterprise-grade governance and customizable data loss prevention (DLP) policies.

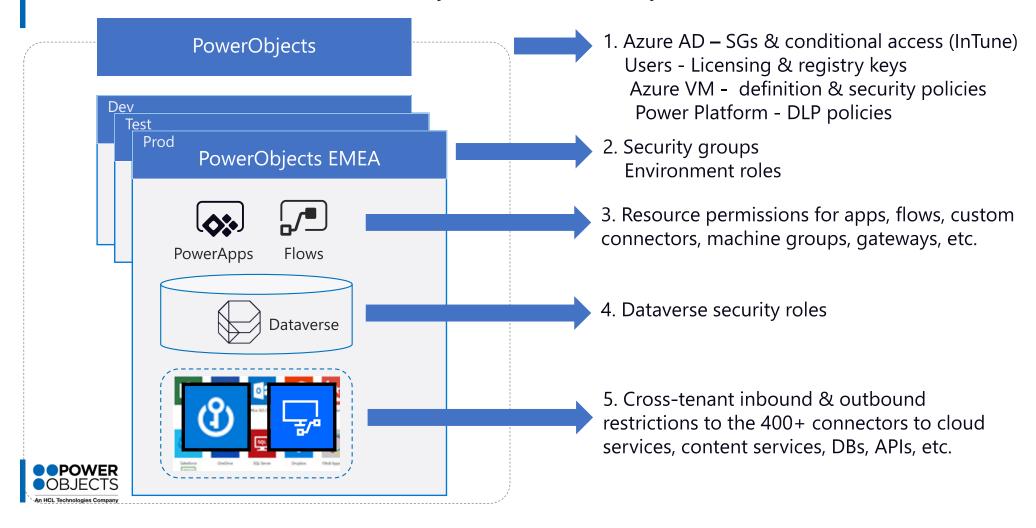


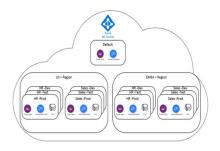
Cloud and on-premises

Integrate cloud-based and on-premises data with purpose-built security.



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Typical Environment Strategy

Everyone has access, personal productivity and small team apps (ex. less than 25 users)

Default

Critical Project

Important Project

User and team productivity

One user per environment. Completely locked down and cannot be used for anything other than development.

Developer

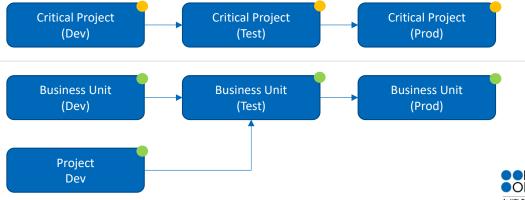
Collaboration between user and team productivity solutions.

Approved Users and App Makers.

Power User

Dedicated environments for critical project workloads. End users can only access prod.

Important but medium complexity apps. Development environments per business unit and larger projects by BU. Shared test & prod environments.







PAD Architecture

1. Attended/Unattended desktop 'direct' connectivity to the cloud service



2. Attended/Unattended desktop connectivity to the cloud service using the on-premises data gateway

Desktop

UIFlowService

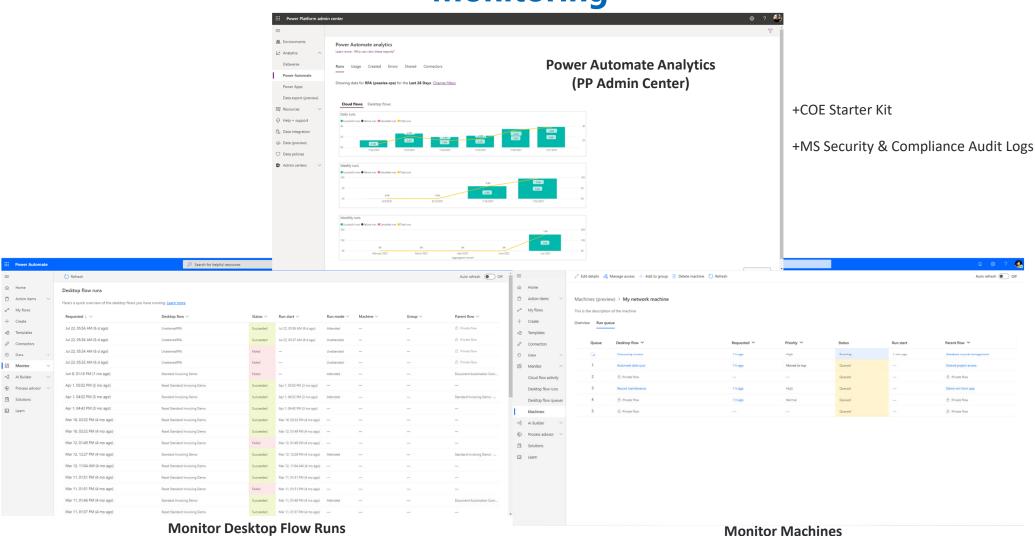
On-premises data gateway

(a) outgoing web request outgoing web request cloud services





Monitoring





Additional Topics

Machines

- Gateways vs Machine Groups
 - All machines in machine group must have same local account w/same password
 - Sharing = User (can run Desktop flows on group) or Co-Owner (run + share, edit details, add/delete machines)
 - · Gateways will be used for connectors to access on premise, not required for PAD anymore (direct connection to machines)
 - Machine specs
 - Use windows server 2016 or 2019 to run bots as multiple users on single machine
 - IP address configuration Power Automate | Microsoft Docs
 - Silent Registration for Machines
 - Mass deploy PAD on multiple machines via register machines to PA
- Permissions
 - Default all environment makers can register their machines in an environment
 - Adjust permissions based on security roles by modifying Flow Machine and Flow Machine group table permissions for a given role

Licensing

- All users can use PAD free on Windows 10 unless disabled (attended)
- Power Automate w/Attended RPA required for premium connections, trigger from cloud flow, published to cloud.
- Prevention (block access with registry keys)
 - · Manually updating PAD
 - Logging into PAD w/MS Account
 - Configure PAD to interact with a corporate proxy server
 - · Configure PAD to authenticate to a corporate proxy server using the current user's credentials

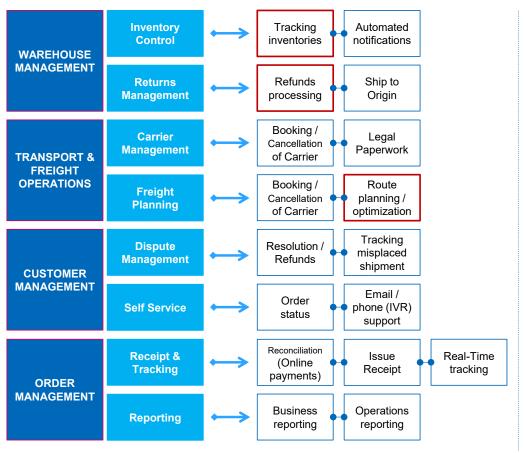


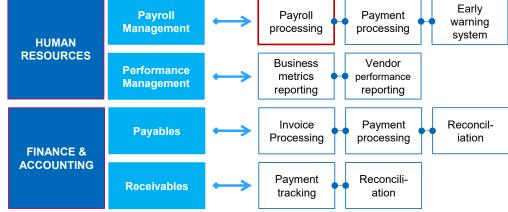






Process Automation











Process Opportunities in Finance Operations



Financial Ops & Accounting

- General Ledger Close
- Reconciliations
- Manual Journal Entries
- Intercompany Settlements
- Fixed Asset Management
- Regulatory & External Reporting



Financial Planning & Analysis (FP&A)

- Budgeting
- Forecasting
- Variance Analysis
- Management Reporting



Treasury Operations

- Consolidated Cash Position Reporting
- Cashflow Forecasting
- Foreign Exchange (FX) Exposure Data
- Bank Statement Consolidation



Tax Operations

- Tax Provisioning
- Tax Compliance
- Tax Accounting
- Data Management & Reconciliation



Accounts Payable

- Vendor Setup
- Purchase Order Creation
- Invoice Validation
- Invoice & Lease Payments
- Travel & Expense Reimbursements
- Payables Reporting



Accounts Receivable

- Customer Setur
- Sales Order Processing
- Invoice Creation
- Collections
- Payment Processing
- Receivables Reporting



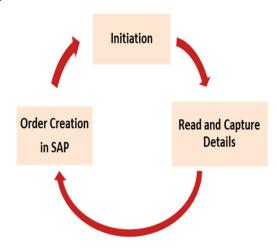


RPA Case Study - SOP Based PO Creation

Purchase order creation

Problem Statement Multiple sources of Orders Variance in sources Manual Collation of Orders Manual Fixation Lack of Central Repository

Process



Occurrence : ~ 8000 Orders/month
Teams Involved : Business Process Team
Manual Effort : 5 - 30 minutes/order

Manual efforts saved (hours/year)

5024

RPA Solution

Power Automate Desktop - BOT would be used to automate the manual work

- Connecting to mailboxes and Capturing details from emails
- Extracting PDFs from emails/ ITSM tools
- Extracting details from MS Excel files attached in emails
- Capturing details from Word Document attached in emails
- Reading/Extracting details from Web portals





Efficiency

Effectiveness



Indicative Benefits

Number of Orders received in PDF format = 38400/year

Manual effort for Order Creation = 10 minutes/Order

Manual effort saved (hours/month) for 40% records = 418

Productivity Improvement of 79%

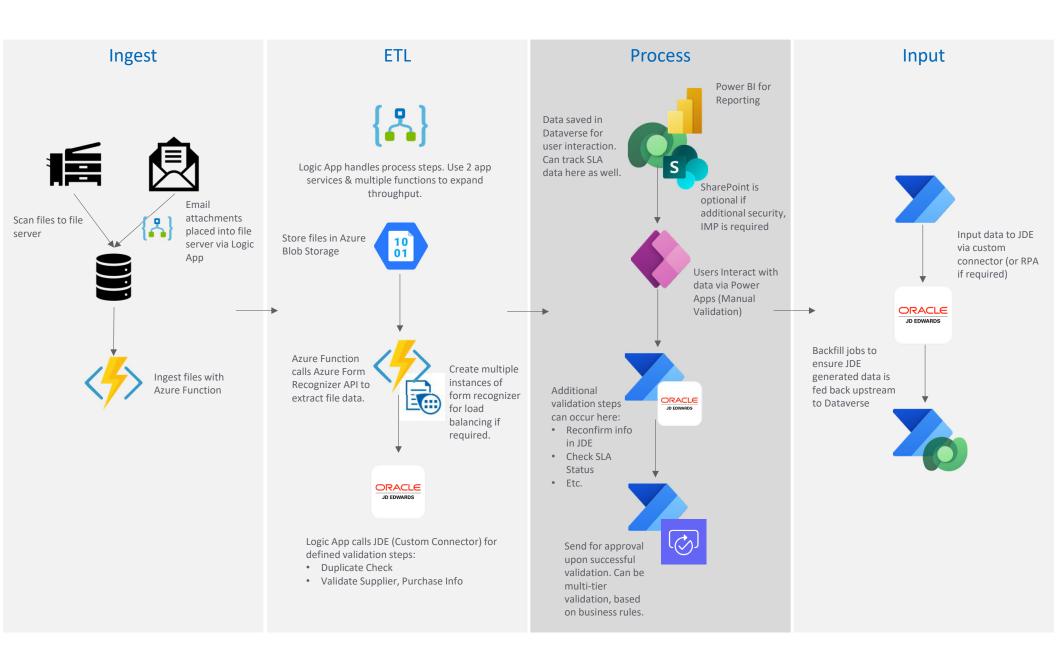
All requests for Order Creation will be digitized in a structured format

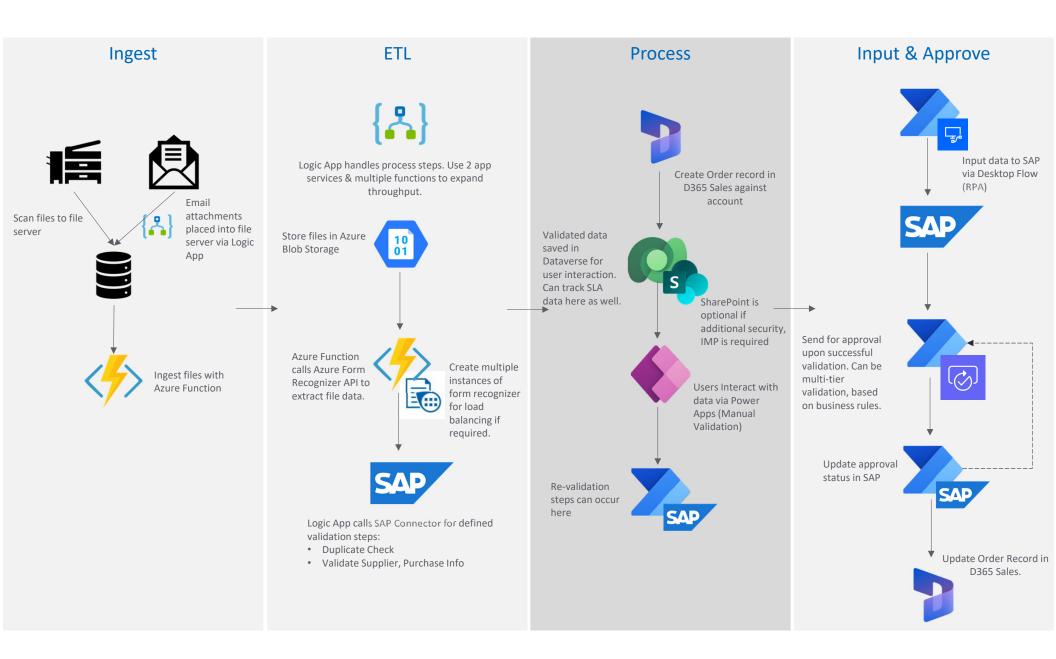
Improved processing times for Order Creation due to automation

Reduction of manual entry errors







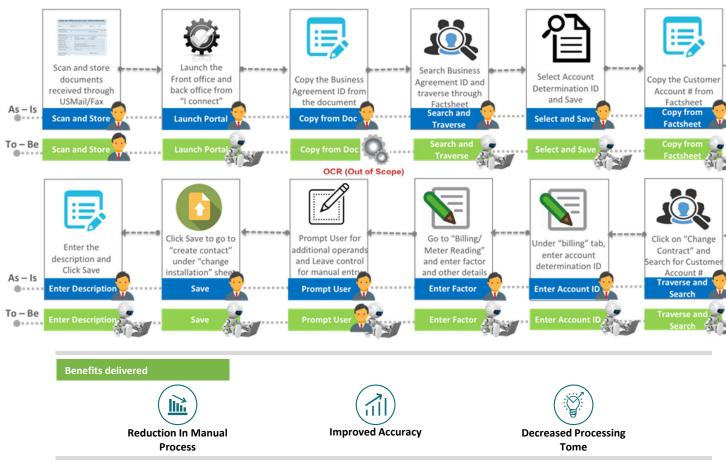


Detailed Use Case – Sales Tax Exemption and Refund

Leveraging RPA and Process mining techniques to improve Sales Tax Processing scenario through Business aware Operations focus...

Techniques leveraged – End to End Process Mining, Event Correction, Activity mapping, and RPA











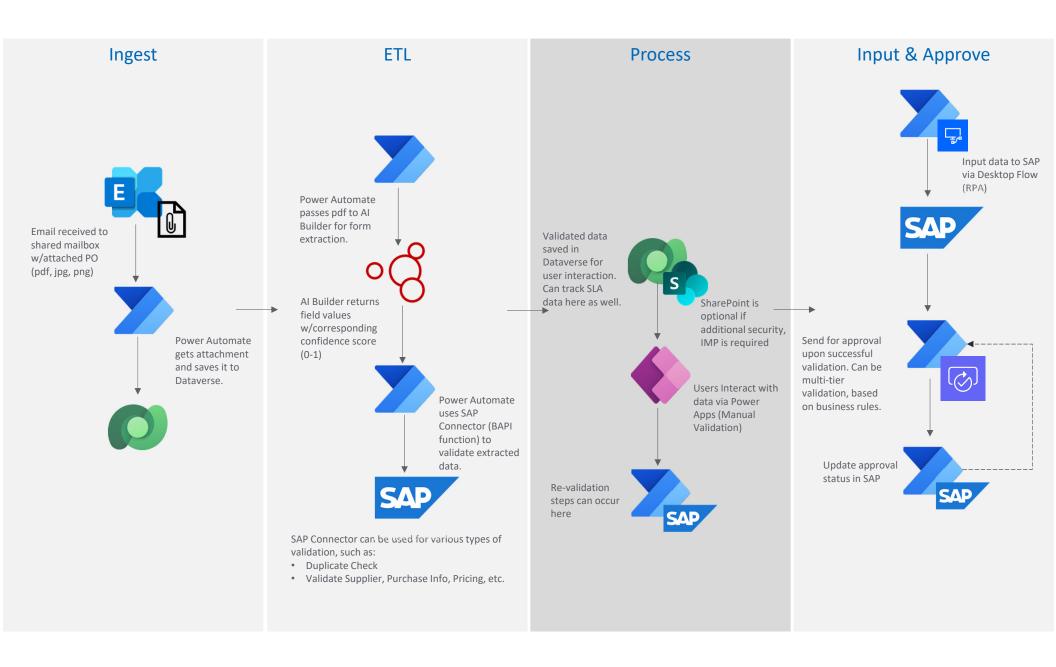
Other Recent Projects

- Cost Center Refresh \$3B Global Manufacturing Company
- PO Processing \$400M Global Manufacturing company
- PO Processing Large Telecommunications Company
- 3 x IT Automation Use Cases Industry Leading Oil & Gas Company



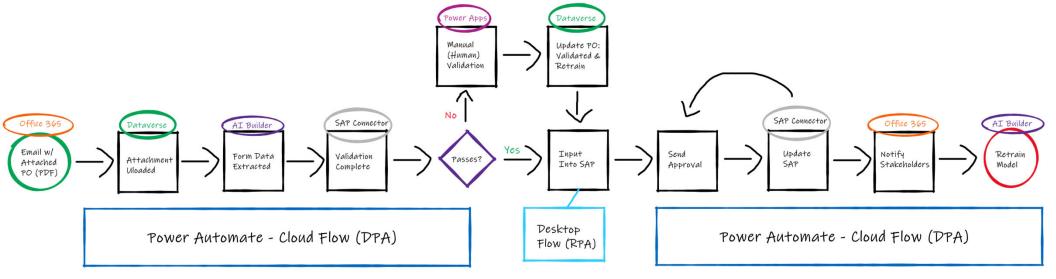






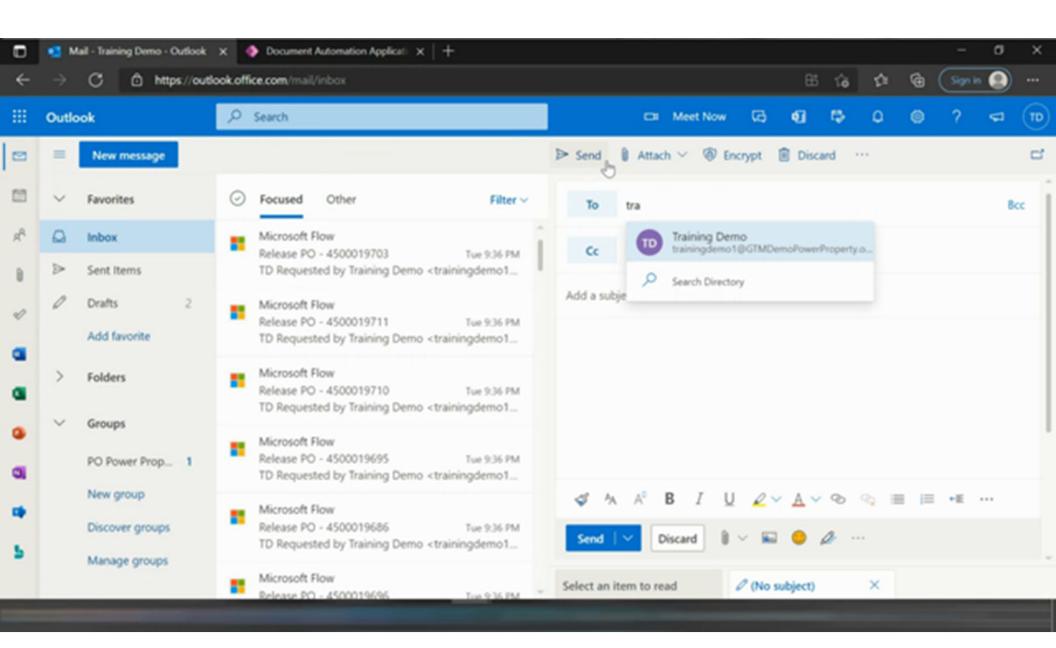


Workflow





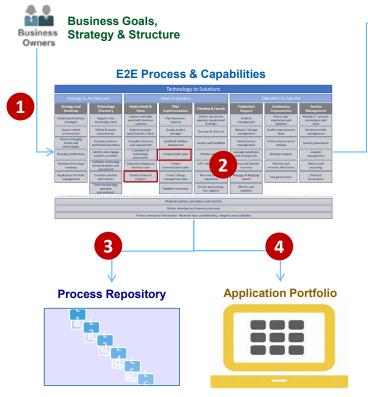








Process First Approach

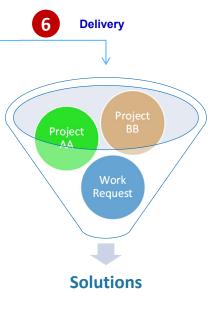


Program Portfolio Management

Demand	Priority	Process Readiness	Resource Readiness	Funding Readiness
Project AA	~	~	~	~
Project BB	~	~	×	~
Project CC	~	~	×	×
Project DD	~	×		
Project EE	×			

IT Demand Management Process:

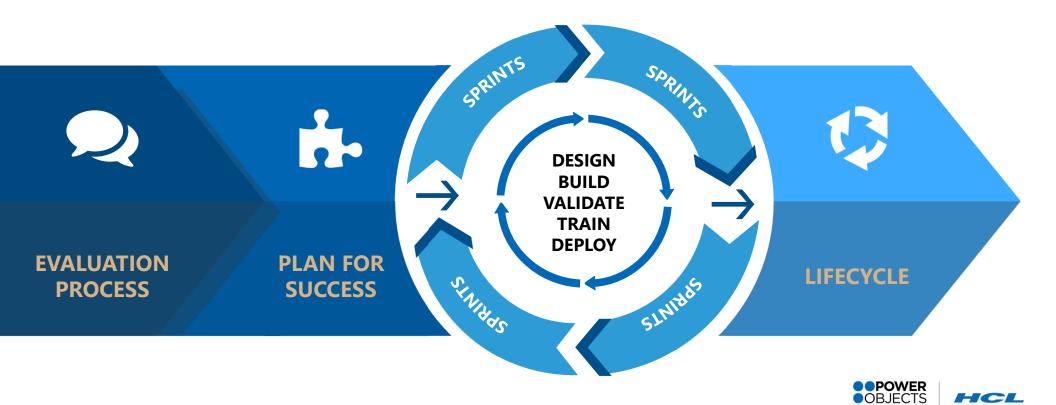
- 1) Define business objectives, strategy & structure
- 2) Identify business capability needs / gap(s)
- 3) Assess business process readiness
- 4) Assess business application / technology
- 5) Define the request / demand
- 6) Schedule delivery



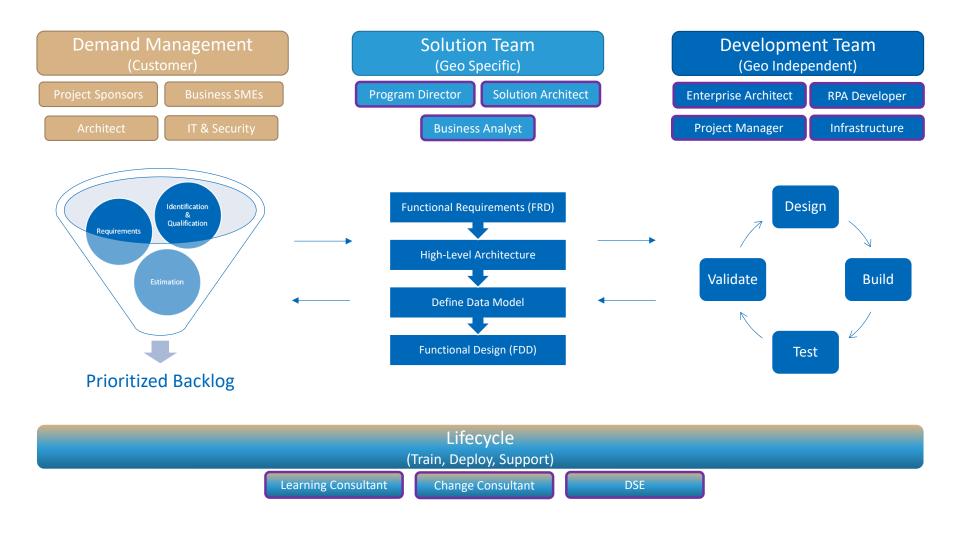




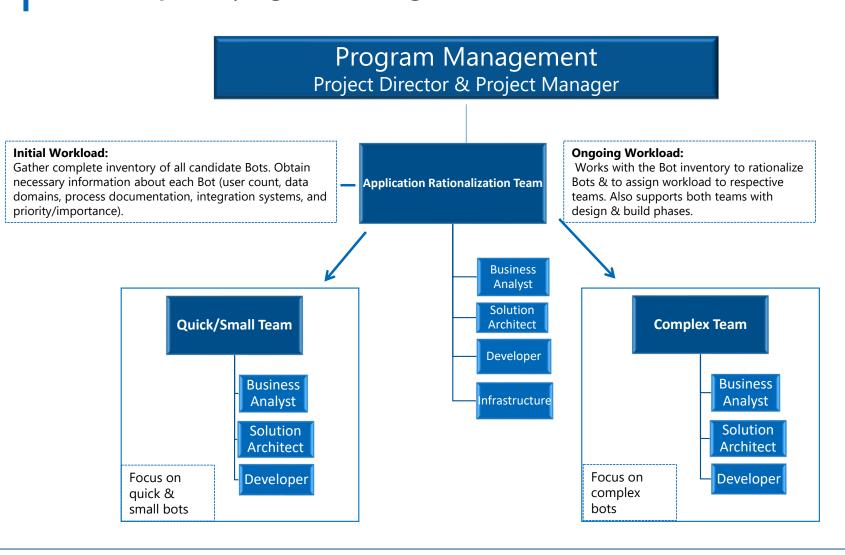




Delivery Approach



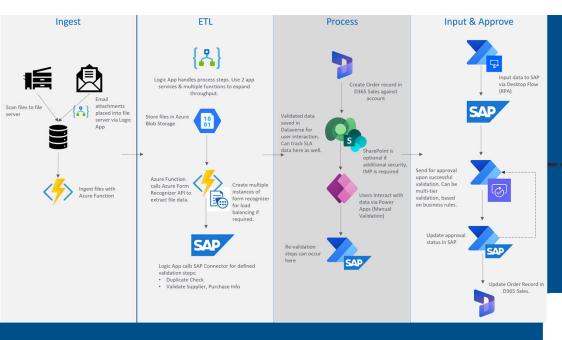
PowerObjects | Agile Bot Migration



Engagement

- Structure a 180-day program
- Multiple Teams working concurrently on assigned Bots.
- Each Bot will follow its own Proven Process including UAT and rollout.
- This allows for rapid development in workstreams and to immediately get engaged, committing to a capacity-based SOW where we define & commit to roles over time.

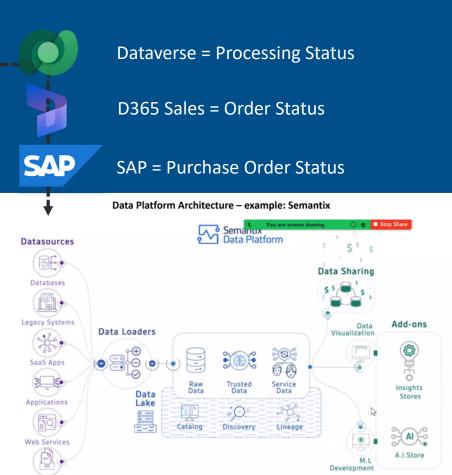




Automated PO Processing

Data input into SAP w/little to no human interaction SAP approvals extended (made simpler) w/Power Automate

Now that data is in SAP, it can be pulled into data platform architecture as originally designed.





Start Re-envisioning Your Process Portfolio Contact us to get started

- www.powerobjects.com
- powerobjects.com/events
- joshua.darragh@hcl.com



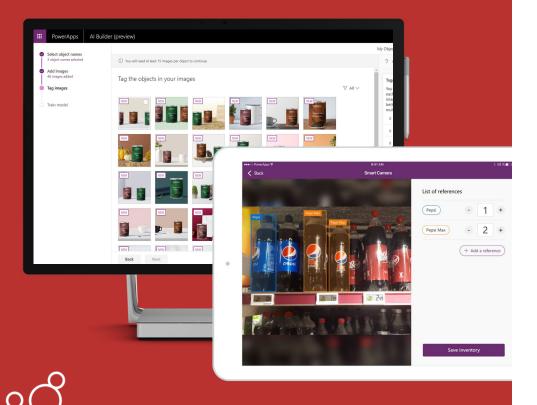








Infuse artificial intelligence in your business solution with Al Builder



- Every citizen developer is now an AI expert and can easily build, train, deploy and use AI Builder
- Create and organize contact and account data more efficiently with business card scanner
- Predict outcomes directly from historical business data patterns with Prediction
- Spend less time in the field trying to locate, identify and count items with object recognition
- Reduce PDF and paper forms data re-entry efforts and errors with OCR forms processing and receipt scanning
- Gather insights and trigger actions from natural language processing with text classification
- Augment feedback insights with Sentiment Analysis



- 1. Special Characters Accuracy
 - i.e. \$, *-[
 - Confusing "1" for "["
 - Unable to recognize "." or "," i.e. "50.50" = "5050"
 - Spaces in Dates i.e. "7 / 15 / 2021"
- 2. Low accuracy for handwritten documents
- 3. Low accuracy for scanned documents with less than perfect quality
- 4. Accuracy of tables
- 5. Language support & accuracy
- 6. Number of documents required for training to reach usability
- 7. Number of documents processed at once
- 8. Lifecycle of retraining & publishing model
- 9. Infrastructure maintenance & updates
- 10. Reporting

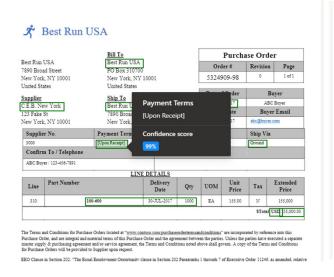


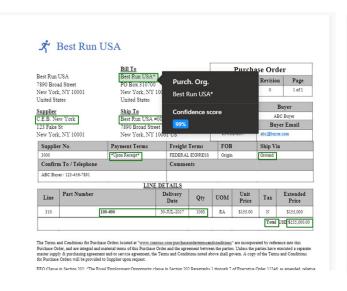




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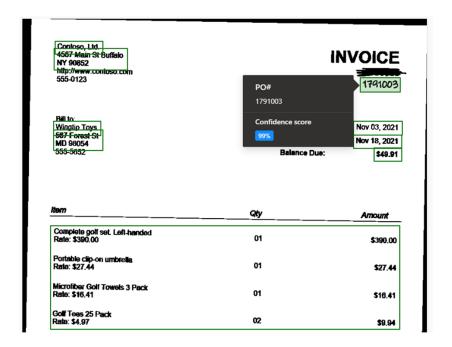




An HCL Technologies Company



Low accuracy for handwritten documents & scanned documents with less than perfect quality

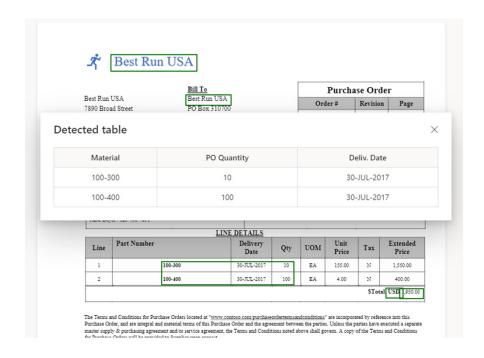








Accuracy of tables

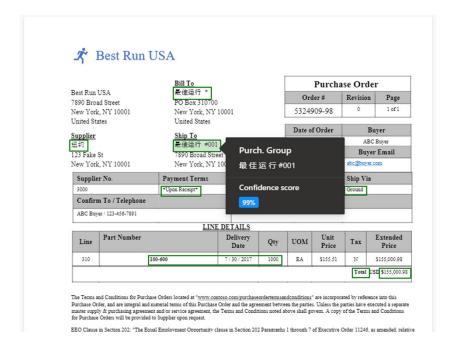








Language support & accuracy

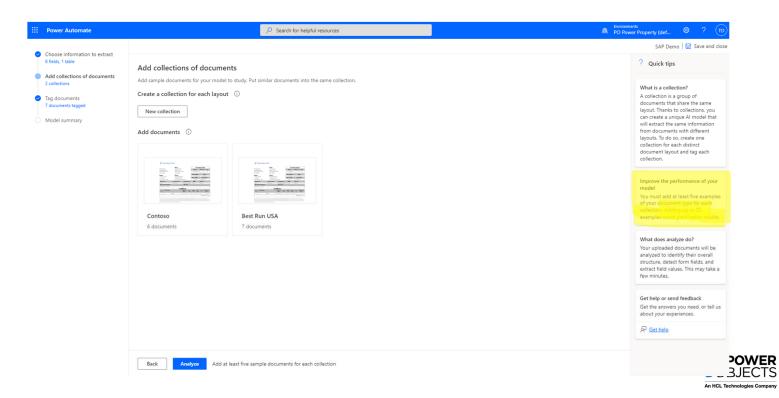








Number of documents required for training to reach usability







Lifecycle of retraining & publishing model

