

# ModusToolbox™ tools package release notes

ModusToolbox™ tools package version 3.7.0

[A newer version of this document may be available on the web here.](#)

## About this document

### Scope and purpose

This document describes the features and known limitations for the ModusToolbox™ software provided as part of the ModusToolbox™ tools package included with the installer.

ModusToolbox™ software is a set of tools that enable you to integrate our devices into your existing development methodology. ModusToolbox™ software consists of various libraries and middleware on GitHub, as well as an IDE and tools package installed on your computer. For more details about what is included with ModusToolbox™ software, refer to the [ModusToolbox™ tools package user guide](#). See also [What's included](#) in this document.

This ModusToolbox™ tools package is a complete release. It includes the latest features from all previous releases, including patches. This release does not replace any existing installed releases; it installs alongside them. If you have more than one release installed, refer to the [ModusToolbox™ tools package user guide](#), "Product versioning" section.

### Reference documents

Refer to the following documents for more information as needed:

- [ModusToolbox™ tools package user guide](#)
- [ModusToolbox™ software installation guide](#)
- [Training material on GitHub](#)

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## Primary changes

### 1 Primary changes

The overall tools package version 3.6.0 release includes the following updates and features. See also the separate release notes for the Setup program and the Programmer tools package.

#### 1.1 Device Configurator changes

- Creating, editing and saving of Notes fields on hardware personalities and their parameters
- Searches in the Device Configurator now search in Parameter Descriptions

#### 1.2 Removal of CAPSENSE™ Configurator and Tuner

For this and all future releases, the CAPSENSE™ Configurator and Tuner have been removed from the tools package. These are available in a separate pack (<https://softwaretools.infineon.com/assets/com.ifx.tb.tool.modustoolboxpackmultisense>), and they can be installed using the ModusToolbox™ Setup program or the Infineon Developer Center.

#### 1.3 New memory report tool

A new utility has been added called the memory report tool. This runs after a success build to generate the text file and a json file with a complete memory usage report. This report is also show in the build output console.

## What's included

## 2 What's included

This release includes the following tools and versions:

Tool Name	Current Release	Previous Release
AIROC™ tools	5.0.1 (no change)	5.0.1
Bluetooth® Configurator	3.50.0	3.40.0
BSP Assistant	1.60.0	1.50.0
CAPSENSE™ Configurator & Tuner	N/A	8.10.0
cymcuelftool	1.0 (no change)	1.0
Dashboard	3.7.0	3.6.0
Device Configurator	5.60.0	5.50.0
Device Firmware Update (DFU) Host Tool	2.100.0	2.80.0
EZ-PD™ Configurator	2.30.0	2.20.0
GNU make Build System (tools-make)	2.6.1	2.6.0
LCS Manager	1.50.0	1.40.0
Library Manager	2.60.0	2.50.0
LIN Configurator	1.80.0	1.70.0
memoryreport	1.0.0	N/A
modus-shell	1.5.0 (no change)	1.5.0
Core build infrastructure: <ul style="list-style-type: none"> <li>• mtbarchive</li> <li>• mtbgetlibs</li> <li>• mtblaunch</li> <li>• mtbninja</li> <li>• mtbquery</li> <li>• mtbsearch</li> </ul>	1.7.0	1.6.0
mtb-settings	1.20.0	1.10.0
mtbideexport	1.5.0 (no change)	1.5.0
ninja	1.12.1 (no change)	1.12.1
Project Creator	2.60.0	2.50.0
Proxy Helper	1.90.0	1.80.0
QSPI Configurator	4.70.0	4.60.0
Segment LCD Configurator	1.100.0	1.90.0
SignCombineMkGen	1.2.0 (no change)	1.2.0
Smart I/O Configurator	4.60.0	4.50.0
SRecord	1.64 (no change)	1.64
USB Configurator	3.10.0	3.0.0

## What's included

### 2.1 Supported host operating systems

OS	Tools package 3.7.0 (December 2025)		Tools package 3.8.0 (March 2026)	
	Supported	Recommended (full testing)	Supported	Recommended (full testing)
<b>Windows</b>	11	<b>11</b>	11	<b>11</b>
<b>macOS (Intel Macs)</b>	Sonoma, Sequoia	<b>Sequoia</b>	not supported	<b>not supported</b>
<b>macOS (ARM Macs)</b>	Sonoma, Sequoia, Tahoe (via Rosetta)	<b>Tahoe</b>	Sonoma, Sequoia, Tahoe (natively)	<b>Tahoe</b>
<b>Linux</b>	22.04, 24.04 LTS, 25.04	<b>24.04 LTS</b>	22.04, 24.04 LTS, 25.10	<b>24.04 LTS</b>

### 2.2 Supported toolchains

The GCC Arm Embedded toolchain GCC 11.3 and GCC 14 are provided as separate packages to install via the Setup program in addition to the ModusToolbox™ tools package. These toolchains have no use restrictions and do not require license activation (it is distributed under the terms of the GNU Public License).

The ModusToolbox™ system also supports these toolchains for most applications and devices (see the application *README.md* file for applicable support) that you can install separately:

- Arm compiler v6 or newer (Windows and Linux hosts) ([developer.arm.com](https://developer.arm.com))
- IAR Embedded Workbench v9 or newer (Windows only) ([iar.com](https://www.iar.com))
- LLVM 18.1.3 or newer ([github.com/ARM-software/LLVM-embedded-toolchain-for-Arm/](https://github.com/ARM-software/LLVM-embedded-toolchain-for-Arm/))

### 2.3 Supported boards

The boards available for use varies with different releases of BSPs and libraries on GitHub. You can see the current list of BSPs in the Project Creator tool using the default manifest URL:

Kit Name	MCU/SOC/SIP	Connectivity
> AIROC™ Bluetooth® BSPs		
> AIROC™ Connectivity BSPs		
CYW943907AEVAL1F	CYW43907KWBG	<none>
CYW954907AEVAL1F	CYW54907KWBG	<none>
CYW955513EVK-01	CYW55513IUBG	CYW55513IUBG
CYW955913EVK-01	CYW55913IUBGT	CYW55913IUBGT
> PMG BSPs		
> PSoC™ 4 BSPs		
> PSoC™ 6 BSPs		
> PSoC™ Control BSPs		
KIT_PSC3M5_2GO	PSC3M5FDS2LGQ1	<none>
KIT_PSC3M5_CC1	PSC3M5FDS2AFQ1	<none>
KIT_PSC3M5_CC2	PSC3M5FDS2AFQ1	<none>
KIT_PSC3M5_EVK	PSC3M5FDS2AFQ1	<none>
> PSoC™ Edge BSPs		
KIT_PSE84_AI	PSE846GPS2DBZC4A	LBEE5HY2FY (CYW55513IUBG)
KIT_PSE84_EVAL_EPC2	PSE846GPS2DBZC4A	CYW55513IUBG
KIT_PSE84_EVAL_EPC4	PSE846GPS4DBZC4A	CYW55513IUBG
> Reference Design BSPs		
> TRAVEO™ BSPs		
KIT_T2G_C-2D-6M_LITE	CYT4DNJBZS	<none>
KIT_T2G-B-E_LITE	CYT2BL5CAS	<none>
KIT_T2G-B-H_EVK	CYT4BFBCHE	<none>
KIT_T2G-B-H_LITE	CYT4BF8CDS	<none>
> USB BSPs		
KIT_FX20_FMC_001	CYUSB4024-BZXI	<none>
KIT_FX2G3_104LGA	CYUSB2318-BF104AXI	<none>
> Wireless Charging BSPs		
WLC1115-68LQXQ	WLC1115-68LQXQ	<none>
WLC1150-68LQXQ	WLC1150-68LQXQ	<none>
> XMC™ BSPs		

*Note: Additional boards will be made available on an ongoing basis.*

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## What's included

### 2.4 Open source

Portions of this software package are licensed under free and/or open source licenses such as the GNU General Public License. Such free and/or open source software is subject to the applicable license agreement and not our license agreement covering this software package. The applicable license agreements are available online:

<https://www.infineon.com/cms/en/design-support/software/free-and-open-source-software-foss/modustoolbox-foss-packages/>

## Known issues, limitations, and workarounds

### 3 Known issues, limitations, and workarounds

This section describes the known issues and limitations of this release, and provides workarounds for them:

#### 3.1 ModusToolbox™ issues from previous releases

This document contains only recent issues pertinent to ModusToolbox™ version 3.x. All issues noted in previous ModusToolbox™ version 2.x releases have been made available online here: [KBA236147](#).

#### 3.2 Proxy

Problem	Workaround
When trying to use any of the ModusToolbox™ tools, you may see an error message similar to the following about not able to connect to the Internet: <i>Unable to open file at [URL]</i>	This can happen if you are behind a firewall and do not have your proxy settings configured. You must set your proxy server settings using the ModusToolbox™ Settings tool, available from any tool with a <b>Settings</b> menu.  In previous versions of the ModusToolbox™ tools package, these types of errors only affected the Library Manager and Project Creator. In version 3.x, these errors apply to all tools.

#### 3.3 Device database error

Problem	Workaround
Various tools report an error with the device-db similar to this:  <pre>fatal: 'C:/test/ModusToolbox/packs/ModusToolbox-Early-Access-Pack/libs/device-db' does not appear to be a git repository fatal: Could not read from remote repository.</pre>	Remove the .modustoolbox/global directory from user home and remove the mtb-shared directory from your application. Then, retry the failing operation.

#### 3.4 Toolchain issues

Problem	Workaround
Any toolchain installed in a directory using Linux reserved characters such as < >   \ : ( ) & ; [for example Program Files (x86)], will be ignored by the ModusToolbox™ GNU make system. The GNU make system uses the format \$(wildcard) to detect if a given path exists, and thus is not compatible.	Make sure you install desired toolchains in directories that do not use reserved characters or spaces. Use the appropriate toolchain DIR variable to specify the location of the toolchain (for example CY_COMPILER_GCC_ARM_DIR=C:/arm-gnu-toolchain-12.2.rel1) so that it is detected by the GNU make system.

## Known issues, limitations, and workarounds

### 3.5 Project Creator

Problem	Workaround
<p>Project Creator may fail to create a project with an error like:</p> <pre>"ERROR: &lt;PATH&gt;: Failed to open Git repository: config value 'safe.directory' was not found"</pre> <p>where &lt;PATH&gt; corresponds to the project to be created.</p> <p>This can happen if you choose to create your project on a non-NTFS USB drive or a shared folder whose owner differs from the current user running the Project Creator tool.</p>	<p>This error is an intentional behavior of Git that is being used by the Project Creator under the hood. This behavior is due to the known security problem <a href="#">CVE-2022-24765</a>.</p> <p>If the USB drive is non-NTFS, such as exFAT/FAT, or if a shared folder owned by someone else, add the directory to the <a href="#">safe.directory</a> setting in Git.</p>

### 3.6 LCS Manager CLI

Problem	Workaround
<p>The LCS Manager CLI tool does not use the ModusToolbox™ proxy settings that other tools use. Depending on your system environment, the LCS Manager CLI tool might not be able to access and download data from external repositories (such as GitHub).</p>	<p>Ensure that your system can access the desired external repositories by setting up proxy information before using the LCS Manager CLI tool. If you need assistance, contact your IT department.</p>

### 3.7 Crashes on Mac M1/M2

Problem	Workaround
<p>On Mac computers with ARM cores using Rosetta (M1/M2 processors), various ModusToolbox™ tools (library-manager, project-creator, device-configurator, Eclipse, etc.) consistently crash.</p>	<p>Reboot the computer.</p> <p>This issue seems to occur for a variety of software, not just ModusToolbox™ tools. Many users have reported that simply rebooting the computer resolves the issue.</p>

### 3.8 HTML/documentation on Ubuntu 22.04

Problem	Workaround
<p>On Ubuntu 22.04, sometimes HTML documentation links do not work anywhere. This issue can occur as documentation not opening at all or opening in the wrong program (e.g., Notepad, Office Writer, etc.)</p>	<p>Reset the default browser from the Ubuntu 22 Settings UI (<b>Settings &gt; Default Applications &gt; Web</b>). Changing this setting via the BROWSER environment variable, or the xdg-settings/xdg-mime commands does not work.</p>
<p>On Ubuntu, cannot open documentation in a web browser with file not found error. This applies to using the Dashboard or Eclipse "Help" menu, even though the documentation files are present and accessible.</p>	<p>This issue is related to the security settings for snap packages installed on the system. We recommend replacing the snap-based browser with a deb package version.</p>

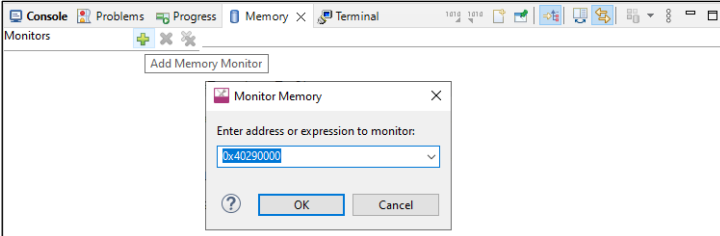
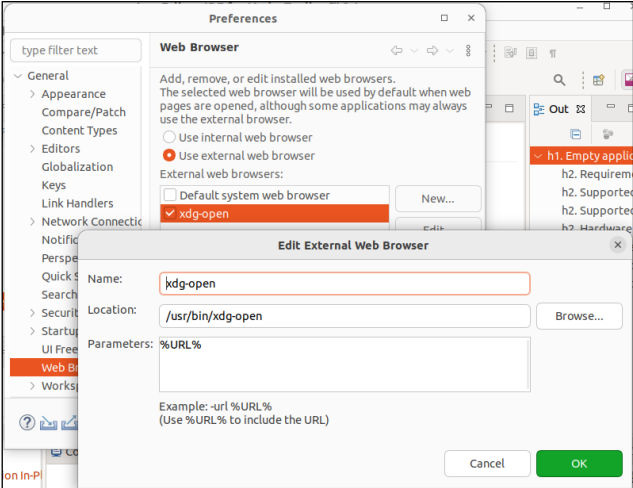
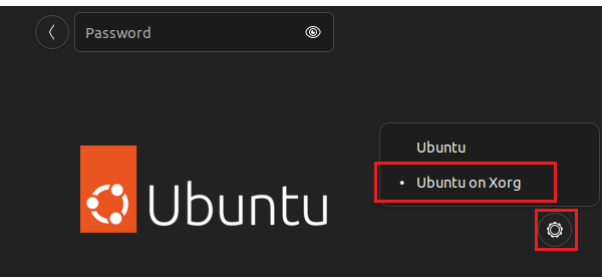


## Known issues, limitations, and workarounds

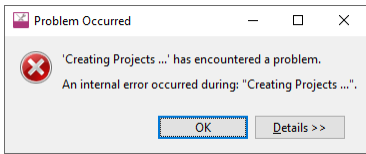
### 3.9 Eclipse IDE

Problem	Workaround
If you have a file open in your editing view and you double click on an issue from the 'Problems' window, it may open a second editor pointing to the same file. This can cause problems where you have divergent edits in two different editors.	None. Be aware of this issue and close one of the editors before applying any changes to your source file.
In the Eclipse IDE for ModusToolbox™, when debugging multi-threaded applications, such as those using FreeRTOS, clicking the Restart icon causes the new main thread to be assigned the next available thread ID instead of starting from ID 1.	No workaround is available because this behavior is specific to the GDB client.
Launching Project Creator from Eclipse intermittently generates the following error: <b>Unable to detect Project Creator startup after 10000 ms.</b> <b>If this problem continues, try starting Project Creator stand-alone, then import the project using ModusToolbox import.</b> And then Project Creator eventually loads.	Close Project Creator and launch it again. The error should not be generated again.
In the Eclipse IDE for ModusToolbox™ when setting TOOLCHAIN=ARM, the call stack does not show while debugging some multithreaded applications (e.g., applications that use FreeRTOS).	Add the <code>CFLAGS+=-fno-omit-frame-pointer</code> compiler flag to the application. You can do this in the application Makefile or in Eclipse under <b>Properties &gt; C/C++ Build &gt; Behavior &gt; Build arguments</b> .
When you upgrade a workspace that was created using ModusToolbox™3.1 or prior, you'll see a warning that your projects do not have explicit encoding set.	To fix this, right click on each warning message and select <b>Quick Fix</b> in the context menu. Select the <b>Set project encoding to 'UTF-8'</b> fix and click <b>Finish</b> .
When you upgrade a workspace that was created using ModusToolbox™3.1 or prior, your projects build using one build job.	<ol style="list-style-type: none"> <li>1. Select a project/application.</li> <li>2. Open project's/application's properties selecting <b>Project &gt; Properties</b> from the main menu.</li> <li>3. Select <b>C/C++ Build</b> tab in the left pane.</li> <li>4. Select <b>Behavior</b> tab in the right pane.</li> <li>5. Add either <code>-jN</code>, where N is a number of desired parallel build jobs, or <code>\${cy_build_jobs}</code> dynamic variable in the <b>Build Arguments</b> field.</li> </ol>
After you rename a project, if you quickly try to rename it again you may get an error.	Wait until renaming finishes before initiating another renaming. The project itself is not broken. Only its representation in Eclipse may break. To fix this, remove the project, import and rename it again.
When you run Eclipse IDE for ModusToolbox™ from a terminal window on Ubuntu you get notifications about SLF4J, GLib and SWT GDBus failures.	Ignore these messages. These are Eclipse issues that do not impact Eclipse IDE for ModusToolbox™ functionality.
When you left-click on a project that is not currently selected and then quickly right-click on it and select the <b>ModusToolbox™</b> item, the context menu is empty.	Left-click to select the project and wait until the Quick Panel refreshes before right-clicking it to open the context menu. This issue will be addressed in a future release.

## Known issues, limitations, and workarounds

Problem	Workaround
While debugging, if you try to export memory values to a file by selecting an item in the <b>Peripherals</b> tab, the values in the file will be all zeroes.	<p>This is an Eclipse Embedded CDT issue. To get a correct export file, add the Address of the Peripheral directly to Memory window, and then use the export feature.</p> 
On Ubuntu 22.04, when opening documentation from the Project Explorer (right-click <b>Open with &gt; Web Browser</b> ), the file does not open.	<p>Update the Web Browser settings under <b>Window &gt; Preferences &gt; General &gt; Web Browser</b> to add your chosen browser or xdg-open as appropriate:</p> 
<p>On Ubuntu 22.04, when running the Eclipse IDE for ModusToolbox™, the launcher window may be truncated.</p> <p>This happens because Eclipse v4.28 has not been updated to address the problem.</p>	<p>Log out of Ubuntu, and then log in again using the Xorg option.</p> 
When renaming a multi-core application in the Eclipse IDE, the core-processor subprojects become regular folders instead of project folders.	<p>Right-click on each of the core process folders and select <b>Import as Project</b>. Each folder will become a project folder with the appropriate name.</p> <p><b>Note:</b> After changing the folders to project folders, they retain the original application prefix name. You can rename them individually if you prefer.</p> <p><b>Note:</b> The Eclipse IDE may display Indexer errors during the rename process. These errors usually go away when the rename process is complete.</p>
After completing a build/clean for a multi-core application, the Eclipse IDE reports a C/C++ Indexer error message.	<p>The error message doesn't impact functionality. Try restarting the Eclipse IDE to clear the message.</p>

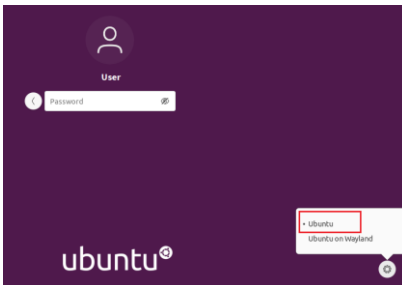
## Known issues, limitations, and workarounds

Problem	Workaround
When using the Eclipse IDE on macOS, if you delete a multi-core application with several README.md files open in the editor/viewer, you may see the following error message: "Failed to create the part's controls."	None. This error message just means the markdown viewer is trying to read a file that has been deleted. This message doesn't impact functionality. Simply close the tab and proceed.
For BTSdk applications, various tools such as BTSpy and ClientControl are not available from the Eclipse IDE Quick Panel.  This is due to the restructuring of the ModusToolbox™ version 3.0 build system and flow.	To open various tools, navigate to where they are located in the workspace and launch them manually. By default, all the tools are located under the <code>../mtb_shared</code> directory (relative to the code example directory). For example, BTSpy is located in the following path:  <code>../mtb_shared/wiced_btsdk/tools/btsdk-utils</code>  ClientControl is located in the following path:  <code>../mtb_shared/wiced_btsdk/tools/btsdk-host-apps-bt-ble</code>  Other tools are located in different subdirectories under <code>mtb_shared</code> .  The BTSdk will be updated in a future release to move these tools into a pack so that they will be available in the Quick Panel again.
Exporting and importing a multi-core application with the Eclipse IDE doesn't work.	<ol style="list-style-type: none"> <li>1. When Exporting a multi-core application using the Eclipse IDE, include only the main application folder, and exclude the core project folders and the <code>mtb_shared</code> folder.</li> <li>2. If you exported the application as an archive, extract it, and then run Library Manager or <code>make getlibs</code>.</li> <li>3. In Eclipse, use the <b>Import Existing Application In-Place</b> option.</li> </ol> <p>The Eclipse IDE for ModusToolbox™ user guide has been updated to include multi-core application instructions.</p>
When importing an application in the Eclipse IDE using the <b>Import Existing Application In-Place</b> option, there may be an error: "An internal error occurred..."  	<p>If possible, you should start with the Eclipse IDE to launch Project Creator and create an application. Using this flow, the process just works.</p> <p>In some cases, this error may occur because you're attempting to manually import an application in the same workspace/folder that already exists in Eclipse.</p> <p>To resolve this problem, use <b>Import &gt; General &gt; Existing Projects into Workspace</b>.</p>
When using the Eclipse IDE, the context menu may show tools for the previously-selected project rather than the project that was right-clicked.	Left-click to select the project and wait until the Quick Panel refreshes before right-clicking it to launch the context menu. This issue will be addressed in a future release.

## 3.10 Visual Studio Code

Problem	Workaround
In in VS Code, when debugging multi-threaded applications, such as those using FreeRTOS, clicking the Restart icon causes the new main thread to be assigned the next available thread ID instead of starting from ID 1.	No workaround is available because this behavior is specific to the GDB client.

## Known issues, limitations, and workarounds

Problem	Workaround
<p>Various ModusToolbox™ GUI tools (Device Configurator, Library Manager, etc.) fail to start on Ubuntu when executed from the Terminal window in VS Code, with the following error:</p> <pre>Failed to load client buffer integration: "wayland-egl" Available client buffer integrations: () No shell integration named "xdg-shell" found No shell integration named "xdg-shell-v6" found No shell integration named "wl-shell" found No shell integration named "ivi-shell" found Loading shell integration failed. Attempted to load the following shells ("xdg-shell", "xdg-shell-v6", "wl-shell", "ivi-shell")</pre>	<p><b>Solution 1:</b> Open an Ubuntu Terminal, navigate to the application directory, and use the applicable "make" command to open the GUI (e.g., <code>make library-manager</code>).</p> <p><b>Solution 2:</b> Log out from the current Ubuntu session, and then log back in and make sure Ubuntu on Wayland is <b>not</b> selected on the login screen.</p>  <p>On newer versions of Ubuntu, the login screen will show "Ubuntu on Xorg".</p>

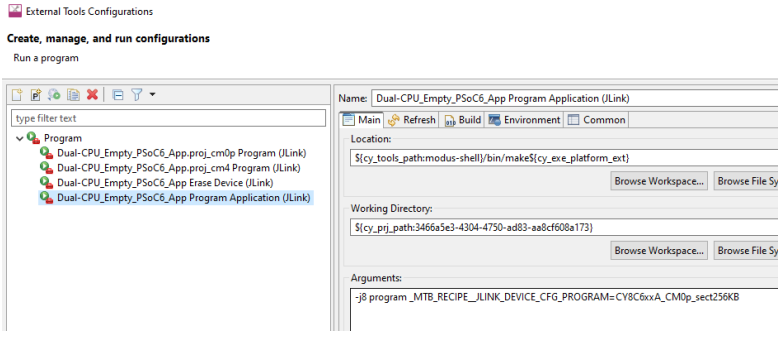
## 3.11 Building/programming/debugging

Problem	Workaround
<p>During application programming (at the verification step) into the NVM using the JTAG interface, the following error might occur:</p> <pre>"Error: Failed to read memory at &lt;mem_address&gt;."</pre>	<p>Try lowering the probe JTAG clock by adding <code>MTB_PROBE_FREQUENCY_KHZ=&lt;clock_val_in_khz&gt;</code> to the <code>bsp.mk</code> file. For example: <code>MTB_PROBE_FREQUENCY_KHZ=2000</code></p>
<p>In VS Code for an XMC7200 application, the <b>Restart</b> button does not work when using OpenOCD versions 5.6 – 5.7.</p>	<p>Open the <code>scripts\target\infineon\cat1\func_mxs40.cfg</code> script file and replace the following:</p> <pre>"} elseif [string match "cat1c" \$target ] {"</pre> <p>With this:</p> <pre>"} elseif [string match "cat1c*" \$target ] {"</pre>
<p>Restarting a XMC7000 debug session using MiniProg4 in JTAG mode sometimes might lead to the situation when VS Code assumes target is running and not halting at <code>main()</code>. When you pause, the IDE refreshes its state and shows the target stopped at the beginning of the <code>Reset_Handler()</code>. Subsequent resuming should pause at <code>main()</code>. Very rarely, the debug session might be unresponsive when trying to pause the running target.</p>	<p>To work around this issue, retry restarting again.</p> <p>We recommend using SWD instead of JTAG, which will reduce the number of issues you encounter.</p>

## Known issues, limitations, and workarounds

Problem	Workaround
<p>When debugging in Eclipse IDE or VS Code reaches a code with empty loops, the Step operation might cause the debugger to wait indefinitely.</p> <p>This problem happens because GDB executes single steps and waits until the execution reaches an instruction related to another line in the source code. Since empty loops have no terminating condition, GDB will wait forever, leading to the hang of the debugging process.</p>	<p>To avoid this problem, consider the following recommendations:</p> <ul style="list-style-type: none"> <li>Avoid using Step operations in empty loop debugging. Instead of using the Step operation, use the Continue operation to bypass the empty loop.</li> <li>Alternatively, you can place an operation that produces a CPU instruction within the loop body. For instance, adding a <code>__NOP ()</code> instruction as shown below can resolve the issue.</li> </ul> <pre>for ( ; ; ) {     __NOP (); }</pre>
<p>The MTB_PROBE_SERIAL variable is ignored for AIROC™ CYW55913 devices.</p>	<p>Eclipse</p> <ol style="list-style-type: none"> <li>For KitProg3 - follow section <b>5.1.11.2 Selecting by serial number</b></li> <li>For J-Link - follow section <b>5.1.12 Select Specific J-Link Device</b></li> </ol> <p>VS Code</p> <ol style="list-style-type: none"> <li>For KitProg3 add <code>"adapter serial xxxxxxxxxxxxxxxx"</code> command to the <code>openOCDLaunchCommands</code> property of Attach configuration, where xxxxxxxxxxxxxxxxxx - serial number of the probe  <pre>.....// When using 'attach', make sure your program is running on the board and that your executable matches .....// the image in the chip exactly, or else strange things can happen with breakpoint, variables, etc. .....{ .....  "name": "Attach Debug (KitProg3_MiniProg4)", .....  "type": "cortex-debug", .....  "request": "attach", .....  "cwd": "\${workspaceFolder}", .....  "executable": "../build/APP_CYW955513EVK-01/Debug/mtb-example-threadx-empty-app.elf", .....  "servertype": "openocd", .....  "searchDir": [ .....    "\${workspaceFolder}", .....    "\${config:modustoolbox.toolsPath}/openocd/scripts/" .....  ], .....  "configFiles": [ .....    "interface/kitprog3.cfg", .....    "target/cyw55500.cfg" .....  ], .....  "openOCDLaunchCommands": [ .....    "adapter serial 1117108802237400" .....  ], .....  "proc before_examine_proc { } { cyw55500.dap apreg 0x10000 0xD04 0xE00EDF0; cyw55500.dap apreg 0 .....  }, .....  ], .....}</pre> </li> <li>For JLink add new property <code>"serialNumber": "50129901"</code>, to Attach configuration, where 50129901- serial number of the JLink probe  <pre>.....// When using 'attach', make sure your program is running on the board and that your .....// executable matches the image in the chip exactly, or else strange things can happen .....// with breakpoints, variables, etc. .....{ .....  "name": "Attach Debug (JLink)", .....  "type": "cortex-debug", .....  "request": "attach", .....  "cwd": "\${workspaceFolder}", .....  "executable": "../build/APP_CYW955513EVK-01/Debug/mtb-example-threadx-empty-app.elf", .....  "servertype": "jlink", .....  "device": "Cortex-M33", .....  "interface": "jtag", .....  "serialNumber": "50129901", .....  "overrideAttachCommands": [ .....    "set 0xE00EDFC=(*0xE00EDFC 0x10000)" // Set DEMCR.MON_EN .....  ], .....  "overrideRestartCommands": [ .....  ], .....  "showDevDebugOutput": "none" .....}</pre> </li> </ol>

## Known issues, limitations, and workarounds

Problem	Workaround
You must manually reset after programming PSoC™ 6 kits when using GDB SEGGER + Jlink + JTAG interface.	<p>Eclipse: Update Erase/Program launch configs to redefine internal make variable '<b>MTB_RECIPES__JLINK_DEVICE_CFG_PROGRAM</b>' with the target JLink alias without <b>_tm</b> suffix (e.g., <b>CY8C6xxA_CM0p_sect256KB</b>):</p> <p></p> <p>VS Code: Update Program/Erase tasks with the same information.</p> <pre> 1  tasks.json 2  settings.json 3  Dual-CPU_Empty_PSoC6_AppCode_workspace 4 5  { 6    "label": "Program", 7    "type": "process", 8    "command": "make", 9    "args": [ 10     "-f", 11     "Makefile", 12     "-j8", 13     "program_MTB_RECIPES__JLINK_DEVICE_CFG_PROGRAM=CY8C6xxA_CM0p_sect256KB" 14   ], 15   "output": "console", 16   "group": "build", 17   "problemMatcher": [ 18     "\$default" 19   ] 20 }, 21 { 22   "label": "Erase Device", 23   "type": "process", 24   "command": "make", 25   "args": [ 26     "-f", 27     "Makefile", 28     "-j8", 29     "erase_MTB_RECIPES__JLINK_DEVICE_CFG_PROGRAM=CY8C6xxA_CM0p_sect256KB" 30   ], 31   "output": "console", 32   "group": "build", 33   "problemMatcher": [ 34     "\$default" 35   ] 36 } </pre>
In VS Code, "Failed to update peripheral TCPWM0: Error: peripheral-viewer: readMemory failed" error might appear if you open the "XPERIPHERALS" window when the MCU is in run state and the plugin cannot read peripheral registers on runtime.	To avoid this error, open the "XPERIPHERALS" window when you are on a breakpoint or some instruction.
Exception has occurred" error might appear when you execute Attach/Debug launch configuration. Such errors started to be visible in VS Code - 1.53.2.	You can safely ignore this error.
Existing application opened in ModusToolbox™ version 3.1 or later reports "error: unknown type name 'uint8_t'" or similar compiler errors.	<p>Add <b>#include &lt;stdint.h&gt;</b> in all affected source files.</p> <p>This issue only applies to applications migrated to 3.1 or later. It will not occur for new applications created with 3.1 or later tools.</p>
This error is caused by the update to GCC 11.	

## Known issues, limitations, and workarounds

Problem	Workaround
When calling <code>make program</code> with <code>-j</code> flag on the command line in multi-core applications, the programming processes get out of sync. This results in the <code>qprogram</code> starting before the build finishes. There is no error message reported. This issue does not exist when programming from Eclipse IDE or VSCode.	Since this issue only exists in a scenario in which the user calls <code>make program</code> with <code>-j</code> flag at the application level in multi-core applications, the current workaround is to run <code>make build -j</code> and then run <code>make qprogram</code> . This defect is being addressed in the next release.
In the Eclipse IDE, programming a device is skipped when the device was previously programmed.	This is expected behavior and there is no workaround. This was a change made to the launch configurations in Eclipse to support multi-core debugging.
If you change the MCU/SOC/SIP for the BSP using the BSP Assistant, the Register View may not be available while debugging using the Eclipse IDE or VS Code.	This is because the <code>svd</code> file path is not present in the launch configurations. To fix this, navigate to the application folder and run <code>make getlibs</code> . Then, run <code>make eclipse</code> or <code>make vscode</code> , as applicable.
The <b>Attach</b> launch config does not work for the secure lifecycle of AIROC™ CYW20829 devices.	Do not use the <b>Attach</b> launch config for secure lifecycle.
The CySecuretool does not work with PyOCD as the debugger on macOS M1 CPUs.	No workaround; we do not plan to support PyOCD.
When exporting ModusToolbox™ applications created for the TRAVEO™ T2G Body High MC devices to be used with the $\mu$ Vision and IAR IDEs, there are some limitations using the J-Link probe (including ETM traces, program, and debug via the CM7 core).	Use native Arm and IAR probes to work with TRAVEO™ T2G Body High MC devices.
There is an issue with reset for TRAVEO™ T2G Body High MC and T2G Instrument Cluster devices in the SEGGER tool. The <b>Debug</b> launch config does not work properly for CM7_0 and CM7_1 cores via the J-Link probe in Eclipse and VS Code IDEs.	To debug the code, use the <b>Attach</b> launch config.
While using the Eclipse IDE on Windows for various program/debug operations, there's a plugin issue that prevents the debug port from shutting down. This could result in abnormal power consumption, the watchdog timer being blocked, or the inability to connect in JTAG mode after a successful connection in SWD mode.	Reset the device. For example, on the CY8CKIT-062S2-40312 kit, press the <b>SW1/XRES</b> button.

## Known issues, limitations, and workarounds

### 3.12 Library Manager/make getlibs

Problem	Workaround
The Library Manager does not list the retarget-io library for the CY8CKIT-040T.	The retarget-io library is not available currently for this device. The retarget-io library depends on mtb-hal-cat2, which is not supported by the CY8CKIT-040T.
A .mtb file added as a direct dependency to the <i>deps</i> directory is overridden and removed during the <code>make getlibs</code> operation.	This problem occurs when you add a direct dependency using the 'latest-x.y' tag instead of a specific 'release-x.y.z' tag when the BSP or another library requires the same library as an indirect dependency. To ensure your direct dependency is kept, use the 'release-x.y.z' tag in your .mtb file.

### 3.13 BSP Assistant

Problem	Workaround
When BSP assistant is run from the command line to create your BSP, it does not create the BSP_COMPONENTS variable in the Makefile.	Use the BSP assistant GUI to create your BSP.
When creating a BSP by selecting MPNs, you may see the message "Errors exist in the project's configuration" above the message that states the BSP was created successfully.	If this happens, run the Device Configurator from inside the BSP Assistant and fix all issues in the Notice List before using the BSP.
If you edit an older BSP and change the UDB SDIO port using the updated BSP Assistant 1.10, you need to manually edit the config/cyreservedresources.list file. The older BSP Assistant tool warned of this change. The updated BSP Assistant tool makes this change for you, but only for BSPs created with the newer version of the tool. Not editing the config/cyreservedresources.list file will lead to indeterminant results.	Manually edit the config/cyreservedresources.list file as described, or use only the BSP Assistant version 1.0 tool to make changes to older BSPs.

### 3.14 Device Configurator

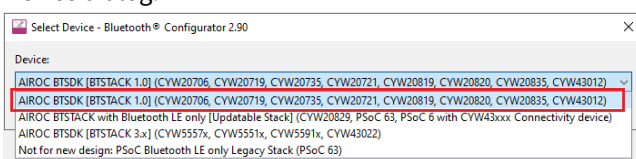
Problem	Workaround
The freeRTOS and abstraction-rtos libraries do not support tickless sleep for the PSOC™ Control C3 device. Therefore, deep-sleep cannot be used.	None. This feature will be supported in the next release. Regular sleep is supported and set as the default.
For ModusToolbox™ 2.x applications using PSOC™ 4 devices, if you open the application using ModusToolbox™ version 3.x, the Device Configurator (version 4.0) may show various errors with various types of connections, such as SAR ADC SOC Input, TCPWM Start/Stop/Capture/Count/Reload Signal, DMA Channel Trigger Input or connections between pins over Digital Input and Digital Output.	Select new signals for the invalid connections to resolve the issues.



## Known issues, limitations, and workarounds

Problem	Workaround
For ModusToolbox™ 2.x applications using PSOC™ 4 or PSOC™ 6 devices, if you open the application using ModusToolbox™ version 3.x, the Device Configurator (version 4.0) may show "Resource overused" errors in some cases where the pin's Digital Input, Digital Output, and Analog parameters are set at the same time.	Select new signals for the invalid connections to resolve the issues.
If one of the WICED Radio Interface personalities is instantiated in the Universal Digital Block (UDB), it will not allow picking connections for the DMA signals.	<p>The WICED Radio Interface personalities should not be used in practice. Instead, to enable communication with an external radio device from a PSOC™ 6S1 device, the BSP/Application should use the udb-sdio-whd library and set the appropriate component for the desired port. See the README.md file contained in the udb-sdio-whd library for more details.</p> <p>Additionally, to reserve the appropriate resources so they do not get overused by the configurator, the board should include a cyreservedresources.list file next to the design.modus file. Refer to one of the existing PSOC™ 6S1 boards (eg: CY8CKIT-062-WIFI-BT, CYW9P62S1-43012EVB-01, CYW9P62S1-43438EVB-01, ...) for what this file should contain.</p>

## 3.15 Bluetooth® Configurator

Problem	Workaround
The Bluetooth® Configurator does not automatically detect the correct device for the application when creating a new configuration. This issue is applicable to AIROC™ BTSDK [BTSTACK 1.0] devices; for example, CYW20706.	<p>Manually select the first option "AIROC BTSDK [BTSTACK 1.0] (devices)" in the Bluetooth® Configurator Select Device dialog.</p> 

## 3.16 Documentation

Problem	Workaround
Various documents included with the release may contain incomplete information, or may not contain up-to-date screen captures or information.	<p>New versions of documents, including this release notes document, may be available online at:</p> <p><a href="#">ModusToolbox™ Software website</a></p>

## Revision history

### Revision history

Revision	Date	Description of Change
**	2017-12-29	Initial Release.
*A	2018-11-21	Updates for Production.
*B	2019-09-19	Updates for version 1.1.
*C	2019-10-18	Updates for version 2.0.
*D	2019-10-21	Copyright text for FreeType.
*E	2019-11-04	Added known issues.
*F	2020-03-26	Updates for version 2.1.
*G	2020-04-07	Adding Known Issues for version 2.1; fixed Rev. in footer.
*H	2020-04-21	Adding known Issue for QSPI Configurator.
*I	2020-05-20	Removed fixed known issue.
*J	2020-06-29	Added known issues for Programming/Debugging.
*K	2020-09-01	Updates for version 2.2.
*L	2020-09-25	Added several known issues.
*M	2020-10-19	Added issue about programming in DeepSleep mode.
*N	2020-12-04	Added issue about Eclipse IDE and macOS Big Sur.
*O	2020-12-10	Added issued for no access to GitHub.
*P	2021-03-25	Updates for version 2.3. Updated text for M1 workaround. Added issue about importing into Eclipse.
*Q	2021-04-22	Updated text for known issue about build failing in Eclipse for imported projects.
*R	2021-07-07	Added issue for PSOC™ 4 error message that can be ignored.
*S	2021-09-23	Updates for version 2.4.
*T	2021-10-08	Updated the version of modus-shell for Windows to 1.3.0. Added build issues for legacy BTSDK projects, as well as XMC™ projects using Linux and IAR.
*U	2022-01-26	Added issue for font size on Project Creator and Library Manager when using multiple screens.
*V	2022-09-28	Updates for version 3.0 release.
*W	2023-03-21	Added issue of program starting before build finishes when working with multi-core projects.
*X	2023-06-02	Updates for version 3.1 release.
*Y	2024-02-27	Updates for version 3.2 release.
*Z	2024-03-26	Added known issue for CAPSENSE™ Configurator, and updated versions of a couple current assets.
AA	2024-06-18	Added known issues for the Building/programing/debugging section regarding issues using Eclipse and VS Code.
AB	2024-08-02	Updated known issue with Segger tool to include TAVEO™ T2G Instrument Cluster devices.
AC	2024-10-04	Updated for version 3.3 release.
AD	2024-11-26	Updated for PSOC™ Control C3 support.

## Revision history

Revision	Date	Description of Change
AE	2024-12-17	Updated for version 3.4 release.
AF	2025-01-09	Fixed versions of GNU make and OpenOCD.
AG	2025-03-27	Updated for version 3.5 release.
AH	2025-09-17	Updated for version 3.6 release.
AI	2025-10-20	Added known issue for GNU make system for toolchain location.
AJ	2025-12-12	Updated for version 3.7 release.
AK	2026-02-03	Updated to clarify host operating system support.

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