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## STMicroelectronics Speeds Smart Devices to Market with Extra Software for Microsoft® Azure RTOS Projects on STM32 MCUs

*Fully integrated within STM32Cube ecosystem, software expansion packs build on recently announced joint initiative with Microsoft®*

**Geneva, March 1, 2021 – STMicroelectronics (NYSE: STM)**, a global semiconductor leader serving customers across the spectrum of electronics applications, is strengthening support for the next generation of smart connected devices powered by Microsoft® Azure RTOS, by releasing the first in a series of richly featured STM32Cube Expansion Packages for product design teams.

ST and Microsoft announced seamless access to the Azure RTOS suite through ST's [STM32Cube\\* ecosystem](#) in 2020. Building on that initiative, the new software packs provide additional code examples that help overcome common engineering challenges to accelerate time to market. Royalty free, developers can use and customize the examples out of the box.

*“The STM32 ecosystem is independently recognized as an industry-leading ecosystem for embedded development and we continue to add new software and tools that deliver high value for customers’ projects,”* said Ricardo de Sa Earp, Group Vice President, Microcontroller Division General Manager, STMicroelectronics. *“With the latest STM32Cube Expansion Packages, our customers can be sure of achieving the fastest route to market when creating new products running Azure RTOS.”*

The first expansion pack, X-CUBE-AZRTOS-H7, gives a head-start to projects targeted at using ST's [STM32H7 microcontrollers \(MCUs\)](#), the highest performing series in the [STM32 MCU family](#). ST will release similar packs for other STM32 MCUs over the course of 2021.

The STM32H7 series contains over 100 single-core and dual-core variants, delivering processing performance up to the industry's highest benchmark scores for MCUs based on Arm® Cortex®-M processors, with powerful graphics-handling capabilities and hardware-based cyber-security.

X-CUBE-AZRTOS-H7 is available now to download, free of charge, at <http://www.st.com/x-cube-azrtos-h7>.

## Further Technical Information

The STM32 ecosystem provides resources to aid embedded software and hardware development. STM32Cube software packs and tools include the powerful [STM32CubeMX configuration tool](#), [STM32CubeIDE integrated development environment](#), [STM32Cube MCU Packages for specific MCUs](#), and targeted [STM32Cube Expansion Packages](#). The extensive selection of hardware to aid prototyping includes economical [STM32 Nucleo boards](#), easy-to-use Discovery Kits, and fully featured evaluation boards.

Microsoft Azure RTOS can be accessed through STM32Cube tools. The [X-CUBE-AZRTOS-H7 software pack](#) is compatible with STM32CubeMX and STM32CubeIDE, thus enabling direct graphical configuration of the Azure RTOS middleware stacks, and comes with an extensive list of application examples for ST's [NUCLEO-H723ZG](#), [STM32H747I-DISCO](#), [STM32H743I-EVAL](#) and [STM32H735G-DK](#) boards.

The Azure RTOS suite brings together essential components that facilitate creating reliable and energy-efficient smart objects. These include the Azure RTOS ThreadX real-time operating system, which has a compact memory footprint suited to resource-constrained applications, and the FileX fault-tolerant file system that supports diverse storage media including RAM, Flash, and removable media. Industrial-grade TCP/IP networking stacks and a USB stack are also provided.

Robust cyber-protection built into Azure RTOS includes Common Criteria (CC) EAL4+ certified IP layer security (IPsec) and socket layer security (TLS and DTLS) protocols and a FIPS 140-2 certified software cryptographic library. Safety pre-certifications including IEC 61508 SIL4, IEC 62304 Class C, and ISO 26262 ASIL-D are also available directly from Microsoft.

For further information and links to download STM32Cube tools and software please visit the [STM32Cube Ecosystem](#).

You can also read our blogpost at <https://blog.st.com/x-cube-azrtos-h7/>

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## About STMicroelectronics

At ST, we are 46,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An independent device manufacturer, we work with more than 100,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology. Further information can be found at [www.st.com](http://www.st.com).

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