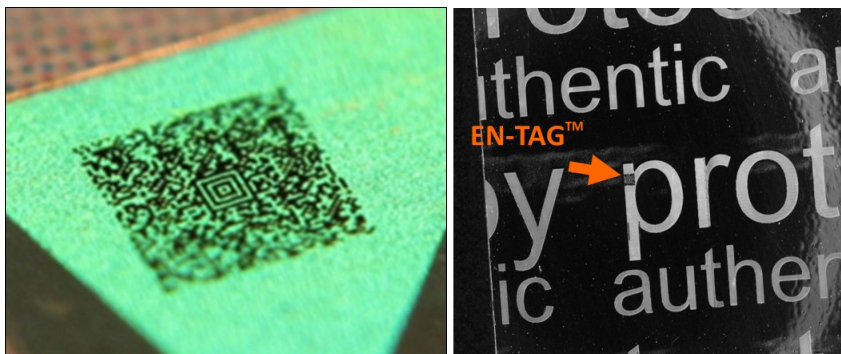


Nu-CODE™

Traceability and anti-counterfeiting at your smartphone

ABOUT NU-CODE™

Nu-CODE™ is the full platform for traceability and anti-counterfeiting, flexible and adaptable to all needs. Nu-CODE™ technology is based on ultra-miniaturized labels En-TAG™ containing digital information.



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MICROCODES EN-TAG™

The Nu-CODE™ platform leverages the unique characteristics of non-reproducibility of En-TAG™ codes, real data-matrix miniaturized can contain any kind of information.

The micro-codes En-TAG™ once generated are not rewritable. They are able to ensure the secure identification of a product and contain all the information required for its full traceability.



NANOVIEWER SOFTWARE

The NanoViewer software has been specially designed and developed from scratch for reading at the professional level of En-TAG™ miniaturized codes.

The software is multi-platform (Windows, Mac OS, Linux, Android) and fully customizable. It can be easily integrated into existing software systems.

A platform for complete traceability, security, brand protection and anti-counterfeiting

Nu-Code™ ADVANTAGES

⇒En-TAG™ area: from 0.3x0.3 mm² up to 1 cm²

⇒En-TAGs™ can contain large amount of data in terms of text, images, audio files or any kind of digital data. The data are on-board and it is not always necessary to have an internet connection.

⇒The data are written, read and decoded with dedicated setups and proprietary software. The data resulting from the reading (type of client, geo-localization, time, etc.) can be used by the customer in different ways.

⇒En-TAG™ decoding is possible even if heavily damaged: up to 40% of the code can be damaged or missing.

⇒En-TAG™ data can be serialized or batch written with digital encryption and the marking process is unique.

EASE OF USE

The new Android App (soon also for iOS) allows the En-TAG™ verification in a simple, clear and immediate way.

ADAPTABILITY

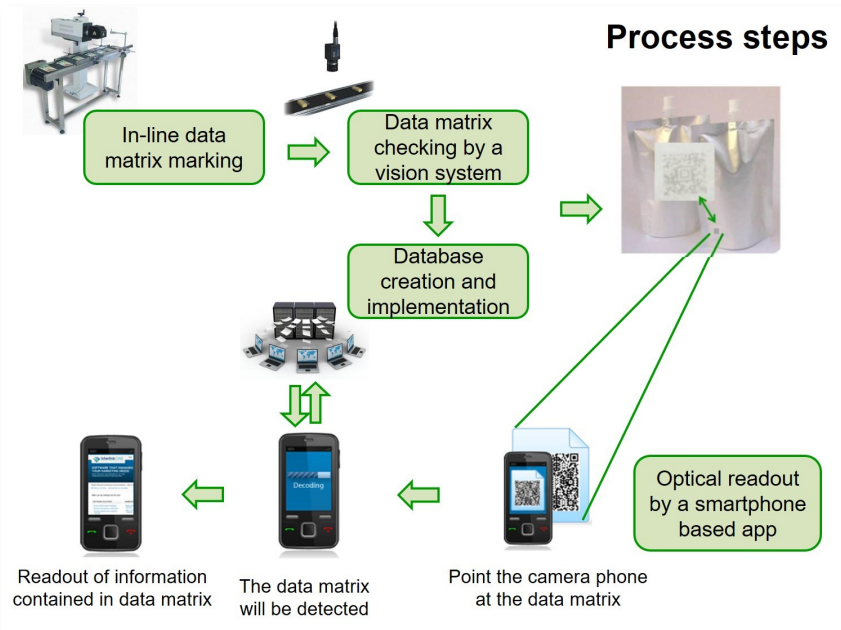
Nu-CODE™ can be fully adapted to the customer's needs. The possibilities include:

- En-TAG™ code generation by means of a marking system already on customer's site.
- integration of one or more components of the platform in an existing product line.

LOW COST

The En-TAG™ micro-codes on label can be produced at a very low unitary cost.

In case of direct product marking the laser technology allows to reach adequate speeds of production on a wide range of materials, maintaining low production costs.



Nu-CODE™ system

RELIABILITY

The high reliability of En-TAG™ micro-codes used as data carriers, and of the NanoViewer software for the readout make Nu-CODE™ an extremely robust platform throughout the life cycle of the product, from the production process to the final customer.

CUSTOMIZATION

Every single aspect of the Nu-CODE™ platform can be customized according to the customer requirements.

Possible customizations include:

- En-TAG™ label design
- rebranding of the software products
- capacity, size and content of the En-TAG™ codes
- limited access to (part of) the contents of the En-TAG™ codes.

INTEGRATION WITH PRODUCTION LINES

The know-how acquired through years of research and experimentation allows our technicians to provide advice for the integration with existing production lines:

- laser markers suitable for marking of En-TAG™ on a wide range of materials software for the generation of codes with advanced features (according to the customer's needs)
- vision systems for quality control

Nu-Code™ CONSISTING OF

- ⇒ miniaturized En-TAG™ digital tags encoded in packaging foils and boxes with an industrial laser
- ⇒ an industrial vision system mounted in line
- ⇒ a smartphone based app

TYPES OF VERIFICATION

According to the client needs, there are several ways of checking the En-TAG™:

Quality Assurance. Check of readability and En-TAG™ code quality parameters directly into the production line

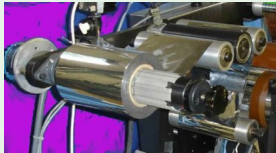
Audit sample. Sample testing of some products of a batch, done by inspectors with dedicated reader or Smartphone. For this type of survey a dedicated version of the NanoViewer software is provided. The software is able to verify the authenticity of the product and to extract the data for its complete traceability.

Smartphone check. Verification by consumers with a Smartphone and NanoViewer app. For this type of check, a free dedicated version of NanoViewer is distributed, according to the requests of the customer.

BATCH PRODUCTION

The En-TAG™ micro-codes can be produced on label by the standard production process used in holographic industry, which involves the generation of unique master to employ in roll-to-roll embossing process.

The En-TAG™ codes products in this way can have very low unit cost (fractions of cents) and are all identical, as copies of a master.



DIRECT MARKING

If variable data from a product to another are required, the Nu-CODE™ technology allows you to generate En-TAG™ microcode via direct laser marking on a wide range of materials.

For those who choose this type of solution, Scriba Nanotecnologie offers consultancy for design and manufacture of laser markers guaranteed and certified for the marking of En-TAG™ micro-codes.

CUSTOM ACCESS LEVELS

Digital data contained in En-TAG™ codes can be made accessible to different levels of users (e.g. supervisor/inspector/consumer), depending on the security requirements of the customer. For each user level a specific software NanoViewer version can be provided.

Scriba Nanotecnologie Srl

Via di Corticella 183/8
40128 Bologna
Italy

Phone: +39 051 4159501
Fax: +39 051 6311250

www.scriba-nanotec.com
info@scriba-nanotec.com

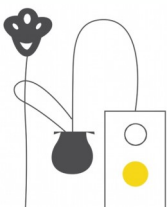
CONTENT SECURITY

Digital data in the En-TAG™ codes can be encrypted using standards worldwide algorithms: SSL for communication (used e.g. in home-banking services), AES to encrypt content (used e.g. by USA government).

WEB ANALYTICS

Every NanoViewer software version is able to collect the data extracted during each reading and send them to a database. According to the needs of the customer, these data can be associated with others, such as the identification of the type of user (inspector/consumer/other) and the geolocation of the readout.

Scriba Nanotecnologie offers a service for collection, management and analysis of data, and for generating customizable statistics according to customer's specific requirements.



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