

Automation Anywhere-An Emerging RPA tool

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Abstract: Business processes are a part of regular routine of every organization. In our daily routine, we come across many different tasks such as extracting the data or information from the sites like NSE for data analysis of stock prices, filling of forms on websites, extracting the data from pdf document etc. When we've to do these types of tasks on daily basis and by hand it consumes a lot of resources and time. The method of automation of procedures using software application which will perform as humans and carry out jobs on the computers is actually described as the robotic course of action automation. There are lot of tools present in the market but in this paper, we have discussed an emerging tool – Automation anywhere, how this tool helps us in automation of various types of business processes.

Keywords: Robotic process automation (RPA), RPA benefits, Automation Anywhere.

I INTRODUCTION

Nowadays, there's very little element of the lives of ours which is actually unaffected by automation. Some examples include automatic washers, microwave oven ovens, autopilot method for airplanes and automobiles, Nestle with Robots to promote espresso pods in shops in Japan, Walmart assessment drones to provide items within the US, our bank account inspections currently being sorted utilizing Optical Character Recognition (OCR), and also ATMs. The phrase automation is actually produced from the Greek word 's autos which means person, as well as motos, which means moving. It's thought to experience been coined during the 1940s when there seemed to be a higher usage of automated products to come down with mechanized generation collections within the Ford Motor Company.

Automation, in words that are simple, is actually technology which deals when using the application of computers and machines to the generation of services and goods. This helps within getting work carried out with very little or perhaps no human guidance. With the arrival of computer systems, lots of software systems have been created to accomplish tasks which were earlier done on paper to control companies, or perhaps not being performed at all because of to the shortage of equipment. Several of these're bookkeeping, inventory managing, as well as communications management. There's also a kind of a software application which ties these methods and individuals together in workflows, referred to as Business Process Management (BPM) equipment. This application has been created for places like innovation systems, insight systems, engagement systems, and record systems. These mainly replicate processes in real life scenarios.

In the digital planet, automation as well as software development are actually 2 different terms. Often, nonetheless, one is actually confused with the various other. In case a bit of percentage of a workflow could be programmed to be accomplished with no human intervention, it may be known as automation. For instance, in order to successfully pass some invoice in a payment process, Ms. Julia at giving ABC company needs to verify that products have been sent as well as captured in an inventory management process. This's a cumbersome

- Object oriented
- Capable of operating on multiple systems
- Capable of process exception
- Neural Network training
- Cognitive models and robotic decision making

III RPA tools

There are different types of RPA tools present in the market.

(a) UiPath

UiPath is actually a software program which employs RPA technology vendor that designs and provides software application that will help automate businesses. UiPath Studio to design the processes
UiPath Robot to automate tasks designed in UiPath Studio
UiPath Orchestrator to run and manage the processes:

(b) Blue Prism

Blue Prism aims to provide automation that enterprises can use according to their needs. Blue Prism aims to do this by providing automation that is scalable, configurable, and centrally managed. It sells its software through its partners, some of which are Accenture, Capgemini, Deloitte, Digital Workforce Nordic, HPE, HCL, IBM, TCS, Tech Mahindra, Thoughtonomy, and Wipro:

(c) Work Fusion

WorkFusion offers automation that is based on RPA and machine learning. It delivers software as a solution for automating high volume data. WorkFusion enables man and machine to work in tandem while managing, optimizing, or automating tasks:[4]

(d) Automation Anywhere

- i. Automation Anywhere helps to automate processes with ease. The user-friendly interface offers the important characteristics to create bots that helps to automate easy as well as complex tasks. They concentrate on RPA, cognitive details (natural language and machine learning processing), and company analytics. Their bots are capable of handling both structured as well as unstructured data. The system has three basic components:
 - A development client for the creation of a bot
 - A runtime environment for the deployment of a bot
 - A centralized command system for handling multiple bots, analysing their performance:
- ii. How AA is different?
AA has four levels of integration:
 - (a) User Interface
 - (b) Application Programming Interface
 - (c) Operating System
 - (d) Database
- iii. AA Enterprise

Smart Automation technology enables to record and edit processes quickly and accurately with the help of recorders. There are three types of recorder in AA:

- (a) Object/Smart recorder
 - (b) Screen recorder
 - (c) Web recorder
- iv. Different types of Bots
- (a) Task bots
 - (b) IQ bots
 - (c) Meta bots

v. Architecture of AA

It consists of three things:

- (a) Bot creator- It is used to create bots i.e. scheduling and triggering of bots.
- (b) Control room- It is used to manage all the controls.
- (c) Bot Runners- It can only execute bots once they are registered, identified and authenticated by the control room.

IV Automation Anywhere

AA is smart automation software tool, providing functionality as well as scalability for increased advantages in business task. The Automation Anywhere team is led by industry experts in the business process automation field. They've helped major companies from around the world automate their key business and IT processes. The Automation Anywhere team is focused on streamlining the implementation of automation, and maximizing customer ROI. We bring years of experience and best practices in dramatically reducing implementation time to ensure your team is successful. Our services consultants are ready to provide expert, efficient hands-on training and implementation.

Both on-site and remote implementation services are available that provide:

- Implementation and consulting for simple and complex automation projects
- An unwavering focus on your company's objectives
- Best practices for business and IT process automation that maximize ROI and minimize risk
- When you engage the Automation Anywhere Consulting team, you are assigned a dedicated customer agent who is familiar with your domain, requirements, technologies, and environment.
- If appropriate, your consultant can remotely log into your computer to help you automate processes and guide you with your project.

Automation Anywhere helps you to automate any of the following processes:

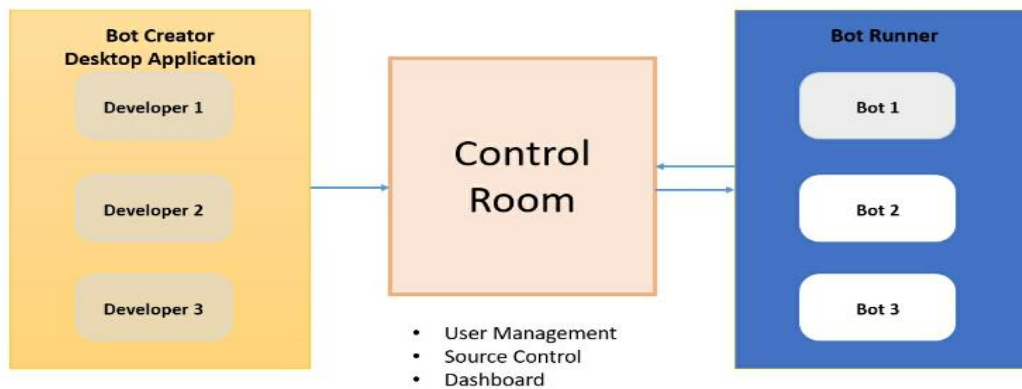
- Business processes
- IT processes
- Extraction of data from the Web

- Data transfer from one application to another
- ERP (Enterprise Resource Planning) data entry and integration processes
- File and data management processes.

Automation Anywhere consists of two main components:

- Control Room
- Enterprise client

V Automation Anywhere Architecture



Automation Anywhere Architecture

It consists of three components:

Control room- Control room is a browser-based application that controls the Automation Anywhere. At the end of the day, the Server controls Automation Anywhere bots. Aside from that the control room manage User the board Source control: code for the bots is overseen by the control room. Thus, it turns out to be anything but difficult to share the code across various frameworks. Dashboard-It gives total investigation/consequences of Automation Anywhere bots. You can perceive what number of bots are runs and how bot fizzled/passed and so on is controlled. Permit Management: The bought licenses for Automation Anywhere are arranged in the Control Room. There are 2 kinds of Licenses in Automation Anywhere Dev License: If you got this permit, you can make a bot, alter bot and run a bot. Run License: If you have this sort of permit you can run the bot and, you won't roll out any improvements.

Bot Creator - Developers use Desktop based applications to make bots. Their dev licenses are checked with that designed in the control room. On verification, the code of the bots they make is put away in the control room. Various engineers may make singular undertakings/bots. These bots could be combined and executed at once.

Bot Runner - The Bot Runner is the machine where you run the bot. You could have multiple bots running in parallel. You only need the Run License to run the bots. The bots report back the execution logs/pass/fail status back to the control room.

VI Control room in Automation Anywhere

Automation Anywhere is web-based Control Room enables you to use the Control Room from anyplace, anytime.

It's the ability to process rising number of Clients and users.

A role-based accessibility item ensures each User views info or maybe information which is actually applicable to the job assigned to the User near the Control Room Administrator.

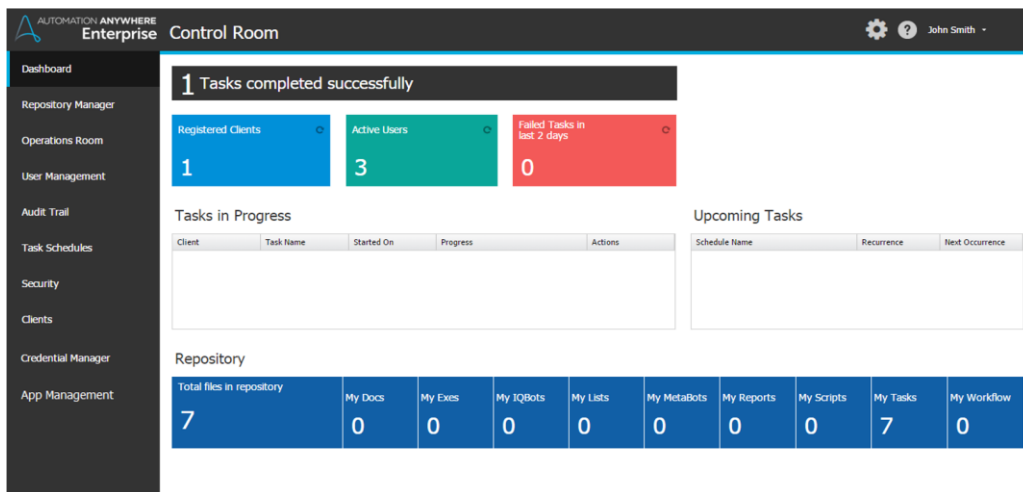


Figure 2 Web control room

Benefits of using the Control Room:

- Simplified and improved monitoring and administration of large multi-site complex automation infrastructure using the web-based control room.
- Accessing and managing tasks and Clients/Users from anywhere anytime.
- Monitoring task progress
- Monitoring task status
- Prevent tampering with critical processes.
- Facilitate an environment for increased collaboration to optimize productivity.
- Accommodate scaling of multiple Users and Client environments (machines).
- Enable an environment to enforce controlled edits using SVN.
- We can upload and download MetaBots and MetaBot enabled tasks.
- We can upload and download IQBots with Vision Skills.

Control Room Features:

- Dashboard - View task relevant activities.
- Repository Manager - Manage automation files repository. Schedule, Deploy and/or Run tasks.
- Operation Room - View the control room history and tasks in progress. Learn More
- User Management - Configure users (Clients and Administrators), maintain rights/permissions and delete. (Define Roles).
- Audit Trail - Displays recent activities of Users and Administrators.
- Task Schedules - View schedule details.
- Security - Manage Roles - create new and manage existing.
- Clients - Manage Clients - add and update.

- Credential Manager - securely manage i.e. Create/update and store sensitive information in the form of Credentials to be used for automation tasks.

A Control Room 'Dashboard' provides a bird's eye view of task relevant activities to the Control Room Administrator. Note that it is available for management to Admin – the Control Room Administrator only.

Benefits:

- Accessible - Access Control Room Anywhere Anytime.
- Scalable - Multiple Admin support.
- Role based management - Create and manage users and clients based on roles defined.

The Dashboard:

You are able to look at job related activities like jobs done successfully, upcoming projects, things within improvement, repository particulars; jobs which have damaged on the Control Room Dashboard. Additionally, it allows for details about Clients that are actually registered to the Control Room as well as Users (Client along with non-Client) that are actually active.[5]

VII Client in Automation Anywhere

Automation Anywhere Enterprise Client is a tool which is used for the creation of bots. Automation Anywhere Enterprise Client consists of different types of recorders. These recorders are used to create different types of bots for different processes.

The screenshot displays the Automation Anywhere Enterprise Client interface. The main window shows a table of 'Sample Tasks' with columns for File Name, Created At, Type, Repeat, Status, and Last Run Time. Below the table, the 'PROPERTIES' tab is active, showing details for the 'Download_File.atrx' task, including its status (Failed) and last run time (05/28/2015 12:27:31). A 'Task Report' section shows zero clicks and keystrokes. The interface includes a menu bar, tool bar, and a sidebar with navigation options like 'AUTOMATE', 'MANAGE', 'DEFINE', and 'DISCOVER'.

File Name	Created At	Type	Repeat	Status	Last Run Time
Download_File.atrx	09/02/2011 16:17:15	Task File	Do not Repeat	Failed	05/28/2015 12:27:31
Files-Folders.atrx	09/02/2011 16:17:16	Task File	Do not Repeat	Failed	09/22/2015 10:10:22
Import-Table.atrx	09/02/2011 16:17:17	Task File	Do not Repeat	Failed	10/09/2014 15:10:04
Last-Variable.atrx	09/02/2011 16:17:17	Task File	Do not Repeat	Complete	11/03/2015 16:06:26
Loops.atrx	09/29/2015 19:09:44	Task File	Do not Repeat	Failed	09/28/2015 10:39:02
Prompt.atrx	09/02/2011 16:17:17	Task File	Do not Repeat	Complete	11/03/2015 12:33:43
Variables.atrx	09/02/2011 16:17:16	Task File	Do not Repeat	Complete	11/03/2015 13:43:52

Figure 2 AA Client

The Client Dashboard basically comprises of the Menu Bar, Tool Bar, Automate/Manage/Define/Discover Panels, Task Panel and Feature Panels.

Record consist of three types of recorder: Smart recorder, Web recorder, Screen recorder and Workbench. These recorders are used depending upon the task we are performing. Screen recorder is used for desktop applications, web recorder is used for websites and smart recorder is used for web as well as desktop.

[4]. Andrew Burgess,” Robotic Process Automation & Artificial Intelligence”, handbook posted on 7th June ,2017

[5]. “Introduction to Robotic Process Automation”, Institute for robotic process automation and artificial intelligence, June 2015.

[6]. <https://www.capgemini.com/2015/01/tempted-torewrite-bill-gates-rules-on-automation/> (accessed: July2018)

