
RPA applied to effectivity check in Technical Documentation production

Abstract IPS User Forum 2022 – 17th to 20th October

Authors:

V. Jeaneau – vincent.jeaneau@sonovisiongroup.com – Innovation Manager - Sonovision

A. Cordelier – arnaud.cordelier@sonovisiongroup.com – VP OPS Europe – Sonovision

I. INTRODUCTION

In the world of Integrated Product Support (IPS) disciplines, the technical documentation consists of all documents describing in a technical language how to use a production, its functionality and architecture and how to repair it. Among the S-Series family, the technical documentation is covered by S1000D standard.

At Sonovision, we have production centers for technical documentation. In these centers, we are producing multiple types of technical documentation: AMM, SRM, WDM, SB, IPC, IPL, etc. We are producing technical documentation for customers, sometime, we have to do it in the customer environment using software such as SAP or others platform / tools. Human interactions with these platforms can be slow, time consuming, repetitive and errors can occur due to human mistakes.

As example, for SRM activity, we are receiving Authoring Work Order (AWO) sent by the requestor. For each of these AWO, part of the job is to determine the Part Numbers (PNs) effectivity of the change request in order to determine which technical document and which items in the documents need to be updated. To perform this effectivity check, authors need to go through a browser, connect to SAP to collect the PNs of the PWO. Then, for each PN, authors need to collect/read the PNs effectivity from multiple platforms. Once all the data are collected, authors can perform their analysis and update the corresponding technical documentations. This process is illustrated on Figure 1

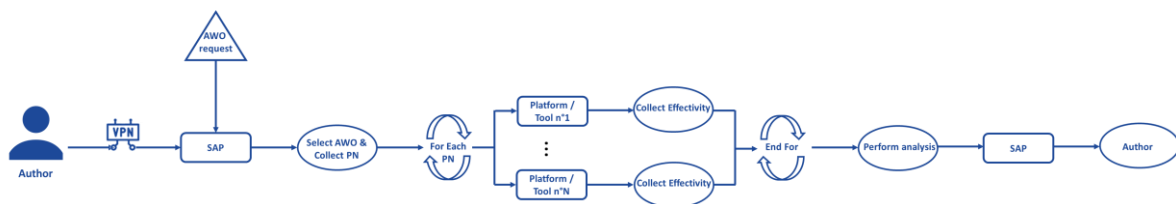


Figure 1: Authoring process for SRM

As collecting data is time consuming without added value from authors perspective, we have looked at a solution to accelerate / automate this step.

II. METHODOLOGY

In our search for optimization / automation, we came across Robot Process Automation (RPA). RPA is a software application (or bot) that is able to replicates the actions of a human with the user interface of a computer system. Therefore, an RPA is not an android and it has not a physical form; an RPA cannot replace a human because it has no brain or cognitive function on its own. RPA are good following a “script / scenario” in which it can do the following actions: login to an application, perform

calculus, and manage a database, extract / copy files, open / read / send emails / files. RPA are useful when we have to perform a task that is repetitive, time consuming and without added value from a human.

So, if we look back to our technical documentation process (see. Figure 1), it is possible to replace the data collection steps by an RPA and let authors focus on analysis and authoring. In order to achieve it, we must implement the “scenario” that the RPA need to follow. In our case, the RPA have to connect to the VPN, then connect to SAP. Once in SAP, the RPA have to loop over AWO and check for each AWO if the effectivity has already been collected. If it is not the case, the RPA have to extract the PN, then connect to each platform one by one to collect the effectivity. Data collected must be placed in a local folder to be used by authors. The new process is illustrated in Figure 2.

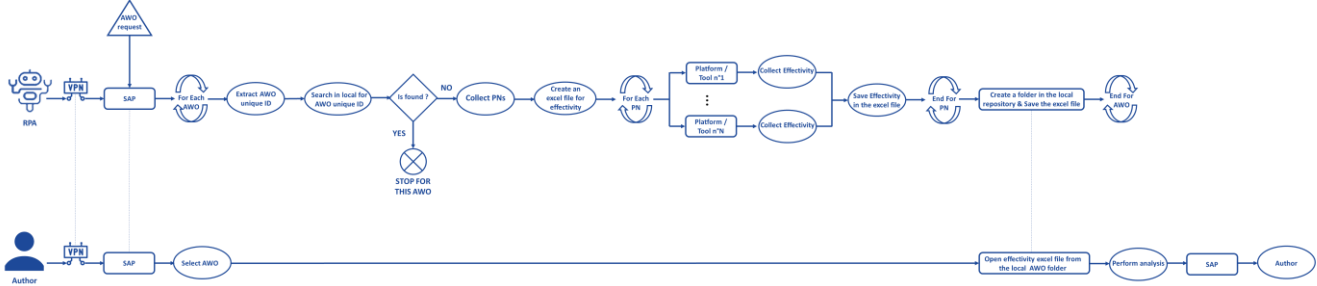


Figure 2: Authoring process with RPA in the loop

III. RESULTS

As a result, using RPA in the technical documentation production of SRM, allowed us to remove repetitive, time consuming tasks from the hands of authors and for which authors had no added value. It allows authors to focus on their expertise and where they are needed. In addition, we have been able to save up to 15 minutes of work per AWO; increase our productivity and reduce our errors.

IV. CONCLUSION

To conclude, RPA software can have multiple applications in the IPS discipline For example: data migration, bridge between IPS software to create workflow/dataflow continuity when API are not available, data extraction from external platform, build of material automation in customer platform, report and BI creation, etc. Moreover, using RPA allows to reduce cost, remove human errors, and increase productivity and efficiency. It has also impact on humans, allowing them to focus on added value tasks that make sense for them which lead to a better retention of employees.