

# Advances in Food Labeling Systems

Demands for transparency, increasing regulations, and the need to streamline production to compete in a fragmented marketplace are all factors that require adopting new labeling methodologies.

The food and beverage industry is under pressure.

- Rising concerns over food allergens and an increased awareness of food additives have placed food labels in the limelight.
- The introduction of new regulations and legislation governing the food and beverage industry also impacts labeling.
- A heightened focus on sustainability, food miles and sourcing of ingredients also comes down to labeling.
- Many medium and large scale manufacturers have relied on mergers and acquisitions to keep pace with

an increasingly competitive marketplace. However, mergers tend to result in a wide range of legacy systems involving label and direct marking printers from different manufacturers. Replacing all of this hardware in one fell swoop is, in most cases, cost prohibitive.

One could argue, quite compellingly, that labeling has never played a more crucial role in your business.

## Diverse IT landscapes create barriers to standardization

Some labeling systems only support label printers while many proprietary direct marking printer manufacturers only support their own brand of printers. This can be problematic because these labeling systems can't be extended to work with direct marking printers. Having so many isolated printers in the label and direct marking process doesn't exactly make the road to standardization an easy one.

Having such a wide range of hardware also impacts integration with manufacturing execution systems (MES) and enterprise resource planning (ERP) systems. Multi-location manufacturers often handle printer integration with the MES on the local level. This means many local system integrators are sub-contracted to build integrations and they have to provide local IT support.

To further complicate things, many companies don't integrate direct marking devices to business systems because the lot and expiration date information that is commonly printed is seen as minimal and not worth the complex integration. Each location might use a different integration method, making standardization and support a challenge. Local production sites might choose varying levels of integration and introduce manual data entry on standalone systems.



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With all of these challenges facing food and beverage organizations, several questions arise: How can you respond to the demands for greater transparency in your labeling process? How can you rapidly respond to changing regulatory requirements? How can you integrate all labeling and marking with master data?

The answer is to implement a modern label management system.

## Centralized labeling

A modern label management system enables manufacturers to implement a standardized and controlled method for producing labels or marking packaging throughout the entire organization. It involves having a centralized web-based document management system where labels and history are kept. Local offices can use templates to produce the labels they need, and all changes and updates are done centrally and pushed out to the individual factories.

The most effective label management systems are able to interface with a variety of labeling and direct marking printers, regardless of manufacturer. They can also integrate direct marking and labeling with the master data in business systems to eliminate manual data entry errors that can result in having to rework the label or worse yet, discard product. This decreases the upfront investment companies have to make in order to embark on the road to standardization and increases their ability to roll-out a unified label process throughout their organization. Implementing a label management system is the key to creating a more productive, agile and efficient organization.

## Transparency and accuracy

A label management system makes it easier to identify potential errors before products are shipped by integrating labeling with an MES or ERP system for single source of truth master data for labeling. Using a label management system reduces the likelihood of human error due to manual data entry.

Label management systems also enable users to preview any changes made prior to printing, providing another opportunity for quality checks. By creating specific user roles and issuing unique log-ins for each user, label management systems provide an added layer of transparency throughout the label production process.



Implementing a label management system allows you to update labels from one central location. Thus, when consumers demand greater transparency and information regarding your products, you only have to implement changes in the document management system, and they are automatically made available to all factories that produce the product. Responding to new regulatory requirements is easy, as the adjustments only have to be made in one place. You also save time when introducing new food products or when incorporating products acquired as the result of a merger or acquisition.

### Unite your printers to create a more cost-efficient operation

Implementing a label management system can save countless man-hours and increase employee productivity. The centralized database can be updated quickly, and employees can use pre-made templates to send out labels, saving valuable time spent on manually designing labels.

When selecting a label management system, there are a number of ways to reduce the financial impact on your business. By standardizing on a system that can work across a wide range of label and marking printers, you ensure that you can continue to use your existing hardware along with the new system.

Integrating direct marking devices with the MES for master data becomes easy and ensures accurate lot and expiration date information. Selecting a system with a familiar user interface, particularly one that has a Microsoft Office 2016 look and feel, will ensure that business users can use the system, saving time spent on extensive training sessions. This means anyone can quickly design professional labels without barcoding, design or advanced computer skills.

Implementing a label management system also brings cost savings by enabling more effective use of your company's IT resources. Many food and beverage manufacturers use a combination of local and corporate IT resources. Individual factories often have their own IT and printing systems, which need to be supported locally. This can make it difficult to establish and implement national or global goals for IT response time, and make it challenging to manage IT costs on a global and local level.

A label management system removes the need for coding and IT development. Business users can use web-based interfaces to

enter the document management system and make changes to labels, so it becomes a question of configuring an existing template, not requesting changes to the back-end system from IT.

You also eliminate the need for programmers to develop their own custom printing front-end applications, which are costly to maintain. Your IT budget can then go to more value-adding activities that incorporate automation in other aspects of your manufacturing processes.

### Cost savings

To identify the cost savings potential that a label management system could bring to your business, consider the following questions:

- How many people/shifts are involved in the design and print process?
- Can your business users create or change labels?
- How long does it take for you to deal with label change requests?
- How many templates or label variations do you have to create and manage?
- How much support, maintenance and reliance do you have on your IT department?
- Have you ever had any fines or penalties for mislabeling or lack of compliance?
- Has manual data entry resulted in label errors?
- What is the cost associated with reworking labels that have errors?
- Have you ever had to discard product or lost business due to mislabeling?
- What do shipping delays cost your business?

### A need to transform

The food and beverage industry is under pressure to transform. Growing consumer demands for transparency, increasing regulations, and the need to streamline production in order to compete in a fragmented marketplace are all factors that require adopting new methodologies. The companies that can successfully adapt to these changing conditions will be in a better position to compete in the years to come.

Standardizing on a label management system can position companies for growth in the following ways:

1. Avoid costs associated with recalls, fines, lost business and production delays
2. Increase operational efficiency and productivity to do more, faster with less
3. Establish labeling processes that scale as the business grows
4. Minimize dependencies on time consuming and costly IT resources ■

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