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Beyond RPA: Upgrading to enterprise AI for the 2020s

It wasn't that long ago when everything in business was done manually. Communication required snail mail or faxing documents, and processes required endless amounts of paper.

That all began to change in 1993 when electronic mail was widely adopted — enough to be shortened to "email" — and drastically streamlined communication. The principles of lean management also became standard in the business community, and many organizations began utilizing software to streamline their workflows, creating some of the earliest forms of business automation.

By the turn of the millennium, process automation had become both an art and science. Some of the leading experts in the field came together in 2001 to create Blue Prism, a company dedicated to changing the way technology could help organizations improve efficiency, starting with the back office and its many needs for automation. They created what would come to be known throughout the industry as robotic process automation, or RPA. In 2003, they launched their first product, Automate, and upgraded it in 2005 with even more large-scale processing capabilities.

Today, RPA is still one of the most popular forms of automation, but the field has expanded to include true artificial intelligence and a number of other capabilities. Blue Prism has evolved to add them onto it's original offering, but unfortunately struggles to give users access to the full potential of intelligent automation.

Read on to learn about the benefits of newer, AI-native platforms like Automation Hero. But first, let's cover the origins of automation as we know it today.

How Blue Prism transformed workflows

Robotic process automation (RPA) is best described as technology that creates a new digital workforce for organizations to utilize for their high-volume and most repetitive work. The “digital workers” interact with their organizations’ system much like normal employees do, but exist only in computers, following rules-based processes and generally working much faster than humans.

Blue Prism’s revolutionary benefits

Blue Prism pioneered the automation of some of the most basic tasks workers had to complete on a day-to-day basis. Until the 2000s, performance by knowledge workers was primarily measured by quotas, such as how many insurance claims they could process per hour. As automation became more capable and able to take on more tasks, it began to change what workers were expected (and needed) to do.

Some of the biggest benefits included:

Greater productivity

In 2005, a financial services company in the U.K. implemented Blue Prism to automate processing of direct debits, checks, and transaction rejections for accounts with insufficient funds. Normally, this high volume of work required a veritable army of staffers to review and process each transaction. Blue Prism drastically improved productivity. The software allowed the company to reallocate nine employees to higher level work and cut processing time by four hours a day.

More profits

Freeing labor automatically translates to higher profits, since it reduces payroll hours without productivity loss.

When Blue Prism users reallocated labor directly to revenue-generating projects, profitability grew even more and set new benchmarks for performance.

Faster processes

When work gets done more quickly, it doesn’t just improve an organization’s bottom line — it can positively impact customers as well. For example, the financial services company that implemented Blue Prism in 2005 was able to process checks faster

so that deposits could hit their customers' accounts quicker. Throughout the years, many customer service departments have sped up response times to customer requests, resulting in greater satisfaction.

Where RPA falls short

The benefits organizations achieved with Blue Prism back in the 2000s have only become more solid. But in the 2010s, with the definition of productivity far expanded, it became clear how much RPA left to be desired.

Complex implementation

RPAs can work with limited types of inputs. This often requires users to make large overhauls to their existing processes or systems before they can even implement automation. The staggering amount of resources it takes to automate processes can be a huge deterrent for organizations. Sometimes, automation is put off longer than it really should be, or not implemented at all.

Costly and time-consuming setup

The level of research, trial, and error required to program an RPA can take months to get just right.

One of the biggest drawbacks to Blue Prism and other legacy RPAs is how complicated they are to set up. Since they are mimicking actions made by humans, but without our intelligence and full decision-making skills, every workflow needs precise programming in order to work right. If one thing is slightly off, the output might be unusable, or worse, even break the workflow entirely.

High-level expertise is often needed as well, and a specialist's hourly rate, combined with the long implementation time, can contribute to substantial upfront costs.

Regular maintenance and reconfiguration

The drain on resources for RPA implementation doesn't end after initial setup. The same sensitivity that makes RPA challenging to start also makes it prone to breaking down without careful maintenance and constant updates. The tiniest change to a program or a document could prevent automations from producing the correct output, or even working at all.

Users need to perform regular quality assurance checks to make sure outputs are as expected. Tech teams need to anticipate software updates that could derail workflows. Prevention and maintenance can also require a lot of downtime that cuts into the productivity RPA is supposed to improve. The high upfront investment and constant need to updates can cause delays in generating a full ROI.

The next generation of automation

In the 2010s, software engineers began developing new types of technologies to address the shortcomings of RPA — Blue Prism included. Some of the capabilities that came about from this were:

Intelligent Document Processing (IDP)

While RPA is focused on automating the actions that workers take to complete workflows, intelligent document processing (IDP) can be understood as the intake and contextualization that workers might do in workflows — especially in regards to documents and other data. IDP is a tool that extracts information from documents and transforms it into usable data.

For example, IDPs can read documents such as invoices, automatically recognize fields like sender and invoice amount, and categorize the information accordingly. Optical character recognition (OCR) technology makes it possible for the programs to read text that isn't even digitized. Some of these systems are advanced enough to even read human handwriting.

Artificial Intelligence and machine learning

High-functioning AI should be able to read an invoice with a format it has never seen before and understand who it's from, what the invoice is for, and how much money is being requested.

When it comes to process automation, artificial intelligence (AI) and machine learning generally refer to a program's ability to think more like people, and to learn based on experience. Machine learning is the process by which an IDP grows to understand how to analyze and contextualize the data from an invoice based on past experiences. Both AI and machine learning are fields with capabilities that are constantly expanding and being refined.

The expanded Blue Prism catalog

Over the years, Blue Prism has gone on to create an entire suite of new products and services, ranging from digital assistants that help users assess their processes, enterprise resource planning, digital exchanges, and more. By utilizing every individual product the company offers, users are able to automate virtually every process the organization might need. However, this still leaves much to be desired.