WITHYOU
WITHME

RPA Analyst Course

Written Guide

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Intent

This document is designed to augment your online learning experience and provide you with the opportunity to review and revise the content that has been discussed during the individual lessons of the course

Feedback

Please contact your WithYouWithMe RPA instructor if you have feedback on this document or any of your WYWM courseware.

FRQ and PDD Walkthroughs

Overview

This lesson will deep dive into the Define phases and discuss how to collect information using the FRQ document and the PDD walkthrough as well as what you need to know to be ready for industry when leading these phases of delivery.

During the course we've covered a lot of detail about the FRQ and PDD documents themselves, but as an RPA Analyst it's important to know how to collect this information in a practical sense, particularly if you're working in a consulting type arrangement.

Like we mentioned earlier, the RPA Analyst will spend most of their time in the Define phase of the Delivery Methodology. During this phase the analyst is responsible for undertaking a prescribed process that we'll go through now.

This phase is typically broken down into two discrete steps. First is identifying the processe's functional requirements which is done using the Functional Requirements Questionnaire, and the second is the Process Definition Document walkthrough (or PDD walkthrough). We'll cover both in more detail now.

The FRQ Document

The first step is to assess the functional requirements of an automation, and this information is primarily gained through a document called the Functional Requirements Questionnaire (or FRQ). The FRQ documents the specific requirements that the bot will need to meet.

The FRQ document provides basic details of the process for the automation design team, put simply it paints a picture of the process and will typically cover the following topics:

- Scheduling requirements of the process
- Volume metrics. This includes current metrics and predicted future volume
- Effort and Resources allocated to the existing manual process
- Recovery of Full-Time Equivalent (FTE) metrics
- Process Steps at a high-level

The FRQ document is typically reviewed by the RPA Analyst during the PDD walkthrough, so to maximise the likelihood of collecting all the relevant information in the FRQ it is essential that:

- You send the FRQ to the Process SMEs a minimum of two days before the PDD walkthrough so they can pre-fill and start to understand some of the questions that might be asked of them during the walkthrough.
- You should also complete the FRQ with the Process SME during the first stage of the of the PDD walkthrough covering off any unanswered questions

- This can be followed up with the Process SME later if the SME does not have enough time, but this is not ideal.
- The best approach is to have the SME send back the half completed version of the FRQ prior to the PDD walkthrough so you can start to form a questioning line before the walkthrough takes place.

The PDD Walkthrough

So far we've talked a little bit about the Process Definition Document. This part of the define phase is where we're going to start building the document. We do this by walking through the process that we're looking to automate step by step, annotating every detail of the process down to the keystroke level.

As you've probably guessed, this part of the Define stage is absolutely critical, and should account for most of the time the Analysts spends in the Define Phase. If done effectively, a good PDD can streamline the design and build phase of the delivery process. Conversely, a PDD that lacks or is missing details can cause significant delays, likely blowing out key project metrics like timeline and budget.

The RPA analyst needs to consider a range of factors when preparing for and conducting the PDD walkthrough and we'll walk through these considerations as well as the PDD development process now. The first considerations are time allocation and setting the tone for the walkthrough meetings.

- When sending the email to the process SME, which should include the FRQ, you should schedule blocks of time with the SME in preparation for the PDD Walkthrough. A 2 hour block is typically regarded as reasonable, but this may differ depending on the process being considered.
- In the email, outline the expectations and what you want to achieve during the walkthrough (for example, review of the FRQ, process mapped, a desktop video recording of the process etc.)
- It's also important to specify a timeline for when documents and steps are being undertaken and delivered. For example we might be conducting an initial PDD walkthrough on a Monday with the first version or draft of the PDD to be ready for review by Friday morning.
- When drafting the PDD make sure the process is sufficiently detailed, and recorded down to the keystroke level. Print screens and Images of each step of the process are essential at this point and will be very helpful when it comes time to draft the PDD.
- Once a draft PDD has been completed, it is typically sent to the process SME for review to ensure it is aligned with how they believe the manual process is carried out.
- Once complete, it's best to conduct an additional walkthrough with the SME using only our PDD for guidance. It's important at this stage that the manual process is carried out using only the PDD for instruction, and that the process SME does not rely on their own knowledge. This ensures that all the process steps have been captured in sufficient detail to continue.
- On completion of the PDD, it's a good idea to send an email to the process SME asking for confirmation that they are happy the document we've created is a direct reflection of the manual process. It's also good practice to keep this email correspondence recorded, especially when consulting on an RPA project. Once the SME has provided confirmation, this confirmation as well as the PDD can be sent to the Business Process Owner or Business Unit Manager for final sign-off.

- The audience that you should be considering when creating the PDD is a day one, brand new graduate who has no knowledge of the process. Remember, anyone needs to be able to read the PDD and follow the manual steps as this is one of the critical disaster recovery documents.

When we talk about Process Definition Document Walkthroughs with the Process SME as part of the Define Phase, as the RPA Analyst we also need to consider and few more things to give ourselves and the project the best chance of success:

- We need to schedule all PDD Walkthroughs as far in advance as possible. This ensures we're not rushed and that the project is taken seriously.
- It's a good idea to go to the Process SME's desk or a meeting room so they are more comfortable. It's important that this process is not run like a test or an interrogation.
- Best Practice for recording this process is to use an audio and screen recorder that you can refer back to later if needed. It's important to make sure that you're allowed to do this from a security perspective prior to the walkthrough being conducted.
- Also make sure they don't have anything personal open, including Instant Messaging applications or emails that may pop up during a screen recording. It's also a good idea to make sure there isn't any sensitive data on the Process SME's desktop.
- At this point and prior to the PDD walkthrough, it's also important to remember that there is sometimes a preconception that the bot could be taking the process SME's job. As we've discussed, the purpose of RPA is to remove repetitive, mundane tasks so we can return an FTEs focus to tasks that are commensurate with the thinking abilities of a human worker.
- That said, it's important to be aware of the potential concerns and deal with these honestly and directly, bearing in mind that you as the RPA analysis are not responsible for making decisions on headcount or workforce mobility.

This lesson has covered a lot of information about PDD walkthroughs and how they support the development of a holistic PDD which sets the solution development team up for success. Some final points to consider when building the PDD are that:

- You need to build the PDD down to the keystroke level
- You need to include all information such as URL, file locations, headers, times, dates and articulate everything about the process from end-to-end.
- and finally
- There is no such thing as too much detail when building a PDD

Information Collection and Consulting

As a final note that relates specifically to consulting, throughout the define phase of the delivery methodology it is important for the RPA Analyst to:

- Ensure the SME's are engaged early on. It's a good idea to spend some time considering how to engage them prior to commencing the FRQ and the PDD walkthrough.
- We should look to constantly improve the plan for engaging with the process owners and SMEs to gather the requirements.

- We also need to ensure the process walkthrough and scope sign-off is conducted effectively at the end of the Define phase to remove the element of scope creep. Of course it's also important that these sign-offs come from the relevant Business Process Owner.
- And finally when building documents we need to ensure the templates used for defining process requirements meet the needs of the organisation, and if possible we should look to align the format to that of the business unit we're working for.

Proof of Concept and Pilot Programs

Overview

The purpose of this lesson is to provide you with an understanding of the initial stages of adopting an RPA Capability.

A Proof of Concept (POC) and pilot program are how many organisations commence their RPA Capabilities. More often than not, this is done in a sandpit, or closed environment so if something goes wrong, the organisation's IT systems are not compromised.

This involves automating a single business process or sometimes even a single part of a business process on its own, and then reviewing its performance with the business process owners.

This is generally done to test the waters for the RPA delivery team as well the organisation, and is a key advantage of RPA implementation being delivered through an iterative process.

This lesson will cover the difference between a POC and pilot program, the visibility of these programs to the organisation, implementation and the outputs of the POC and pilot program.

Proof of Concept vs Pilot Program

Firstly, it's important to note that a proof of concept is not the same as a pilot program. A proof of concept is an early demonstration of RPA to the organisation and is used to show value of RPA to the wider organisation, especially key decision makers.

Generally, a POC moves quickly through the Delivery Methodology and there is little investment required from the organisation. The PoC is developed on a standalone system (like an individual laptop or sandbox environment) and utilises test data initially. The POC is used to demonstrate what an RPA capability can do in general terms and is not built to be deployed operationally.

On the other hand, an RPA pilot refers to the very first robot that is built and commences work with live cases in the production environment. This is the first real application of RPA within the organisation and follows the delivery methodology completely. While there are distinct differences between a POC and an RPA pilot, in this module we will at times refer to a proof of concept as a POC or a pilot, because many of the implementation effects on the organisation are the same.

It is however important that you understand that a POC comes before a pilot, but in many cases, especially if the organisation is already committed to commencing an RPA programme, a POC may not be undertaken, and organisations will proceed directly to the pilot programme that produces a usable automation solution.

RPA Pilot Program

Selection of the first business process for an RPA pilot is critical to the success of the project's delivery. You'll generally select the business process for the pilot from a combination of feasibility analysis data and the management's preference based on the needs of the organisation.

Secondly, you should pick a pilot programme which has clear direct benefits. Generally, you're looking for results as soon as possible so stakeholders understand the benefit of RPA, and you would therefore focus on business processes which can be automated to provide clear and quantifiable benefits. As we've discussed before, these are direct benefits.

These benefits are easy to see and understand, and therefore, more effectively showcase the utility of robotic process automation. Finally, a pilot programme would ideally select a business process which has a comparatively low degree of complexity.

A pilot should be quick to implement, so selecting a business process with a low complexity i.e. the majority of cases on the happy path, will allow the delivery team to build and deploy the bot quickly, and again, highlight the benefits of our RPA in a short time frame.

It's worth noting that the business process selected for the pilot is generally watched closely by senior management. It is therefore critical at this early stage to have the right project sponsor within the organisation.

This sponsor must have the authority to make decisions and allocate the necessary resources to the project when required. They should also be the right person who can provide the authority or endorsement to, say, commence larger scale delivery after a successful RPA pilot.

To demonstrate the benefits of RPA, the team needs to demonstrate the feasibility of the business case. This means that the RPA pilot should have results that reflect what has been provided in the business case at the start of the delivery methodology.

The pilot should build organisational buy-in and momentum, and build a general feeling of happiness and satisfaction with the results of the RPA pilot and set the scene for other processes to be automated.

It should also help the RPA delivery team to identify change champions within the organisation. We'll cover this in more detail in a later lesson, but essentially these are people within the organisation who have decision making influence and are happy with the RPA capability and the solutions that it's producing.

When it comes to implementation of the RPA pilot, you should consider it as a mini RPA project. This means that all the normal steps and documentation required as part of the delivery methodology should be followed and completed.

That being said, an RPA pilot should be completed in line with the normal delivery methodology time frame to ensure that all necessary checks and balances are completed.

Prior to implementation of the pilot, it's critical to have access to all the necessary individuals and systems. This includes access to subject matter experts, and business process owners, as well access to the appropriate applications within the business process.

Prior to implementation of the RPA pilot, you should ensure that the appropriate test environment has been set up with realistic test data so that the automated process solution can be appropriately tested prior to its release into the production environment.

It's important to ensure that none of the testing phases are skipped just because this is a pilot programme.

Change management is also critical in this mini RPA project as it is for delivery across the board. The pilot could be used to dispel the myths of RPA and generate a good news story within the organisation, and to generate demand for process automation.

Finally, a light governance framework should be established to ensure that risk is appropriately managed for the RPA pilot.

The appropriate measures should be in place in case the robot does not perform as advertised. This includes actions to undertake in the event of robot failure, plans for exception handling, system down procedures, etc. The ROM Architect Course offered at WYWM discusses this in more detail.

Pilot Program Outputs

Once the pilot programme has been implemented, there are a number of outputs to consider. Outputs for the RPA delivery team include things like lessons learnt regarding architecture and applications. This refers to the delivery team’s first run at integrating digital workers into the existing architecture and there are usually some key takeaways that can be helpful to consider in future projects.

There are also lessons learned regarding the organisation's perceptions, culture and risk tolerance towards digital workers. This is very important and is used to fine tune change management and implementation plans prior to a full roll out of the automation strategy.

The outputs of the pilot programme also include hard data about the pilot’s performance. In a lot of circumstances, this will be the first time that senior management become convinced that an automation solution could be right for their company.

Delivery Strategy

Overview

The delivery strategy is vital and encompasses all elements of the delivery methodology.

The RPA strategy commences with the business case presented by the team to the organisation and concludes with delivery of the final RPA solution and the ongoing digital worker maintenance plan delivered in accordance with the implementation plan.

The RPA strategy is enacted through every step of the delivery methodology and it varies with each project depending on the circumstances. Hence, it is very difficult to effectively teach RPA strategy in a lesson. However, we will cover the main elements to keep in mind when developing an RPA strategy, and the nuances for you will come with time and experience.

We will now cover RPA delivery strategy, business cases, solution models, automation maturity, delivery models, selecting RPA tools, prioritisation and work sequencing and the implementation plan.

RPA delivery strategy is required across the delivery project at a high level, but also across business processes at the low level. Strategy development commences during the initial business case when the RPA team proposes a rough automation solution for the organisation.

Strategic and Tactical RPA

Over time, the strategy is refined and eventually covers all technical, commercial and organisational aspects of the delivery. The difference between Tactical RPA and Strategic RPA is that strategic RPA produces an automation solution that is built to align specifically with the organisation’s strategic direction and intent. Strategic RPA aims to improve or streamline processes for the long term gain and is not looking specifically for a plug and play software that gives you short term improvements.

On the other hand, Tactical RPA refers to automation solutions that are used to achieve quick gains and primarily direct benefits, with little thought for the long term health of the business process or the automation solution. This's a timely reminder that we do not, where possible, automate broken business processes. This action is an example of tactical RPA and should be avoided wherever possible.

Business Cases

RPA business cases are the start of the automation journey, and outline a rough automation solution and implementation plan for consideration by the organisation. To develop such business cases, the RPA team first classifies the organisation's automation maturity. This refers to the team’s understanding whether the organisation is just starting out in terms of automation, whether they are trying to scale automation across their business or whether they are in a mature stage of their automation adoption journey.

The RPA team must also determine the complexity of the processes being considered and it's alignment to an automation solution. This refers to how long it will take to build, how many steps, how many exceptions and how often the tasks tend to stray away from the happy path.

Delivery Models

We have already learnt about the RPA strategy considerations when it comes to the different solution models. Now we'll cover the different ways that the RPA solutions can be delivered or implemented in an organisation. Delivery of automation solutions in RPA is generally always iterative and follows an agile style software project management delivery, as discussed earlier in the course.

They tend to commence with a pilot programme or proof of concept. After this, the POC and Pilot program generate the demand, thus, a pipeline of business processes to be automated is developed and managed to a rate that the organisation or the RPA team is comfortable with.

Another methodology is to iteratively automate individual business processes. An example of this might be that initially only the happy path is automated. Then, in the next iteration, the main exception paths are automated, and in the final iteration all paths and hence the entire business process is automated by our RPA.

Another delivery model is where an RPA solution is delivered by an internal RPA centre of excellence or capability. Here, delivery is carried out by organisational resources themselves.

The advantages and disadvantages of centres of excellence and internal capabilities have been discussed in the Introduction to Intelligent Automation. However, rather than RPA COEs or RPA capabilities, it is much more common in industry today to bring in external RPA expertise.

This usually happens in the form of a single contractor or consulting firm who comes in and produces all elements of the RPA solution as well as all the delivery management.

An alternative model may involve a contractor who is the delivery lead with subcontracted RPA support for different elements of the delivery. This type of delivery would only likely be used for very complex and specialised RPA projects

The final point we'll discuss in this delivery model section is quite contentious and it is the question that is regularly raised in the RPA industry today.

The question is whether to use onshore or offshore RPA resources. The onshore delivery model is simple in that the RPA team is in location and delivers the solution to the organisation.

The offshore delivery model is also very popular and involves a few client facing members of the RPA team in location with the organisation, and the rest of the RPA team, generally consisting of the developers, in another country and liaise electronically with the client facing members of the team.

Stereotypically onshore delivery teams provide better results as they can interact regularly with the organisation and its employees and is highly recommended by federal and state government departments that require security clearances for contractors to work onsite. This is becoming more and more a requirement for any automation team to be able to work within the confines of government networks with access to sensitive data. There is no appetite for offshore resources here.

Most large consulting firms use offshore capabilities when delivering automation projects. However this can cause a number of challenges when delivering solutions. Simply, time zones play a major role in influencing the ability to achieve a successful delivery. Scheduling time to address project issues can most times delay achieving a resolution in adequate time. We also tend to find that offshore resources more often deliver a one size fits all approach that is less likely to meet its desired outcomes.

The use of onshore or offshore resources should be considered according to the circumstances at hand.

RPA Tools

We now move on from one contentious issue to another, and this is the selection of the RPA tool for use in the automation project. There are many software tools and vendors in the market, the most notable today Blue prism, UiPath and automation anywhere. But there are at least five more, which are also very capable RPA tools. So far, no one tool has demonstrated that it is superior in all aspects of basic automation.

Hence different RPA tools have different strengths and weaknesses for you to consider. Furthermore, different organisations are suited to different RPA tools because some tools are better for certain industries, whilst some tools are better suited to application during different stages of an organisation's automation maturity.

For example, one set of software may be easier to use without any previous experience, and is therefore suitable for organisations in the initialise phase of their RPA adoption journey because it reduces their barriers to entry, whilst other RPA software tools may be more difficult to use by those with little automation experience but are easier to scale, and would therefore be more applicable to organisations who have a more mature adoption of RPA and are looking to significantly increase the number of digital workers in their workforce.

Large automation deliveries generally utilise more than one automation tool to compliment the strengths and weaknesses of individual software products. However, as you can imagine, this is not always a feasible option for organisations starting their RPA journey because of course there are significant costs associated with implementing each tool.

Furthermore, selection of an RPA Tool is further complicated by the fact that when seeking external advice, it can be difficult to find external RPA teams or consultants who are truly agnostic to all automation software tools.

This is partly due to human nature because individuals tend to favour the software that they personally know the best. But it is also partly for commercial reasons, as consulting companies often have partnership agreements with RPA software vendors for the provision of their product.

As you can see, we have raised a whole lot of questions and not provided very many solutions in this slide. Our advice here is to research widely. You should conduct research using free trials, which are widely available on the internet for all the major software tools, and you should review case studies that are provided online.
We also recommend that your RPA Team deals directly with software vendors where possible, so you can see if your organisation meshes well with the vendor personnel.

This Is equally applicable for delivery teams to determine if they gel well with the vendor providers. For this reason, we won't recommend any particular RPA software tool but encourage you to go out and find the right tool for your organisation using the methodology and considerations we have shown you in this course.

Prioritisation

Prioritisation and work sequencing of business processes to automate may seem like a simple delivery task, but when done correctly, the sequence of business processes to be automated should be consistent with the RPA strategy and the organisation's strategic intent. You must align a number of competing factors which include:

- What is the ease of automating each process?
- Is the process complexity for automation Low, medium or high?
- Consider the maturity of the business process and the organisation, how well is the business process procedure documented and is all the data digital that you are using?

Next, consider the effectiveness of the automation.

- What are the benefits?
- Are they immediate or long term?
- Consider the timeframe to see a return on investment from the automation. How quickly will you see results and how quickly do you need to see results?

Finally, the organisation's needs must be taken into account when determining prioritisation. This is because the automation of certain business processes might be required as triggers for the organisation to commence other strategic events that are important to the business as a whole.

For example, the division might be waiting on the automation of a certain business process to free up staff or improve the speed of delivery such that they can launch a new service in a completely different division.

Without considering the organisation's needs in terms of prioritisation, the RPA delivery team could be missing a large chunk of information.

Try to balance the four of these considerations so that you can get some easy wins early that demonstrate to senior management the effectiveness of RPA, but at the same time, don't leave the hardest automations until the very end. The ROM course we offer at WYWM delves in this in more detail.

Work sequencing is also essential because you will always have limited resources and limited time.

The RPA team can only work on so many tasks at any one time, so effective scheduling of work is essentially and is the responsibility of the Governance Board to provide clear direction.

Similarly, automation implementation is quite time intensive from the perspective of the business unit, because regular interviews, meetings and emails are required for the delivery team to ensure that they are on the right track.

The organisation only has so much bandwidth to work with you on the automation project without it having an adverse impact on daily operations. It is likely that you will have to get down to the micro level of delivery planning when conducting your role as the RPA Analyst ensuring that you appreciate the value of time.

Implementation Planning

Finally, we will learn about the implementation plan. This is the road map to implementation of the RPA solution and it encompasses many of the RPA strategy considerations that we have learned about in this lesson.

A poor implementation plan is a common cause of an RPA project achieving poor return on investment because not all considerations were effectively dealt with. The implementation plan itself can be produced in many different formats, depending on the organisation's needs, but implementation plans will generally include details about how the automation strategy will be made a reality, as well as long term plans for change management and the training or retraining programmes involved.

This is because the first half of an implementation plan is generally focused on establishing the roles and the digital workers themselves, and the second half of the plan is more concerned with retraining the mindset, and the skills of the humans in the business process, so they can adapt to their new digital workers. Furthermore, the implementation plan should provide a lot of details regarding the ongoing digital worker maintenance that will be required.

Business processes are dynamic, so even though the digital workers may be exactly as advertised and following the business process on the day that initial implementation is completed, it is very likely that the business process will change with time and there must be triggers in place to ensure that the digital workers are updated to match the changes to the business processes as the changes are made.

As previously discussed, there must also be triggers in place for checking on whether digital workers can have improvements made on them, even if the business process hasn't changed.

This ensures that in the long term, the digital workers are operating as efficiently as they can be and serving the organisation to the best of their digital abilities.