NiceLabel®

The 4 Elements of a Modern Label Management System

4 Elements of a Modern Label Management System

Introduction

In the past, companies depended entirely on label or forms design software to manage their entire labeling process. These 'legacy' approaches often required manual printing and a labor-intensive quality control process; leading to a variety of direct and indirect costs across departments and locations.

To avoid such issues, companies are embracing digital transformation by adopting a **modern label management system** that can be a highly effective solution for many businesses. It works by replacing manual labor and other time-consuming and error-prone activities with reliable, futureproof technology; resulting in a boost in efficiency and a drop in mistakes.

Aside from the obvious benefits, a label management system can also help you to identify the hidden value in your business by helping you get products to market faster and ultimately sell more.

In this eBook, you will learn:

- The role that a centralized document management system can play in your overall quality and management process
- Why user-friendly design software can improve your time-to-market and reduce your overall IT costs
- How integrating your labels with other business systems helps achieve a lower incidence of error
- Why deploying on-demand label printing with web printing technology helps to increase efficiency and consistency across locations and throughout the supply chain
- And much more…

PS: Don't forget your "must have" checklist of features that any modern labeling solution should include at the end of this book.

Visible and Hidden Costs

Expenses associated with a legacy system aren't always obvious

Direct Costs

The obvious costs of the printing process are those that are easy to see and are predictable, such as printers, software and consumables; often leading to the perception that they are the total cost of labeling. However, there are a number of other hidden costs that can even have an impact on the business bottom line.

Indirect Costs

The indirect costs of errors are the result of product quarantine, rework, scrappage, recalls and even fines. These are often hidden under the surface and substantially bigger than the direct costs. Minimizing the risk of error can save companies many thousands or even millions of dollars per year.

Opportunity Costs

Legacy systems do not allow companies to respond rapidly to new market requirements or new business opportunities. Instilling agility and accuracy into all stages of the labeling process results in faster time-to-market and increased sales. By capitalizing on previously missed opportunities, you can make the biggest impact on your company's bottom line.

93%

of NiceLabel customers experienced savings with the utilization of a web-based label management system

1 Document Management System

Improve quality management while decreasing cost with a document management system

What are some of the **biggest problems** faced by businesses in designing & managing their labels with a decentralized, desktop-based legacy system?

- Requires IT resources to design label templates
- Many inconsistent or duplicated label variations in multiple locations
- No built-in secure role based access control (RBAC)
- No central data repository, all labels and data must be shared manually
- Inefficient and time consuming review and approval process

Resulting in:

- Slower time-to-market
- Overdependence on IT resources, resulting in delays and higher costs
- Unauthorized label changes
- Unsatisfied customers due to errors and delays
- No centralized control or visibility into users, documents, devices, history and events

Standardize & Centralize to **Eliminate Risks**

By adopting a document management system with the following characteristics you can avoid some of the common pitfalls mentioned earlier.

Centralized and secure database storage with role-based access to indexed label information, allowing for full indexed search of all data.

Modern browser-based user interface with label preview and approval functionality that does not require you to install desktop applications on every workstation.

Automatic document 'version control' that includes built-in approval workflows and email updates to the label review process.

With NiceLabel, we made a significant improvement in the quality and management of our processes. We continue to reduce the number of label templates as we roll out changes to our other factories.

Anton Skof
IT Department Manager
Krka

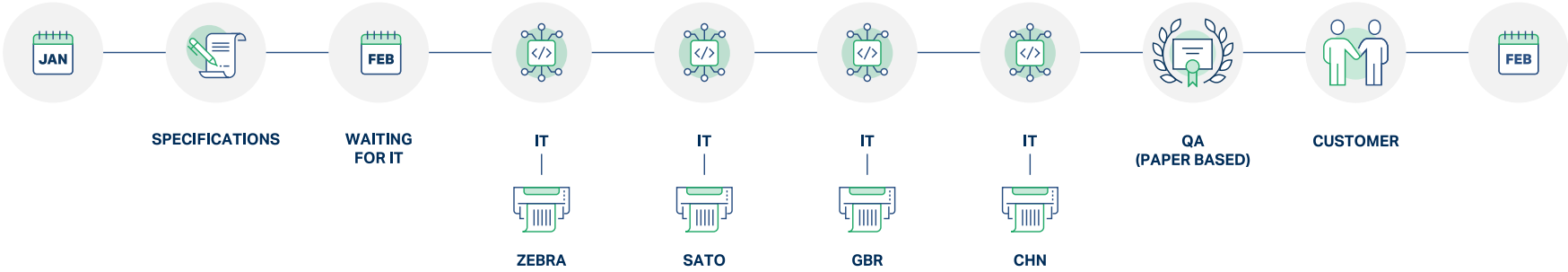
2

Label Design

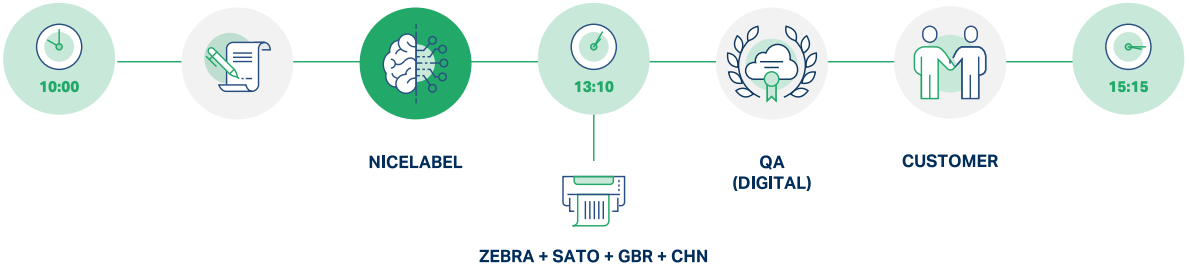
Reduce your IT costs with intuitive design software

One of the **major problems** that business can have when their software isn't user-friendly is that it requires a consistent IT commitment throughout the labeling process, causing major delays in each stage of your operation.

Process timeline without NiceLabel



Process timeline with NiceLabel



In the past, companies utilized a number of different methods to design labels:

- Software designed for creating forms or reports that also featured basic barcode objects. This was far from an optimal solution for designing labels as it was cumbersome, required IT assistance, and didn't support the native features of label printers; resulting in limited operation and poor printing performance.
- Hard-coding label templates scripted in the label printer's command language. While this may have delivered a faster printing speed, it required the programming of label templates in a specified printer language; meaning that when companies had different brands or models of printers, the same templates had to be programmed multiple times in order to work with all of them.
- Professional label design software. Though the easiest to design with, it often still required IT involvement in simpler tasks that should have been straightforward. Additional complications related to integration with other business systems meant that the entire process, including printing, often occurred totally independent of other essential business functions.
- Due to decentralized systems and business changes such as mergers and acquisitions, many companies ended up with a fragmented mix of the above approaches.

Consequences

- Heavy dependence on IT for label design, resulting in consistently high costs and long delays for label change requests
- Many companies ended up with hundreds or thousands of label design variations; often with very small differences between them, making their management and organization unnecessarily complex; leading to a higher risk of errors.
- No centralized technical support from the IT department, resulting in high ongoing maintenance and support costs.
- Manual data entry and mislabeling errors, as a result of the need to print directly from the label designer, leading to product quarantine, reworking, shipping delays or recalls, to name a few.
- Inability to respond with the agility required to be successful in a digital era.

Empower Users to Design **Without IT**

When choosing a label designer, there are a number of essential features that a solution must include in order to maximize the opportunities and efficiencies of your business:

- Intuitive interface designed for 'business users'
- Built-in support and pre-made templates compliant with industry standards
- Universal printer compatibility to minimize duplicates and ensure consistency
- Data processing functions for serialization, expiry date calculations, check digit algorithms, text concatenation
- Database connection wizard to help seamlessly import label data

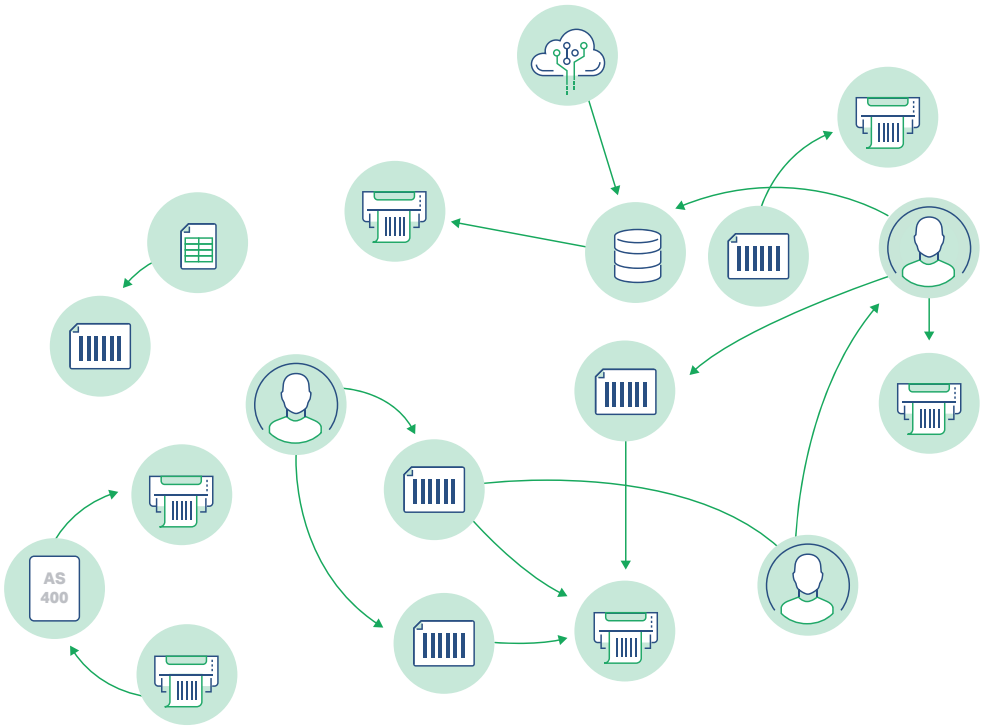
3 Integration

Eliminate manual data entry to reduce errors with an integration system

The key to data accuracy and process efficiency can be found in the level of integration with the master label data source. In the past, companies have applied various levels of integration with databases or business systems:

No Integration

This is the costliest approach as it requires that users create label variations for each SKU, often by manually entering data, or worse still, by modifying label designs directly. Aside from being intrinsically inefficient, this process is highly prone to error.



A “disconnected” environment like the one above demonstrates the inefficiencies that occur when data isn’t centrally accessible.

Excel or Access Connectivity

Connecting labels to a simple database is a substantial improvement. However, by printing from a designer application, the process is still relatively high risk because it requires increased operator training and additional quality control steps. Higher skilled personnel are also necessary to manage this type of printing instead of the software empowering the operators on the shop floor.

Embedded Template Printing within an MES, ERP etc.

This method delivers a semi-centralized and standardized type of approach with an increased degree of efficiency and accuracy. However, owing to the complexity of such a process, a substantial and ongoing involvement of IT personnel is required in order to create and manage all label formats. The IT team is required to create hard-coded label templates scripted in the label printer's command language for every model of printer.

Consequences

- Users create multiple label variations that are almost impossible to manage and change.
- Mislabeling of products, resulting in product quarantine, rework, scrappage or recall
- Extra labor costs for quality assurance staff to intercept errors.
- Extra labor costs for printing as a separate process, versus enabling print operators on the shop floor.
- Huge labor costs and slow response time to change when IT team acts as the label designers.

All legacy approaches to integration incur significant hidden costs, whether they are direct (labor), indirect (error) or in the form of missed opportunities, such as in your overall time to market. This makes it clear that any benefits realized with these types of arrangements are quickly negated by the increased time, effort, stress, and of course, expense that businesses experience through the process.

What are some **common problems** associated with legacy system integration?

Overdependence on IT

If all processes are isolated from each other, it will require that IT takes extra steps to create ways that team-members can stay connected, while keeping all essential data secure.

No “big picture” of entire labeling process

Being able to look closely at your labeling process is great; but it’s only a part of a greater production ecosystem. When companies are unable to get an overview of all the parts, it gets easy to get stuck in the details.

Integrate to Improve **Accuracy & Efficiency**

The main goal of any integration is to **ensure accuracy and efficiency** by interfacing with the master data. A modern label management enables you to achieve the highest level of integration quickly at much lower cost than in the past.

When choosing a solution, make sure it includes the following:

- Predefined connectors for a reduced need for coding
- Support for a variety of data formats (XML, CSV…) and built-in filters for powerful extraction
- Intuitive graphic workflow builder, replacing the need for coding business logic
- Ability to return label preview image to host application
- Modern print server that meets performance and scaling needs by consuming minimal hardware resources

NiceLabel helped us achieve new levels of operational efficiency while improving label accuracy.

Quality Assurance Manager,
LiNA Medical

4 On-demand Printing

Deploy standardized labeling with a web printing system

In the past, label printing in a desktop environment meant that IT had to touch every workstation to install and activate the labeling software. Templates also had to be installed locally or shared on a network drive. The more users and more locations, the bigger this challenge becomes. However, aside from being inconvenient, this also required that each print operator using the design application had to undergo additional training to learn potentially complex software; resulting in an exponential increase in the risk of error.

Consequences

- IT-heavy deployment process; driving up costs in time and resources
- Expensive change management process
- Lack of built-in access control
- Risk of unauthorized changes to label template
- Difficult printer interface requiring additional training of operators

Which also means:

- High costs
- Increased error incidence
- Slow time-to-market

from: name@example.com

to: info@nicelabel.com

May I please have guidance on how I would go about locking a label [as per below label] so that the information can't be opened up and made vulnerable by users making changes i.e. removing parts of the ingredient summary? I would like to have all our labels 'locked' as such and only able to be changed through password protect or something similar to this.

NOTE: Our company had a situation a few weeks ago where information was removed from the original label and subsequently the label was printed onto quite a lot of finished product.

Instant Deployment for **Faster Time-to-Market**

There are a few key factors that your label printing system should have in order to ensure a successful print deployment:

A simple printer interface allowing for:

- Data entry fields
- Database selections
- Printer settings
- Live data print preview

Web-based access to enable:

- Instant deployment, reducing IT costs
- Extending standardized labeling to suppliers and contract manufacturers
- Real-time updates across locations
- Built-in access control management

Conclusion

Transform your labeling to turn hidden costs into visible savings

Labeling is not a siloed operation, meaning that inefficiencies you may be experiencing in your labeling process can carry over into other parts of your business. However, any inconveniences caused by a legacy system often pale in comparison to the later **indirect and opportunity costs**. By continuing to utilize traditional approaches, businesses may feel that they are initially saving money by making use of existing resources, but the tremendous volume of missed opportunities quickly negates any cost savings.
A modern label management system **instills agility throughout the labeling process**, allowing businesses to respond how and when they need to; resulting in a faster time-to-market and subsequently an increase in sales. Instead of having to deal with the stress of fragmented and disparate systems, a wholly integrated labeling solution allows for the full assimilation of all steps of the production process, ranging from printer integration to centralized data management to help businesses experience a **lower total cost of ownership and a straightforward process** located within a single platform.

Learn More

If you're in search of your next **label management system**, make sure to **contact us** for your free labeling consultation.

Learn more about NiceLabel's label management system today!

Checklist

Exploring different labeling software options for your business? Make sure to keep this **handy pdf checklist** with you to make sure that the software you're considering has all the capabilities necessary to complete your modern labeling solution.

Download now

A **Labeling Software** Checklist

Below is a list of label management and creation features that you can use to help assess your current system and evaluate potential future vendors. If the software doesn't tick all boxes, your labeling solution might be costing you more than it should.

DOCUMENT MANAGEMENT SYSTEM

- Centralized database backed secure document storage
- Full content indexing for instant full-text search of all label data
- Preview labels with dynamic content in browser
- System-wide role based access control
- Automatic document version control
- Customizable approval workflows with email notifications to streamline approval process
- Graphical comparison of different labels, variations and revisions with highlighted differences

QUALITY ASSURANCE

- Centralized print history with visualization of every label printed and label reprint
- Centralized system history of all relevant security events
- Customizable email alerts for various system events (production errors, etc.)

ON DEMAND PRINTING SYSTEM

- Auto-built, all-in-one printing form with data entry controls and dynamic print job preview
- Customizable data-entry filters and error checking
- Print time database record selection on a single screen
- Responsive form design to fit different screen resolutions
- Integrated no-programming graphical application builder for building efficient labeling solutions for controlled printing
- Support for multi-lingual user environment
- Single click web deployment of centrally controlled labeling applications

PRINTING INTEGRATION

- Graphical integration builder for no-coding integration
- Pre-built connectors for quick integration with existing systems
- Structured text data (CSV and fixed-width columns) processing
- Configurable XML format processing
- Unstructured text and binary data processing
- Generate label preview as an image file and return it to the host application

TEMPLATE DESIGN

- Text, barcodes, lines, boxes, circles, clip art, images and PDF files
- Fit text-to-box (dynamic point size)
- Wrap text-to-shape (word-wrapping and text justification to non-rectangular shapes)
- RFID support
- Relative object positioning and variable label length
- Library of ready-to-use international standards compliance label templates
- Linear and 2D barcode symbologies with support for printer-based barcodes
- Full serialization including support for printer-based serial numbers
- Date and time fields sourced from PC or printer
- Full database connectivity to any existing database
- Variable graphic fields including graphics sourced from database
- Prebuilt functions for efficient data concatenation and processing

PRINTING

- Native support for label and marking printers
- Support for all laser/inkjet printers with a Windows driver
- Local and network printer support