Accelerating RPA with a Comprehensive Process Intelligence Platform

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What is
Process Intelligence?

Interactive Digital Twin

Create a visual representation of your existing process

- Simple Data Upload – ETL in the cloud
- Interactive process Schema
- Individual process execution

Monitoring & Alerting

Never Backslide – Measure Improvement

- How is my process performing
- Process Compliance
- Monitor process standardization
- Alert on process execution –protocols & SLA's
- Immediately created ROI calculations
- Integrate with existing technologies to kick of remediation

Enhanced Process Understanding

Take control of your process execution

- 25+ types of pre built process analysis modules
- Bottlenecks, Throughput, Missed Steps, Repeated Steps, process variability with all associated costs

Prediction & Prescription

Process-Centric Prediction

- Outcome Classification, Timing, Actions

Prescription

- Auto-Prioritization
- Next-Best Action
- Closed Loop Execution

What is RPA Promising?

According to HFS Research ...

there was a 63% growth in the global market for RPA Software and Services from 2016-2017.

According to Forester Research ...

in 2018 robots will replace or augment over 300,000 office and administrative positions and 260,000 Sales related positions.

Deloitte reported ...

over 53% of customers surveyed had already started their RPA journey which would rise to 72% by 2020.

Deloitte again reported ...

78% of those that have already deployed RPA believe that they will significantly increase their investment over the next 3 years.

Hadoop estimate ...

that the potential savings that companies will experience with RPA by 2025 is between $5 trillion to $7 trillion.

Process Intelligence is Your Companion to Implementing Successful and Sustainable RPA Across the Enterprise

Introduction

Robotic process automation is an emerging form of business process automation technology based on the notion of software robots or artificial intelligence workers. Being considered as "the next big thing in process improvement". Researchers at Hadoop estimate that the potential savings that companies will experience with RPA by 2025 is between $5 trillion to $7 trillion. The company also predicts that RPA software will be able to perform tasks equal to the output of 140 million FTEs by the same year. Forrester believes that the RPA industry will be worth $2.9 billion by 2021. As this technology booms so too will the need for advanced process analytic solutions like Timeline Process Intelligence.

Summary

Process intelligence technology is critical to the success of any Robotic Process Automation (RPA) initiative.

ABBYY Timeline provides methods and tools which help to assess pre-implementation and manage and control post implementation.

Process Intelligence technology like Timeline is critical to every step in RPA: design, implementation, deployment, and operations. This document outlines the use cases, as well as specific and tangible benefits of process intelligence technology used alongside robotic process automation applications.

Phases of RPA

As an organization implements RPA, it generally goes through the following phases:

1. Initial Phase

Small number of robots automate the most labor-intensive operations.

2. Large deployment phase

Upon success of the initial phase, the organization deploys numerous robots, targeting a wide array of operations.

3. Full Coverage phase

The deployed robots cover all or very large part of the business processes while the personnel performs only the tasks where human decisions are required.

Each of these phases has unique risks and a unique set of opportunities and benefits. Let's discuss how ABBYY Timeline may reduce or eliminate the risks and help to realize the benefits.

Initial Phase

Benefits

- Fast deployment of robots, automating the labor-intensive operations, delivers quick success with impressive ROI.

Risks

- The operations, selected for automation, could be too complex or require a lot of subject matter expertise which may not be readily available to the automation team.
- Automating the single process step may create the bottlenecks downstream so the overall performance doesn't improve or even gets worse.
- The operations, selected for automation, do not make a large contribution to costs and time, so even the successful automation brings unimpressive ROI.
- Any of the issues above creates the frustration with new technology and the organization never moves to phase 2.

Timeline dramatically reduces these risks.

By analyzing the business process "as is", ABBYY Timeline:

1. Reveals the complexity of the existing process logic, allowing the RPA implementation team to prepare, obtain the subject matter knowledge, or chose a different automation opportunity.
2. Identifies the operations making the largest contributions to the overall time and costs, thus selecting the best targets for automation.
3. Allows user to create multiple what-if scenarios and build the automation plan with the highest ROI.
4. Once some operations are automated, TimelinePI continuously monitors the process flow and immediately alerts users or IT systems about any disruptions or bottlenecks.

Large Deployment Phase

There are two major inhibitors to enterprise wide Automation

What do you automate?

- What processes can be automated?
- What processes should be automated? (based on what? Cost, time, risk?)
- How do you know if you handled all the variations? (did you miss anything?)

How do you know if your automation is working?

- Building out ROI calculations
- Are your digital workers running at peak performance?
- Is the automation doing what you intended? (any unintended side-effects?)
- How does it impact the rest of the process? (flocking effects, cascades)

Benefits

- Large scale deployment of robots brings sizable gains in turnaround time and overall costs.

Risks

- This phase has the same risks as Initial phase just on a much larger scale. In addition to it, the specific risks of Phase 2 are:
- Since the "low-hanging fruits" are already gone, automation has to focus on more complex operations.
- As more and more operations become automated and the process flow accelerates, the bottlenecks in process execution become even more damaging.
- Since the implementation cost is going up significantly, the gains in costs should be even larger to maintain the target ROI.

And again, Timeline is uniquely positioned to address those risks. In addition to the items 1-4 above, the process intelligence:

5. Keeps the process models up-to-date at any time. As more and more robots become active, the process flow inevitably changes.
6. Special "before-and-after" and "set-to-set-comparison" features of Timeline product have dual purpose. First, they ensure the automation efforts actually deliver on their promise. Second, they identify any logical process flow issue very early, before it becomes a disaster. For example, if the approval rate for some region suddenly increased by 50%, it may be a red flag for potential error in robot's logic.
7. Real-time monitoring of the process flow detects any issue and triggers automatic or manual remediation efforts.

The last point is crucially important. While RPA vendors provide some monitoring functionality for their robots, they do not trace the long business process through multiple automated and especially non-automated-yet steps. As a result, every given robot could be perfectly healthy, however the overall process could be badly broken with the cases falling through the cracks.

Full Coverage Phase

Identify, Justify & Prioritize Automation Opportunities

Pre-analysis of current operations to identify and stack-rank automation based on use-case specific priorities such as time, complexity and cost

Detect & Trigger Automation

Detection of business process conditions across multiple systems of record and the ability to trigger "bots" based on any business condition

Monitor Processes End-to-End

A single, comprehensive "air-traffic control tower" for any process including manual, BPM, RPA and custom-coded elements
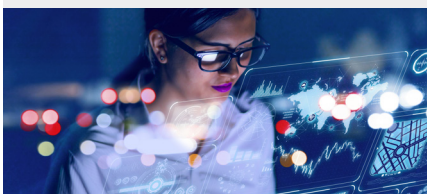
Early Prediction of Future Process State

Advanced AI to predict future states very early in a process lifecycle to allow for interventional automation

Benefits

- At this point all mundane manual operation are automated. Organization realizes the maximum gains in efficiency and performance.

Risks

- All risks described above for Large Deployment Phase
- Any disruption of the process flows could have catastrophic effect because the robots are less flexible than humans and rely on the stable and repetitive conditions.
- Similar to above, sudden changes in the environment may result in dramatic breakdown in the process. While RPA vendor would diagnose any issue with a given robot, they don't provide end-to-end monitoring of the business processes across multiple robots.

At this point the real-time monitoring and alerting capabilities of ABBYY Timeline make it the focal point of operations control.

8. Timeline monitors the process across multiple robots and backend systems, it detects any violations of the thresholds, deadlines, protocols, SLAs, etc. and notifies a person or, more likely, a robot, so the issue could be remedied immediately.

9. Forecasting modules of Timeline, based on AI, identify ongoing process instances which require special attention. That include:
    - The instances with high probability of a specific outcome (for example: the mortgage will be denied.)
    - The instances which will likely miss preconfigured deadline (for example: invoice payment is required within 30 days)

10. Once potential issues are identified, Timeline triggers the remediation process which may include robots or humans.

Conclusion

RPA implementation could be hugely beneficial to an organization, but it also carries significant risks. Using advanced process intelligence technology from Timeline allows companies to reduce the risks dramatically and ensure the success of their RPA initiatives enterprise wide.

RPA and ABBYY Timeline: Raise Your Process IQ with Actionable Insight

Critical insights to accelerate your digital transformation

- Accelerate process discovery
- Reduce RPA deployment costs
- Avoid automating broken processes
- Uncover new automation opportunities
- Quantify performance post implementation

Target processes with the best return

- Discover opportunities and identify the optimal processes for RPA
- Easily identify the high impact opportunities
- Understand process execution's cost, time, delays, and all the other intricate details about how your business processes execute as-is
- Optimize so that robots can do more

Summary

Timeline Process Intelligence gives enterprises the ability to understand "as-is" process states for a more complete picture to view process execution in the context of time, rather than through snapshots. The solution also easily aggregates process data easily and cost-effectively across disparate systems and reconstitutes it as an interactive model – a Process Digital Twin.

About ABBYY Timeline

Timeline, the most advanced Process Intelligence platform available today, is designed to raise an organization's Process IQ.

The Timeline Process Intelligence Platform uses next generation process mining methodology, specialized analytics, automated process monitoring and alerting, and predictive machine learning to enable sustainable, enterprise-wide process excellence. Built using the company's patent-pending Timeline Analysis architecture, the Timeline platform delivers process insight and control capable of addressing even the most complex business process scenarios.

For more Information, visit **www.abbyy.com/timeline**.

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