Hello, and welcome to this presentation of the STM32 Device Electronic Signature which can be used as a device identification or serial number.

Overview

- The Device Electronic Signature provides unique device information that can be read by applications including
  - 96 bit-long unique ID (UID)
  - Part number coding & package type information

Application benefits

- Unique device identifier can be used for security and serial numbering schemes
- Device configuration information for multi-platform firmware
- Read-only information
- Easy to use and implement

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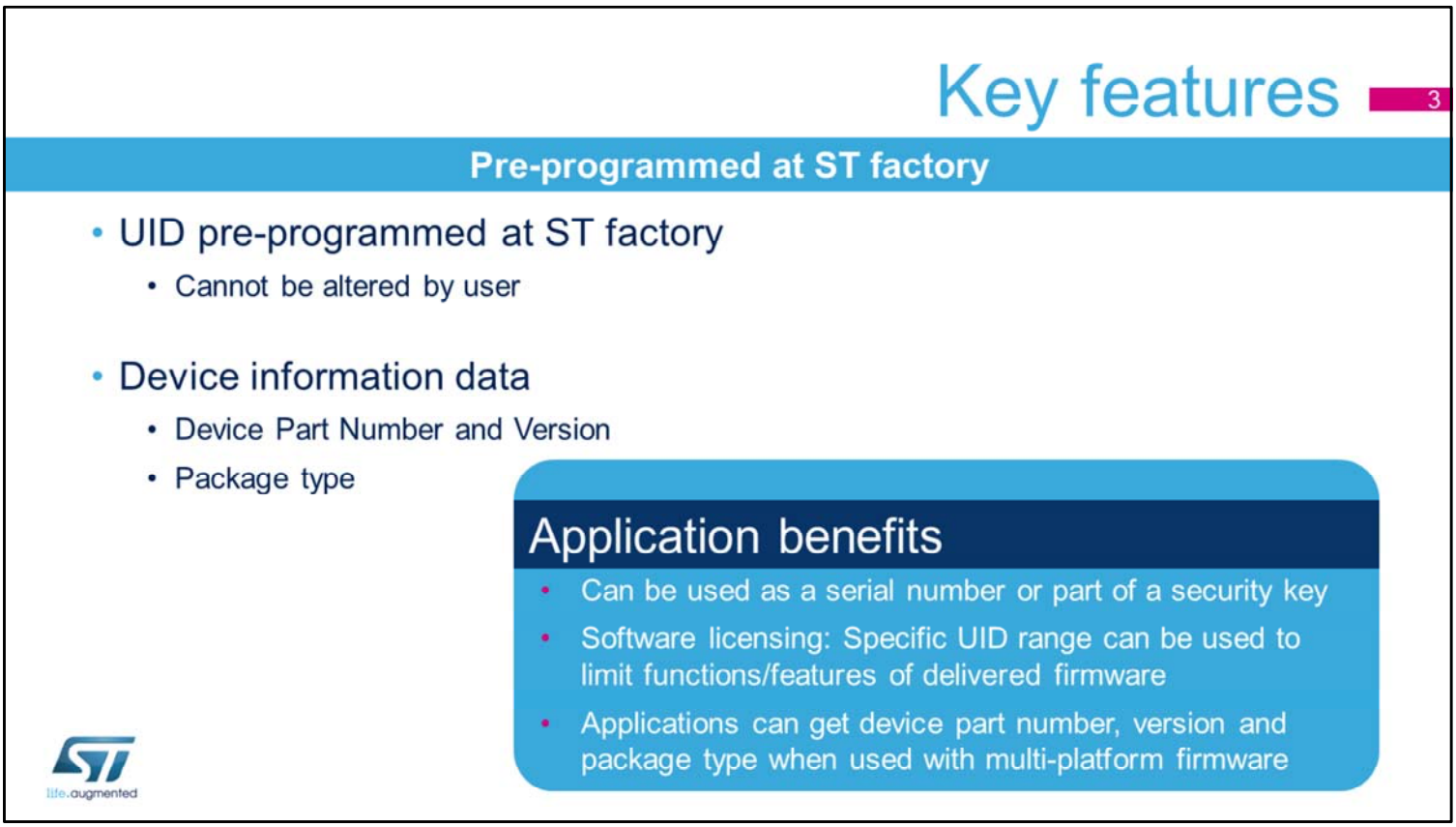
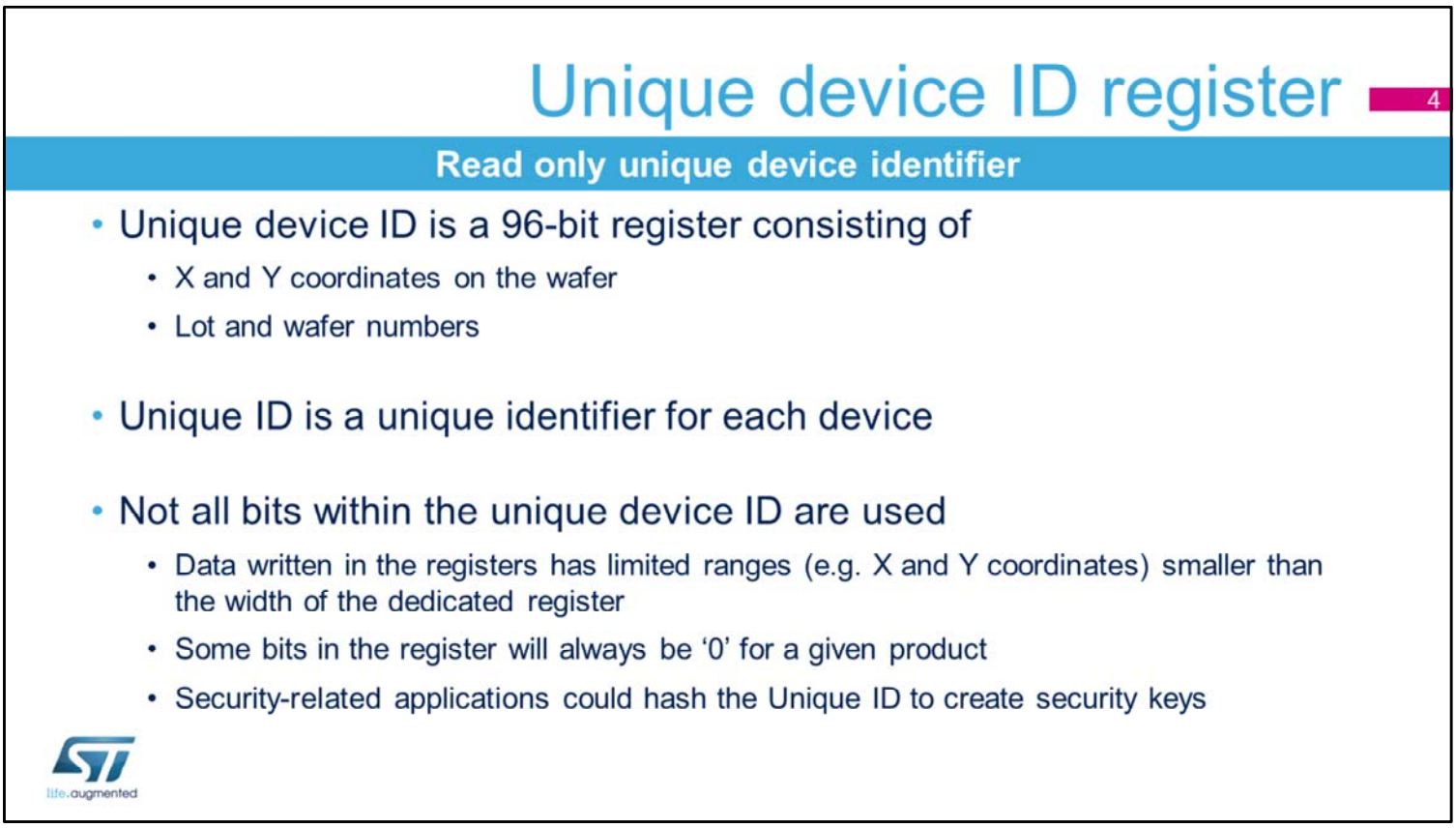
The device electronic signature provides a set of registers containing die identification, unique device identifier (UID), and other read-only device information such as memory size, package type, and device calibration information. Applications can benefit from a unique identifier that can be used as a serial number or as part of a security key. It can also be used to manage software distribution/licensing features based on the UID.



The unique identifier (UID) and other device information are pre-programmed at the ST factory and cannot be altered by users. This identifier can be used as a security key or serial number, as well as an identifier for software licensing. Multi-platform firmware can use the device information to determine package type and part number for managing application functions and features.



The unique device identifier is a 96-bit register that contains the coordinates of the die on the wafer, lot number and wafer number.
This identifier is unique for each device manufactured by ST. As each record within the unique identifier has a given range, like the X and Y coordinates, not all the bits in the device ID are used. This is important for security-related purposes, where the number of bits used is an important parameter. Such security applications could hash the Unique ID to create security keys.

References

- For more details, please refer to following sources
  - STM32MP1 reference manuals (RM0441, RM0442 and RM0436)

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For detailed information, please refer to the device's reference manuals and datasheet.