

Overcoming the Challenges of General-Purpose RPA Tools for SAP® Automation

Learn why Winshuttle's SAP automation is a critical element of your automation portfolio



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Introduction

As more enterprises launch automation initiatives, they are discovering the myriad challenges that a truly integrated automation roadmap presents. Nowhere is this truer than when it comes to automating SAP ERP processes, especially when trying to execute the automation through a general-purpose RPA tool. As a result, many early adopters have seen disappointing results or halted SAP-related automation efforts altogether.

If you are responsible for developing and managing enterprise automation roadmaps that include SAP ERP systems, this paper is for you, as well as functional business managers who recognize the need for automating SAP processes. In it, you will discover:

- The benefits of adopting a portfolio approach to RPA deployment
- How focusing on outcomes and not just the technology is better for your business
- What an integrated automation strategy looks like in practice
- Why enterprise RPA teams are interested in Winshuttle for SAP automation

“The pace of change has never been faster, but it will never be this slow again.

Justin Trudeau,
Prime Minister of Canada

THE IMPACT OF AUTOMATION ON JOBS

At the beginning of what analyst firm Gartner refers to as the RPA hype cycle, there was much talk about software robots (bots) replacing massive numbers of workers. By some estimates, bots would be able to automate nearly half of all jobs—after all, that’s what happened when factories replaced manufacturing workers with robotic machines. RPA is turning out to be a very different case.

Instead of replacing large numbers of workers, it is often most effective in augmenting a professional worker, increasing their productivity and giving them back time for more value-added work. Gartner, one of the early doom and gloom forecasters, now estimates that RPA and other automation technologies will lead to a net gain of over two million jobs by 2025.¹

Winshuttle for SAP ERP automation

There is little doubt that the RPA market is rapidly evolving as companies join the movement to add more automation to their business processes. Unfortunately, as the market has grown, many RPA capabilities and benefits have been overhyped, leading a significant number of early adopters to become frustrated by the technical limitations and unmet expectations set by the general-purpose RPA tool vendors.

Nowhere is this truer than when it comes to SAP ERP processes. Automating SAP processes represents a significant challenge for general-purpose tools due to the inherent complexity of an ERP system. Even simple business transactions involve a user or bot having to interact with several screens.

Compounding these challenges are things like intermittent pop-up screens, regular GUI updates, inconsistent system performance, and company-specific customizations.

In conversations with customers over the last year, we have consistently heard that Winshuttle offers capabilities that the general-purpose tools cannot match.

Winshuttle’s SAP automation capabilities:

- are better at batch processing versus RPA tools that process records one at a time through the SAP GUI.
- are easier to use and maintain.
- execute faster, greatly outperforming solutions built with general-purpose RPA tools.
- are part of an SAP data management and business process automation platform that includes sophisticated workflow capabilities. This is not the case with RPA tools where a third-party workflow application is needed.
- provide governance and audit capabilities that are not available with general-purpose RPA tools.
- include scripts that are more resilient to SAP system changes with some customers using the same scripts for years.

¹ “Gartner Says By 2020; Artificial Intelligence Will Create More Jobs Than It Eliminates”

“Technology is the means to an end: Data is the currency of digital transformation.

HfS Research

COMMON SAP AUTOMATION USE CASES

FINANCE

- Accounts payable – P2P (Procure to Pay)
- Accounts receivable – O2C (Order to Cash)
- Journal entry

HUMAN RESOURCES

- Payroll processing
- Employee data management
- Hiring and onboarding

CUSTOMER SERVICE

- Returns
- Repair ticketing

SALES & DISTRIBUTION

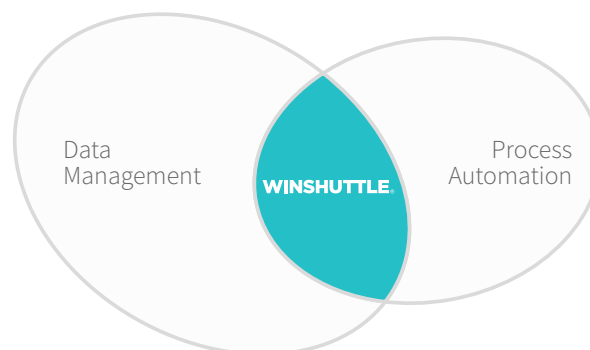
- Inventory management
- Logistics

Winshuttle understands the intricacies of SAP ERP and has patented technology that drives automation success. Our business-led, IT-enabled approach to SAP automation means that the people in your organization who are driving SAP automation are often the process experts, freeing up your IT resources to focus on more value-added responsibilities. At the same time, Winshuttle software can work alongside general-purpose RPA tools to automate end-to-end business processes that go beyond SAP. In this scenario, the general-purpose bots work with other systems of record to coordinate and prepare data, then hand off to Winshuttle software for loading or extracting data from SAP ERP systems.

The table below shows some common SAP finance transactions automated with Winshuttle software and the processing time saved versus manually entering the data via the SAP GUI.

SAP t-code	Business Process	Avg. processing time saved vs. manual data entry via SAP GUI
FB50	Enter G/L Account Document: Company Code XXXX	99.4%
FB01	Post Document: Header Data	99.4%
FB60	Enter Vendor Invoice: Company Code XXXX	99.5%
AS02	Change Asset	98.2%

Once you understand the challenges of using a general-purpose RPA tool to automate SAP ERP and discover the ease and stability of a Winshuttle solution, you'll see why so many companies rely on our technology to deliver tangible, measurable ROI for their business.



With our unique combination of SAP data management and process automation capabilities, Winshuttle is at the center of two fast-growing markets.

**KEY DIFFERENTIATORS IN
SAP-CENTRIC USE CASES:**

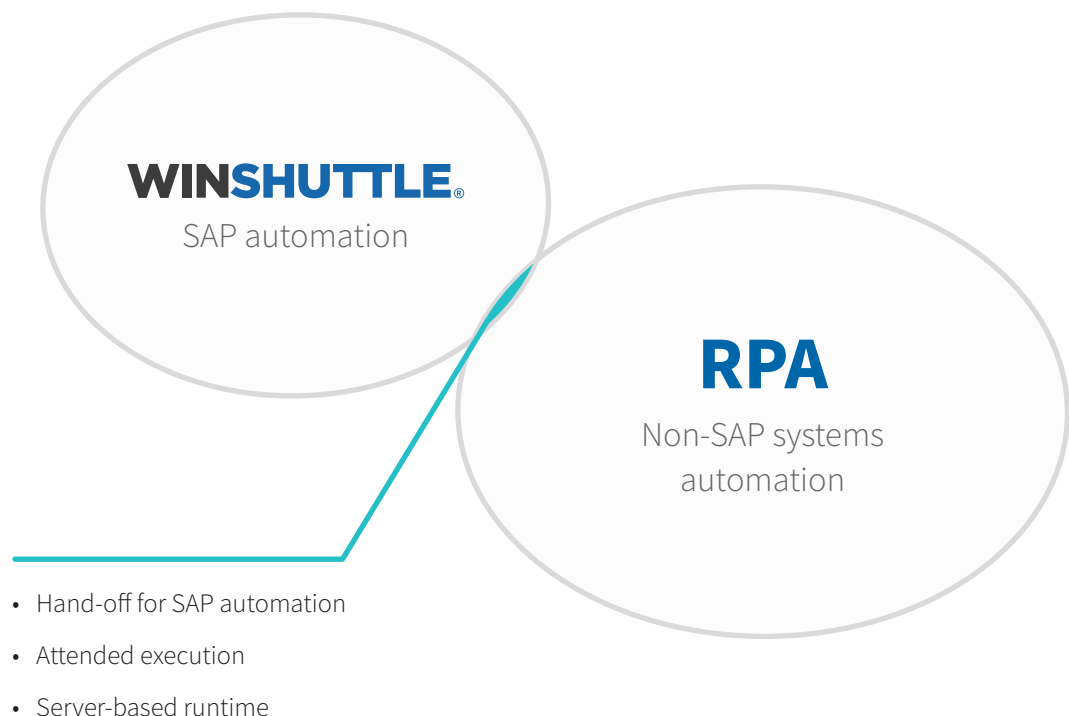
- Native integration with SAP
- Humans in the loop... or not
- Agility when responding to ongoing changes

Winshuttle and general-purpose RPA tools: Working together

The overlap between Winshuttle solutions and general-purpose RPA tools is small

While there are overlapping capabilities between Winshuttle and general-purpose RPA tools, these are small compared to the scope of activities that can be automated by general-purpose bots.

Our focus on business users and established SAP data management expertise sets Winshuttle apart from the general-purpose RPA vendors for automating processes involving SAP. Where the general-purpose tool can manage data from multiple systems of record, Winshuttle is designed to take it that last mile into SAP, delivering a more efficient end-to-end automation.



Automation of SAP interactions for attended and unattended scenarios

Enterprise RPA challenges

“ Organizations underestimating RPA complexity, potential misuse, and multidisciplinary coordination ... are experiencing significant missteps, lack of ROI, and/or high failure rates in deploying and scaling RPA.

Gartner.

As Gartner points out, there are many challenges associated with deploying bots in an enterprise automation initiative. Some are caused by the politics that come with processes that span multiple departments, systems of record, and even business units.

Technology limitations and compatibility issues present other challenges, as does governance and audit concerns.

Here are just a few of the challenges Winshuttle customers have faced when implementing their enterprise automation roadmaps that include SAP ERP systems:



Bots using surface-level recording methods are not always robust or resilient

If a bot is programmed using surface-level screen recording methodology, simple changes in the environment – like an aspect ratio change, or an SAP GUI version update – can break the bot. For example, frequent SAP GUI updates have been known to cause significant issues and breakages requiring time-consuming bot updates or reprogramming.



Loss of business agility

One of the concerns we have heard repeatedly from customers is the potential loss of agility when deploying RPA bots. In companies with dynamic SAP ERP environments, where changes such as adding required fields are common, the time it takes to update, test and deploy a bot can be too slow to keep pace with the business.



Conflicting business metrics

One of the most significant points of contention between RPA teams and business teams are their respective success metrics. RPA teams are often measured on things like the number of bots deployed or processes automated. Business teams are measured on business results, data quality, and employee effectiveness.



Bots only replicate a process, including errors

Automating a process that has not been optimized often means that a bot is replicating the bad process, magnifying errors, and problems that were previously mitigated by human beings. The complexity of SAP processes and the importance of SAP data means that you can easily make matters worse without careful examination and possible reengineering of the entire process, including the non-SAP steps.

**BUSINESS-FOCUSED VS.
IT-FOCUSED****WINSHUTTLE**

A business-focused, process automation and data management platform, built around long-standing expertise and deep integration with SAP. Winshuttle has been automating SAP processes since 2003.

**GENERAL-PURPOSE
RPA TOOL**

IT-focused tools designed to connect multiple systems of record and automate manual processes. Sort of a “Jack-of-

How Winshuttle Software integrates with SAP

General-purpose RPA tools are designed to work with almost any software application or system of record, using, for the most part, the application’s GUI to mimic the actions of a human, capturing how they interact with the program through actions on a computer screen. By capturing screen actions, these tools can replicate and automate processes that are very structured, happening the same way every time, over and over.

This method works for many applications; however, the complexity and layers of the SAP ERP system make it challenging to consistently and effectively automate SAP processes.

Despite being “no-code” solutions, most bots require being programmed or “taught” to follow a specific process. This method can be unreliable when applied to complex SAP processes. Most of these challenges surround GUI and screen recording techniques. The resulting unexpected failures can require significant IT involvement to resolve, and with IT teams stretched to their limits, often take considerable time to correct.

Winshuttle software, on the other hand, is built to automate SAP processes.

“Winshuttle delivers over 300% performance gains when automating SAP processes.*

With Winshuttle Studio, you use our Winshuttle Transaction capabilities to create an automation script by recording the process steps via the SAP GUI—the key difference is what happens in the background. Instead of just saving cursor position, label names and clicks, as is the case with some general-purpose RPA tools, Winshuttle software automates the SAP login process and captures table and field names in the automation script.

You then map the SAP fields in the script to fields in an Excel workbook or create a SOAP web service for use in a web form. The Winshuttle script exchanges data with SAP in the background via direct RFCs, without rendering all the screens in the SAP GUI, improving performance, and making the solution immune to many interface changes that can cause general-purpose RPA solutions to run into issues.

This approach offers significant benefits in terms of reliability and speed, with up to a 300% performance gain compared to executing through the SAP GUI.*

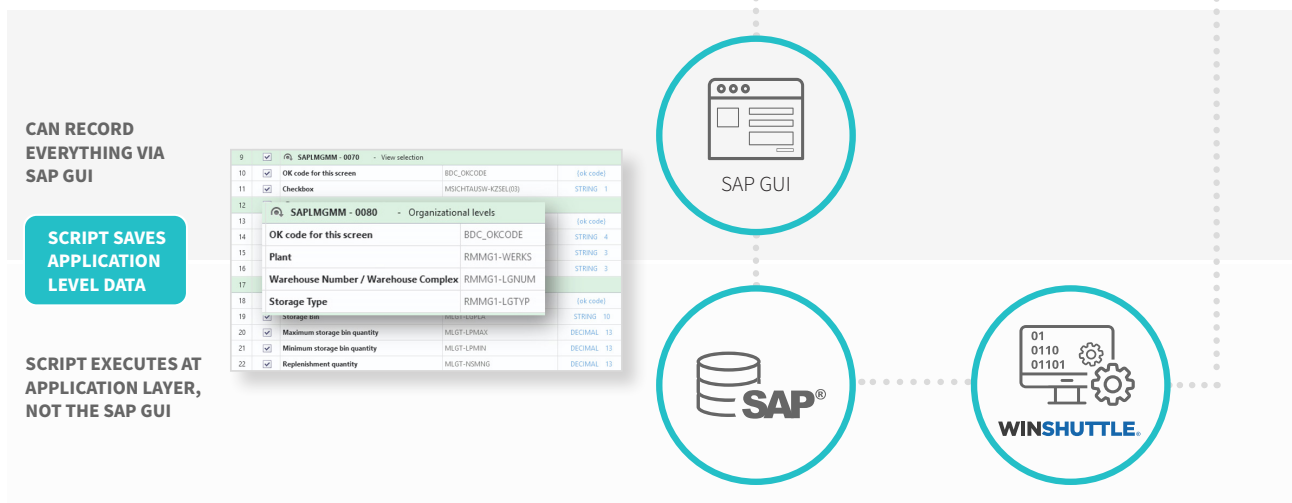
Winshuttle software integrates with SAP at the application layer

Author

Business authors use Winshuttle Studio to record scripts via the SAP GUI or distill BAPIs.

Execute

Business users execute processes using Excel with Winshuttle add-in or Winshuttle-enabled web forms.



*Performance comparison made processing an MM02 (material change) transaction with 1000 records and about 25 fields to update per record. Using a Winshuttle automation script, the task was processed three times quicker than using an RPA general-purpose approach, under the same system conditions.

Introducing Winshuttle's solutions

Winshuttle offers two solutions for automating SAP ERP processes:



DESKTOP-BASED

Desktop-based automation solution for SAP ERP processes.

- Create automation scripts to exchange data with SAP using Winshuttle Transaction, Query, and Direct functionality.
- Map scripts and embed business rules to Excel workbooks.



SERVER-BASED

Adds the functionality of server-based user governance and workflow automation to the SAP automation capabilities of Studio.

- Create role-based web forms
- Create advanced workflows
- Map scripts and embed business rules into Excel workbooks or web forms
- Schedule data exchange tasks
- Set data exchange policies
- Get process analytics
- Get information for auditing
- Manage user access and Winshuttle licenses

In addition to automating the posting of data into SAP, Winshuttle Studio also enables you to extract data from SAP through our Winshuttle Query capabilities. Like Winshuttle Transaction, Query is designed for business users and doesn't require SAP technical skills like SQVI. Often Winshuttle customers use Query and Transaction in sequence as part of what we refer to as a "round trip."

Winshuttle Studio also includes Winshuttle Direct, functionality that enables data exchange with SAP through using BAPIs and remote-enabled function modules. Direct avoids many of the problems that can occur in general-purpose bots caused by changes in the SAP system, especially with upgrades of the SAP GUI.

Considerations for choosing an appropriate automation tool

When investigating options for automating SAP ERP processes, here are some key aspects to keep in mind.

SPEED AND AGILITY

Time needed to create bots, make production changes

- General-purpose RPA tools can require significant time to create and update, involving people with specialized IT skills.
- Often, Winshuttle automation scripts are quick to develop, update, test, and deploy. Moreover, changes can be made by a person in the business or another process owner.

Speed of execution

- The SAP GUI can restrict the speed at which the RPA bot can input or manage SAP data. Bots operating through the GUI usually work one record or transaction at a time.
- Winshuttle operates at the application layer and can execute three times faster than the GUI approach. Winshuttle can also handle mass transactions with ease.

Flexibility to adapt to dynamic SAP ERP environments

- If it takes too long to update an RPA bot or the bot cannot adapt quickly to changes in SAP, it can hurt your business's ability to move with the market.
- One of the key reasons customers choose Winshuttle software is because of its flexibility and ability to be updated independently from the RPA process that launches those scripts.

Functional process knowledge versus knowledge transfer to IT (bot programmers)

- SAP processes generally require a high degree of functional knowledge. With RPA teams often one step removed from the SAP team, changing the bots in an SAP process means that the SAP process expert must work closely with the IT bot programmer—a time-consuming and inefficient process even for the basic changes.
- Winshuttle scripts are developed by either business users or SAP users closely aligned with the business

functions. These authors are usually experts on specific processes.

Governance and audit

- Consider how easy is it to manage and track all transactions in a business process.
- Winshuttle solutions provide a clear record of all activities, by user, while maintaining all governance and security protocols.

RESOURCES AND COSTS

Process for troubleshooting and correcting data and workflow errors

- It can be time-consuming and expensive to “teach” general-purpose RPA tools to handle errors when automating SAP ERP processes.
- Winshuttle software can validate data before posting to SAP and make it easy for business users to correct any errors that do occur by providing clear descriptions of the specific error that SAP encountered.

Cost of specialized IT resources

- There is a shortage of IT resources in most companies and even fewer RPA bot developers. Given these resource constraints, there are costs and risks associated with managing a general-purpose RPA tool in a dynamic SAP environment.
- By comparison, with Winshuttle software, process owners can create and update the Winshuttle script, with IT oversight, as needed.

Maximizing your human capital

- In many instances, RPA improves the productivity of employees, allowing them to do higher-value work. Consider what those gains mean for your business and how your employees are going to take the greatest advantage of them.

Adopting the portfolio approach

“Do not try and make one RPA tool answer all your organization’s automation needs.

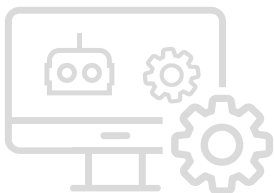
Gartner.

Using a general-purpose RPA tool for automating SAP ERP processes often feels like trying to fit a square peg into a round hole. As analysts such as Gartner have advocated, it is better for complex enterprises to take a portfolio approach for their RPA deployment strategy.

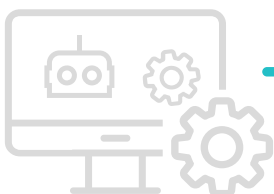
A portfolio approach gives companies:

- **The flexibility and agility** that a single tool strategy lacks
- **Best-of-breed automation** by application
- **The ability to leverage general-purpose RPA tools strengths** for making connections between disparate systems

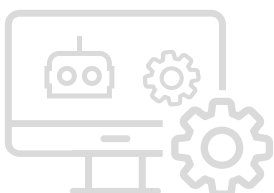
Portfolio Approach Deployment Scenarios



Deploy Winshuttle for automating SAP processes
Use general-purpose RPA tools for other processes



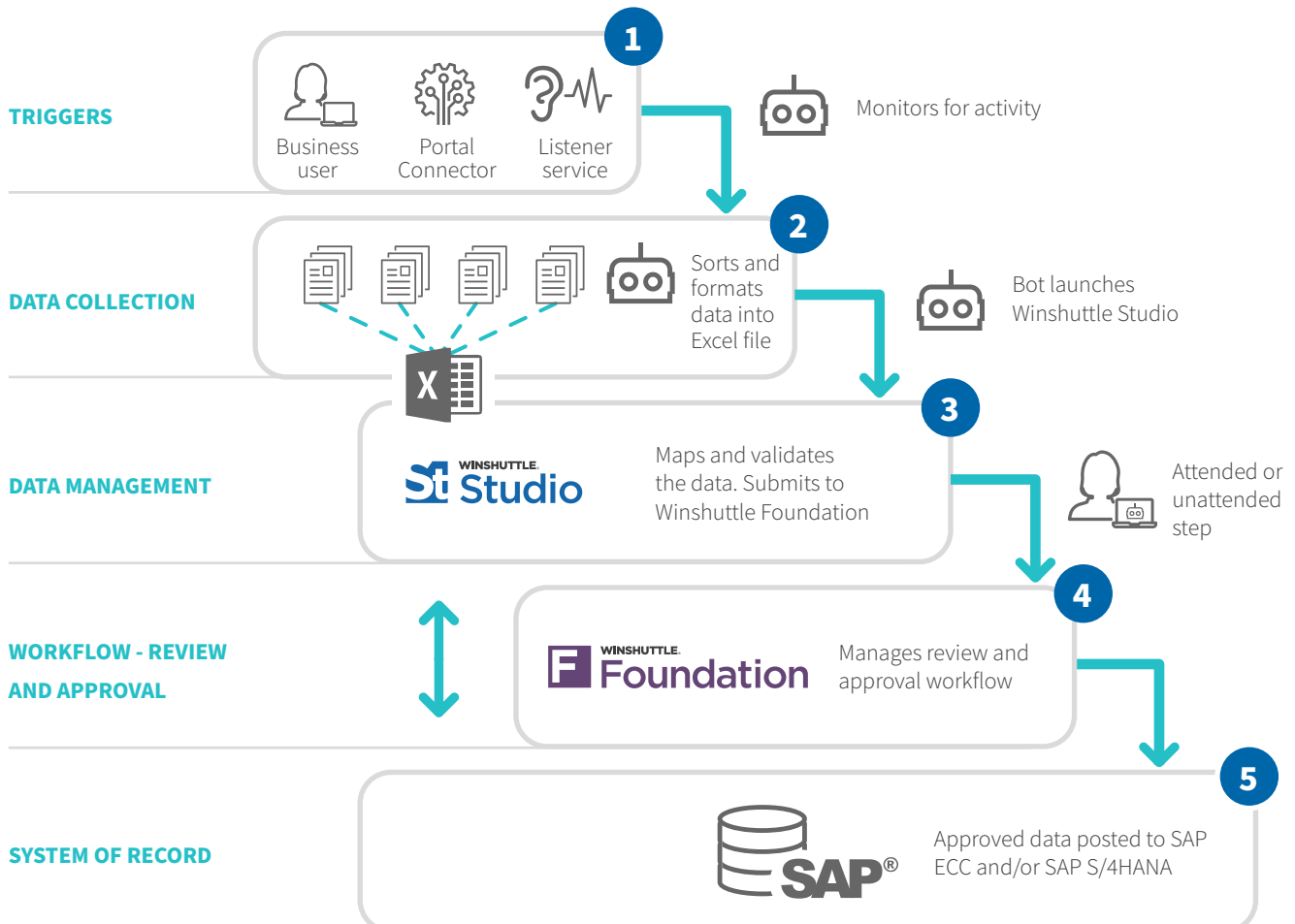
Attended hybrid model - general-purpose tool gathers data that Winshuttle user can manage and validate before loading into SAP



Use the general-purpose RPA tools to launch Winshuttle processes that manage SAP data

EXAMPLE SCENARIO

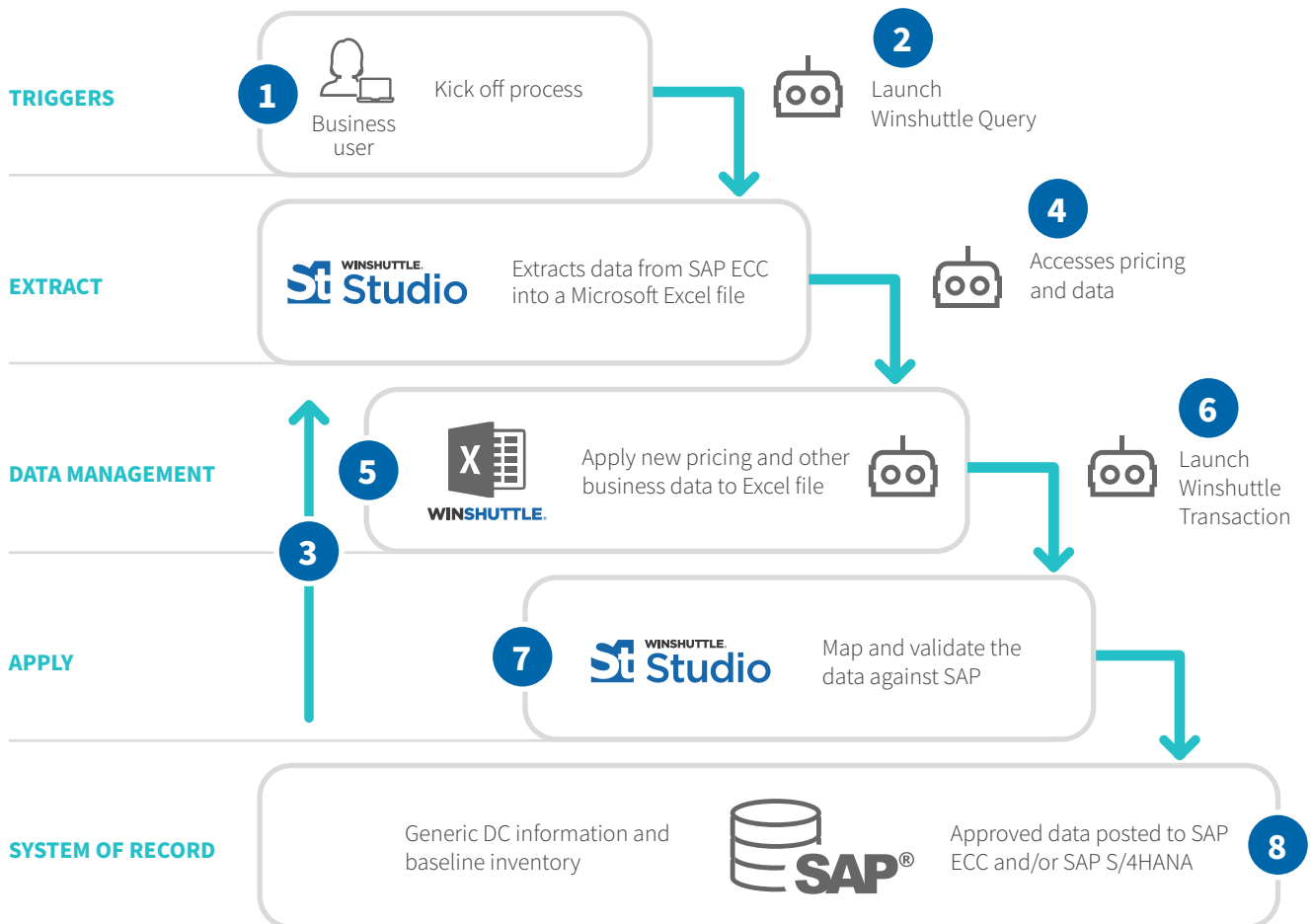
General-purpose bots working in conjunction with Winshuttle Software to automate an end-to-end process requiring workflow.



- 1** The general-purpose RPA bot is alerted by an outside action to retrieve data from one of a variety of sources.
- 2** Another bot is then employed to sort, format, and process the data from various sources into a Winshuttle-enabled Microsoft Excel file.
- 3** Next, an additional bot launches the Winshuttle Studio script associated with the Excel file which validates the data against the live SAP system.
- 4** When there are no errors, the file is automatically submitted to Winshuttle Foundation which manages the review and approval workflow – allowing the reviewing professionals to work in Excel, without having to access the SAP system.
- 5** If errors do occur, a designated person is notified to fix the errors and manually resubmit the file to Winshuttle Foundation. Once the file is fully approved, it is queued for auto-posting to SAP ECC or SAP S/4HANA. Winshuttle Foundation automatically attaches all supporting documents and maintains a log of all activities for audit purposes.

EXAMPLE SCENARIO

Step-by-step sequence automation for creation of a distribution center in SAP.



- 1 An employee tells the system to start the process of creating a new DC.
- 2 The bot is alerted to the new DC request and launches a Winshuttle Query script.
- 3 Winshuttle Query extracts the baseline/generic DC information from SAP into a Microsoft Excel file (can be reviewed by a human if desired).
- 4 A bot accesses relevant pricing and inventory information for the new DC.

- 5 The bot applies the new pricing and other business rules/information to the data in the Excel file.
- 6 A bot launches Winshuttle Transaction script.
- 7 Winshuttle Transaction maps and validates the revised DC information against SAP.
- 8 Validated data for the new DC is posted to SAP.

Why RPA teams are interested in Winshuttle

Backed by over 15 years of SAP automation experience, Winshuttle software offers RPA teams a superior SAP automation platform. By executing at the application layer, our software delivers higher performance than general-purpose RPA tools that execute through the SAP GUI.

In addition, we give process experts the ability to quickly and easily update their automation scripts; enabling them to deliver solutions that keep pace with a dynamic business environment.

KEY FEATURES OF SAP AUTOMATION FROM WINSHUTTLE

Winshuttle script creation

- Enable process experts to automate SAP processes, whether they are in the business or IT, to help scale up the impact of your automation initiatives.
- Create, test, and deploy your SAP automation scripts quickly for faster time to value.
- Automate posting data to or extracting data from SAP.
- Process one item at a time or process records en masse.
- Winshuttle Studio lets you choose the best automation mode for your SAP process.
- Capture virtually any screen/field/button when creating an automation script. With Winshuttle Query, you use SAP tables for automating data extraction and queries.

Winshuttle automation execution and script maintenance

- Update your Winshuttle scripts quickly to adapt to your changing business needs .
 - With Winshuttle, updates and changes can be made quickly and easily – usually in minutes to hours at most.
- Identify specific errors easily and, after correction, re-submit only items that previously had errors.
- Withstand most SAP GUI changes, without requiring the need to update your Winshuttle script.
- Run your Winshuttle Transaction script more efficiently using BAPIs and remote-enabled function modules.

The Winshuttle integrated workflow engine

- For processes that require human review and approval, Winshuttle Foundation delivers a flexible workflow engine that can manage all aspects of the process, including auto-posting records to SAP upon final approval. Foundation also maintains a detailed audit trail.

Winshuttle delivers audit and security

- Maintain SAP security for secure access and interactions with SAP.
- Adhere to SAP user permissions to ensure data integrity and compliance.
- Provide detailed audit trails of the data exchanged with SAP via automated processes.

2,200+

Customer accounts

30,000+

Winshuttle users

“ The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.

Bill Gates

Summary

Now that you understand the challenges of using a general-purpose RPA tool for automating SAP ERP processes and have discovered the ease and stability of a Winshuttle solution, we hope you recognize why so many companies rely on our software to deliver tangible, measurable ROI for their business. Deployed as part of an enterprise automation portfolio, Winshuttle can drive better business results and increase the chances of automation success in your company.

Winshuttle offers an SAP automation solution that is backed by patented SAP integration technology and has been automating enterprise processes for over 15 years. Our experience, know-how, and automation technology offer what we believe is the best SAP automation solution available. Moreover, our ability to work in conjunction with general-purpose RPA tools delivers a more effective automation portfolio than trying to rely on a single tool for all your automation needs.

Join over 2200 enterprise customers around the globe who count on Winshuttle to deliver reliable, efficient, and effective SAP ERP automation.

For more information on SAP automation solutions from Winshuttle, please visit our web site, www.winshuttle.com/rpa, or give us a call to set up your free 30-minute demo and discovery session.

About Winshuttle

Winshuttle software empowers business teams to make an impact through solutions that make it quick and easy to exchange data with SAP using Excel, streamline SAP business processes using forms and workflows, and improve data quality using data stewardship capabilities.

Its business-led, IT-enabled solutions enable users to automate processes and solve problems without compromising security or governance. Business teams can author solutions across lines of business and the SAP landscape, speeding product launches and financial accounting processes, streamlining customer and vendor onboarding, improving plant maintenance efficiency, tackling data migration projects, and much more.

Winshuttle offers two flexible data management platforms. Winshuttle Studio enables business teams to author Excel-based solutions that eliminate manual data entry in SAP and accelerate master and transactional data tasks. Winshuttle Foundation is an enterprise workflow solution with deep SAP integration capabilities built in, enabling business teams to streamline SAP processes and extract more value from your ERP system.

Both platforms are certified for use with SAP ECC and SAP S/4HANA and enable business teams to enhance and protect one of your most valuable strategic assets—your data. Learn more about Winshuttle's SAP data management solutions by visiting www.winshuttle.com/rpa.

WINSHUTTLE®

Founded in 2003, Winshuttle is a global company with sales and support offices worldwide. For more information about Winshuttle solutions or to contact a representative near you, please visit www.winshuttle.com.

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