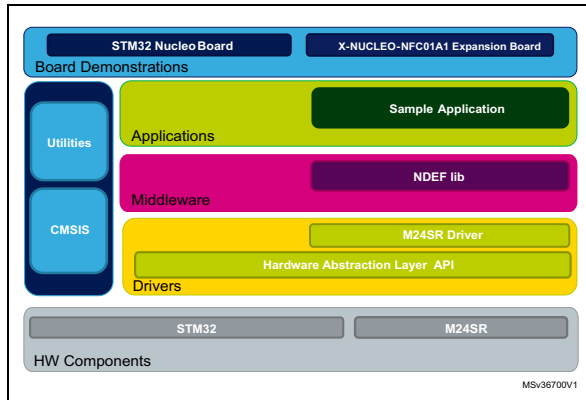


## Dynamic NFC Tag M24SR software for STM32, expansion for STM32Cube

Data brief



### Description

This software includes drivers for M24SR devices (NFC tag type 4A), running on STM32.

It is built on top of STM32Cube software technology that ease portability across different STM32 microcontrollers.

The software comes with examples of implementation of such driver for X-NUCLEO-NFC01A1 expansion board.

### Features

- Complete middlewareRev 2 to build applications using M24SR dynamic NFC tag.
- Easy portability across different MCU families thanks to STM32Cube.
- Sample application to transmit NDEF message to a NFC capable smartphone.
- After first M24SR programming the demonstration can work even without power. (M24SR will act as a classic tag).



# 1 Detailed description

## What is STM32Cube?

STM32Cube™ initiative was originated by STMicroelectronics to ease developers' life by reducing development efforts, time and cost. STM32Cube covers STM32 portfolio.

STM32Cube Version 1.x includes:

- The STM32CubeMX, a graphical software configuration tool that allows to generate C initialization code using graphical wizards.
- A comprehensive embedded software platform, delivered per series (such as STM32CubeF4 for STM32F4 series)
- The STM32Cube HAL, an STM32 abstraction layer embedded software, ensuring maximized portability across STM32 portfolio
- A consistent set of middleware components such as RTOS, USB, TCP/IP, Graphics
- All embedded software utilities coming with a full set of examples.

## How does this software complement STM32Cube?

The proposed software is based on the STM32CubeHAL, the hardware abstraction layer for the STM32 microcontroller.

The overall software architecture of the X-CUBE-NFC1 package is depicted in picture on cover page.

At the bottom layer are the HW components, the STM32 MCU and the M24SR dynamic NFC tag device.

The drivers abstract low-level details of the hardware and allow the middleware components and applications to access M24SR data in a hardware independent fashion.

The package also includes a sample application that the developer can use to start experimenting with the code. The sample application was developed to enable native NFC data exchange with a NFC capable smartphone device. For this purpose an URL is stored in M24SR. Bringing your smartphone close to the antenna will automatically launch your browser on the web page address that has been stored in the M24SR.

## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
24-Nov-2014	1	Initial release.
10-Dec-2014	2	Updated cover page and <a href="#">Section 1: Detailed description</a>

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