Brand/Product Protection

2D Technology Group offers a comprehensive strategy and cost effective solution for Brand and Product Protection based on its Data Matrix Decoding/Encoding software & Barcode Authentication technology. It employs the concept of Digital Signature for **barcode authentication** and additional layer of protection - **barcode encryption** – for enhanced data security.

Data Matrix symbology is widely used today for product serialization, product lifecycle management (PLM), document tracking, etc. thus making it an excellent candidate for upgrading this "data mark" to the "data + security label" - traceability and anti-counterfeiting in one package.

The solution includes two separate SDKs (and ready-for-use programs):

- **DMPS_E** - Encoding library and application (interfaced to Windows 64) - includes proprietary built-in mechanism allowing to enable Data Matrix Authentication (digital signature) and to encrypt it, if required, in addition to the regular data encoding.

    Example: the same encoded text message, but different levels of protection:

NO Protection	Authentication enabled	Encryption	Authentication + Encryption
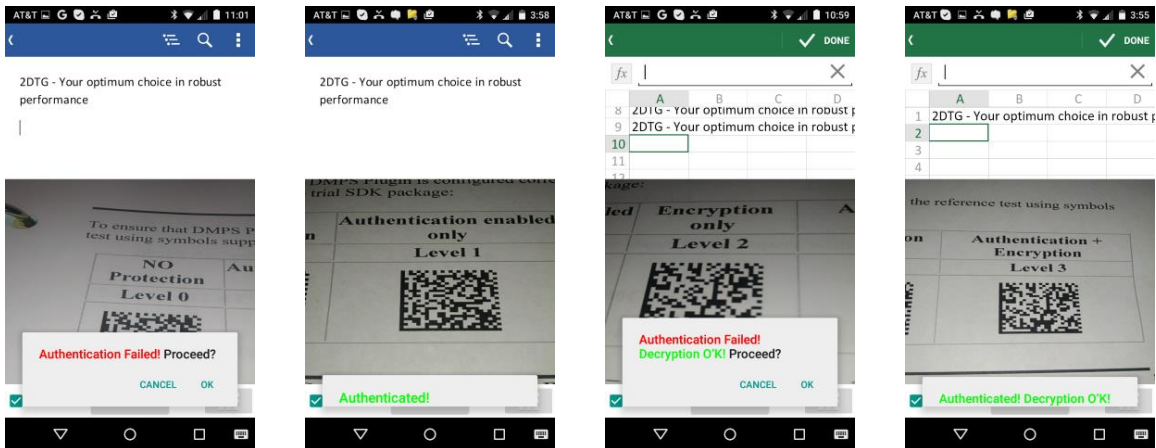
- **DMPS_D** - Decoding library and Demo applications - checks barcode for authenticity while extracting the encoded information after symbol decryption; interfaced to Windows 64, Linux 64, Android 8.0 and higher, embedded platforms, designed for industrial grade applications, including Honeywell's scanners and mobile computers:

    Xenon 1950/1952,   **Dolphin CT60**
    Granit 1910i/1911i/1920i/1990iSR/1990iXR/1991iSR,
    Vuquest 3320g,
    Voyager 1470g/1472g/1602g

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The technology can be seamlessly integrated into existing barcode based systems, providing brand security across the entire supply chain and helping customers increase efficiency, reduce costs, and ensure safety.

Industries:

- Manufacturing
- Warehouse/Distribution/Logistics
- Retail
- Healthcare/Pharmaceutical

Benefits:

- Combines barcode traceability and barcode security features in a single Data Matrix symbol, providing authentication and encryption in addition to serialization
- "Natural extension" for Track and Trace systems - from tracking an individual product to product authentication.
- Low (or "0") impact on Product Price:
  - **NO** set-up fee for authentication/encryption build-up
  - **NO** special readers required for authentication
  - **NO** impact on manufacturing process
  - **NO** additional equipment necessary to apply the authentication during the manufacturing process
- "Double layer" product/document protection combining the use of authentication and encryption technologies to provide a deterrent solution to counterfeiting
- Enabling authentication feature to protected Data Matrix does not really change how it looks, making it difficult for counterfeiters even to suspect that the symbol might be protected
- Suitable for embedded platforms allowing product authentication "at the receiving deck" or POS - reducing time and cost
- Interfaced to Android 8.0 and higher - providing convenient tool that works with any Android smartphone or Tablet PC