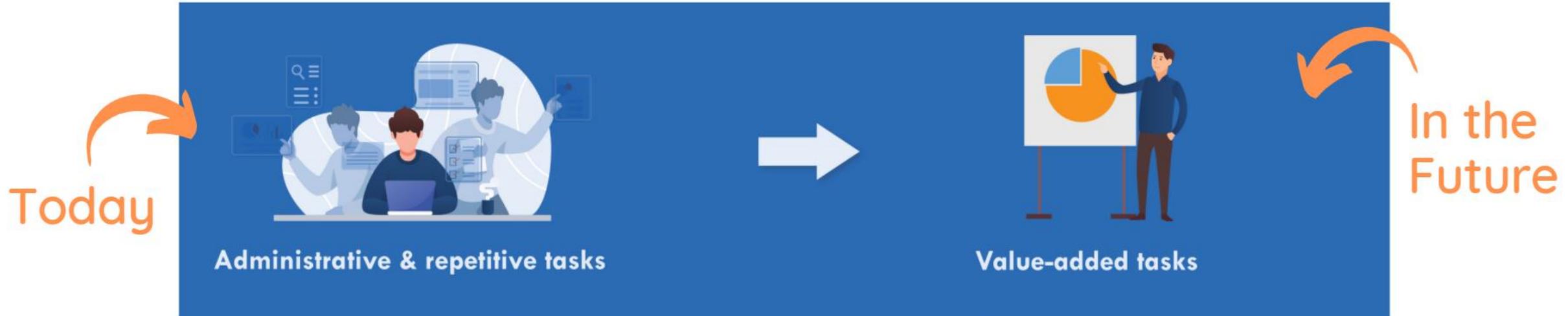


**RPA / AI / ML
IN COMIDOR**



Robotic Process Automation

- **Robotic Process Automation (or RPA)** is an emerging form of business process automation technology based on metaphorical software robots (bots) or artificial intelligence (AI) workers



RPA Highlights



Cognitive AI automation

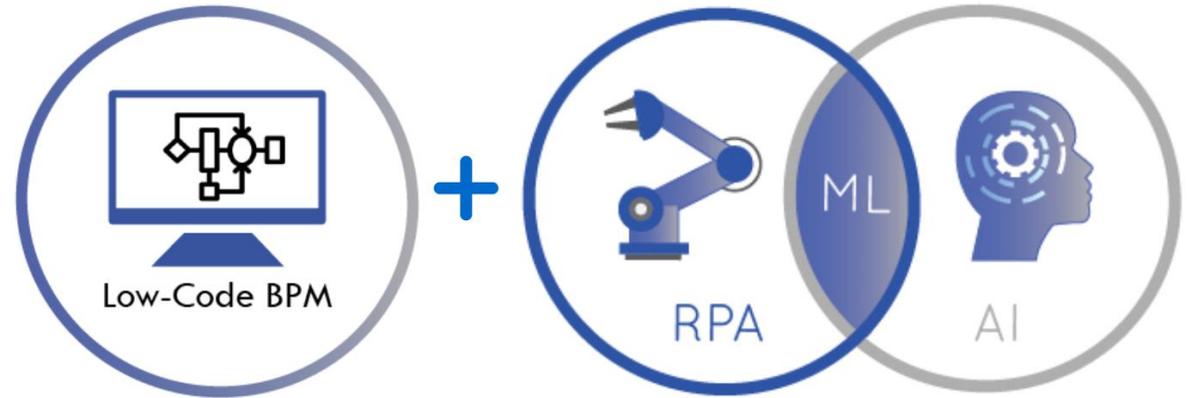
- Cognitive Automation can perform complex tasks that require extensive human thinking and activities.

Comidor offers some of the key capabilities of [Cognitive Automation](#) such as:

- [Natural Language Processing](#) (NLP): the capability to understand language
- [Optical Character Recognition](#) (OCR): the ability to read and understand written text
- [Computer Vision](#): the competence to understand visual objects
- [Machine Learning](#) (ML): the capability of a machine (software) to perform complex tasks

How to do automation right?

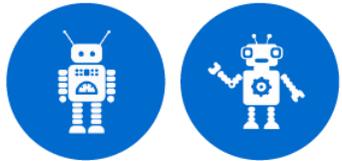
- Selecting a workflow automation tool, a low-code BPM that functions as the orchestrator of the RPA & AI, according to business rules.
- **Comidor is the tool for this job.**



RPA Components

How it works

A computer works as an agent that emulates and integrates the actions of a human, interacting within a platform to perform a variety of repetitive tasks. Include RPA components in your workflow designs:



RPA Caller & Receiver

[Sales Order & Supplier evaluation videos](#)

Add an RPA Caller in various steps of the workflow design, to send data from the workflow and perform a series of repetitive actions in the 3rd party system, or an RPA Receiver to receive data from other systems and perform actions in Comidor workflow fields.



RPA Selenium

Use an **RPA Selenium** in your workflow to replicate repetitive manual steps of a web interface. Use unique CSS Selectors for specifying each element.



Document Creator

[Purchase Order application example](#)

Create invoices, reports, or other types of documents by combining a file template format and fields of the workflow



Excel Processor

Parse a big excel file or part of it and capture values of certain cells into user fields or a whole area and depict them in an excel type user field.

[Purchase Order application example \(upload excel\)](#)

The Results

- Automation of administrative, rule-based and time-consuming repetitive tasks
- High employee productivity in value-added tasks and activities



Export Data

Export any data from a workflow to a CSV file and make their own reporting.

[Export data workflow example](#)



File Reader

1. check the existence of a file in a particular path and store it in a binary file.
2. import data from a file either from a specific path or from a binary field.
3. read text from a File and store it to a field.

[Import data workflow example](#)



Web Scraper

Use an RPA Web Scraper in your workflow to first find information in a selected area of a website and then store it in user fields.

[Customer verification Case study & Stock Product Values workflow example](#)

RPA Caller & Receiver

How it works

Comidor RPA elements allow you to automate and manage repetitive tasks. With the new RPA Caller and RPA Receiver workflow components, you are enabled to retrieve or exchange data with other systems. Involve an RPA Receiver to perform actions and receive data from other systems to Comidor workflow fields

The Steps

Install an RPA software (e.g., SikuliX) to an agent (the PC) (any unit) that you wish to perform RPA tasks

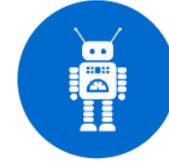
Save agent's properties (needed for RPA Agent set up in Comidor)

Create your Script including all actions that you want the RPA to replicate

Save your Script (Script name needed for RPA Script set up in Comidor)

Include the RPA Agent and Script details to Comidor respective units

Involve RPA Caller and Receiver in a workflow design and link them to the proper Agent and Script to be performed



[Sales Order & Supplier evaluation videos](#)

RPA Selenium



Use an **RPA Selenium** in your workflow to replicate repetitive manual steps.

Define all the actions that you wish the bot to execute step-by-step(e.g., go to URL, click, hover, sleep, input, etc.)

Use unique CSS Selectors for specifying each element.

Retrieve or exchange data from web applications and store them in user fields of the workflows.



Document Creator



Comidor automates document creation through workflows to keep things simple and streamlined. **With the document creator component, you can:**

Create invoices, reports, or other types of documents by combining a file template format and values of fields of the workflow

Set a Template File for your document in a form via your desktop, upload it into a Binary field during a workflow step, or give the Template Name of a file stored in the DMS

Produce documents can be in .xlsx, docx, or .PDF format and stored in a binary field

[Purchase Order application example](#)

File reader



Comidor **File Reader** workflow component **enables you to read files from a specific path and save them to binary fields in Workflow or import data from a file into Comidor Units.**

- Select whether you want to read a file that exists in a specific path or import a file from a document that is already uploaded to Comidor
- Import data from a file from a specific path or from a binary field that is used within the workflow in a previous stage
- Import data from a .csv file and fill Comidor entities (such as Processes, Accounts, any non-process enabled app etc.) with data
- Indicate the preferred Date, Time and Number formats for your data

Export Data



Easily export data stored in Comidor and create your own reports.

A .csv file is produced that contains fields with information that you want to extract. You can save these files to a specific path or to a Binary field which is created inside Comidor.

- Filter your exported data based on specific values or characteristics
- Export data from a specific export path or a binary field that exists in Comidor
- Select existing data from Comidor
- Create custom reports and store them in .csv format



Excel Processor



Use the **RPA Excel Processor** element to parse a big excel file or part of it.
Choose from the following actions:

1. Parse Excel – capture values of cells into user fields or an entire area of the excel and store them in an excel type user field.
2. Get No of Sheets –get the number of the sheets in the uploaded excel (useful for large excel files with multiple sheets)
3. Find in Sheet – find a certain value in an excel. (Define the Search Index)
4. Find row in Sheet – find a specific value in an excel and get the entire row as a response.

Web Scraper



Use an **RPA Web Scraper** in your workflow to first find information in a selected area of a website and then store it in user fields.

1. Define the **URL** that you wish to be scrapped. Select a text field type.
2. Choose the **Search** selector from the variety of options (xpath, class, id, etc.) based on the website you are scrapping.
3. Define the unique **Selector**
4. Store the result of the RPA Web Scraper in a user field.



AI/ML Components

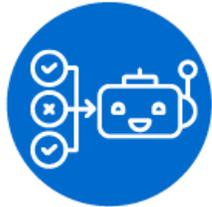


How it works

Algorithms, using historical process transactional data, are trained to optimise and automate existing processes

The Results

Learn from historical data, human actions and experiences to enable end-to-end process automation



Supportive ML

*Loan request application example
& Asset Grading application example*

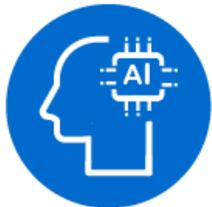
Use existing data to train your **ML Models** and get predictions on specified user fields.



Text Classification (ML)

Technical Issues application example

assign tags or categories to **text** according to the field content. Train your model with previous entries to fetch more accurate results.



Sentiment Analysis (AI)

Customer Feedback application example

identify and categorize opinions expressed in a text field of a workflow, and determine whether the writer's attitude is positive, negative, or neutral.



Document Image Analyser (AI)

Compare pdfs application example

scan documents like invoices and create digital copies. In particular, the text that is extracted from the document is saved in a text field and can be used within simple or more advanced workflows.



Image Classification

Compare pdfs application example

Specify images to be found within documents

View here: [AI/ML Application Cases](#), [AI-enabled Automation video](#)

Supportive ML

Text Classification

Comidor provides ML models such as ML Predictive Models and ML Text Classification in order to enhance Digital Process Automation.

Use existing data to train your **ML Models** and get predictions on specified user fields.

With Comidor **ML Text classification**, assign tags or categories to **text** according to the field content.

After creating your ML Models, you must train the Classifier based on the data entered in Comidor. The training process might take a while. The more data we have, the better the Accuracy we achieve.

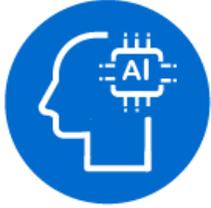


Add a **Supportive ML** in the workflow design, to trigger an ML Predictive Model and get a prediction for the Target Field of a workflow.



Include a **Text Classification** component to your workflow in order to classify the selected Target field based on the Text Classification Model you created.

Sentiment Analysis



Sentiment Analysis is a process of text analysis and classification according to opinions, attitudes, and emotions expressed by writers.

Sentiment Analysis interprets and classifies emotions and attitudes included in text e.g., emails received from customers.

Data in a text field is evaluated automatically and the sentiment is identified as being:

- Positive
- Negative
- Neutral

The result is saved to another text field and can be used to drive the workflow path.

Doc Analyser



With Comidor **Document Analyzer Models** enterprises can scan documents like invoices and create digital copies and capture text from the files(pdf, png) into user fields.

1. Create the doc analyser models
2. Choose the preferred OCR provider and extraction method.
3. Define the free text, table and/or metadata parameters i.e., the parts of the doc that you want to be stored in user fields.
4. Include the doc analyser component in your workflow.

Image Classification



Include an **Image Classification component** to your workflow design to scan a binary field (file) and search for a specific image.

- If the “wanted image” is found, you can assign a certain value as a response.
- If it is not found, the response would be -1.
- Response field can be used in workflow conditions as well.



Training Objectives

- Learn about all the RPA elements included in workflows, and when can we use each of them
- Use RPA bots to automatically create documents based on predefined templates
- Use ML models and AI elements in workflows
- Understand how to train ML models





Thank you