

Putting Robotics in Human Healthcare

Process Automation in Health Insurance

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Introduction

As the cost of health care continue to mount, insurance providers are looking for ways to provide service at a competitive cost.. This is a particularly important point for Univera Healthcare, serving as a non profit provider operating with the aim of minimal profits. The organization conducts many processes deemed opportunistic for automation; manual, repetitive, and high volume processes from employees. Robotics Process Automation has already seen use in industries such as hoteling, accounting, banking, and is a tool that is looked into by the health industry.

What is RPA?

In many organizations, there are routine processes performed manually. For instances where either scale or value does not mandate large scale IT transformation, but are too complex for macro or desktop automation, RPA serves as a perfect fit. A computer software or “robot” is configured to existing applications for processing, manipulating data, recording responses and communicating with other systems. It can do things such as clicking a button, filling fields, and logging info. Roles such as data entry, form processing, and desk operations that once were the staple of office work is well suited automation.

Internal Automation Projects

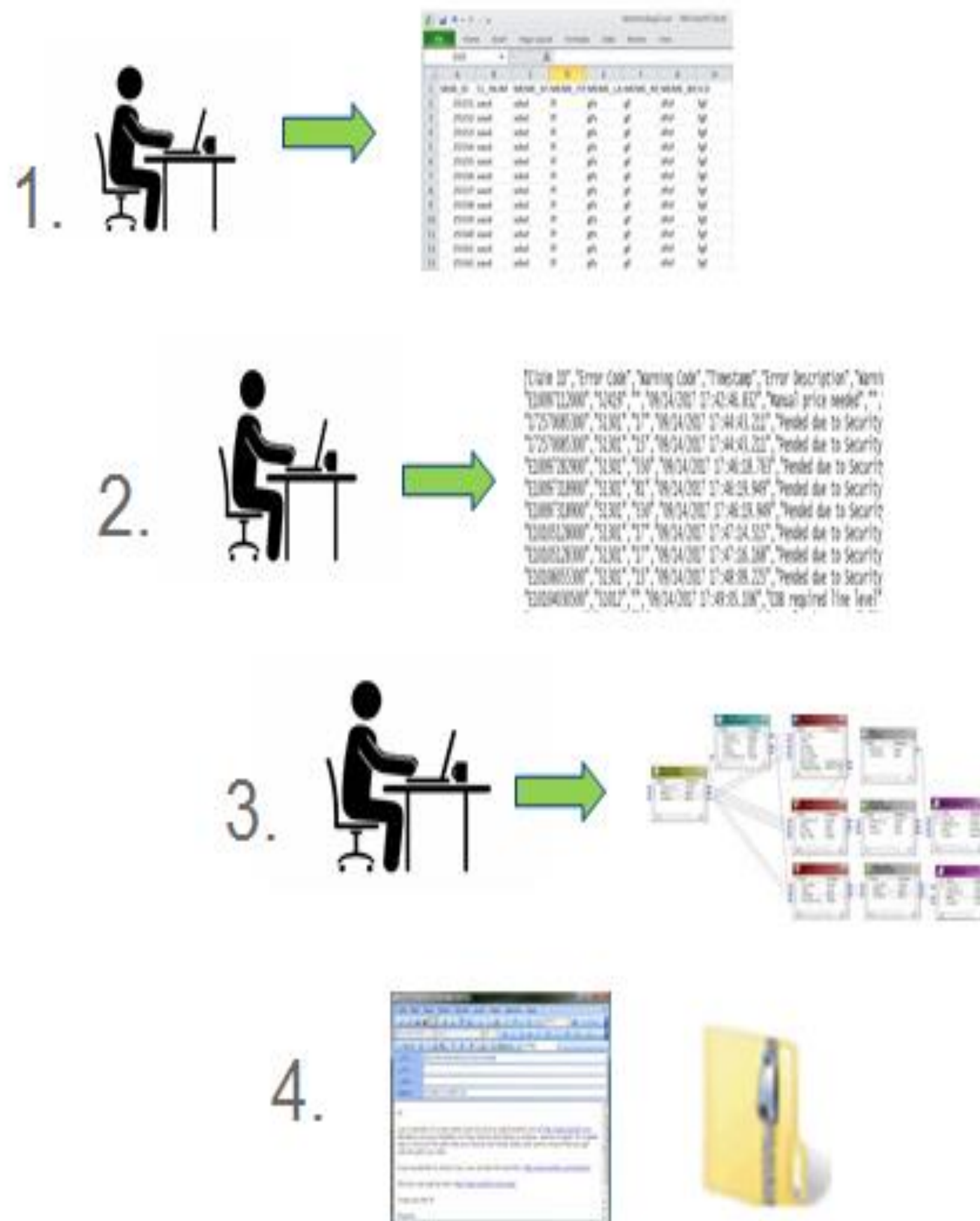
Examples of some internal projects that I worked on that are similar to RPA:

- I. Conversion of GUI based application to automated command line
- II. Usage of Informatica ETL tool, mapping, and report generation
- III. Additional mods to existing search tools
- IV. Generation of schema for collaboration with partners

RPA Use Case Example:

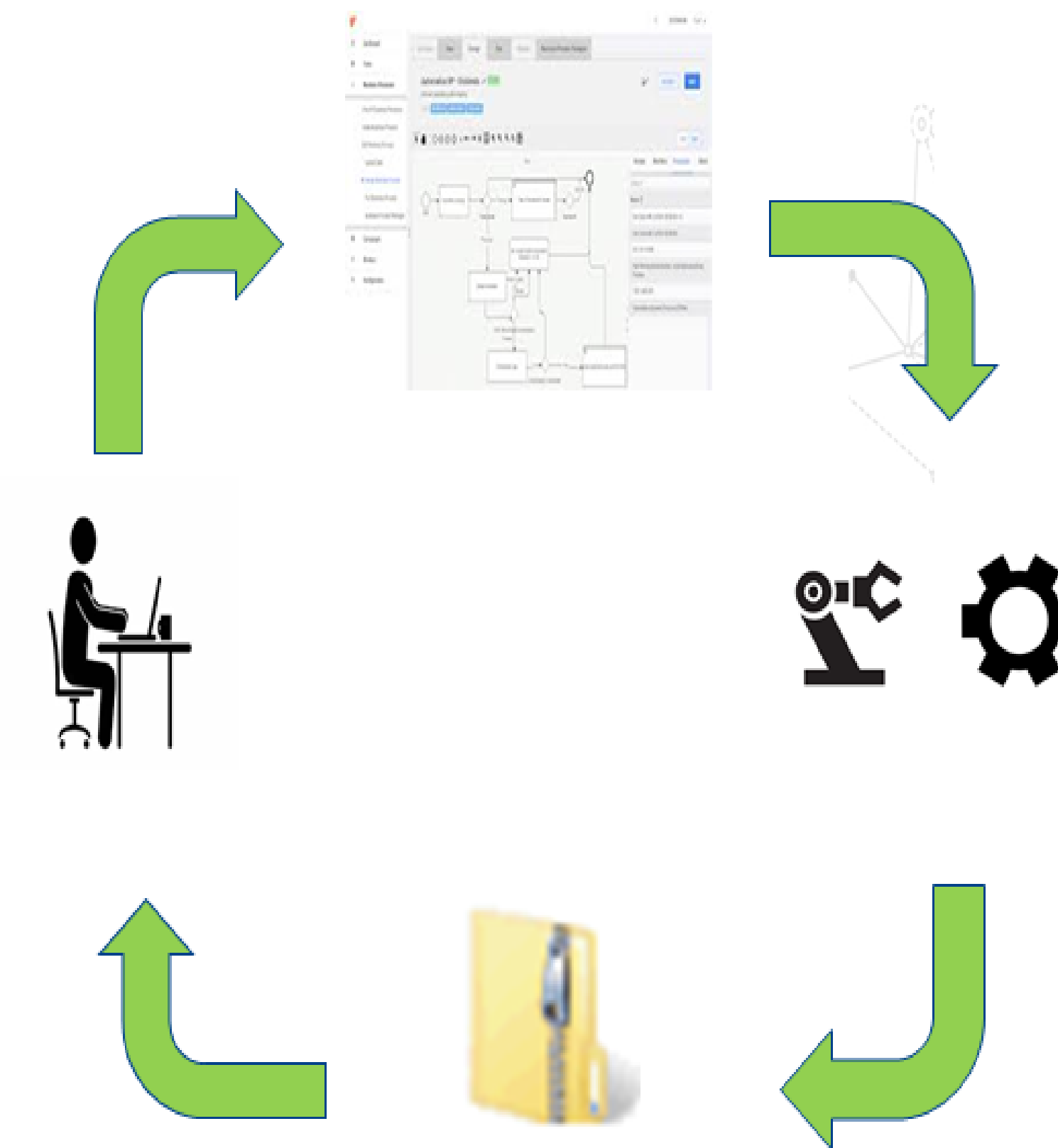
Creating a System for Generating Reports

Standard Process



1. User collects information form customer. Compiles into Excel workbook and sends to another analyst.
2. Analyst identifies specific ranges of queries and creates a CSV extract based on criteria such as date of service,
3. Extract is used by another analyst to generate mappings and outputs.
4. Output is zipped into file and emailed for dissemination

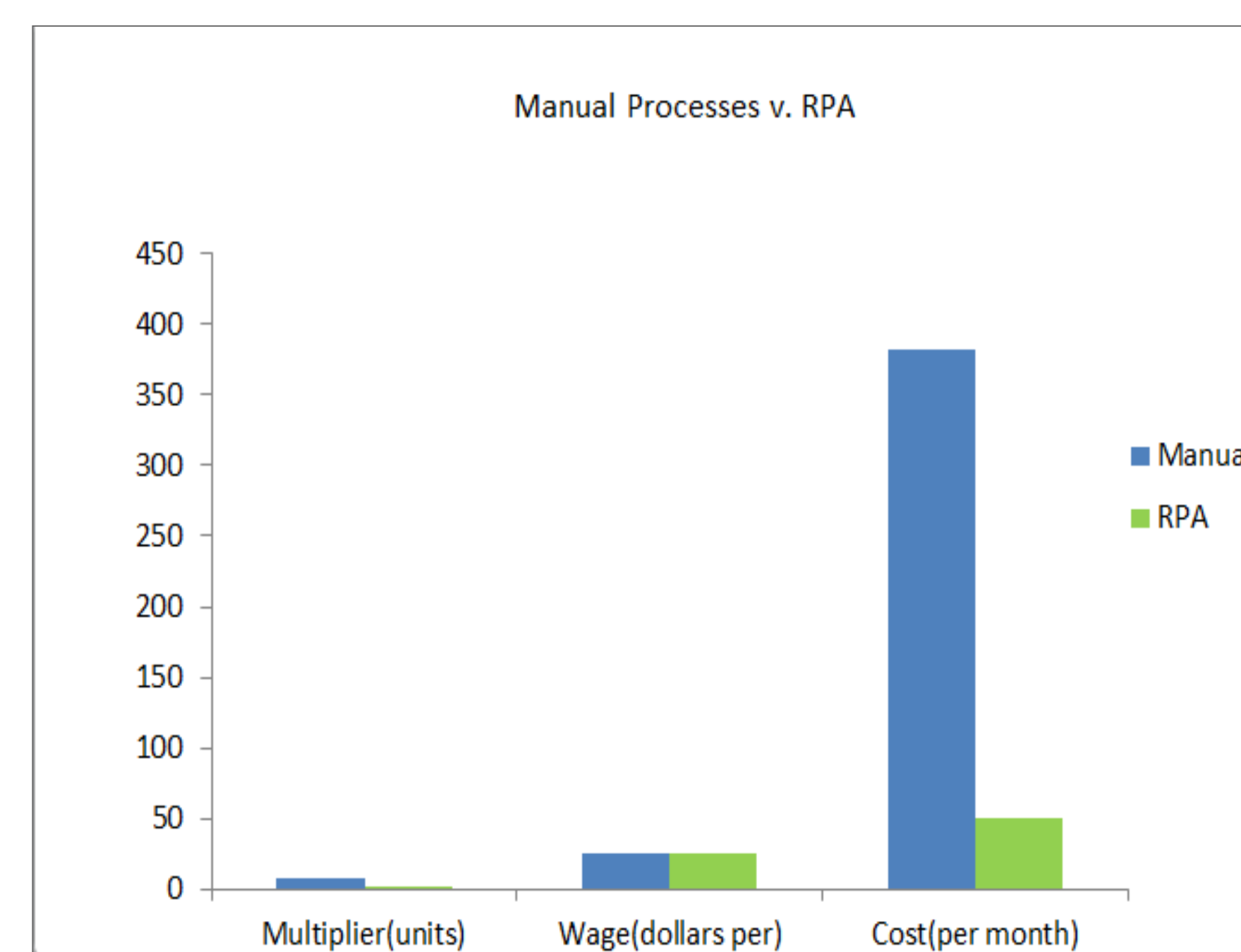
Automated Process



1. Generate workflow
2. Assign tasks to workflow, and deploy.
3. Robotic deployment completes task in order of workflow, generates files and emails it to end users.
4. Can be automated to be done at necessary intervals and by a single analyst, eliminating human elements by 2/3.

Results

Potential Cost Savings



* Based off of forecast of 2 reports done weekly and maintenance every 4th report

Potential Time Savings

Time Comparison		
Current	With Manual Users*	With RPA
Analyst 1	10	60**
Analyst 2	15	0
Analyst 3	90	0
Recovery Team	N/A	N/A

* Minutes spent per report

** One time set-up and deployment, maintenance not included

Benefits/Cautions

RPA is not a one size fit all deployment tool. There are costs incurred with its use, and its intender for tasks that are economically feasible and requires a minimum viable scale.

- Software robots are not infallible, and have no “common sense”. They also follow GIGO (Garbage In Garbage Out), and human input can dramatically alter effectiveness.
- Robotic automation represents a substantial initial setup time, as well as necessitating some employee training.
- RPA solutions is somewhat limited by technology and the firms tools, ie; it can make processes more efficient but can’t dramatically change it without human input. Users must be aware of this or face automating a poorly suited task and incurring higher expenses.

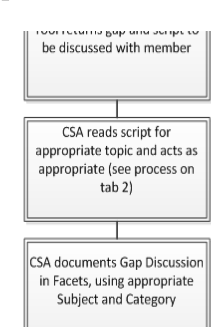
Future Potential Implementations



Other Implementations

Machine Learning VS RPA

- I. Machine Learning is also known as Cognitive Automation or head work.
- II. The automation process shown here is quite different from Machine Learning and AI such as IBM Watson.
- III. Machine learning involves the training of AI for more critical thinking process.
- IV.. This is the next step of automation, and can pose a challenge to “thinking” work; forecasting, creative processes, analysis.



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$ /usr/java71_64/bin/java -jar /app/dvlp/ddd Test.jar Run exc
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