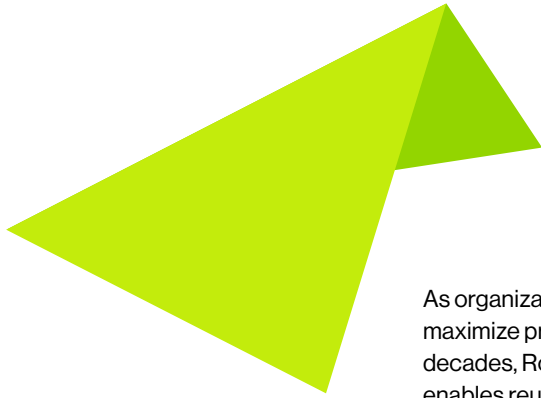


Why RPA?





As organizations face ever-increasing pressure to do more with less, automation offers new ways to maximize productivity while minimizing costs. Although various automation tools have been around for decades, Robotic Process Automation (RPA) has revolutionized computer automation. RPA software enables reusable, scalable, and centrally manageable solutions. RPA sits on top of existing systems with an intuitive graphical user interface, placing automation capabilities into business process owners' hands, while mitigating lapses in translation between business user requirements and technical specifications. Organizations that implement RPA reap the following benefits:

- **Simple and Cost-Effective.** RPA simulates human actions on a computer (e.g., mouse clicks and keyboard strokes) and provides seamless and frictionless integration with existing infrastructure.
- **Accurate.** Human error is unavoidable in high-volume, repetitive tasks. Automation virtually eliminates these errors.
- **Secure.** Role-based access controls, logging bot activity, and audit trails ensure security and segregation of duties, while subverting fraudulent attempts and operational errors. Data privacy is protected by running automated processes behind locked screens.
- **Scalable.** RPA's memory and "compute" resources needs are low, resulting in rapid processing speed and making it well-suited to handle workload surges.
- **Empowering.** When manual, repetitive processes are transferred to automated bots, people feel liberated and can focus on higher value add work.

Comparison of Manual, Scripted Automation, & Robotic Automation

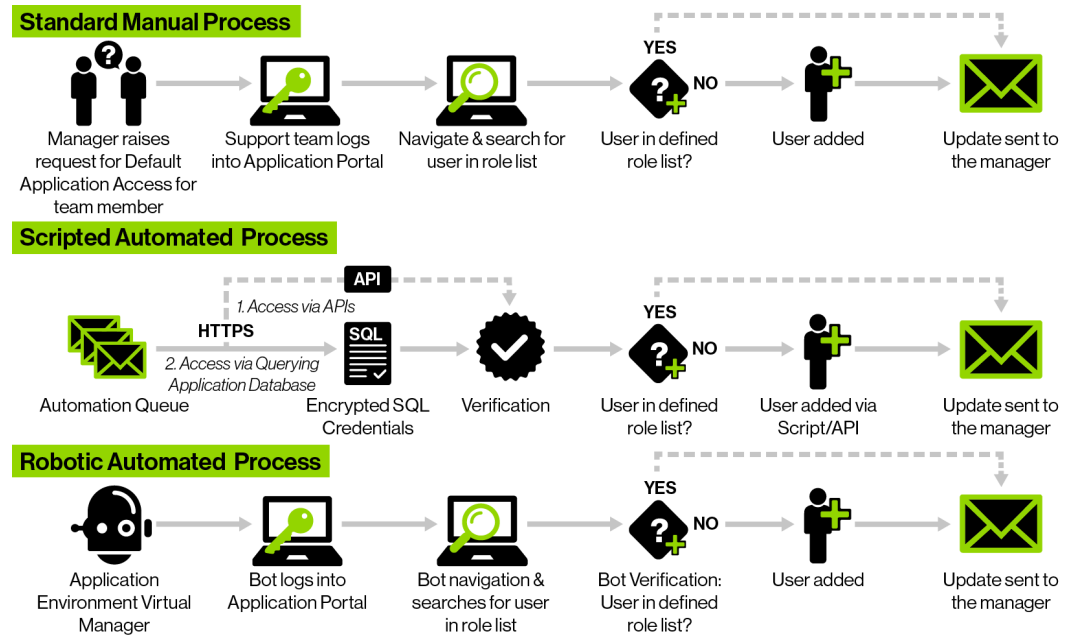


Figure 1 | Relative to traditional scripted automation, RPA more closely mimics human behavior, providing end-users with more transparent solutions.

RPA Use Cases

Understanding where to start with RPA is an essential step in realizing rapid business value and user adoption. RPA implementations range from automating simple routines to managing a vast array of complex decision-making processes. However, the first candidates that should be considered for automation solutions are rule-based, repetitive processes, such as data management, report creation, and routine digital communications (e.g., email and chat). Processes like these are considered perfect automation targets, as they generally take a lot of time to perform manually and are relatively simple to automate. Departments and divisions in an organization are littered with repetitive and manual tasks, making their automation a treasure trove of time and cost savings.

Examples of RPA Usage

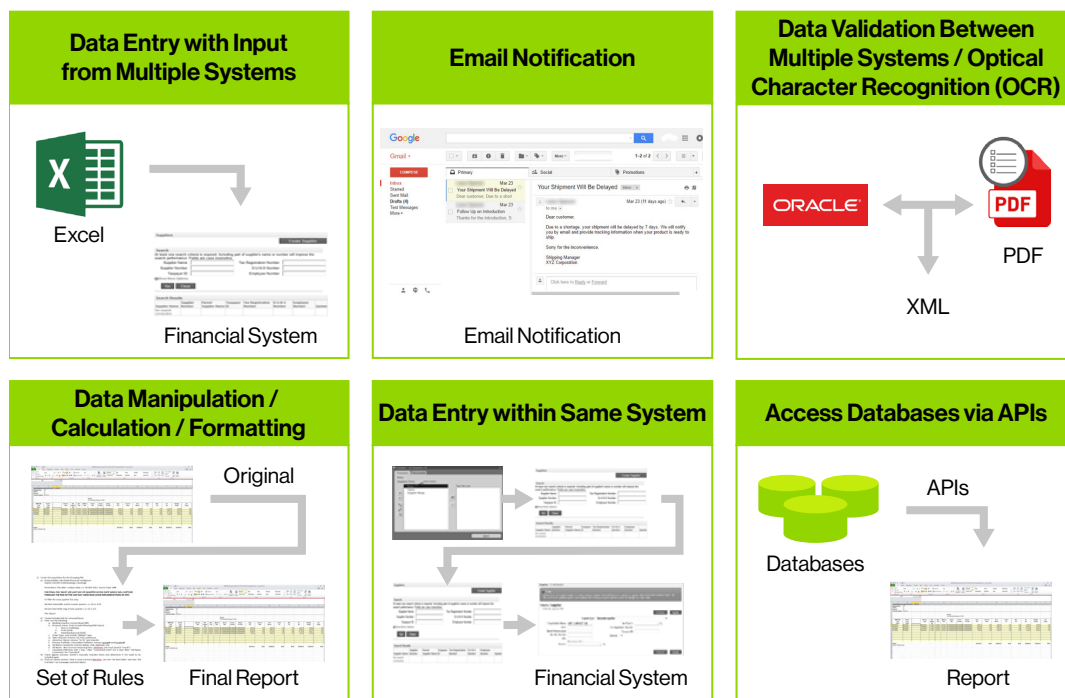
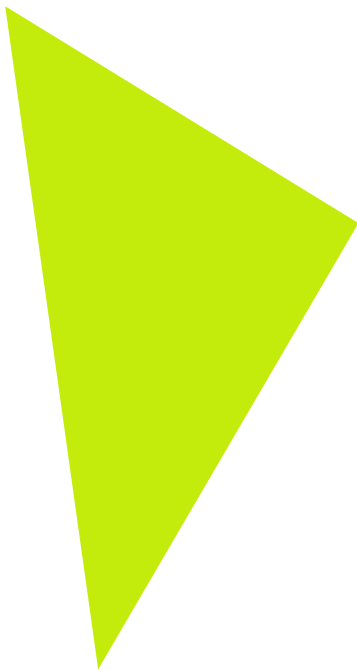


Figure 2 | Utilizing multiple purpose-built actions and application interfaces, RPA can combine and automate multiple steps in a process. Controls, decision points, and business rules can also be built around these steps.

Marrying RPA with Artificial Intelligence (AI) / Machine Learning (ML) paves the way to create “Intelligent Automation” solutions. For more complex processes that include substantially nuanced and complex decision-making, AI/ML can be layered into RPA solutions to produce powerful automations that deliver higher business impact and value.



Developing an RPA Vision

RPA's digital worker is known as a bot. Bots are entities within the RPA software that are programmed to perform a defined set of actions. The goal of the automation development process is to create a bot (or group of bots) that can replicate the actions taken by the business expert to complete a task. While this may sound relatively straightforward, it involves a coordinated effort between the developers and Subject Matter Experts (SMEs) to ensure all the steps and decisions inherent to their workflow are accurately reflected by the bot's functionality.

Identifying and prioritizing rule-based, repetitive tasks within a business workflow empowers bot developers to rapidly build out capabilities, producing tangible and immediate impact on everyday tasks. By actively engaging business experts, developers continuously ensure that bots capture the unique and evolving aspects of a business process, while maintaining several key characteristics of successful automations. For instance, efficiency and maintenance are important considerations in minimizing bots' impacts on critical systems. Additionally, incorporating robustness and flexibility allows bots to operate within other similar scenarios while handling common exceptions.

Reliable	Efficient	Maintainable	Reusable
Automations are highly robust in all areas, including exception handling.	Automations execute quickly, using minimal computational resources.	Automations are easily updated and/or patched.	Existing automations can be effectively utilized in similar use cases.

Figure 3 | Automation Workflow Characteristics

Once the bots have been developed and implemented, their actions can be validated against expected results using stored audit and execution logs. Audit logs record execution outcome (success/failure), execution runtime, and error rate for each automation/bot. As a best practice, bots need to be continuously monitored to ensure solution stability and adherence to established performance metrics.

RPA offers simple, cost-effective, accurate, scalable, and secure solutions, empowering the workforce to focus on tasks that require uniquely human creativity and maximizing their value added to their organization. RPA can be customized to the specific demands of the business process and the environment in which it operates. While RPA might not be able to replicate every nuance of human activity, it can be used to create efficient and reliable solutions that leverage the strengths of both automation and human intelligence. This allows business leaders to better optimize their human capital, automated processes, and data assets by aligning them to organizational goals and expected business outcomes.

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About Guidehouse

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