

Solving the document dilemma

iOCO has developed a solution to automate the processing of documents from multiple sources.

Many companies face a common challenge: how to process large numbers of documents from multiple sources.

Neil van Wyngaard, Solutions Architect at iOCO Automation, says that, by way of example, one of his clients processes almost 2 000 credit applications a day, each one supported by multiple documents, such as ID, payslips, bank statements and so on. According to Wyngaard, these combined applications consisted, on average, of about 40 pages or so.

“The Back Office needed 40 clerks to just review manually-captured applications. Each application took about an hour to be captured at branch level by a financial consultant. As you can imagine, the costs, not to mention the inevitable inaccuracies when manual inputting is involved, especially at scale are considerable!”

Van Wyngaard points out that it’s relatively easy to automate the processing of some documents, like identity documents, which are reliably standard, using templates. But others, such as payslips and bank statements, are varied, making a template approach counter-productive.

Some companies have attempted to overcome the problem by creating elaborate digital platforms on which they try to get customers to input the information. However, these are not very user-friendly on mobile devices, which most South Africans use to access the internet. Moreover, for legal reasons, ‘wet’ signatures are often required, and official documents need to be uploaded anyway.

“My gut feel is that, for all sorts of reasons, our society is just not there yet when it comes to a totally digital approach,” says Van Wyngaard. “That means we need ways to process growing volumes of documents rapidly and cost-effectively.”

Van Wyngaard and his team concluded that the answer was a solution intelligent enough to identify the desired information on any document, extract it and load it into the appropriate system. Such a solution is commercially and practically possible now thanks to the advent of the cloud; cloud platforms like Amazon Web Services provide scalable access to the technologies and processing power needed.



Neil van Wyngaard
Solution Architect, Automation
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The solution

Docs2Data, the solution created by iOCO Automation, uses AI, machine learning and other technologies to process a wide range of documents rapidly, using the client’s business rules, and then posts the information into the operational database system, for example the ERP, accounting package, workflow or similar.

By avoiding the template-based approach of most automation, Docs2Data can theoretically process any document. One of the key breakthroughs was the creation of a data dictionary, which lists all the ways in which information on documents is identified (for example, ‘gross pay’, ‘nett pay’, ‘basic pay’, ‘salary’ are just some of the phrases the system must recognise to find one piece of information).

Of course, humans remain ‘in the loop’, but only the exceptions end up on their screens. “We aim to automate around 80% of the documents, with only 20% having to be handled by a human owing to a range of factors, including poor scan quality,” Van Wyngaard says. “The system then learns from the decisions the human makes, so it’s constantly improving.”

Like all successful automation, Document Understanding frees up expensive human resources by eliminating hours of drudge work, and also improves accuracy. It also gets the job done much quicker. We load tested this with about 50 concurrent applications processed in under 5 minutes.

“The return on investment is about three months—it’s that impressive,” Van Wyngaard says. ■



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