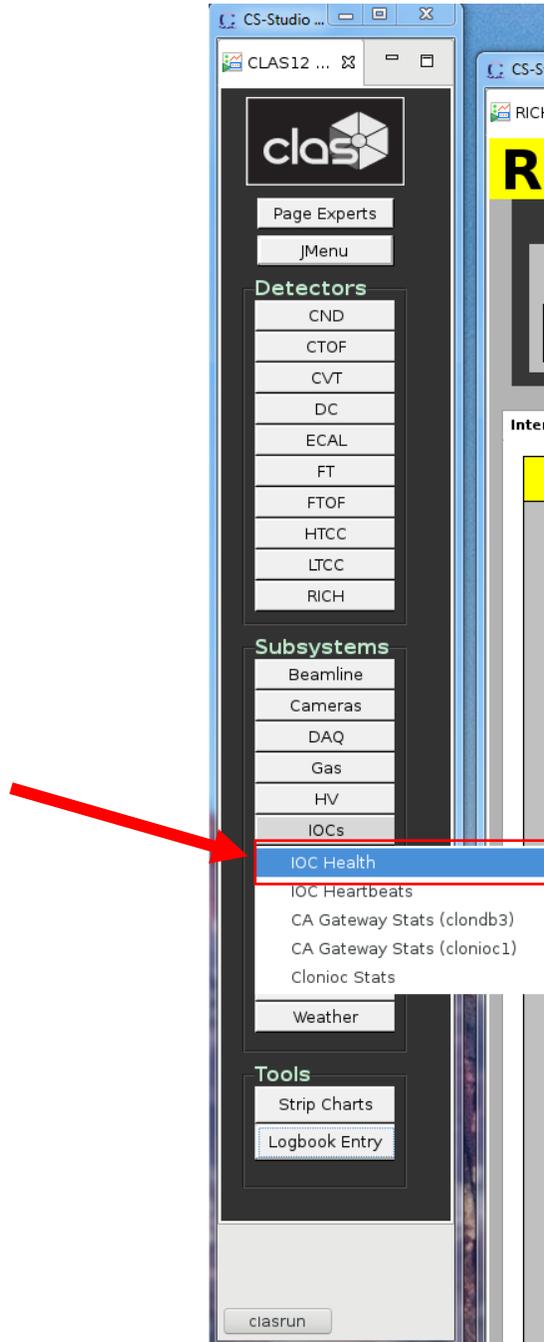


RICH Hardware Interlock System - IOC Reboot Procedure

1. Access clascss
2. Under "IOCs" menu, select "IOC Health".

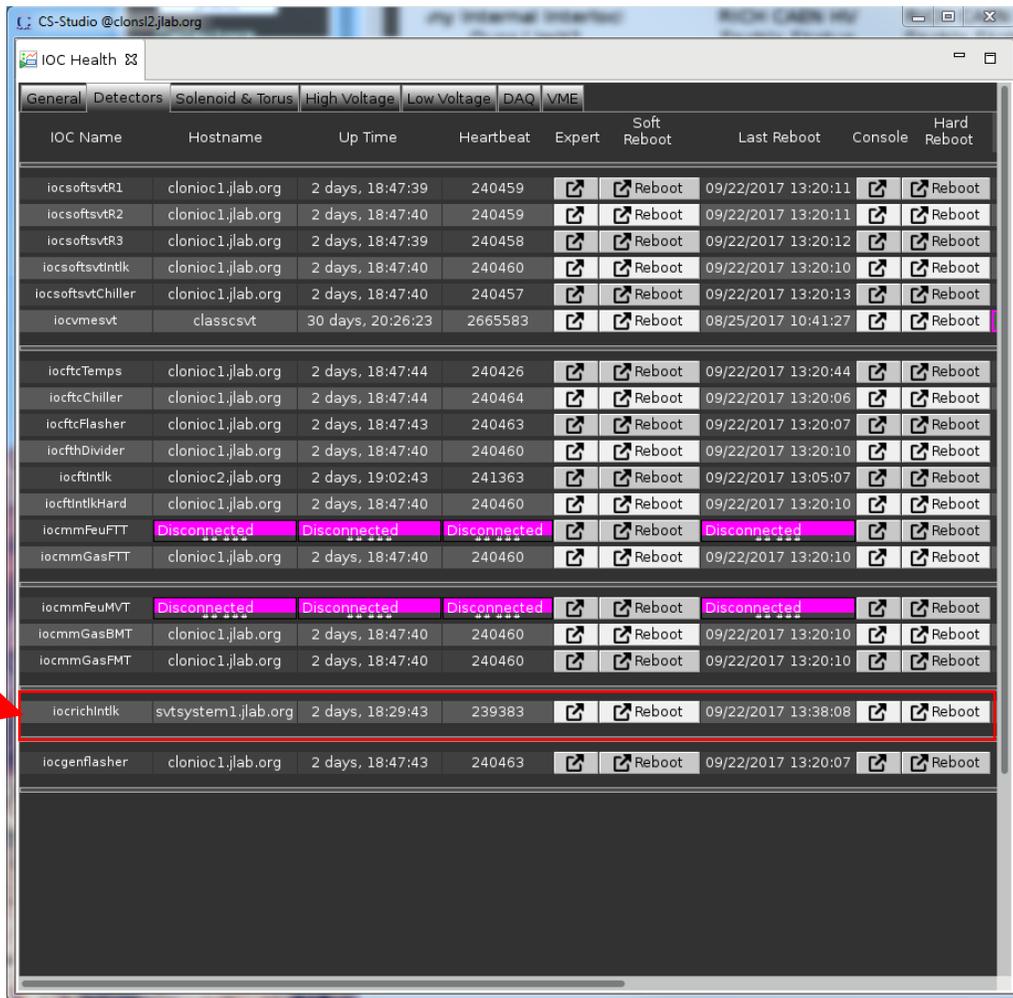


3. In window that opens, navigate to “Detectors” tab.

The screenshot shows a window titled "CS-Studio @clons12.jlab.org" with a sub-window "IOC Health". The "Detectors" tab is selected and highlighted with a red box and a red arrow. The window displays a table of IOC health data.

IOC Name	Hostname	Up Time	Heartbeat	Expert	Soft Reboot	Last Reboot	Console	Hard Reboot
ioccas	clonioc1.jlab.org	2 days, 18:46:36	240396			09/22/2017 13:20:07		
iocagw	clonioc1.jlab.org	2 days, 18:46:36	240396			09/22/2017 13:20:07		
iocbta	clonioc1.jlab.org	2 days, 18:46:33	240393			09/22/2017 13:20:09		
iocmcc	clonioc1.jlab.org	2 days, 18:46:34	240394			09/22/2017 13:20:09		
iocmonitor	clonioc2.jlab.org	2 days, 19:01:30	241290			09/22/2017 13:05:13		
iocweather	clonioc1.jlab.org	2 days, 18:46:33	240393			09/22/2017 13:20:10		
iocgasSystem	clonioc1.jlab.org	2 days, 18:46:36	240396			09/22/2017 13:20:06		
iocgasSystem86	Disconnected	Disconnected	Disconnected			Disconnected		
iocmoellerPS	clonioc1.jlab.org	2 days, 18:46:35	240395			09/22/2017 13:20:08		
iocmoellerTarget	clonioc1.jlab.org	2 days, 18:46:36	240396			09/22/2017 13:20:07		
iocsaclaytgt	clonioc1.jlab.org	2 days, 18:46:32	240392			09/22/2017 13:20:10		

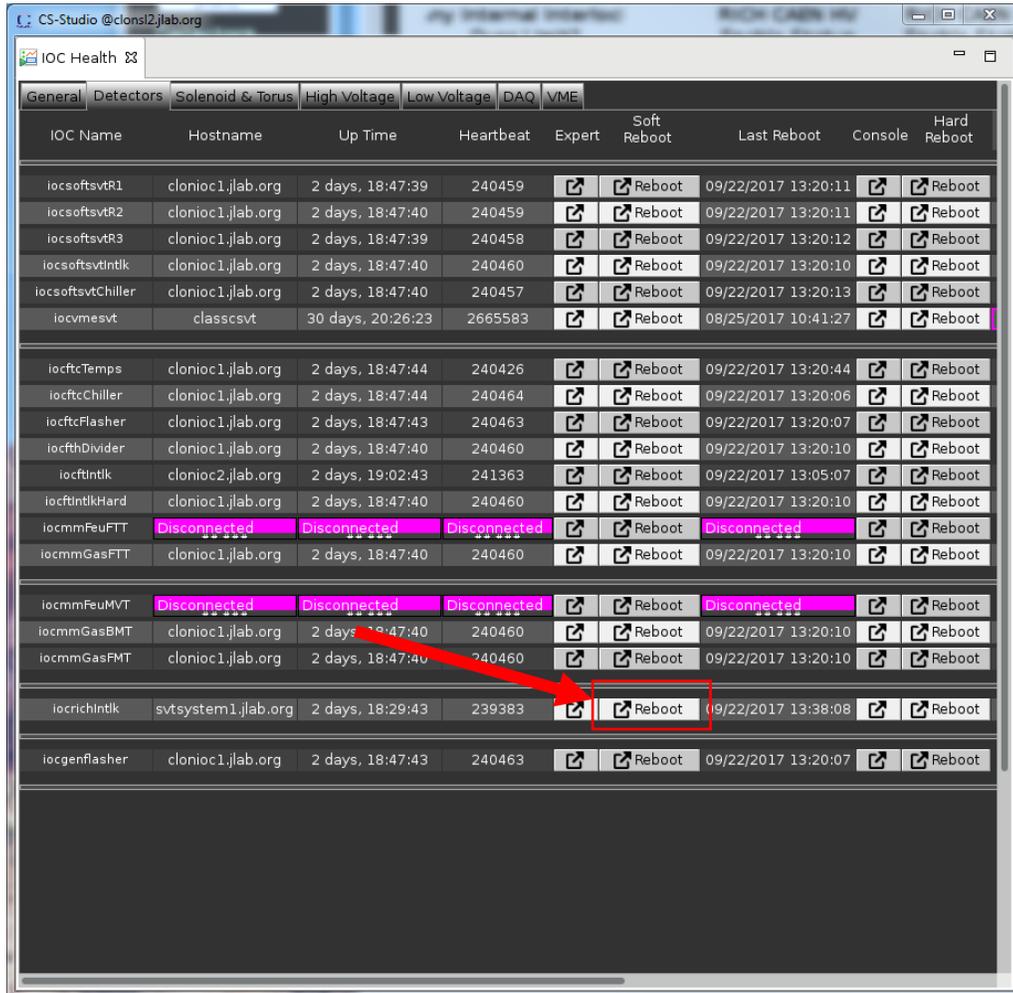
4. In "Detectors" tab, find row for IOC Name "iocrichIntlk"



The screenshot shows the 'IOC Health' window in CS-Studio. The 'Detectors' tab is selected. The table below lists various IOCs with their status and actions. A red arrow points to the row for 'iocrichIntlk'.

IOC Name	Hostname	Up Time	Heartbeat	Expert	Soft Reboot	Last Reboot	Console	Hard Reboot
iocsoftsvr1	clonioc1.jlab.org	2 days, 18:47:39	240459			09/22/2017 13:20:11		
iocsoftsvr2	clonioc1.jlab.org	2 days, 18:47:40	240459			09/22/2017 13:20:11		
iocsoftsvr3	clonioc1.jlab.org	2 days, 18:47:39	240458			09/22/2017 13:20:12		
iocsoftsvtntlk	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocsoftvtChiller	clonioc1.jlab.org	2 days, 18:47:40	240457			09/22/2017 13:20:13		
iocvmesvt	classcsvt	30 days, 20:26:23	2665583			08/25/2017 10:41:27		
iocftcTemps	clonioc1.jlab.org	2 days, 18:47:44	240426			09/22/2017 13:20:44		
iocftcChiller	clonioc1.jlab.org	2 days, 18:47:44	240464			09/22/2017 13:20:06		
iocftcFlasher	clonioc1.jlab.org	2 days, 18:47:43	240463			09/22/2017 13:20:07		
iocfthDivider	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocftntlk	clonioc2.jlab.org	2 days, 19:02:43	241363			09/22/2017 13:05:07		
iocftntlkHard	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmFeuFFT	Disconnected	Disconnected	Disconnected			Disconnected		
iocmmGasFFT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmFeuMVT	Disconnected	Disconnected	Disconnected			Disconnected		
iocmmGasBMT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmGasFMT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocrichIntlk	svtsystem1.jlab.org	2 days, 18:29:43	239383			09/22/2017 13:38:08		
iocgenflasher	clonioc1.jlab.org	2 days, 18:47:43	240463			09/22/2017 13:20:07		

5. Under "Soft Reboot" column, click reboot button. Soft reboot takes a few seconds.



The screenshot shows the 'IOC Health' window in CS-Studio. The window has tabs for 'General', 'Detectors', 'Solenoïd & Torus', 'High Voltage', 'Low Voltage', 'DAQ', and 'VME'. The 'General' tab is active, displaying a table of IOC status. The table has columns for IOC Name, Hostname, Up Time, Heartbeat, Expert, Soft Reboot, Last Reboot, Console, and Hard Reboot. A red arrow points to the 'Reboot' button in the 'Soft Reboot' column for the 'iocrichntlk' IOC.

IOC Name	Hostname	Up Time	Heartbeat	Expert	Soft Reboot	Last Reboot	Console	Hard Reboot
iocsoftsvr1	clonioc1.jlab.org	2 days, 18:47:39	240459			09/22/2017 13:20:11		
iocsoftsvr2	clonioc1.jlab.org	2 days, 18:47:40	240459			09/22/2017 13:20:11		
iocsoftsvr3	clonioc1.jlab.org	2 days, 18:47:39	240458			09/22/2017 13:20:12		
iocsoftsvtntlk	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocsoftsvtChiller	clonioc1.jlab.org	2 days, 18:47:40	240457			09/22/2017 13:20:13		
iocvmesvt	classcsvt	30 days, 20:26:23	2665583			08/25/2017 10:41:27		
iocftcTemps	clonioc1.jlab.org	2 days, 18:47:44	240426			09/22/2017 13:20:44		
iocftcChiller	clonioc1.jlab.org	2 days, 18:47:44	240464			09/22/2017 13:20:06		
iocftcFlasher	clonioc1.jlab.org	2 days, 18:47:43	240463			09/22/2017 13:20:07		
iocfthDivider	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocftntlk	clonioc2.jlab.org	2 days, 19:02:43	241363			09/22/2017 13:05:07		
iocftntlkHard	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmFeuFTT	Disconnected	Disconnected	Disconnected			Disconnected		
iocmmGasFTT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmFeuMVT	Disconnected	Disconnected	Disconnected			Disconnected		
iocmmGasBMT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocmmGasFMT	clonioc1.jlab.org	2 days, 18:47:40	240460			09/22/2017 13:20:10		
iocrichntlk	svtsystem1.jlab.org	2 days, 18:29:43	239383			09/22/2017 13:38:08		
iocgenflasher	clonioc1.jlab.org	2 days, 18:47:43	240463			09/22/2017 13:20:07		

6. If Hardware Interlock screen indicators still show “Disconnected”, click reboot button under “Hard Reboot” column. Hard reboot will take longer than soft reboot.

The screenshot shows the 'IOC Health' application window with a table of system components. The table has columns for IOC Name, Hostname, Up Time, Heartbeat, Expert, Soft Reboot, Last Reboot, Console, and Hard Reboot. Several rows show 'Disconnected' status in pink. A red box highlights the 'Hard Reboot' button for the 'iocrichtk' row, and a red arrow points to it from the 'Soft Reboot' column of the row above.

IOC Name	Hostname	Up Time	Heartbeat	Expert	Soft Reboot	Last Reboot	Console	Hard Reboot
iocsoftsvr1	clonioc1.jlab.org	2 days, 18:47:39	240459	[Icon]	[Icon] Reboot	09/22/2017 13:20:11	[Icon]	[Icon] Reboot
iocsoftsvr2	clonioc1.jlab.org	2 days, 18:47:40	240459	[Icon]	[Icon] Reboot	09/22/2017 13:20:11	[Icon]	[Icon] Reboot
iocsoftsvr3	clonioc1.jlab.org	2 days, 18:47:39	240458	[Icon]	[Icon] Reboot	09/22/2017 13:20:12	[Icon]	[Icon] Reboot
iocsoftsvtntk	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocsoftvtChiller	clonioc1.jlab.org	2 days, 18:47:40	240457	[Icon]	[Icon] Reboot	09/22/2017 13:20:13	[Icon]	[Icon] Reboot
iocvmsvt	classcsvt	30 days, 20:26:23	2665583	[Icon]	[Icon] Reboot	08/25/2017 10:41:27	[Icon]	[Icon] Reboot
iocftcTemps	clonioc1.jlab.org	2 days, 18:47:44	240426	[Icon]	[Icon] Reboot	09/22/2017 13:20:44	[Icon]	[Icon] Reboot
iocftcChiller	clonioc1.jlab.org	2 days, 18:47:44	240464	[Icon]	[Icon] Reboot	09/22/2017 13:20:06	[Icon]	[Icon] Reboot
iocftcFlasher	clonioc1.jlab.org	2 days, 18:47:43	240463	[Icon]	[Icon] Reboot	09/22/2017 13:20:07	[Icon]	[Icon] Reboot
iocfthDivider	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocftntk	clonioc2.jlab.org	2 days, 19:02:43	241363	[Icon]	[Icon] Reboot	09/22/2017 13:05:07	[Icon]	[Icon] Reboot
iocftntkHard	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocmmFeuFTT	Disconnected	Disconnected	Disconnected	[Icon]	[Icon] Reboot	Disconnected	[Icon]	[Icon] Reboot
iocmmGasFTT	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocmmFeuMVT	Disconnected	Disconnected	Disconnected	[Icon]	[Icon] Reboot	Disconnected	[Icon]	[Icon] Reboot
iocmmGasBMT	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocmmGasFMT	clonioc1.jlab.org	2 days, 18:47:40	240460	[Icon]	[Icon] Reboot	09/22/2017 13:20:10	[Icon]	[Icon] Reboot
iocrichtk	svtsystem1.jlab.org	2 days, 18:29:43	239383	[Icon]	[Icon] Reboot	09/22/2017 13:38:06	[Icon]	[Icon] Reboot
iocgenflasher	clonioc1.jlab.org	2 days, 18:47:43	240463	[Icon]	[Icon] Reboot	09/22/2017 13:20:07	[Icon]	[Icon] Reboot

7. Exit clascss.