



## Avoiding food waste solutions

# Re-labeling with mobile label printer and database in retail application

According to the United Nations Environment Programme's "2024 Food Waste Index Report", as much as 1.05 billion tons of food will be discarded worldwide in 2022, of which about 60% comes from households, accounting for the highest proportion, with an average of 79 kilograms of food wasted per person per year. If we further estimate the waste of edible food and assume that the average weight of food per meal is 420 grams, then households around the world waste more than 1 billion meals a day. At the same time, there are still 783 million people in the world who are suffering from hunger.

Fresh food with a short shelf life is one of the main causes of food waste in supermarkets. Most businesses will label expired products and sell them at a discount. However, the labeling process still relies on manpower, and for retailers, it is definitely a very effective way to try to sell products that may be thrown away.

# THE ISSUE

To maximize display space and help customers quickly find what they need, retail stores often place computer systems in back-office warehouse areas, freeing up more space at the front for sales. While this setup optimizes space usage, it also brings operational challenges. For example, with perishable fresh products, prices must be adjusted frequently based on expiration dates and inventory levels to reduce waste and boost turnover. This requires daily batch printing of labels, followed by staff going to the warehouse to verify, sort, and attach them—making efficiency and accuracy key concerns for retailers.

Many professional label software tools offer powerful features such as barcode support, automation, and database integration—originally designed for complex industries like manufacturing, logistics, or healthcare. However, retailers often only need basic label design and printing. Advanced functions like variable control or remote printing are rarely used, similar to how most office software users only use basic word processing and spreadsheets. As a result, these high-end tools, though capable, come with high licensing costs and require extra time and resources for training and maintenance, ultimately becoming a burden that doesn't align with actual retail needs.

## CHALLENGES



### Inefficient performance

Need to manually sort out and match those printed labels by many staff, that consume lots of time and manpower during the evening period.

### Difficult risk management

Mistake always happened unexpected even with the experienced staff, also take long time to gain the experience for new employee.

### Expensive software

Professional version label editor can support database function, but most of cases are over-function that becomes a high-cost burden for retail owner.

# OUR SOLUTIONS

ARGOX's label editor, iLabelPrint+ App, has built-in access the Excel file and Applink features. System integrator can design their own App to link the iLabelPrint+ App, for customize User Interface and then print out the label as expected.

## SYSTEM APPLICATION SCENARIOS

### Maintain the database on PC

Batch revise the price on PC by Excel file with formula setting, that easy maintain for most of staff.

### Access database on smart phone

Use iLabelPrint+ App to access the Excel file without no extra cost.

### Print out the label at shelf

Print out the label on demand, to avoid unexpected mistake, such as mismatch or duplicate labels.

## PRACTICAL BENEFITS ANALYSIS

### Useful software features at no extra cost

iLabelPrint+ App has built-in Excel file access and App linking functions, so system integrators do not need to pay additional software costs.

### Easy database management

Excel file operation can meet around 80% application demand. Easy and straightforward.

### Reduce management risk

Print out the label on demand, to avoid unexpected mistake, such as mismatch or duplicate labels.

## FUTURE PROSPECTS

In addition, a product information QR Code can be added to the price promotion label. Consumers can simply pick up their mobile phones to scan and learn about the harvesting status of the current batch of fresh food. After scanning, customers not only have a basic understanding of fresh food, but also convey the deliciousness of fresh food while solving problems.

# WHY ARGOX



## Highly integrated

The iLabelPrint+ App has built-in Excel file access and App linking functions, and also provides portable barcode printers to fully meet the needs of system integrators.

## Useful software functions

Use iLabelPrint+ App on smartphones or tablets to access cloud Excel files maintained on PCs, without the need for system integrators and retailers to pay for additional software costs.

## Sample programs provided

ARGOX provides sample programs, enabling equipment developers to modify and expand based on specific needs, speeding up the development of automatic labeling equipment.

## Stability and accuracy

The mobile label printer offers excellent stability and printing precision, capable of operating reliably for long periods in factory environments, ensuring each label is printed accurately.

By supplying mobile label printers and label editing software, ARGX has successfully solved one of the technical challenges of avoiding food waste. This not only protects retailers' profits, but also sets a benchmark for the development of changing price tags on shelves for fresh food. In the future, such innovative applications will continue to drive more industries towards efficiency and fairness.



# ABOUT ARGOX

At ARGOX, we take pride in being a trusted and innovative manufacturer of high-quality label printers, dedicated to sustainability, excellence, and cutting-edge technology. Since our founding in 1996, we have rapidly established the ARGOX brand as a benchmark for international quality and advanced barcode printing solutions.

In January 2012, ARGOX Information Co., Ltd. became a subsidiary of SATO Japan, further strengthening our global presence. Today, ARGOX is a recognized and trusted brand in over 70 countries, delivering market-leading solutions across multiple industries.

Stay connected with us for the latest news, product innovations, and industry insights. Let's explore practical and efficient labeling solutions together!



Website



LinkedIn