White paper
Taking RPA to the Next Level with Semaphore
Taking Robotic Automation to the Next Level with Semaphore

Introduction

Today, executives are continuously challenged to reduce operational costs as well as address the expectations of their customers who expect an immediate response to their business request. For example, think how long you were prepared to wait a decade ago for a car loan to be approved and what you expect of your lender today - how much of that approval process was back-office manual work?

Organizations are leveraging intelligent automation like Robotic Process Automation (RPA), to employ digital workers to manage routine tasks and let human agents handle exceptions. The implementation of RPA allows the business to achieve higher-quality outputs, enhance customer experience, and increase capacity to handle higher business volumes.

According to Gartner, by 2020 further automation in the form of RPA and the addition of AI will reduce employee requirements in business shared-services by 65%. By that time, 40 percent of large enterprises, will adopt RPA software to reduce staffing costs and human error.

As an application of technology, RPA is governed by the production line of a business application’s structured inputs. Digital workers or “robots,” lift data from one business application and shift it to another. Using RPA tools, organizations configure the RPA software to capture and interpret applications for processing a transaction, manipulating data, triggering responses, and passing on data to other digital systems. RPA scenarios range from simple; generating an email response, to complex invoice processing; deploying thousands of bots to automate jobs.

The ability to lift and shift data across software applications requires a full end to end process with as few exceptions as possible. Full process automation - how businesses get the most value from this transformation - require robots/digital workers deal with unstructured content and poor quality data. Equally important, full end-to-end user interaction automation - understanding user intent - requires the robot/agent to deal with the ambiguity of user input.

Organizations can enhance their automation efforts by injecting cognitive technologies like speech recognition, and semantics, which uses machine learning, into the RPA process to automate higher-order tasks that in the past required the perceptual and judgment capabilities of humans. Semaphore uses a Semantic AI approach to address these key issues and take RPA to the next level.

Semaphore’s Semantic AI Approach Enriches RPA

RPA has caught the world’s imagination, but it isn’t a new approach. RPA has evolved from processes such as screen scraping, business process automation, or other similar systems that have been around for a while. Today, organizations use RPA to automate business processes and improve user interactions. It’s frequently used in back offices to complete orders, examine and audit invoices, as well as eliminate boring stare and compare processes done by human operators while improving the quality of output and reducing costs and expenses.

Semaphore semantically enriches enterprise information and improves data quality by extracting data and facts from text and classifying documents so they can be accurately typed and routed. This process is not based on position or text-strings, but on the meaning of the data found within the text; something RPA systems have a hard time dealing with on their own.

Semaphore’s capabilities take RPA to the next level where information brings value and visibility to the enterprise. It enables text analytics to examine information in new ways to answer questions not previously answered. By capturing and communicating the
meaning, concepts, and the relationships between concepts, it disambiguates and enriches information with precise meaning. Its results are transparent, accurate, and consistent and eliminate the unexpected outcomes RPA processes produce when context is lacking.

Semaphore can semantically enrich human user intent during an RPA exception. As language is by nature ambiguous and each system has its own vocabulary, robots are unable to understand user intent. Using Semaphore to semantically drive the exception process, an interrupt such as “did you mean?” can be inserted into the process to prompt the human operator with the correct response. The robotic process can then restart automation quickly and accurately.

The Semaphore Proposition

Semaphore can effect business processes in multiple ways; integrate into the RPA process using Semaphore Cloud and work alongside RPA processes in an on-premise Semaphore installation.

Semaphore Cloud – Smartlogic’s low-cost, multi-tenant semantic PaaS environment – integrates with business processes to accept text, harmonize, enrich and extract the information within the text, and return the semantically enhanced information for further processing. This process benefits use cases such as, invoice processing; claims processing; medication processing in finance, insurance and healthcare respectively – industries we have many clients in.

On-premise Semaphore Enterprise is also integrated with RPA to work-alongsides processes such as contract lifecycle management (CLM); KYC & FATCA reporting in banking; Oil and gas drilling rights and analysis, and many more.

Summary

Automation methods that include ML, are procedural, rule-driven, sophisticated software decision trees that automate mundane and repetitive tasks. When the task is exact and the actions taken are the same every time, they are a good solution. They do however have limitations; when unexpected information is encountered, the systems break as they lack context.

Incorporating Semaphore’s Semantic AI capabilities into RPA systems provide context and meaning to the process. When information is semantically harmonized, fidelity improves, automation becomes flexible, and they can handle a broader range of use cases without breaking. Semaphore’s capabilities enable organizations to derive maximum value from all enterprise information to drive business outcomes.

To find out how Semaphore can take your RPA processes to the next level, connect with us at: info@smartlogic.com