ALTAIR

RELEASE NOTES

Altair Embed® 2025.0

Embed Pro, Embed SE, Embed Personal, Embed/Digital Power Designer, Embed/eDrives, and Embed Viewer

Release Notes Altair Embed 2025.0

These Release Notes cover Embed Pro, Embed SE, Embed Personal, and Embed Viewer, and the additional cost add-ons Embed/Digital Power Designer and Embed/eDrives. They include new features and enhancements, known limitations, and resolved simulation and code generation issues.

Please note the following:

- Embed Basic has been retired.
- All 32-bit versions of Embed software will be retired after the release of 2025.0.

New and enhanced features

Feature	Description
crc16 block	Adds 30+ CRC algorithms and the ability to customize algorithms
Serial UART read and write blocks	Expands examples to include how to implement UART on an embedded device
STM32 DMA Config block	Extends functionality for DMA configuration on STM32 devices
Unbricking an STM32 device	Provides step-by-step directions to unbrick an STM32 device

Limitations

Installation

- When you install Embed, you do not have the option to automatically back up installed files; you can manually back up prior to the installation or install to a different directory.
- In rare instances, the Embed installer creates a vissim.ini folder rather than a file. If this happens, Embed will not run properly. Delete the vissim.ini folder and re-install Embed.
- If you are installing (not upgrading) Arduino IDE 2.3.2, you must compile one diagram after the install to ensure the proper Arduino folders are created.
- If you install two instances of Embed, then uninstall one of them, the OML engine may also be uninstalled; in this case, Embed switches to the built-in math script engine.
- If Adobe Acrobat is installed on your computer, Acrobat does not launch when you click the **Install Guide** button during the installation process.

General

- You cannot run Embed Personal through a Remote Desktop connection.
- If you choose Chrome as your Browser for Help, and Help opens in an empty window, close Chrome and then re-open Help.
- In Office 2021, DDE server launch is disabled and Group Policy support for both DDE settings is present. The January 2022 update disables DDE server launch in all supported versions of Excel and provides Group Policy support for this setting in Office 2016 and Office 2019.

Simulation

- ActiveX blocks are 32-bit and do not work with 64-bit applications.
- When simulating a diagram that uses MQTT connected to a blocked or incorrect port, you will have to wait 20 – 25 seconds before you can abort the simulation. You may need to contact your IT group if the port is blocked.
- Co-simulation with PSIM does not detect the modelsim co-sim element.

Code Generation/HIL

- **Arduino**
  - HIL for string outputs does not work.
  - Invert block under Matrix Operation does not work.
  - The binary data type for Serial Write block outputs two or four bytes rather than the expected single byte.
- **Host PC**
  - Code generation for PC Host does not work for break block.
- **Linux®**
  - Diagrams set up to run on Linux targets using the Target Interface block may show spikes in CPU utilization due to the multiprocessing nature of how Linux processes are scheduled.
- **Raspberry Pi**
  - HIL for string outputs does not work.
  - Embed supports only 32-bit Bookworm and Bullseye OS.
  - Embed does not support Bookworm video.
  - Viewing Raspberry Pi output on a Raspberry Pi or USB camera works only with Bullseye OS v2023.
- **STM32**
  - If you are using STMicroelectronics STM32 devices for HIL on a Dell computer, you must disable the STM32 USB storage device driver in order run HIL simulations.
    1. Connect your **STM32 board** to your **Dell PC** via **USB.**
    2. Type **Control Panel** into the system search box in the lower left corner of the screen.
    3. Select **Hardware and sound > Devices and Printers**.
    4. Double-click the **STM32 STLink** icon and click the **Hardware** tab.
    5. Double-click **MBED microcontroller USB device** in the list, then click the **Driver** tab.
    6. Click **Disable Device**, then click **OK**. You can now run HIL with no errors.

Resolved Issues

General

Issue	Resolved In
Incorrect deprecation message when Embed 32-bit is launched	2025
CAN Config dialog: VisSim in the title bar	2025

Simulation

Issue	Resolved In
Digital Power example: battery model dynamic and battery model LUT display Lower Limit Greater Than Upper Limit error message	2025
Digital Power example: Frequency Response Model Based diagram has plot issue	2025
Digital Power example: typo in temperature sensor example name	2025
Digital Power example: MCU Frequency Response diagram has fixed-point scaling mismatch error	2025
eDrives examples: commutator, sensor, stepper, source, brush DC, and transform examples giving “simulation aborted” error	2025
Execution order negatively impacts simulation	2025
Fixed Point example: 3PhaseSinSrc-variable freq diagram does not have scaled integer type for the fxSin block	2025
Incorrect step output in Local Time Step simulation	2025

Code Generation/HIL

These resolved issues apply to Altair Embed and Altair Embed PE; they do not apply to Altair Embed SE.

Issue	Resolved
crc16 block: code generation error	2025
Arduino: Help button for Extern Definition > Select Library Modules dialog not working	2025
Arduino: incorrect path in target execution file	2025
Raspberry Pi: diag, fft, ifft, and psd blocks fail to compile	2025
Raspberry Pi: errors with Mosquito library	2025
Raspberry Pi: IoT examples show error	2025

Issue	Resolved
STM32: ADC input block causes assert failure on double click	2025
STM32: I2C diagram gives an assert failure	2025
STM32 H7: voltage regulator limitation due to high system clock	2025
STM32 H7 and H73: assert failure in code generation	2025
Texas Instruments: incorrect path in target execution file	2025
Texas Instruments F280049C: target failed to respond	2025
Texas Instruments F2800137: unable to unlock Code Security Module	2025