

Robotic Process Automation

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What is RPA?

Robotic Process Automation (RPA)



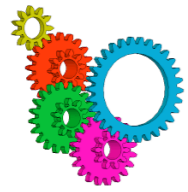
What is 'Robotic Process Automation (RPA)'

Robotic process automation (RPA) refers to software that can be easily programmed to do basic tasks across applications just as human workers do. The software robot can be taught a workflow with multiple steps and applications, such as taking received forms, sending a receipt message, checking the form for completeness, filing the form in a folder and updating a spreadsheet with the name of the form, the date filed, and so on. RPA software is designed to reduce the burden of repetitive, simple tasks on employees.

Robotic process a

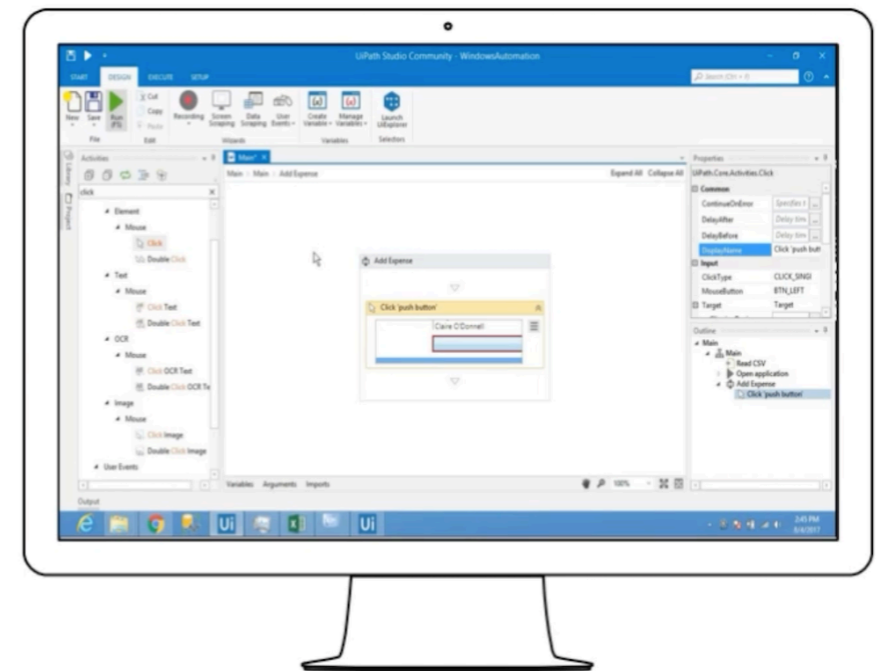
machine learning capabilities to handle high-volume, repeatable tasks that previously required humans to perform. These tasks can include queries, calculations and maintenance of records and transactions.

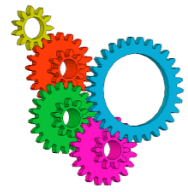
Robotic Process Automation (RPA) technology reduces labor-intensive processes by imitating human actions. Operating non-invasively on the surface (UI layer) of existing systems.



What is RPA?

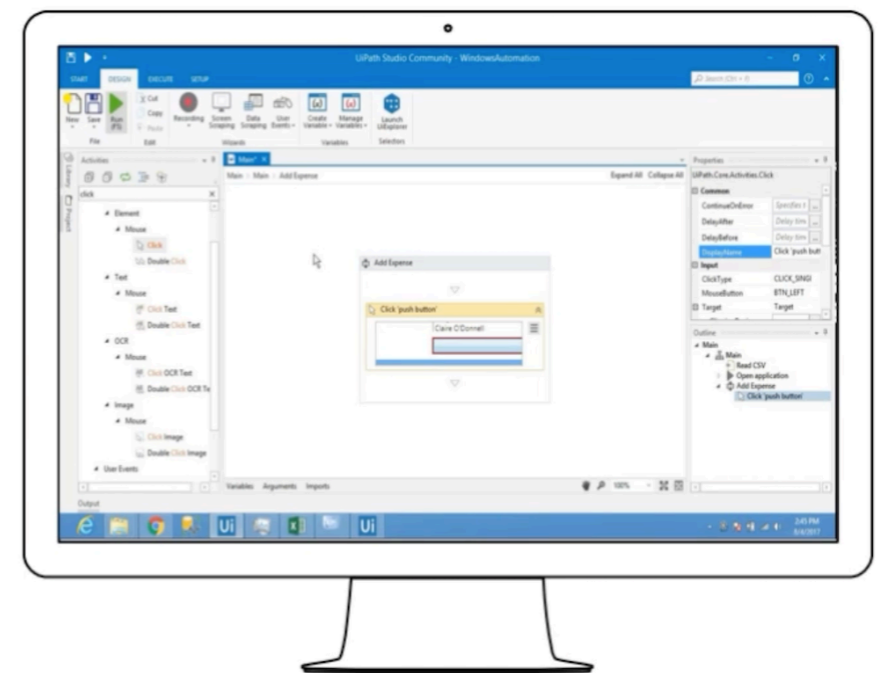
software
manual activities
repetitive
task

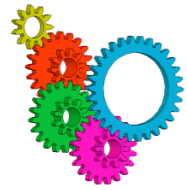




What is RPA?

« **Computer -coded software** that automates **manual activities** by performing **repetitive rules-task** »





How does it work

- **It replicates human interactions.**
- **And operates in the user interface layer (GUI).**
- **It reads applications.**
- **And can be implemented at the desktop or in virtual environment.**

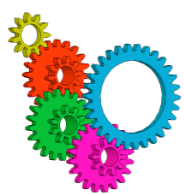


- 1 - The process uses the robot to pull PDF attachments from an email inbox.
- 2 - The data of each PDF is then transposed to a row in a master Excel document , with is save on the machine.
- 3 - Then the robot log into web system application (like Idempiere) , and the data from each record on the Excel document is entered into ERP and generate order/invoice
- 4 - Finally, designated user are notified that the process is complete.



DEMO

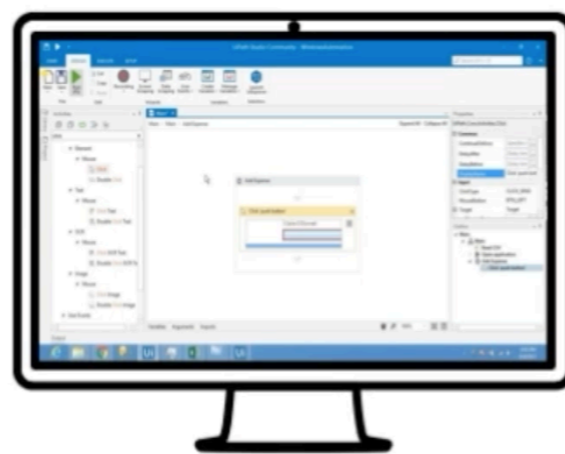




RPA Capabilities Users Actions

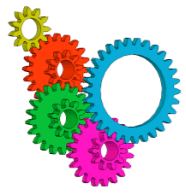
Manual

- Opening email and attachments
- Logging into and navigating applications
- Creating, moving and deleting files and folders
- Copying and pasting data
- Filling in forms
- Reading and writing to databases



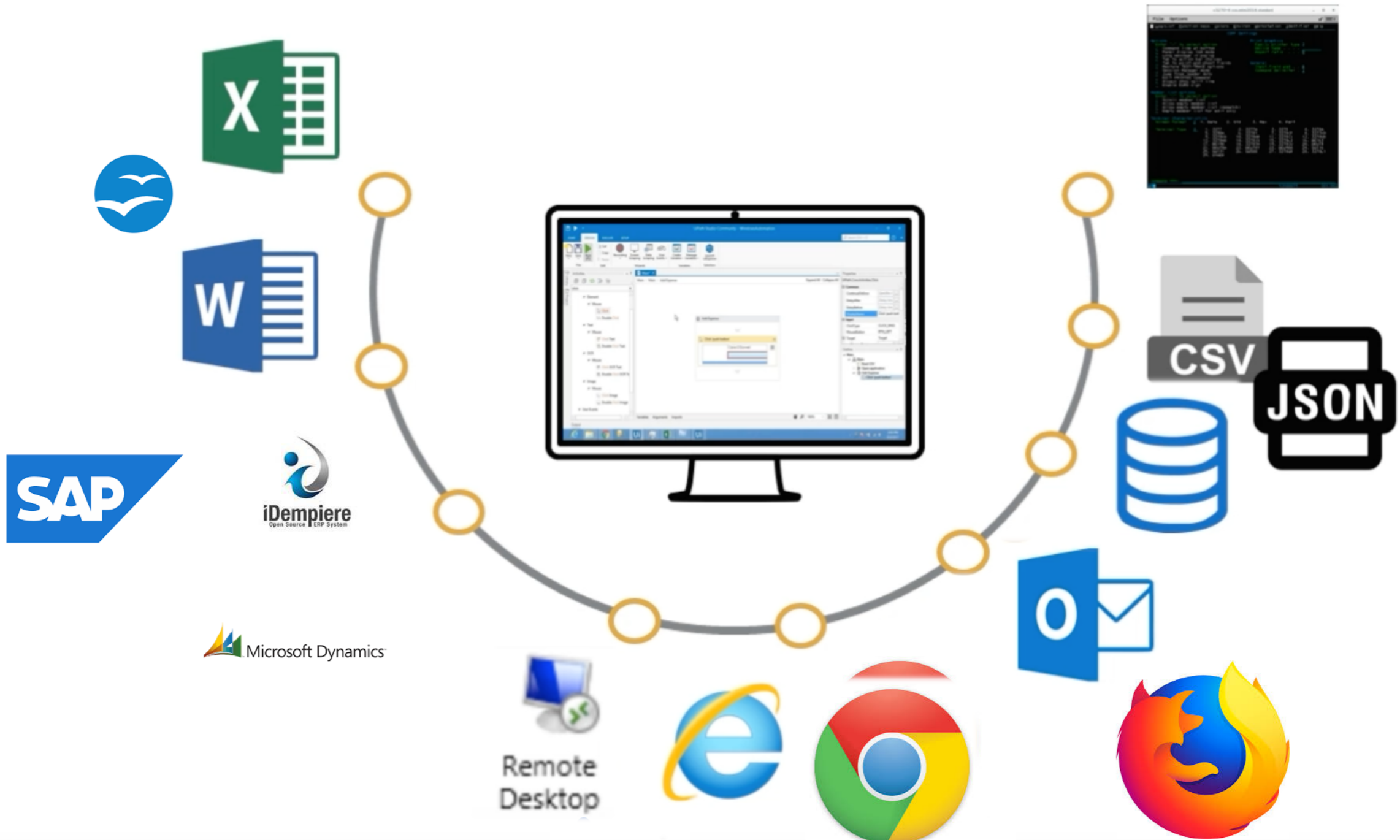
Judgment

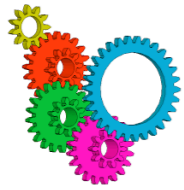
- Scraping data from the web
- Making calculations
- Connecting to system Application program interfaces
- Extracting structured data from documents (incl. PDF-documents)
- Collecting statistics (e.g. from social media)
- Following simple decisions and rules ("If-then")



RPA Capabilities

Systems





Pros of RPA

24/7 operations

Non-stop performance

Internal Control and traceability
Every step is logged with offers traceability and also makes data Available for analytical purposes

Cost Reduction

Cost 1/10 of a human employee

Scalability

Capacity can be increased without a long and costly build-up phase

Improved efficiency

3-15x more efficient than manual

Short Payback Period

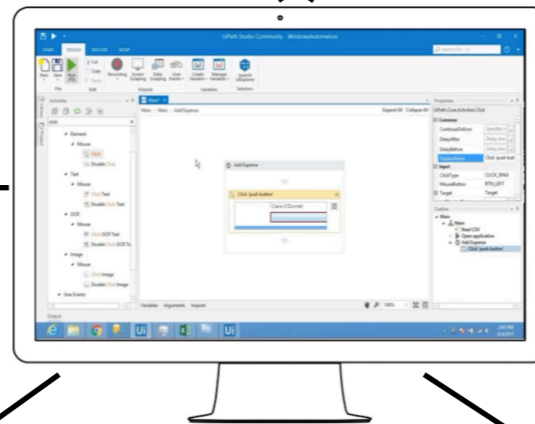
RPA implementation costs are typically paid off in less than 12 months

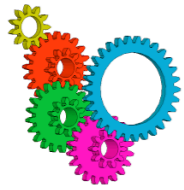
Quality

Increase quality (errors and focusing on exceptions)

Valuable Work

We can focus on more rewarding and value-added activities





Cons of RPA

**Not all task are ideal
for RPA**

**RPA Solution need to be managed
RPA team is key success .**

**Bad Processes
Can't be automated**

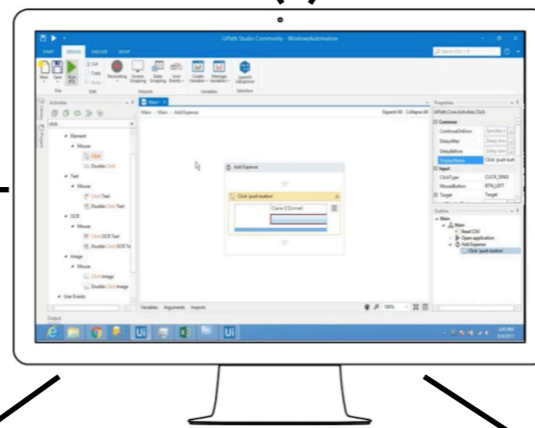
**Employee resistance
Employee resistance and
Onboarding**

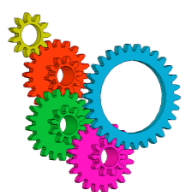
**Process change
Change mean updating
than manual**

**RPA not yet Intelligent
Today, RPA is not especially
Intelligent**

**Human intervention
There is still need human
Intervention**

**IT involvement
There is still need for
IT involvement**



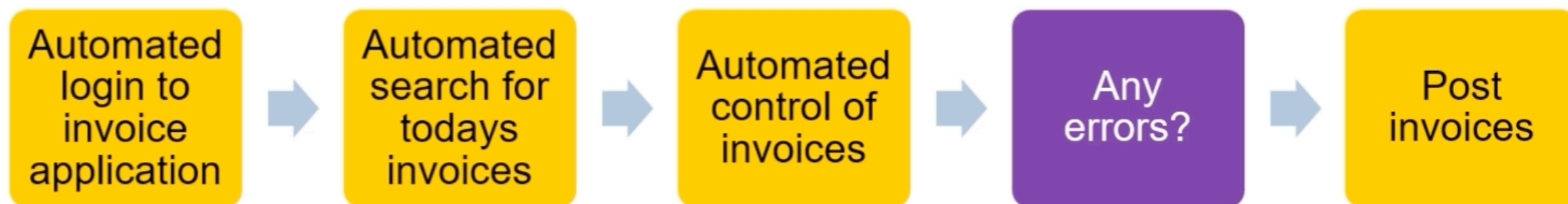


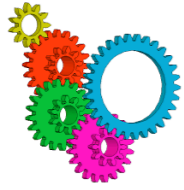
Process exemple

**Before
RPA**



**After
RPA**





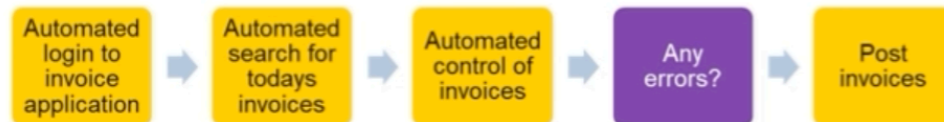
Process exemple

Before
RPA

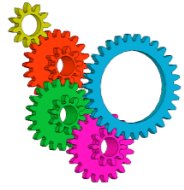


AVG time spent each invoice: **2 minutes**
AVG no of invoices per day: **1100**
AVG time spent all invoices/day: **2200 min (36,5 hrs)**

After
RPA

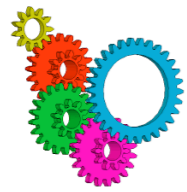


AVG time spent each invoice: **20 seconds**
AVG no of invoices per day: **1100**
AVG time spent all invoices/day: **367 min (6 hrs)**



RPA Actors





RPA Actors (majors)



- **Automation AnyWhere**



- **Blue Prism**



- **WorkFusion**



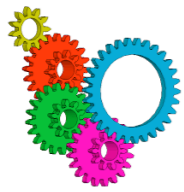
- **UiPath**



- **Kofax**

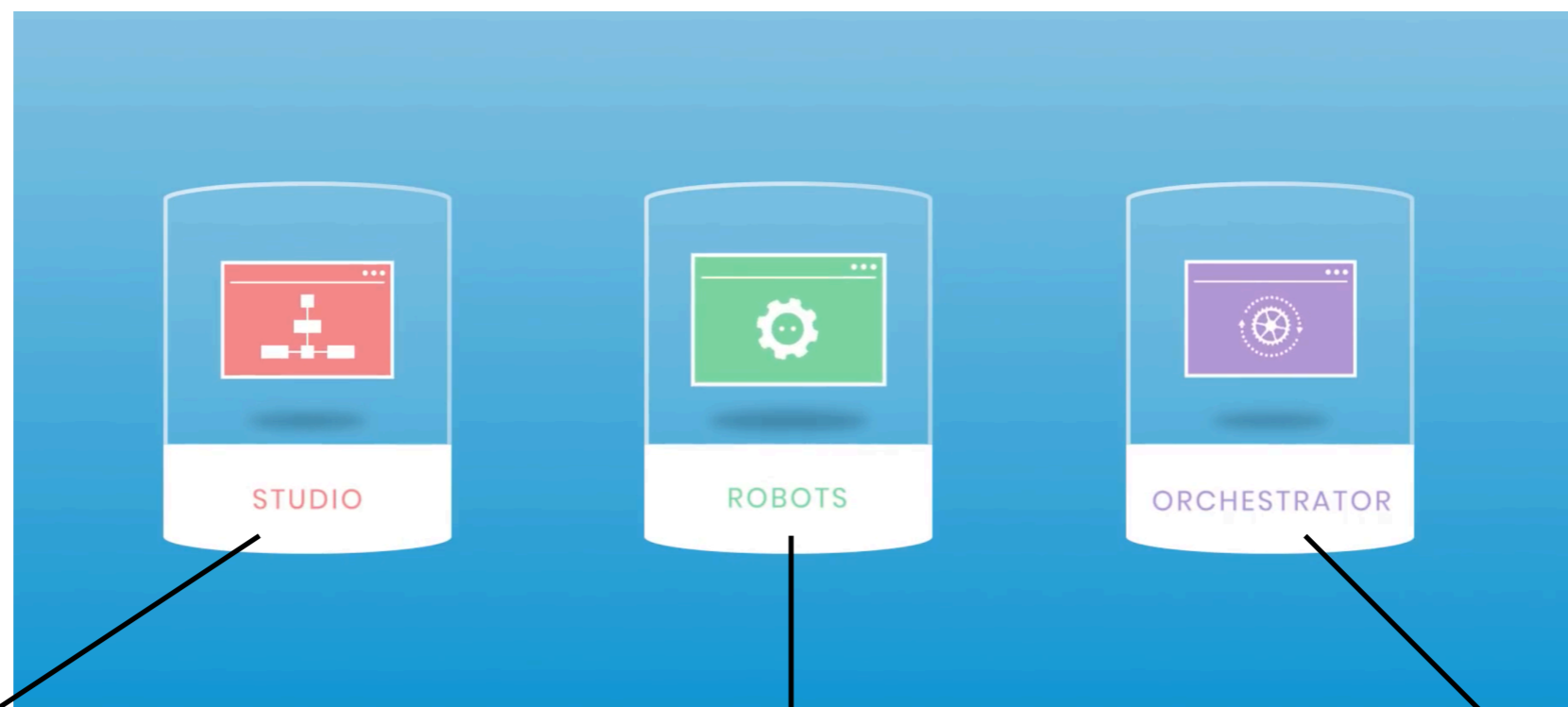


- **Troughtonomy**



RPA Architecture (UIPath)

- **Actors have similar architecture**



Creation

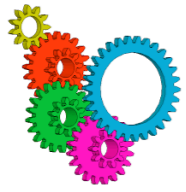
**Robot Creation based
On workflow, sequences..**

Bot or Robot

**Agent that run task
Automatically**

Management

**Tools to manage queues,
performance, issues..**



Plan to pilot RPA project

- There are typically 5 steps in a basic RPA implementation project

Step 1:
Identify, evaluate
and prioritize
processes



Step 2:
Describe
process(es)



Step 3:
Design, develop
and test

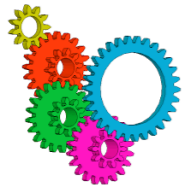


Step 4:
Implement
process(es)



Step 5:
Monitoring and
Continuous
Improvement



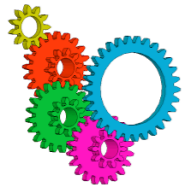


Describe Process(es)

- Describe processes in a “Process Definition Document” (PDD)



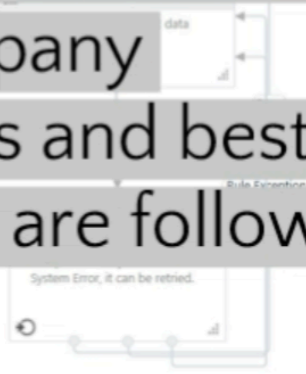
- Process flow description (AS-IS)
- Process facts
- IT systems
- Process exceptions
- Business Area/Department affected



Design, develop and test

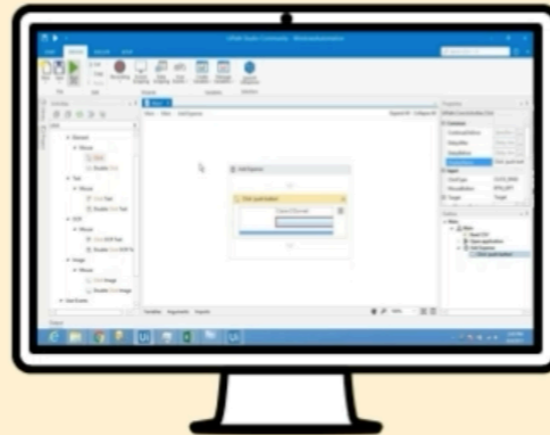
Design

Choose process design and flow, framework and solution. Ensure that company guidelines and best practices are followed



Develop

Develop and automate process (the fun part!)

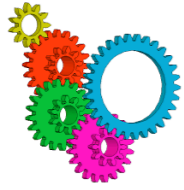


Test

Formal testing before process implementation.

Consists of minimum

- Unit testing
- Functional testing
- Acceptance testing



Implement

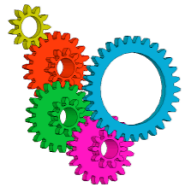
- Automated process(es) is published!

Generate cron expression

Day of every month(s)

The of every month(s)

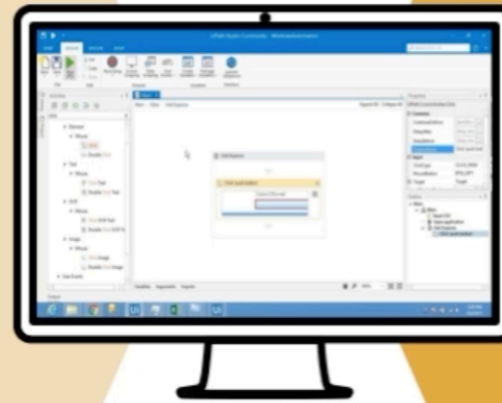
Start time



Monitoring and Improvement

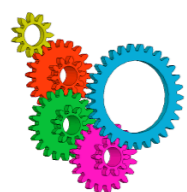
Monitoring

- Ensure the process runs smoothly and that the output is correct
- Check robot logs and reports
- Measure KPIs
- Check dashboards
- Make non-critical and minor adjustments



Continuous Improvement

- 1) Identify process improvements
- 2) Evaluate process improvement proposals
- 3) Establish a backlog of changes to be made to the process
- 4) Prioritize what changes to make first
- 5) Implement changes



Users Cases Examples

Go to:

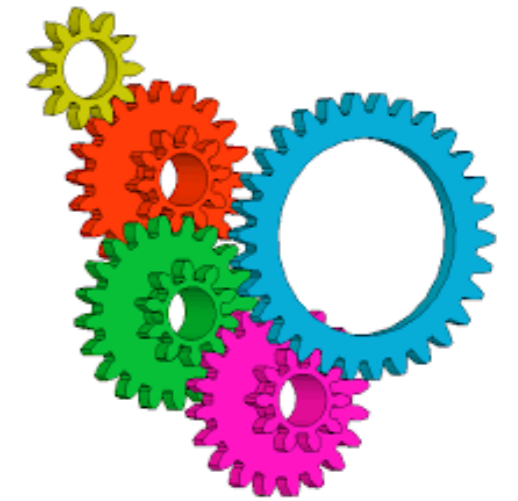
<https://blog.appliedai.com/robotic-process-automation-use-cases/#common-business-processes>

Or Google «45 RPA Use Cases»

Google

45 RPA Use Cases





Thank's for your attention

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***Do not forget that there are always men to see
further!***