

CASE STUDY

“RPA” to the rescue



How JLL powered through a massive data roadblock using intelligent Robotic Process Automation (RPA)



OUR CLIENT

JLL is a Fortune 500 company and a leading professional services firm that specialises in real estate and investment management. JLL provides real estate services across all sectors including industrial, commercial, retail, residential and hotel real estate.

THE CHALLENGE

JLL was awarded a contract by a large organisation in Australia’s housing market to appraise a portfolio of properties that they own or manage on behalf of investors. JLL has worked on multiple similar valuation projects previously, which involved the appraisal of the full portfolio of properties advising on rental and capital values.

According to Paul Fitzpatrick, Business Applications Manager of JLL Valuation Advisory – Asia Pacific, the need to access clean, structured data on all real estate assets was a critical component of the project. JLL’s team of expert valuers needed to simultaneously leverage quality research data and analytics during their inspections and valuations.

For previous contracts, JLL was provided with some of the property data. However as a condition of the new contract, JLL was responsible for collecting all information relating to the properties. As this online resource had no API (application programming interface) for traditional digital data extraction; and the property information was not available in a CSV file – JLL faced an ambitious technical challenge. As our client, JLL needed a highly secure, robust platform to navigate each property page in the portal and collect data on 15 attributes (ie. number of bedrooms, bathrooms, parking spaces) and have the ability to download images for each property.

Simultaneously, JLL started the process of assembling a team of highly skilled and professionally accredited valuers to manage the additional workload. With no more than two weeks of administration and less than two months to value the properties to complete the entire project, JLL needed a fast, effective solution to their data processing challenge and import the necessary information into their workflow system to assign jobs to valuers.

EXPLORING POTENTIAL APPROACHES

Initially, JLL aimed to receive some data in a structured format, therefore considering a headcount increase in their data processing bureau – hiring extra employees to download the additional data manually.

However, upon review of their data management challenge, the team realised this project would require an extensive resourcing commitment. The project would need 18 extra staff members and 45-60 days to hire and on-board these employees, with a further 5 days for training, which was not feasible within the required timeline.

JLL explored the possibility of Robotic Process Automation (RPA) software to address these challenges.

WHAT IS RPA?

Software robotics that automatically emulates the actions of a person interacting with digital systems. These software bots work at the user interface of a website, application or other system to capture data and action process steps using the same mouse-clicks and keystrokes as a human user would, but at a much faster pace.

Software bots can work 24/7 without feeling tired or suffering from lapses in concentration. In many cases, software bots are able to manage large volumes of data-centric tasks much more accurately and cost-effectively. As RPA interacts at the user interface, these software bots can access data and features of a system without the need for API integration, providing the ideal tool for automatically extracting data from online systems.

BRINGING UIPATH AND RAPIDMATION ON BOARD

After extensive research, JLL engaged with UiPath a market leader in RPA and one of the fastest growing enterprise software companies to date. This was achieved through us as their partner, *rapidMATION*.

As intelligent automation experts, *rapidMATION* has extensive knowledge of a range of automation and AI technologies; is currently one of the most skilled UiPath partners in Australia, holding over a hundred UiPath Diplomas and Certifications.

We met with Paul and the team and within a day had agreed to partner and develop a UiPath-powered intelligent automation solution to address their data challenge. *rapidMATION*'s engineers are well-versed in implementing automated technology solutions that manage highly sensitive data in a secure and compliant manner. We were confident that UiPath's technology – used by companies such as NASA, Nielsen and Swiss Re – would be able to process the data efficiently and securely whilst meeting high-level data protection and privacy requirements.

THE SOLUTION

rapidMATION worked on configuring a UiPath software bot that was able to automate a variety of data retrieval and processing tasks and access the various systems involved, with no need for API integration. This highly secure method requires no human involvement in any data access or processing tasks. At no point were *rapidMATION*'s engineers privy to the property data. UiPath runs automation under locked screens and uses the TLS 1.2 protocol to assure privacy and data integrity. All property data remained within JLL's highly secure server environment.

Running 24 hours a day, the software bot was able to:

- Automatically open the Excel spreadsheet and iterate through each property
- Open the portal and securely authenticate
- Browse to the relevant property page
- Extract the relevant property details to a secured JLL storage location
- Retrieve the images and store these in the same storage location, using specific naming conventions so each file could be related back to the property
- Hand over to JLL staff to securely upload the data into the JLL Valuation Advisory workflow tool.

To manage exceptions, *rapidMATION* integrated a highly secured, intelligent human-in-the-loop solution (involving only JLL staff members with the relevant data access and processing rights). When the software bot encountered an issue (such as a missing information element on the property portal), it was able to automatically flag this failure, so the property could be escalated to a JLL employee for swift resolution.

This solution also provided a digital log of the bot's activity, providing JLL with full visibility into the process, as well as a clear audit trail should they ever require this for compliance purposes.

RESULTS

Once the bot got to work, it became clear that the portal pages were slower than anticipated, which may have impacted the speed of the extraction process however the bot helped to overcome this challenge.

Ultimately, the bot ran for almost 7 days without stopping. JLL had confidence in the power of UiPath software, and, they were impressed by the ability to gather detailed data and content for so many properties on a consistent basis.

"There's no way that humans could have achieved that, the fact it ran solidly for 7 days without falling over blew me away. That changed my perception about RPA's usage within a business."

- Paul Fitzpatrick, Business Applications Manager, JLL Valuation Advisory - Asia Pacific



6.9 days

The bot ran for 6.9 days, averaging 39 seconds per property



Only 23 failures

occurred, typically due to information gaps at source

This failure rate is very low, compared to the potential rate of human error that could occur when manually downloading the data

"The failure rate is fantastic – and time to complete has been astonishing."

- Paul Fitzpatrick

JLL was able to access complete, clean data organised on their secure servers and securely upload to an internal workflow system for valuers to leverage whilst working on their inspections.

Due to this level of data accuracy and accessibility, JLL was able to seamlessly integrate admin and valuation processes, optimise their expert valuers, mitigate project risk and meet the contract requirements ahead of projected schedule.

REVIEW OF APPROACH

Plan A: Upskilling staff in the data processing bureau	Plan B: Intelligent automation solution from UiPath and rapidMATION
Recruitment, on-boarding and training: 45-60 days	Installation and set-up: less than 5 days
Processing time per property: 300 seconds	Processing time per property: 39 seconds
Total processing time (working around the clock): 60 days	Total processing time (working around the clock): 6.9 days
Total cost: AUD 20,000 – but at what cost?	Total cost: AUD 28,000

GOING FORWARD

Another benefit of opting to use the automated solution is that JLL can re-purpose the software bot. JLL plans to continue their partnership with rapidMATION and have conducted a use case analysis across other stakeholders in the business for admin heavy manual processes that will benefit from an intelligent automation framework. Four new projects have been shortlisted and RapidMATION will help JLL in key future business opportunities to help automate and streamline admin and manual processes.

“This experience gave me confidence that RPA is a very robust and dependable tool. While the UiPath toolset is relatively user-friendly, having a partner with extensive knowledge of the software and intelligent automation expertise – like *rapidMATION* – makes an even stronger business case for using UiPath RPA software.”

Paul Fitzpatrick, Business Applications Manager, JLL Valuation Advisory – Asia Pacific.