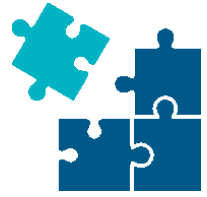


Supply Chain Challenge?

SOLVED



Unreadable GTL Barcodes Create a Bottleneck

Global Transport Label (GTL) codes are ideal for package sorting but are susceptible to becoming unreadable. Engineering Innovation implemented a two-barcode system that enhances efficiencies.

THE CHALLENGE

Sorting can be a high-pressure environment. This is no different for one of our customers, a mail service provider consolidating parcels for the United States Postal Service. When you are processing thousands of pieces an hour, speed and accuracy are crucial. Often, this critical task relies on a specific type of barcode: the Global Transport Label or GTL code.

These compact data matrix codes are great for holding a lot of information in a small space, making them ideal for package sorting.

GTL codes, despite their advantages, are susceptible to becoming unreadable due to several factors. Wrinkles in polybags, a popular choice of packaging used for their affordability and lightweight design, could distort the code, confusing barcode readers.

Glare or hot spots from the package surface could obscure it entirely. Additionally, a printing malfunction known as thermal bleeding could cause the code to become distorted, overlapping the small lines within the GTL code and making it useless.

Unreadable GTL codes cause major problems. The smooth flow of the sorting process grinds to a halt. Packages pile up, waiting for someone to decipher the damaged code manually. This was a slow and error-prone process, adding delays and frustration to our customer's entire operation.



THE SOLUTION: A TWO-BARCODE SYSTEM FOR UNMATCHED EFFICIENCY

When our customer came to us with this problem, our team of engineers began researching how best to implement a solution to decrease "No Read" rates. The answer came in the form of a two-barcode system and a reader that identifies both simultaneously.

The GTL barcode remains the primary source of information, holding all the essential data needed for sorting the package. In addition, we added an Intelligent Mail Package Barcode, or IMPB, as a safety net. This unique identifier is less prone to becoming unreadable due to wrinkles, glare, or thermal bleed and points to a separate database to efficiently find and sort, bypassing the need for a control person to manually verify illegible GTLs.

Through our solution, which provides redundancy, we significantly reduced bad read rates, bringing

processing efficiency close to 100%. With faster sorting, reduced errors, and improved scalability, the client achieved peak efficiency.

In the words of our Engineering Project Manager, Eric Auberry, "Our great success came from a mistake." The client was apprehensive at first about our idea to add a second barcode, worried that it would add time and delays to the overall operation. When a too-early software release threatened to become a challenge, it became a blessing in disguise.

The high rate of unreadable GTL codes provided real-time data that perfectly illustrated the need for the IMPB. Imagine a scenario where only 1 out of 10 packages were being sorted correctly due to damaged GTL codes. With the two-barcode system software activated, the data showed the effectiveness of our solution. The IMPB codes ensured near-perfect accuracy, transforming the sorting process from a struggle to a streamlined success story. As Bob Ross would say, "There are no mistakes. Just happy accidents."

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