



Robotic Process Automation (RPA)

Leverage automation to democratize worker efficiencies
in forward-thinking enterprises



RPA is the fastest-growing software subsegment officially tracked by Gartner, with year-over-year growth of more than 63% in 2018¹.

With robotic process automation (RPA), companies can leverage bots to automate a series of keystrokes within or between applications to improve worker productivity. The bots typically replace or augment repetitive human tasks, and if planned, scripted, and managed properly can bridge applications, reduce input errors, improve customer service, and save significant time and money.

In practical terms, from Wikipedia:

*"RPA tools have strong technical similarities to graphical user interface testing tools. These tools also automate interactions with the GUI, and often do so by repeating a set of demonstration actions performed by a user. RPA tools differ from such systems including features that allow data to be handled in and between multiple applications, for instance, receiving email containing an invoice, extracting the data, and then typing that into a bookkeeping system."*²

Thanks to ease of implementation and fast ROI, business units are using RPA to turbocharge the productivity of their front-line business users, and many are implementing RPA projects independent of IT department job queues. Naturally, many IT managers are skeptical of RPA, but most internal stakeholders find compelling benefits:

- Business managers appreciate the ability to take repetitive, time-consuming, and error-prone tasks and automate them, allowing humans to focus on tasks that are best handled by human judgement.
- Executives and shareholders benefit from efficient use of labor resources.
- Knowledge workers benefit from a less "robotic" day-to-day job function.
- Customers can find better and faster customer service.



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¹ Gartner, ² Wikipedia




RPA and Modernization

Telecommunications, utilities, and financial companies - with their patchwork of transaction-based legacy systems - tend to benefit the most from RPA. In many cases, RPA implementation transforms their modernization calculus. With a new easy-to-implement tool to bridge and extend their legacy systems, modernization efforts can be better planned, managed, and executed. Critics note that RPA can also be used to put off modernization, which is surely a danger, but we've found with a good strategy and a commitment to digital transformation, RPA can be an important game-changer.






Use Case: Human Resources

Human resources departments handle repeated, routine requests often and benefit greatly from RPA projects. Human resources business unit managers might consider projects that look like this:

Project 1: Automate Expense Reports

-  **Receive Email**
Flag any email received that contains an expense report.
- ↓
-  **Extract Data**
Extract data contained in the expense report.
- ↓
-  **Enter Data**
Type data into bookkeeping system.

Project 2: Automate New Hire

-  **New Employee Hired**
New hire triggers process automation.
- ↓
-  **Create New Employee Record**
New HR system employee record added.
- ↓
-  **Order Employee Tech**
New employee record automatically triggers IT order.
- ↓
-  **Create New Benefits**
Slate of relevant benefits initiated in each benefit system.
- ↓
-  **Generate Keycard Access**
Keycard order entered based on new employee access level.

Project 3: Automate Data Migration



-  **Data Export**
Export legacy system data with validation rules.
- ↓
-  **Data Import**
Import legacy system data into the new system.

Figure 1: Robotic Process Automation Task Flow Examples

Business managers would likely partner with the IT department for assistance, however free from a spec and develop coding project that can take months or years to build, test, and implement company-wide.

Since RPA is handled at the GUI-level, most systems old and new, including systems that have been in service for decades might be eligible. In other words, a modern enterprise application can work alongside CA Plex/2E or COBOL/RPG green screen apps in the process chain to get the work done.

This speaks to the many benefits of RPA:

- Can bypasses entrenched IT job queue.
- ROI is fast.
- Scales based on need/demand.
- Relatively low investment needed.
- Business managers can test and implement based on real-world pain points quickly.
- Improved data management compliance.
- Improve quality of frontline jobs.
- Improved analytical data.



Figure 2: RPA task automation can include COBOL/RPG green screen apps, creating a bridge between legacy and modern systems. Enterprises considering RPA projects should verify compatibility with their systems before launch.

RPA and Reality

RPAs Complement, Rather Than Replace

RPA exists in a lane all its own. RPAs complement, rather than replace, involved applications and personnel. Applications are extended by adding automation and interoperability with other applications and end users, and the knowledge workers whose tasks are automated tend to be re-aligned to focus on higher-value work. Any fear that humans will be replaced by RPA bots hasn't been realized, with headcounts remaining at least steady.

They're Not "Smart" (At Least Not Yet)

RPAs execute defined, repeatable, tasks and are limited with respect to making decisions and acting on them. While technologies involved in the task-automation process may involve AI or machine learning (think OCR needed in the first HR example above), RPAs themselves involve little of these smart technologies.

Strategy and Upkeep Required (Set it, But Don't Forget It)

RPA automations are implemented at the GUI-level and will break on any upgrades or changes to the leveraged applications. As a result, technical debt goes one way: any RPA bots need to adapt to a company's patchwork of applications and not the other way around.

RPA Best Practices

When adopting RPA, crafting a comprehensive company-wide strategy, complete with buy-in from all interested parties, along with careful maintenance and monitoring, ensures your best chances for success:

- Manage adoption corporate-wide.
- Work with IT early for buy in.
- Pick the right tasks to automate. They should be predictable, mature, efficient, repetitive, based on definable rules, and have enough volume to justify the effort.
- Ensure compatibility with relevant corporate systems.
- Test early.
- Plan for ongoing management/technical debt.
- Define ROI and commit to ongoing measurement.

CM First Group Can Help

Our deep experience with legacy enterprise systems puts us in a unique position to help companies reinvent their modernization efforts with RPA. We have the knowledge and real-world experience needed to implement emerging RPA technology effectively and help you target and achieve the highest ROI possible.

For more information, visit cmfirstgroup.com.

Contact us for more information or to schedule a demo. Call 888-866-6179 or email us: info@cmfirstgroup.com.

About CM First Offerings

CM First's powerful automation tools, augmented by professional services staff with many decades of software engineering and DevOps experience, ensure successful outcomes for even the most demanding modernization projects. Our products and expertise have helped over 400 customers in the public and private sectors reach their desired future state faster and more cost effectively than by using conventional approaches.

CM First software quickly analyzes, documents and re-platforms legacy code bases with minimal errors and rework, including those that are too large and complex for humans to tackle in any reasonable timeframe. The output is immediately usable by all team members, regardless of experience and knowledge of legacy software languages, accelerating application maintenance and modernization projects.

For more information, visit cmfirstgroup.com

Request a Demo Today

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