



# ICS Solution with HCC(Hidden Color Code)

Third-Generation Product Management Solution for SCM and CRM

## Change in Product Management Code



First-Generation  
Bar Code



Limited data  
to be saved



Second-Generation  
QR Code



Administrative  
security issues  
due to  
exposed code!



Third-Generation  
HC (Hidden Color) Code



Keep the advantages of  
the existing  
management code  
and improve security  
with invisible  
management number!

## Principle and Application Process of HC (Hidden Color) Code



Receive design file (ai)  
from clients



Create HC code  
(Unique ID,  
product  
information,  
production date,  
effective date,  
factory line, etc.)



Apply HC code via ICS conversion  
program (insert data through non-  
visible color difference)

225 -> 0 230 -> 1



100110110...



Mass production after  
printing product design  
according to existing  
process  
(material-independent,  
no change in process)

# ICS Solution Applications – Build Brand Protection & Marketing Channels

**Special Materials and Special Printing X**



**Applicable to all materials and general printing based on digital watermark!**

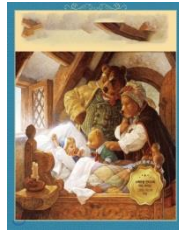
**No Additional Labeling Process X**



**Applicable to the design file itself, thus applicable to printing and existing processes as well!**



Applied to Cosmetic Labeling



Applied to Fairytale Book / Album



Applied to Record Sleeve



Applied to Entrance Ticket



Applied to Flyer



Applied to Packaging



Applied to Pouch Packaging



Download ICS App and scan for a second!



Activation / Product Information



Join Event



Go to Purchase Page



Play Contents

# ICS Solution Applications–Individual Product Traceability Management

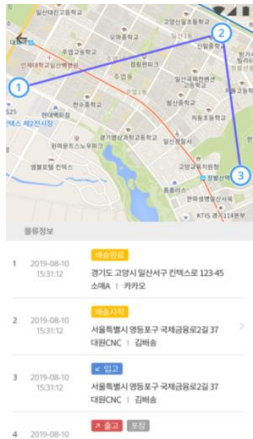
**Exposed Management Code (Barcode / QR Code) .....> Highly secure traceability management system by hiding the management number!**

**Tracking management in lot and box units .....> Manage individual product tracking by assigning ID to each product at the lowest cost!**

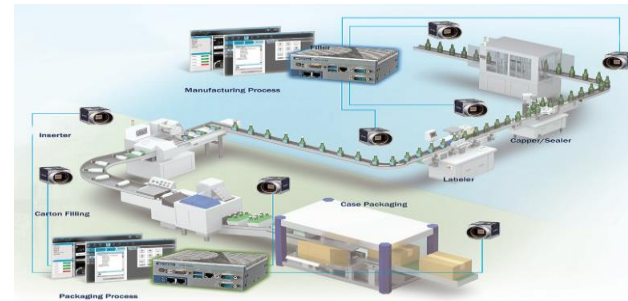


## 1. Label Production and Labeling

Apply variable Unique–HC code via digital printer to packaging such as product label/ set



## 4. Enter Retail Store and Consumer Scanning



## 2. Factory Inspection and Product Release

Full inspection of individual products through vision camera / smartphone scanning

-> Process product release after mapping with current box-by-box barcode system

(Dashboard checks product scan and status of product release data)



## 3. Entering, Release and Inventory Management in DC / TC

Product entering/ release processing through existing barcode management system

(Identify the status of entering/ release, inventory and product expiration date through dashboard)

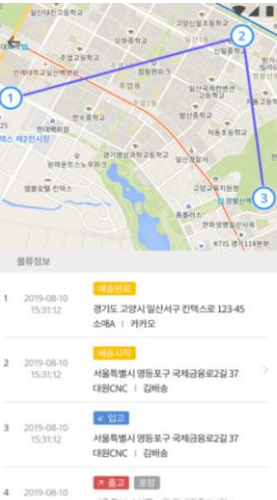
## 5. Check Product History



# Expected Effects



Establish a Consumer-Directed CRM channel through two-way information exchange between customers and consumers!!



Individual product traceability control s product price and minimizes cost recovery by preventing illegal distribution!