



X-NUCLEO-IDW01M1 (Wi-Fi expansion board)

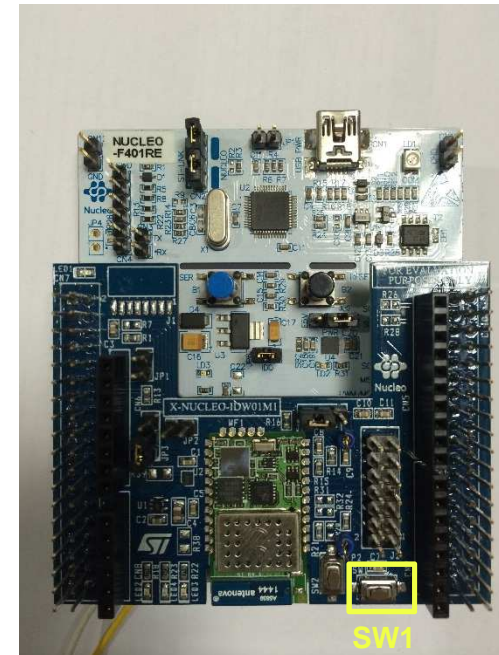
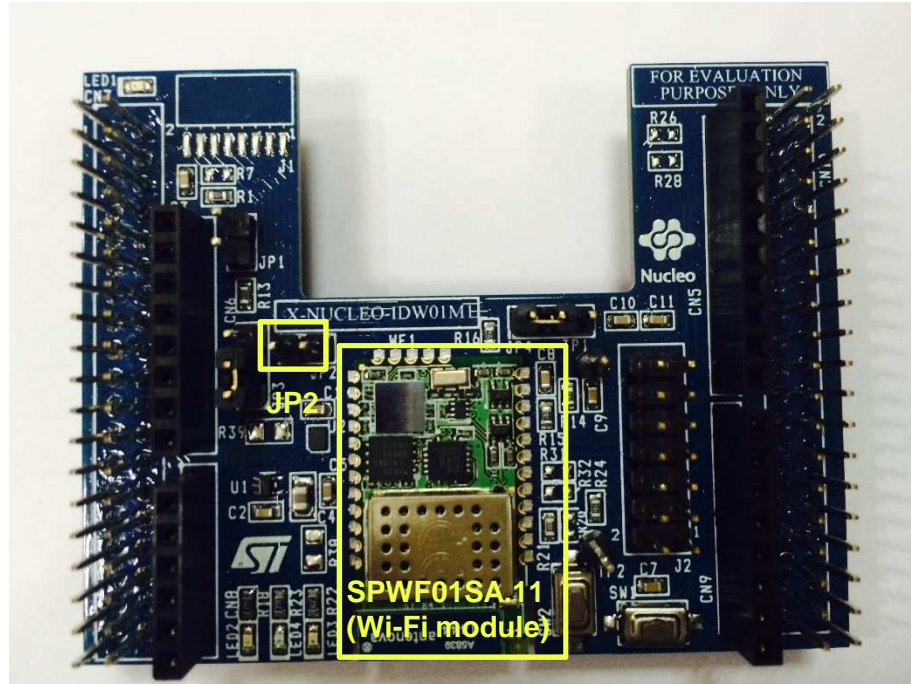
Step-by-Step Guide: SPWF01S firmware upgrade over UART

Preparing the X-NUCLEO Board



- Open folder X-CUBE-WIFI\Utilities\PC_Software\FW_Update_UART
- Open STM32L053R8-Nucleo, STM32F103RB-Nucleo, STM32F401RE-Nucleo or STM32L476RG-Nucleo folder depending on which platform (L0/F1/F4/L4) you are using.
- Currently only L0, F1, F4 and L4 Nucleo boards are supported
- Connect X-NUCLEO with the PC and drag and drop the FW_Update_UART_Nucleo-*.bin file to the NUCLEO drive on the PC
- The X-NUCLEO is now ready to update FW to the X-NUCLEO-IDW01M1

Preparing the X-NUCLEO-IDW01M1 Board



- Install a jumper on JP2 as shown in the picture.
(This will pull the BOOT0 pin high [3.3V], which puts the X-NUCLEO-IDW01M1 board into “firmware download” mode.)
- Connect X-NUCLEO-IDW01M1 and NUCLEO
- Connect NUCLEO into the PC’s USB receptacle.
(The PC will audibly indicate that the USB bridge has enumerated as a UART device. The green LED1 on both boards should glow.)
- Press the RESET button SW1 on X-NUCLEO-IDW01M1 board.

Downloading the Flash Loader tool

- Navigate to the URL:
www.st.com/web/catalog/tools/FM147/CL1794/SC961/SS1743/PF257525
- Click the red **Download** button at the bottom of the page and save the [stsw-mcu0005.zip](#) file to a folder on the PC of your choosing.
- Extract all the files in the Zip file to the same folder.
- Within the folder, locate the [Flash Loader Demonstrator](#) executable (*.exe) file.

The screenshot shows the STMicroelectronics website page for the STSW-MCU005 STM32 and STM8 Flash loader demonstrator (UM0462). The page is viewed in Internet Explorer. The main content area is titled "STSW-MCU005 STM32 and STM8 Flash loader demonstrator (UM0462)" and is marked as "Active". Below the title, there are sections for "Design Resources" and "Get Software".

Design Resources

Quick Links: [User Manual](#)

Technical Documentation

Description	Version	Size
UM0462: STM32™ and STM8™ Flash loader demonstrator	7.1	1,672 KB

Presentations & Training Material

Presentations

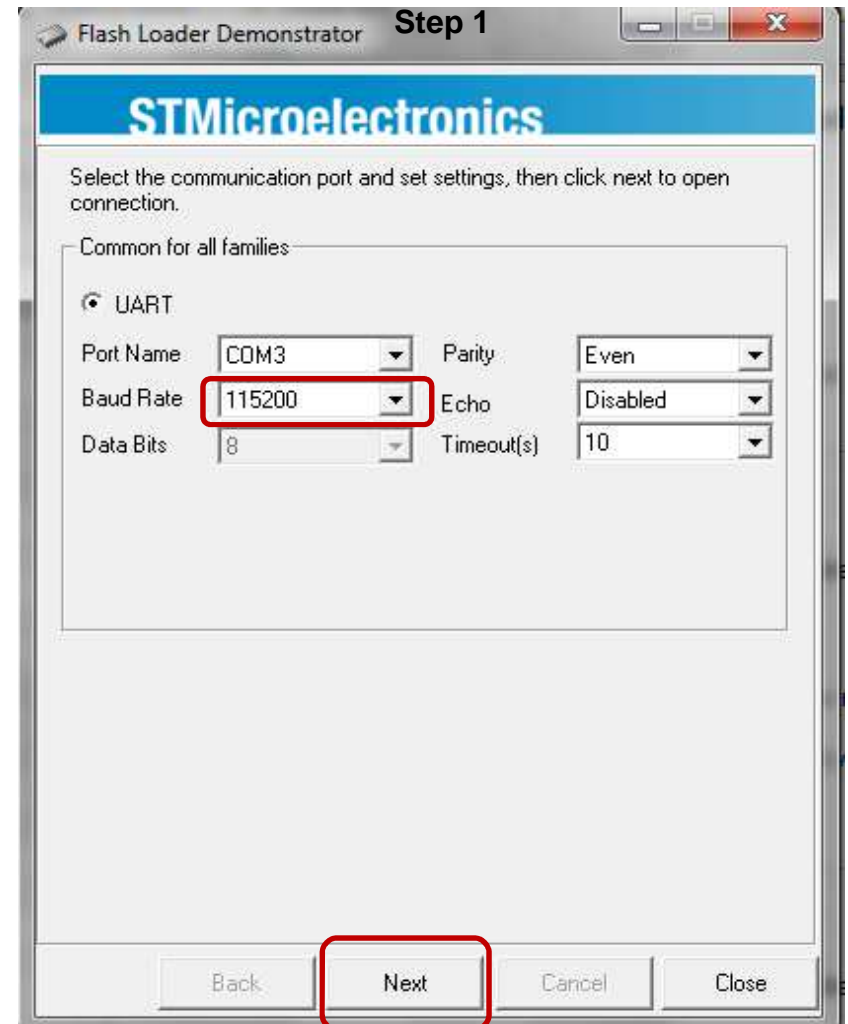
Description	Version	Size
STM32 and STM8 embedded software solutions		1,771 KB

Get Software

Part Number	Version	Marketing Status	Order From ST
STSW-MCU005	2.6.0	Active	Download

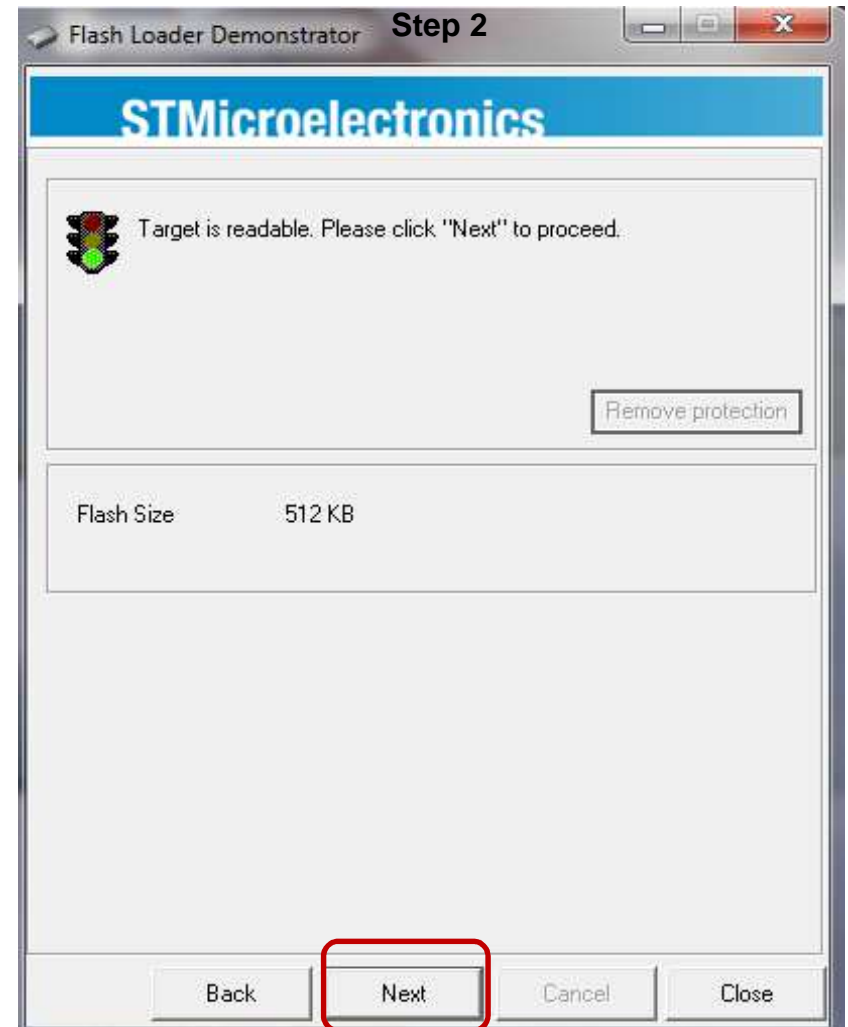
Communicating with the X-NUCLEO-IDW01M1 board

- Run the Flash Loader Demonstrator executable file extracted earlier.
- Verify the software has detected the X-NUCLEO board on a UART port. (If not, use the PC's Device Manager to load the device driver. The USB to UART bridge should be in the list of "Ports (COM & LPT)" devices.)
- Verify that the default settings (i.e. Baud Rate = 115200, Parity = Even, and Echo Disabled) are chosen.
- Click the "Next" button.



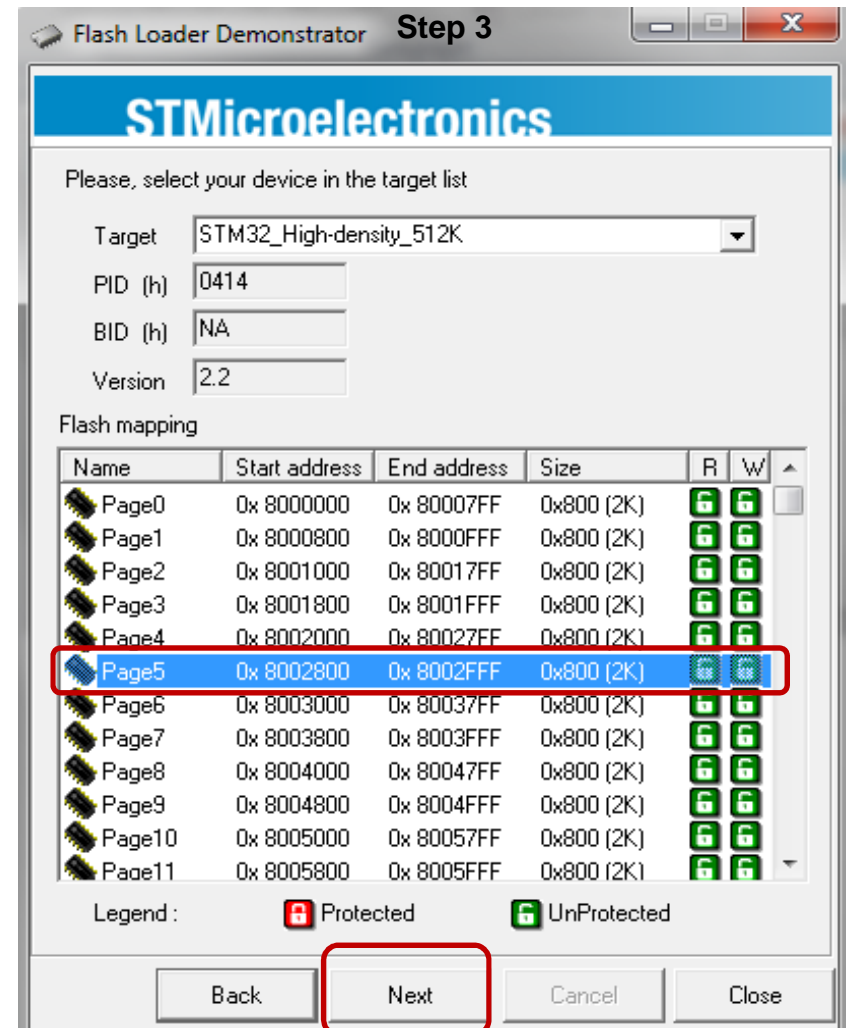
X-NUCLEO-IDW01M1 board is ready for programming

- If communications are OK, as indicated by the illustration, click the “Next” button.



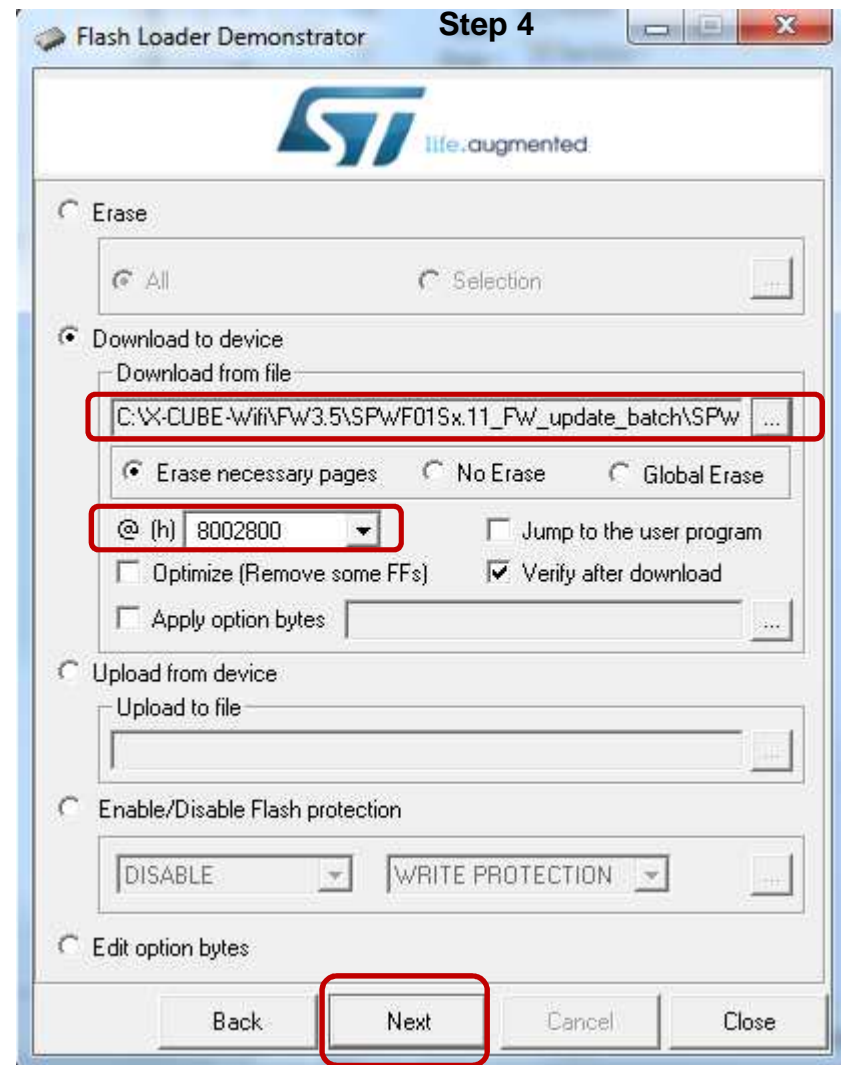
Select the FLASH starting address

- Select “Page 5” with starting address “0x8002800” as shown.
- ATTENTION!! Be absolutely certain to specify the correct starting address: “0x8002800”.
- Click the “Next” Button.



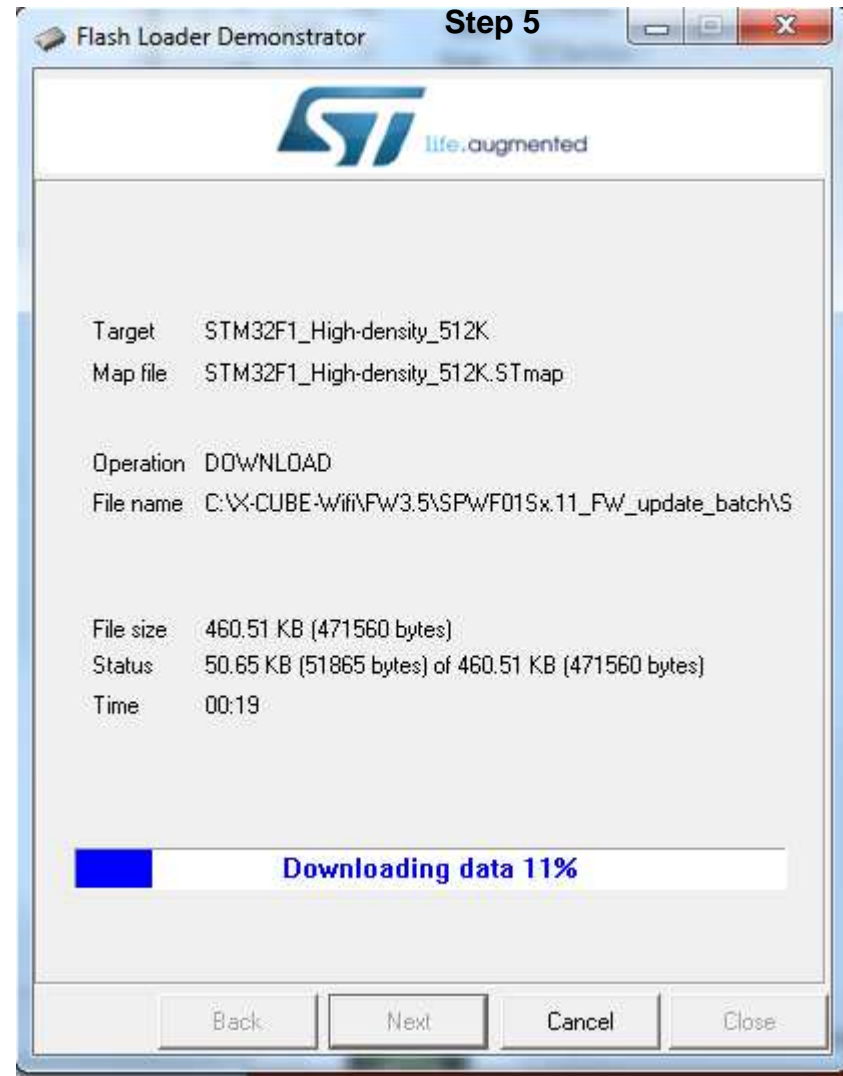
Select the binary file to program the Flash

- Select the upgrade binary file to be downloaded and programmed into the Flash, e.g. SPWF01S-160129-c5bf5ce-RELEASE-main.bin, in the “Download from file” dialog box” (Tip: In this example, the “160129” is the date code in YYMMDD format corresponding to 29 January 2016.)
- ATTENTION!! Be absolutely certain to specify the correct starting address: “8002800”.
- Click the “Next” Button.



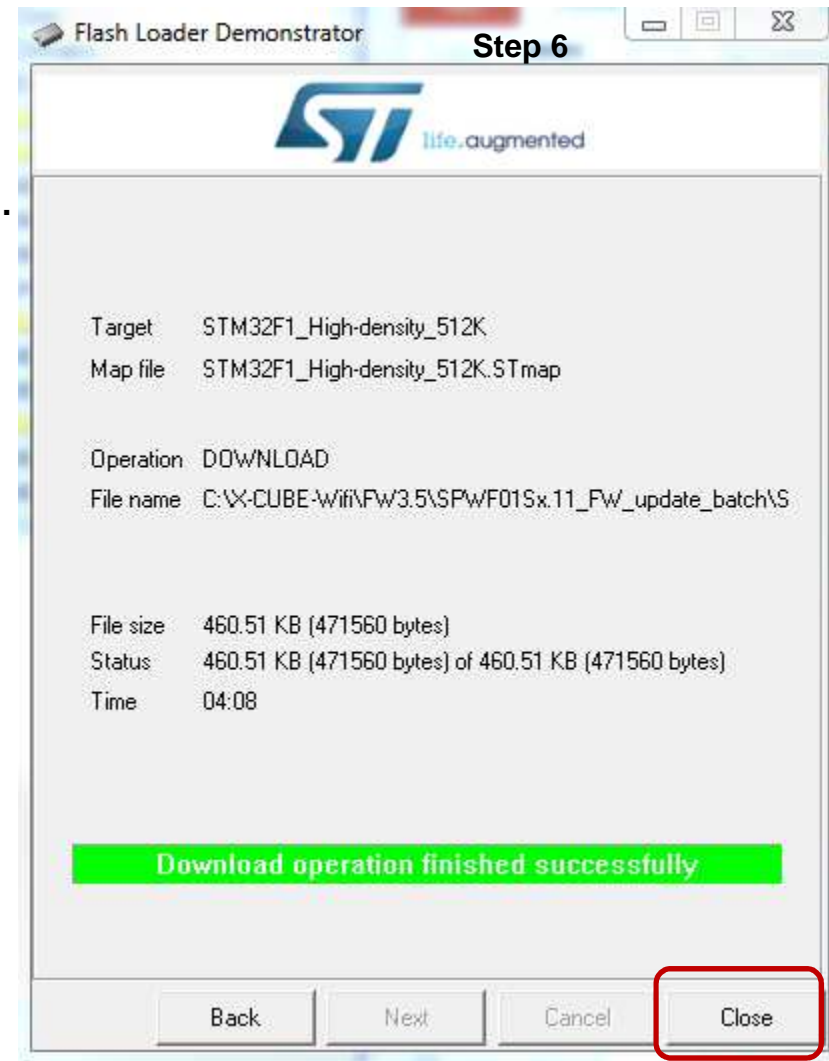
Monitor the download progress

- While enjoying the progress bar, verify the “File name” is the binary file you intended for the upgrade.
- During the download phase, the “Cancel” button is enabled, in case the wrong file was chosen.
- Otherwise, do nothing (except flip to the next slide).



Close the GUI program

- When the upgrade has finished successfully, click the “Close” Button.
- Remove the jumper from JP2.
- Then press the RESET button SW1 on X-NUCLEO-IDW01M1 board.



- Flash (drag and drop) the X-CUBE-WIFI\Projects\Multi\Applications\WiFi_VCOM\Binary\- Open a terminal emulator (Baud rate:115200; Data: 8 bits / Parity: None /Stop: 1 bit / Flow control: none) and
- restore default configuration settings by entering “AT&F”.
- Optionally, for command echo, enter “AT+S.SCFG=localecho1,1”.
- Enter “AT+CFUN=1”, software reset, for the settings to take effect.
- Now the SPWF01SA module FW have been aligned to the selected version.



Get more about ST Wi-Fi Modules
visit: www.st.com/wifimodules

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Thank you

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