

1 SEGGER_SYSVIEW_Pi

1.1 Overview and termin

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2 SystemView Recorder: p

2.1 Timestamps in the th

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2.4 Timeline window

3 Upgrading SystemView c

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4.1 SystemView problem

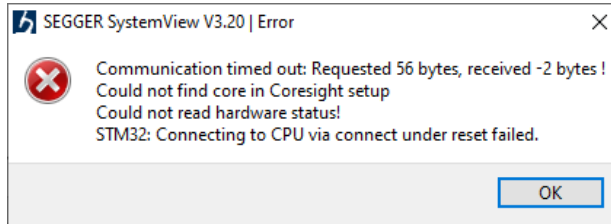
4.2 SystemView problem

4.3 SystemView problem

4.4 SystemView bug: dc

4.5 Console output for a

- "Communication timed out":



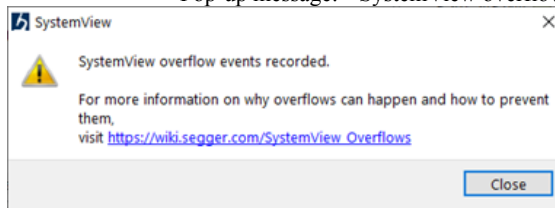
- Solution

- When this problem occurs, SystemView may get stuck in a loop, where it continually tries to connect. Getting out of this loop will probably require shutting-down SystemView.
- A likely cause of the problem is with Ozone, and its .jdebug file not having the line:
 - `Project.SetRTT(0);`
- The study-guide's [Cheat-Sheet](#) has more info on running Ozone and SystemView.

4.2 SystemView problem: Recorder reports overflow

- Problem:

- When the SystemView Recorder is run, it may report overflow. With overflow, some events are not sent to the SystemView app on the host.
 - Pop-up message: "SystemView overflow events recorded"



- The Events List window shows where overflow occurs, and its extent.

#	Time	Context	Event	Detail
335618	1:57.578 156 509	usbTask	xTaskNotifyWait	ulBitsToClearOnEntry=0 ulBitsTo
335619	1:57.578 164 259	usbTask	xStreamBufferReceive	xStreamBuffer=0x20001530 xRec
335620	1:57.578 164 264	*** OVERFLOW ***	*** Overflow ***	2569447 Events lost.
335621	1:57.578 190 838	ISR 83	ISR Enter	Runs for 12.653 us
335622	1:57.578 203 491	ISR 83	ISR Exit	Returns to *** OVERFLOW ***
335623	1:57.578 208 843	*** OVERFLOW ***	Task Block	usbTask, Reason = 27
335624	1:57.578 208 847	*** OVERFLOW ***	*** Overflow ***	2569771 Events lost.
335625	1:57.591 919 690	SysTick	ISR Enter	
335626	1:57.591 924 287	SysTick	Task Ready	usbprint runs after 6.352 us

- Overflow can cause SystemView calculations to be incorrect
 - For example, I suspect CPU usage was less than %100 for this test, due to overflow:

Name	Type	CPU Load
ISR 83	#83	0.41 %
SysTick	#15	0.01 %
Scheduler		0.14 %
usbTask	@3	0.76 %
usbprint	@2	0.50 %
Tmr Svc	@2	0.00 %
Idle		4.23 %

- Solution #1: Segger's info on fixing overflow

- Wiki
 - Note: does not provide much info
 - https://wiki.segger.com/SystemView_Overflows
- SystemView User Guide
 - "Overflow events occur when the SystemView RTT buffer is full. This can happen for following reasons:
 - J-Link is kept busy by a debugger and cannot read the data fast enough.
 - The target interface speed is too low to read the data fast enough.
 - The application generates too many events to fit into the buffer.
 - To prevent this:
 - Minimize the interactions of the debugger with J-Link while the target is running. (e.g. disable live watches)