



How Chatham Financial increased process capacity by 300% with the Indico Platform



75%
reduction
in cost



300%
increased
capacity

Chatham Financial delivers risk management advice and technology to more than 3,000 organizations around the globe. In doing so, it has to process tens of thousands of complex, unstructured documents each year, a fact that had them looking for ways to automate at least some of that chore.

The company found what it needed in Indico's Intelligent Process Automation (IPA) Platform. As an initial use case, Indico enabled Chatham to automate one step of a common document review process, saving 15 min. of processing time for each document. That reduced the cost

to perform the transaction by 75% while increasing process capacity by 4 times.

Rather than a human-driven assembly line with everyone sitting at the conveyor belt with their hammer or chisel, Indico allows Chatham to reimagine their offering as a pipeline, where a PDF comes in and key components are automatically extracted before it comes out the other end.

In what is typically a "six eyes" process, meaning three people have to review the document, Indico takes away one step, or set of eyes. And Chatham is just getting started.

"The Indico Platform lets our senior product and business leaders get directly involved in building models and driving automation at Chatham. With Indico's expertise and just a few hundred documents, we've successfully delivered cutting edge models in a way previously considered impossible."

– Andrew Thornfeldt, Chatham Financial

Chatham's AI journey

When Chatham began its artificial intelligence journey in 2018, the initial idea was to build its own process automation application. They downloaded TensorFlow and started building tools and labeling documents. They borrowed an in-house user experience (UX) expert in hopes of making it usable by businesspeople.

The company had already been putting data into data lakes and warehouses to make the data more accessible and flexible. But trying to build an entire natural language processing engine from scratch was not feasible, given the time and resources they needed to spend. The job is all the more difficult because of the unstructured nature of most of Chatham's documents, meaning a templated or robotic process automation approach would not suffice.

Chatham first encountered Indico at a start up fundraising event in Philadelphia, where Indico's founder and CTO, Slater Victoroff, described a breakthrough approach using Transfer Learning to "understand" documents without tedious and complex rules or templates. Slater further explained

that this could be accomplished with as few as 200 samples for training the Indico "DocBots".

Before long, Chatham brought Indico in for a demo. They were able to make contact between the data, Chatham's intellectual property, and the machine learning. If the subject matter experts can't or don't want to work with labeling the data, or if it's too hard to do, this venture would fail.

After a thorough evaluation process, including comparing Indico to what Chatham could build itself, they decided to bring in Indico for a proof of concept (POC) test.

Initial process automation results

The POC use case, which is now in full production, addressed an interest rate cap confirmation process. It involved a centralized SQL Server that acts as the source of truth for much of Chatham's processes as well as a blob store that holds PDFs of confirmations and other unstructured content. Chatham provided the 200 samples for training, and Indico



The Indico advantage

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Empowering your process owners

Intuitive point and click interface for unstructured content classification, extraction, and workflows

was able to build a highly accurate model in just a week. The low training data requirement combined with the fact that Indico IPA was able to produce such impressive results in such a short time had Chatham convinced.

Chatham built a middle layer using Jupyter, an open source workflow engine, and Excel, with Indico sitting in between them as the natural language processing (NLP) layer. When a confirmation comes in, it's uploaded to the document store. That triggers a process whereby the Jupyter-based application pulls the document down and feeds it to Indico, which "reads" the document. It is able to identify and pull out key terms – a step previously performed by a human – and enter them into the Excel spreadsheet.

The output is then fed to Compass, a custom application built by Chatham, which uses a script to put together an email to a subject matter expert (SME), who reviews the finished document. Instead of having to go through the document line by line to find key terms and compare them to what the customer is reporting, the IPA application allows the expert to simply look at the email. It is formatted with green or red checkboxes

that indicate whether the document is good to go or requires further review.

For each document, the automated process saves 15 min. of what would otherwise be human processing time, resulting in the 75% cost savings and 300% increase in process capacity – meaning it takes far fewer people to do the same job.

The results were so dramatic that Chatham was quickly able to deal with a backlog of more than 1,000 documents that had built up over the years.

Once they rolled out their first version of this model, that backlog got cleared in one day, one 24-hour period.

Fast forward to today and Chatham has five IPA use cases in production and five more expected by year-end.

'Beneficiaries of our own success'

Chatham now has more than 50 internal Indico users, a testament to Indico's ability to turn businesspeople into "citizen data scientists."



The Indico advantage

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Beyond templates and rules

Quickly build custom machine learning models with just 200 examples



In fact, using Indico has improved the dynamic between Chatham business users and data scientists. Whereas at first SMEs questioned the ability of an automated tool to do their jobs, that has morphed now that the company has seen success after success with the tool. Key to that is the fact that businesspeople are using the Indico tool right alongside the data scientists.

That collaborative piece, having one platform that they're all working on together, has really helped.

With a number of successful projects under their belt, Chatham now has projects flocking to the door. They have ongoing projects with every business vertical, and most practice area teams – accounting, transaction document process and client onboarding.

Through it all, their data science team has added only one employee.

They were able to handle building out all the infrastructure and the use cases, help business owners make the case to executive team leadership, deliver on model training and all the data pipelining necessary to connect their systems to Indico systems while only growing headcount by one.

The future of IPA at Chatham

Looking ahead, Indico's Platform creates options for Chatham to further streamline their processes.

For example, the initial document review process the company automated is but



The Indico advantage

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No black boxes

Award-winning AI Explainability and intuitive document validation UI deliver unmatched output accuracy

one step in a multi-step process. All documents of that type undergo review by three different employees along the way. The company has successfully automated the middle step, taking away one set of eyes, but the door is now open to automate processes upstream, where the client uploads the document, as well as downstream, where final checks are conducted.

Chatham has pushed Indico hard on both the use of the models and types of things they're doing. They've trained hundreds of models across many use cases, production and otherwise. They've really stretched it to its limits, and it's held up.

About Indico Data

Indico Data transforms unstructured data into actionable insights. With the Indico Unstructured Data Platform™, enterprises of all sizes can automate, analyze, and apply unstructured data -- documents, emails, images, videos and more -- to a wide range of enterprise workflows. This enables them to gain rich insight and maximize the value of their existing software investments, including RPA, CRM, ERP, BI, by enabling these systems to work with unstructured data. Visit www.indicodata.ai to learn more.

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The Indico advantage



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Cloud native, enterprise scale

Your Cloud or ours, with support for 100,000 documents to 100 Million to deliver true enterprise scalability