

Freshcode



FreshCode Labels

Varcode's patented **FreshCode™** smart barcode labels are a breakthrough TTI technology. By combining temperature measurement into the data value of the barcode, Varcod has developed a low-cost but data-rich and easy-to-use solution for monitoring the cold chain.

The breakthrough **FreshCode** label is based on a chemical process that triggers a value change in the displayed barcode whenever any of the multiple pre-set events occurs. The label is designed to start its monitoring process activated by pulling a tab, therefore no special storage is required. The label can be read in as many check points throughout the cold chain as required: from the point of activation all the way up to the retail cashier.

The smart barcode can be read by any commonly used barcode reader as well as iOS or Android based smartphones and tablets. The use of a standard barcode reader ensures not only fast and accurate reading, but smooth integration into the enterprise's existing procedures with no need for equipment purchase or any other investment.

The triggering events are defined by the customer and can be specific for the product (or product group). The values displayed for each event are also user defined, thereby allowing the customer to easily integrate with existing QA coding methods and procedures and to allow for discreteness of what each read means. The recipients are also easily configurable; different people can be alerted in different situations by either email or SMS.

The resulting read is accurate, numeric and objective (eliminating the human interpretation factor of some other TTI solutions that consist on color change).

The FCMS™ open interface also ensures straight forward integration into existing IT systems.

Features :

- ✚ Labels configurable to a wide variety of Time / Temperature settings – based on specific solution requirements.
- ✚ 1-D barcodes readable by standard barcode readers as well as Android and Apple ios smartphones.
- ✚ Unique, individualized serial number per label, enabling rich Track & Trace functionality.
- ✚ Materials safe label construction.
- ✚ Integrated with the FCMSTM system for alerts, reporting and cold chain management.

Benefits :

- ✚ **Low cost:** Cost per unit is a fraction of the cost for electronic solutions with comparable performance.
- ✚ **Data rich:** Track temperature status at any point; immediately available for proactive alerts and reporting.
- ✚ **Integrated:** Easily capture data across cold chain participants from manufacturer to logistics carrier to retailer.
- ✚ **Unambiguous:** Results and actions based on clear, deterministic data without needing human interpretation.
- ✚ **Discreet:** Status is encoded in the barcode, allowing you to notify only those who you want to know the results.
- ✚ **No special equipment:** Label is scannable by nearly any standard barcode scanner, smartphone or tablet.
- ✚ **Fast implementation:** Easy-to-use apps on existing equipment minimizes training and roll-out.

FreshCode Management System (FCMS)

Varcode's FCMS™ is a comprehensive tracking, reporting and alert system to effectively manage the cold chain. Used alongside our FreshCode™ smart barcode labels, FCMS enables a manufacturer, 3PL or retailer (or all three!) to define and implement an effective cold chain monitoring process. The flexible architecture allows for almost any quality / safety requirements or for almost any supply cold chain structure.

At the set-up of the cold chain monitoring program, Varcode will assist the customer to define the users, profiles, alerts, products, readers, sites and other parameters that allow FCMS to fit the customer's process. From there, the customer can easily administer and adjust the program by themselves.

FCMS is a cloud-based, SAAS solution. Varcode has embedded a high level of security into the system in order to protect the potentially sensitive data.



Features :

- + Cloud based: easy access nearly anywhere the FreshCode™ labels need to be monitored.
- + Permissions-based alerts available by email or SMS.
- + Ability to configure different responses and actions for different events, conditions or users.
- + Ability to assign specific package and profile characteristics to each label for Track & Trace.
- + Different profiles (e.g., chicken, fresh fish, milk, vaccines, etc. or English, Spanish, German, French) each configurable with rules for actions and alerts by specific users.
- + Rich reporting tool with flexible, filterable results.
- + Easy to integrate into existing customer systems.
- + Supported by Varcode's world class IT development team.

Benefits :

- + **Quick implementation:** No need for lengthy internal systems development.
- + **Flexible set-up:** Rules-based design enables data capture across the different companies, locations and devices.
- + **Flexible alerts:** Permissions-based approach enables configurable alerts to different user types and locations.
- + **Comprehensive:** Establishes traceability and accountability throughout the supply chain.
- + **Secure:** Highly secure platform. Each customer's data is private.
- + **Scalable:** Cloud-based architecture ensures high-performance for programs of any size or location.
- + **Fast rollout:** Implementation with minimal training and without needing new hardware.
- + **Integratable:** Can be integrated with the customer's own IT system, if necessary.