Digital document processing gets smart

The task of creating and editing documents can devour time and resources, especially if the documents have to meet high quality standards. The aviation industry in particular faces the challenge of growing documentation requirements of an increasingly complex nature. For that reason, Ingenics has joined forces with a cooperation partner to launch a pilot project to establish a new form of digital document processing at a major aviation supplier. The goal was to allow digital documents to be created and modified by several people at the same time – a fast, straightforward and reliable solution.

There are many digital document processing systems. However, only a few of these make it possible for several people to work on the same document at the same time. File templates are rigid and often provide an insufficient overview of what changes were made when and by whom. So how can documents be processed more efficiently when different versions of them are constantly needed or they repeatedly have to be adapted? More than any other sector, the aviation industry faces these questions as a result of ongoing advancements brought about by innovation, research, and technological development. This also has an impact on documentation: new components require an extensive paper trail, and this is created by large teams, sometimes in several countries, before being revised several times and undergoing a detailed approval process.

Strict separation of content, function, and design

At present, documents are usually a rigid container for the main text. This means that most changes have to be entered manually and tracked during the workflow. Processing takes place in sequential steps. This calls for many hours of work. Long waiting times and delays are the rule, not the exception. Additionally, all documentation processes suffer from enormous losses due to internal friction and gaps in communication.

The good news is that a digital solution was developed last year that takes digital document processing to the next level and responds to these challenges by strictly separating content, function, and design. As a cooperation partner, Ingenics is currently running a pilot project with the software provider on behalf of a major tier-one supplier. This is the first time that the product has been tested in the aviation sector.

Creating "smart documents" with individual elements

"The product draws on database information, and at its core there is a strict separation of individual components," explains Stephan Großfuss, industry manager responsible for the pilot project at Ingenics. "A system based on individual elements with automated document creation processes dramatically increase the efficiency of document processing." Document layout templates can be quickly created or modified using predefined elements. The same is true of the content: standard passages of text are available for recurring elements relating to the industry or the company. There are also sections of text that can be adjusted in different ways as well as form fields whose content can be modified in every document with a single click. The documents are made "smart".

This makes it possible for several people to work on different elements within a document at the same time. Work processes thus become modular rather than linear. Sections of text can be sent individually for correction: the element in question will remain locked for other users for a certain time, and any changes made by colleagues will not be accepted or made visible until they have been confirmed. Once approval has been given, the text section in the document becomes "frozen". The overall process is transparent because a person is assigned to each element. This approach can also automate version management – an important factor in the aviation industry.

As a platform-independent product, the document processing system can be integrated seamlessly into existing systems and processes. Finalized documents can be exported in familiar formats such as Word files or PDFs. Conversely, existing Word documents can be imported into the system.

CURRENT DOCUMENT PROCESSING

TIME

■ Processing ■ Compilation ■ Review ■ Approval
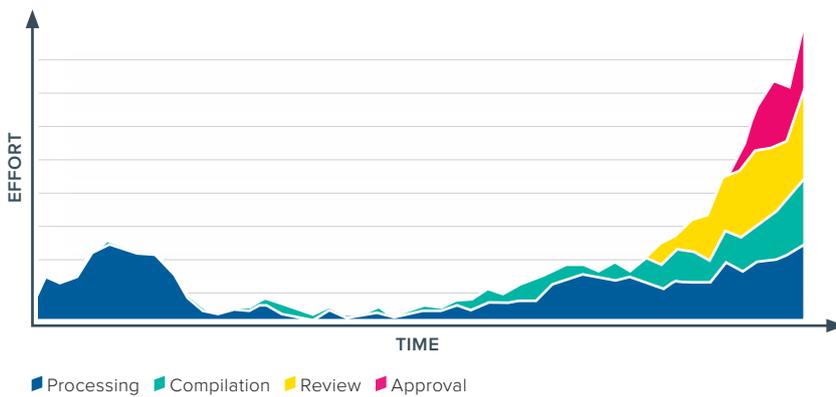
◄ Compared to current document processing, the new product for digital document processing minimizes time, labor costs, and sources of error.

"For complex documents that serve as proof in the aviation sector as well as specifications and contracts, this software solution makes it possible to automate large amounts of work and to carry out efficient controlling. It greatly improves reliability with respect to the quality, traceability, access rights, and security of information processing. Time, labor costs, and sources of error are all minimized. Moreover, progress can be evaluated in real time and displayed in graphical form," says Stephan Großfuss.

A resource-efficient solution
As soon as the induction phase of the pilot project has come to a successful conclusion, including workshops and training sessions on creating templates, there will be a test phase to confirm the feasibility of implementation. "Understanding and acceptance among our client's employees are already very high in the pilot project," says Stephan Großfuss. "The product has potential – including use in other industries. If you think about how much time people in companies spend every day discussing, reviewing, correcting, and compiling various documents, it becomes clear how much dormant potential there is here in terms of increasing efficiency and saving both time and costs!" ■

Your personal contact at Ingenics would be pleased to assist you:

Stephan Großfuss
Industry Manager
stephan.grossfuss@ingenics.com
Tel.: +49-731-936-800