

New approach to product protection and authentication in the distribution chain

FractureCode Corporation

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IMPACT

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FractureCode Corporation

- FractureCode technology patented & development started in 2001, providing item level identification for secure products & documents
- Company founded in 2002
- Based in Copenhagen, Denmark
- Subsidiary of Filtrona plc, UK FTSE 250
- Product officially launched at Intergraf High Security Printing Conference in May 2006
- Proven technology, having protected in excess of 10Bn products to date



Winner of Best Practice in Product and Brand Protection

PISEC 06

What we do

- FractureCode Corporation is a specialist in providing and delivering end-to-end highly secure and unique coding and tracking systems, supported by a range of hardware and software products.
- Our solutions provide global companies and governments with a way of marking and subsequently tracking individual products or security documents regardless of manufacturing speeds.
- Each unique FractureCode links data to products throughout the manufacturing & distribution process, by means of a database system.

The World Health Organization (WHO) estimates that as much as \$35 billion in counterfeit drugs, or 10% of all prescription drugs sold globally are fakes. An estimated 25% of the drugs consumed in developing countries are thought to be counterfeit and in some countries, this figure may be as high as 50%.

Deliverables

- FractureCode is a full service solutions provider
- High level expertise in printing, security, vision systems, databases, decoding software and IT ensures the best possible integration of FractureCode technology with existing infrastructure
- Installation and integration of all vision systems, IT infrastructure and databases optimization
- Sophisticated handheld reading systems for fast and reliable interrogation of the database
- Continuous 24/7 global support in operating the systems

In China, the state-controlled Shenzhen Evening News reported that 192,000 people died in 2001 as a result of fake drugs. The same year, Chinese authorities raided and closed 1,300 counterfeit drug factories and opened up investigations on 480,000 cases worth \$57 million.

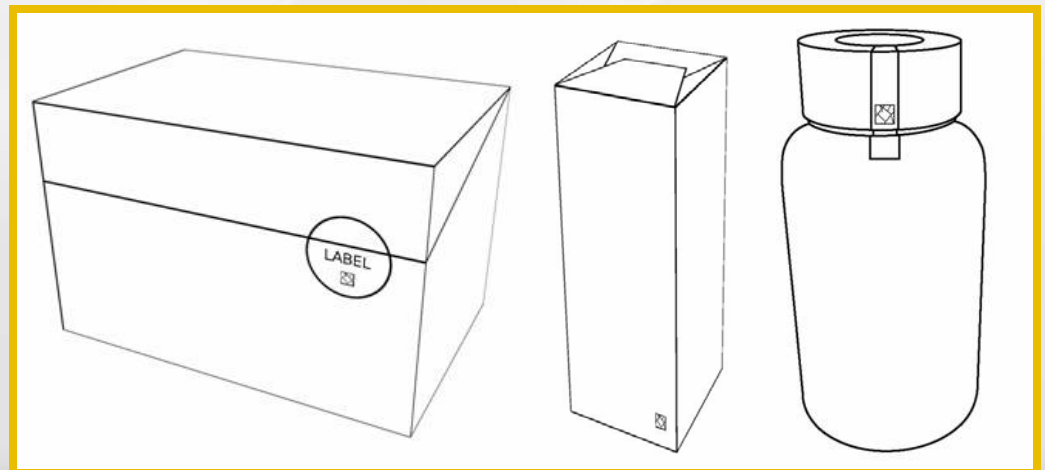
Market trends

- The need for product information is increasing to effectively reduce counterfeit and smuggling
- Governments are pushing for increased control
- Some governments already changed their legislation related to smuggling and counterfeit
- Strong social obligation to control problem

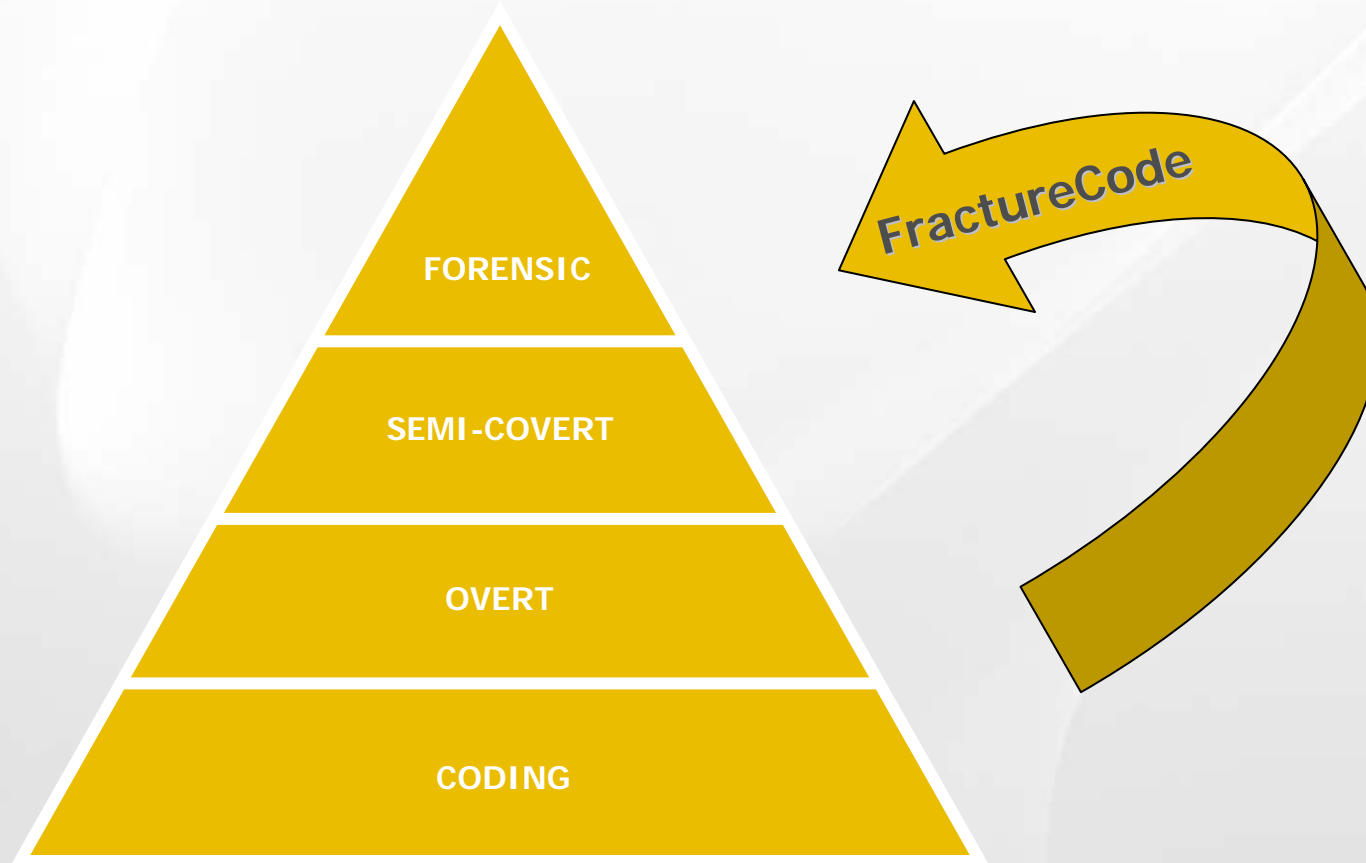
A report released by the U.S. Centre for Medicines in the Public Interest, projects counterfeit drug sales to reach \$75 billion in 2010, which will account for a 92% increase from 2005 levels. This lucrative trade attracts criminal networks, hinders the profits needed by pharmaceutical companies to research and develop new drugs, and poses serious immediate threats to consumers.

Market requirements

- Cost effective and affordable solution in order to cover global product ranges instead of regional coverage
- Combination of track, trace and authentication
- Technology must be applied as early in production process as possible
- Must not slow down any process in production or supply chain
- Mix of proprietary and open standard
- Make use of existing hardware base (Printers, scanners, cameras, IT infrastructure etc)

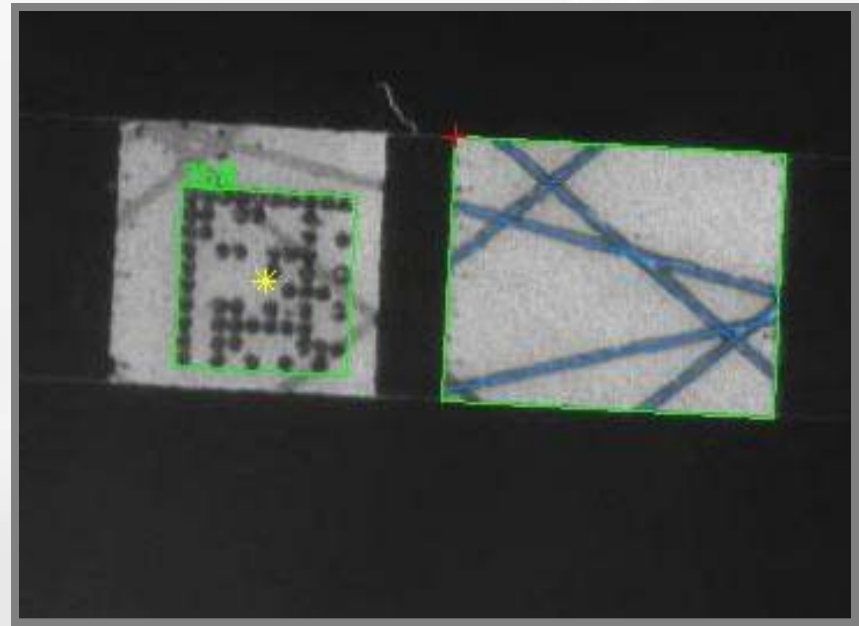


Multi level approach required



The FractureCode

- FractureCode lines positioned in the code window generated to produce a unique random “fingerprint”
- FCPrefix data used as a descriptor to minimize database search time and to guarantee uniqueness of the entire code
- In total a FractureCode carries more than 2.7×10^{80} unique possible combinations



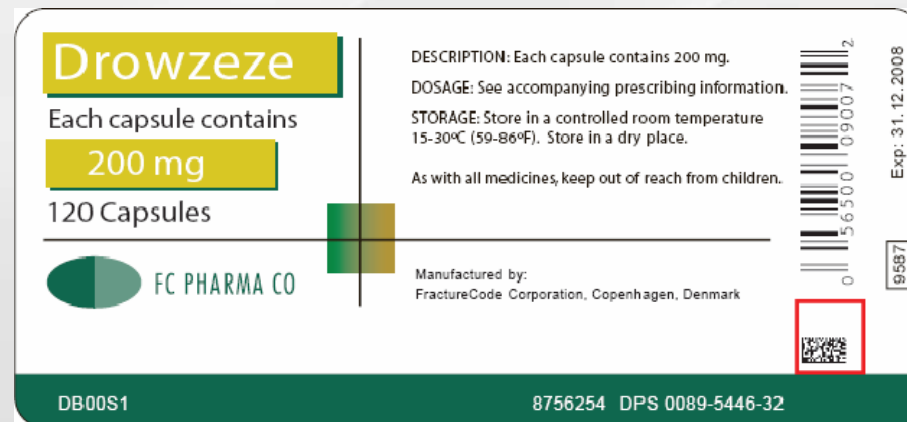
Integrates with other tracking & IT systems

- Can be interfaced with existing barcode or RFID systems
- Achieves fully integrated 'nested' shipments
- Because it is 'dumb' it can be independently re-used further up the supply chain
- Code architecture pseudo match EPC structure
- Extremely fast search times, completely independent of overall database size
- Uses standard IT hardware
- Decoding & storage speeds of 32 items per second
- Data size per code from only 24 bytes



Future Developments

- FractureCode Corporation is an R&D technology focussed business.
- In addition to our core FractureCode technology, we are close to commercialising several other technologies.
- One technology is specifically for the Medical Products / Pharma Industry.
- It doesn't rely on printing and is purely for authentication.
- Uses our core expertise in vision systems and decoding software.
- Amongst other things, it can be used to secure and protect open standard technologies.
- Allows you to read any 2D DataMatrix, Barcode, etc and know that individual product is authentic!



Summary – FractureCode is:

- An item level ID system
- Simple to use
- Suitable for a range of products
- Seamless to apply
- Small, covert and robust
- Highly secure
- Capable of operating in different environments
- Capable of full integration into current IT infrastructure
- A high volume, high speed database system

Thank you for your attention
