

Robotic Process Automation (RPA) for Software Test Automation

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Introduction:

Software bots can do things similar to a human being like interpret what's on a display, recognize an object in video, read the content displayed in a document or web page, trigger a particular job at specified time, and many more. The key advantage here is that bots can do it at much more efficiently and even at faster speed, and it's a bot it can work on continuously without requiring a break for days and weeks. Robotic Process Automation (RPA) is a software technology which makes it easier to develop, deploy, and administer software bots that imitate person's actions while working with digital systems. Tasks like maintenance of records, monitoring a data load, raising alerts for an issue, delivering mails to multiple people on completion of an activity, and transactions. Not only RPA is an automation tool, but it is also enabled with the capabilities of latest technologies in artificial intelligence and machine learning that can help robotize large-volume and monotonous repetitive activities which usually required a person's complete attention and time to complete. In this document we will discuss how RPA is enabling testers with codeless testing and look at how different authors view RPA in the software testing industry.

How is RPA shaping the future of Test Automation?

The author[1] agrees that RPA's usage is rapidly increasing in the world of testing, it has already established itself in software testing by slowly replacing regression, load and performance testing, thus saving time for testers to focus on other kinds of ad hoc testing that need to be performed manually. RPA technology comprises of software bots that can copy actions of a human worker that includes logging into an application, entering sales data, sending out reminder mails, copy documents, and then log off or doing system shutdown. It is a possibility that parts, or components or modules of RPA tools can be formalized in large-scale systems in the near future – such as an IDE, code editors, and process execution environment. As per author[1] RPA helps businesses to build test cases by monitoring the activities of humans and automating their tasks. In this way RPA is able to create a real-world environment and test the applications in it, thus allowing business, developers, testers to save money, improve productivity, get more efficient results.

RPA as a power tool for testing but not so simple:

Author[2], advocating the claims made by author[1] states that RPA can boost business testing, and that can have huge impact on the amount of testing done by the testing team, improving there productivity, saving money, saving business time, making test more efficient on both the development end or the business end. To perform GUI test automation is possible, as the RPA tool can capture repetitive IT system interactions and is enabled with vision processing capabilities to carry out these tasks. It improves the overall product quality and also assists in product development team to build fast. It provides assistance for the output of huge knowledge testing that extends the general quality and maintenance of the top product even when it is released for general public or business use. While author[2] is more inclined towards benefits of RPA in testing, author[3] highlights some of the complications that come with RPA. Though RPA offers many advantages provides many capabilities for testing it can be complicated in certain scenarios to use.

RPA tools are designed and built with the sole purpose which is to make a process work. But for software testing to be efficient, one needs tools that can help to determine how can a process or product be possibly broken.

Conclusion:

I agree with the mentioned authors [1][2][3] and surely RPA's role in software testing will increase in near future. The numerous advantages that RPA brings on the table for software testing is remarkable and with time there will be more tools and techniques that will further reduce complexities mentioned by author[3] when RPA is used for testing. I am confident that the next big thing in testing after automated testing with the use of scripts is the test automation with RPA. The technology has been around for a while and is already making its marks in software industry.

References:

- [1] Reggie Rusan, June 2021, How is RPA shaping the future of Test Automation?
<https://www.softwaretestingnews.co.uk/how-is-rpa-shaping-the-future-of-test-automation/>
- [2] Jesper Ottosen, March 2018, Robot Process Automation As A Power Tool For Testing
<https://www.ministryoftesting.com/dojo/lessons/rpa-as-a-power-tool-for-testing>
- [3] Brand Post, July 2019, RPA for Software Test Automation: Not So Simple,
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