



White Paper

Automatic Quality Assurance for Documents with Variable Data

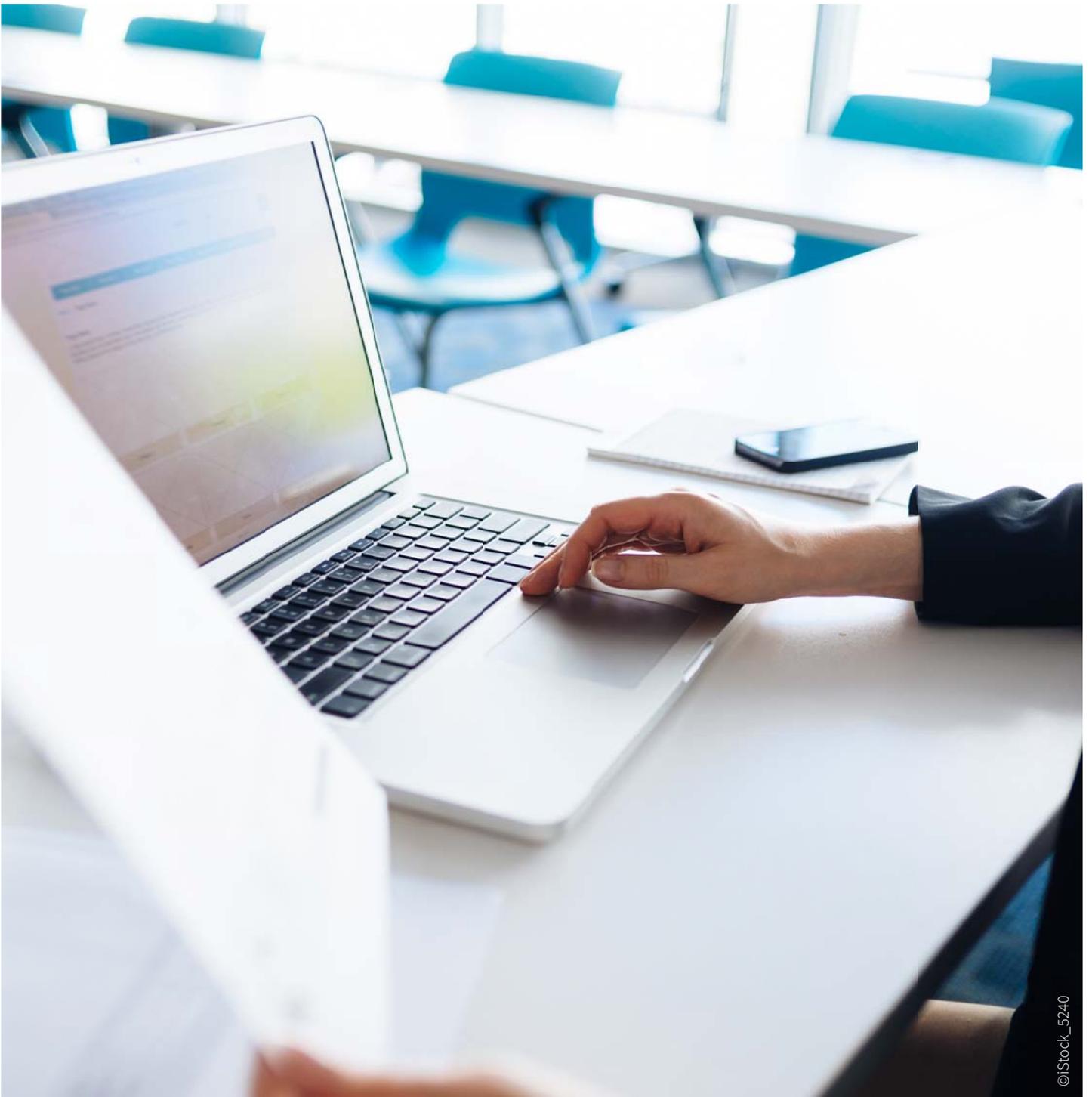


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Preface

Personalization in customer communication is growing – and with it the risk of producing erroneous documents. The greater the degree of individualization, the more complex the workflows and the greater the number of possible sources of error. A stringent quality assurance strategy is therefore imperative.

Company communications today are characterized by individualized content. Every customer is addressed according to purchasing behavior, place of residence, and sociodemographic characteristics. The underlying data is variable, which entails considerably stricter quality assurance in customer communications precisely because of its complexity.

This development is accompanied by changes in consumer behavior arising from numerous technological innovations. In other words, customers expect their questions to be answered in real time. Consider the following example. An insured person chooses to add an option to his policy, either online or by telephone. The policy must therefore be modified as quickly as possible and sent to the client.

The complexity of the various personalization scenarios, combined with increasing regulatory requirements (compliance), leads to an ever greater potential for errors in customer communication. The challenge for businesses, authorities and organizations is therefore to create, and if necessary modify, error-free personalized documents as quickly as possible. Why? Because incorrect information can result in expensive legal conflicts and negatively affect the credibility of the business.

In view of the growing number of different documents, companies must face the major challenge of implementing quality assurance in document production. Manual QA is not 100% accurate, and it is too expensive.

That is why countless companies have established processes for automated quality assurance. Those processes are usually based on the following principles:

- Open and scalable workflows
- Integration of document changes
- Establishment of validation management
- Monitoring of the quality of changes



Open and scalable workflows

The first principle is to clearly define who checks what. Normally, quality assurance of documents with variable data is divided into two phases: While one department ensures that the document complies with standards, another department makes sure that the variable data was entered correctly. Hence the form and the logic of the document are reviewed separately. The more complex the structure of the personalized data, the higher the risk of errors in the document is. It is no longer enough to check the address, the account number and the account statement. In more and more cases, the variables entered into the document are the result of sophisticated business logic (“If X is true, apply Rule Y.”).

A credit offer, for example, can depend on the number of points accumulated in a loyalty program. Regulatory requirements may dictate adding specific remarks and footnotes. It is therefore not unusual for variables inserted in a document to involve more than a dozen levels of nested logic.

One could naturally argue that this kind of complex logic will be adequately checked before production starts. Yet the tinier changes that can be made to documents over time might be overlooked.

What can you do?

One proven method is to constantly check a document with variable data throughout all phases of production. This requires automated processes that notify employees so any serious errors can be addressed. Of course, this approach requires that all those involved understand the review process and are able to verify whether the automatic check is working as expected.

From the field

“We are sure that all documents to be sent are absolutely correct. In the meantime, our customers are so convinced of our high quality, that several of them officially define Data-Mail as the quality assurance standard.”

Chris Bennett, Data-Mail
(USA)

Integration of document changes

One of the biggest challenges is that each document always refers to a large number of data sources and rules that can be changed independently of one another. It usually involves much more than simply changing a coding method or developing the nomenclature for customer categorization. To avoid any risk, all customer data and coding references used for document production need to be properly maintained.

In fact, this principle resembles version management in software development. Quality assurance in document generation could just as well be based on document version management and the associated variable data records. All modifications are easy to track on the change display. During document creation, these codes need to be taken into account and the process in some cases stopped if the content does not match. For example, some firms print a verification code or a coherence confirmation message on each page to make checking by the operator easier.



Establishment of validation management

Software is usually developed by different teams that work simultaneously on parts of the application. Among the standard methods software developers use is to closely track every change in order to coordinate the work of the team and reduce the likelihood of problems from avoidable programming errors. Communication using variable data should take the same approach in order to avoid expensive and embarrassing errors.

Often there is a lack of coordination between marketing and production. There are no clearly defined workflows on marking reused documents or elements, making it impossible to tell which version of the document is more current. A collaboration tool like SharePoint can help prevent such errors and manage document revisions made by multiple users. But that is just part of quality assurance.

It helps to use a version indicator so that every change includes a type of version code. These codes can be included in the check and output during the check process. The use of the correct versions can be quickly verified.

From the field

“The Compant tools definitely stabilize our workflows, allowing us to guarantee our customers 100% reliability and timeliness. We also reduce proofing expenses at the same time.”

Douglas Carl, Director of Data Services bei Japs-Olson (USA)

The tenth largest print services and direct mail provider also benefits from higher throughput of checked documents.

Monitoring of the quality of changes

Along with changes, documents must be checked to ensure that the modifications that affect the document are those that were actually intended. In the life cycle of a document with variables, every modification is a critical phase, which in the worst-case scenario could tarnish the company's image and erode customer confidence. Therefore, when a change is made, it must be possible to compare the versions of the document with one another to ensure that no unintended changes were made.

This relatively simple document comparison process is made more complicated by complex variable data and changes to the document model, such as changing a logo. In relatively simple documents, a text comparison is enough to detect deviations. However, when characters of different fonts and sizes are used in a document or when changes to the variable data affect the entire layout of the document, a text comparison does not work.

In this case, the only efficient way to detect all the differences (including metadata, page design and colors) is an automatic comparison at the pixel level. The benefits of an automatic document checking system are obvious. It takes just a few minutes to run a comparison for several thousand documents. In contrast, a manual review would take several people days.

Automatic document comparison naturally requires that a version management system is in place and that the document has been completely checked for quality.

Finally, a decision must be made as to when to perform the comparison. Most of the time, the comparison is integrated into the creation workflow so that it can be carried out systematically. In practice, this can be reduced to a simple formula: No document may be released before it passes the comparison test.

From the field

“The increasingly diverse variants of personalized direct mail campaigns with a high number of pieces forced us to look for an alternative to manual proofing of documents.”

Rodger Smith, Naehas (USA)

DocBridge Delta enabled the supplier of direct marketing services to establish an IT-driven review process that could be seamlessly integrated into the existing document processing workflow.

Proven processes

All over the world, businesses are faced with the difficulty of reliably monitoring changes to documents and simultaneously ensuring a high degree of quality and transparency. In Europe and North America, for example, companies of every size and branch of industry are already using checking programs like DocBridge® Delta in order to implement their strategies for stringent quality assurance. Companies that recognize the risks and make all involved employees aware of the requirements are those that lay the foundation for successful review of document changes

Why an automatic, IT-based quality check?

- Less risk of rules violations (compliance)
- Greater productivity by concentrating on the core business
- Avoiding costs (no misprints)
- Secure handling of variable data (personalization of customer communication)
- Professional version management (Is the current and correct template always available?)
- Different deployment scenarios supported (regression/iteration tests, rules-based checks, direct document comparison, archive validation, etc.)



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Compart AG
71034 Böblingen
Otto-Lilienthal-Str. 38
Tel. +49 7031 6205-0
Fax: +49 7031 6205-555

www.compart.com
E-Mail: info@compart.com

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