

EPAT 操作指导与参考

EPAT User manual

(双语版)

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目 录

一、相关说明 (Foreword)	3
1.1 适用条件 (Suitable Condition)	3
1.2 相关下载 (Related to Download)	3
1.3 设备连接 (Device Connection)	3
二、EPAT 安装 (Installation)	4
三、EPAT 连接 (Connection)	4
四、日志保存 (Save Log)	11
4.1 自动保存(Automatically Save).....	11
4.2 手动保存(Manual save).....	12
五、常见分析应用 (Common Analytical Application)	13
5.1 导入 LOG(Load Log)	13
5.2 搜索/过滤(Search/Filter Log).....	14
5.3 数据解析(Data Analysis)	15
5.4 导出 Pcap(Output Pcap)	16
5.5 Dump 日志(Dump Log).....	16

一、相关说明 (Foreword)

1.1 适用条件 (Suitable Condition)

工具/Tools	厂商版本/Manufacturer Revision	适用模组类型/Applicable Module Type
EPAT	AT+CGMI/EC616/EC616s/QCX212	BC28-F/BC95-GF/BC260Y/BC300Y BC660K/BC950K

1.2 相关下载 (Related to Download)

EPAT	EPAT_V1.2.86.122.zip
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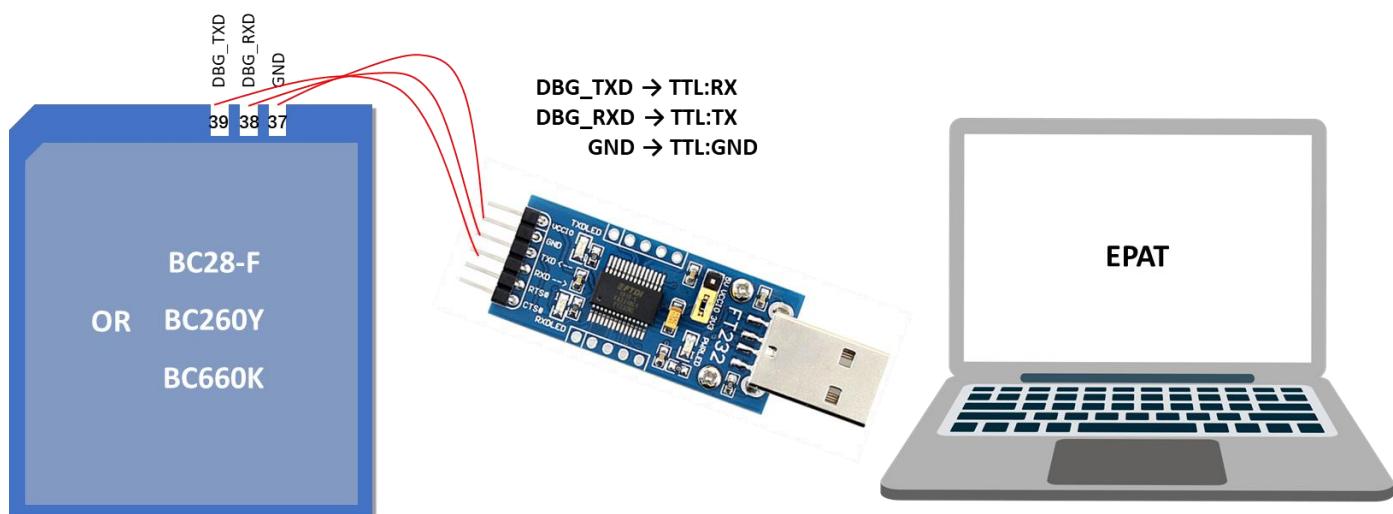
1.3 设备连接 (Device Connection)

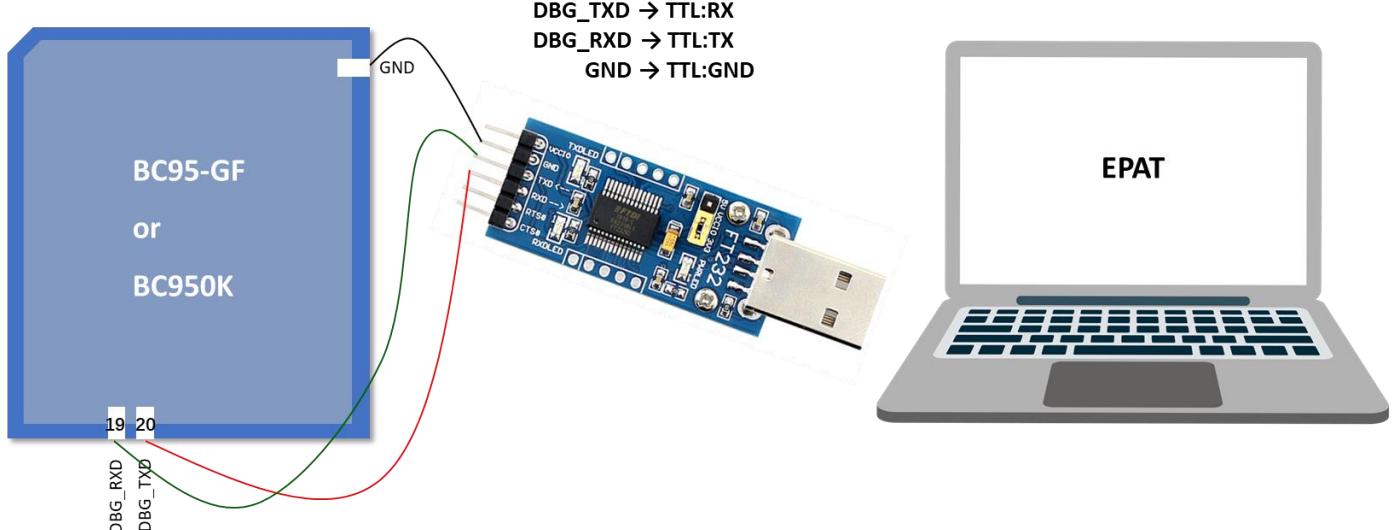
如果模组已完成贴片或对单独对模组进行调试，建议参考下面连接方式连接 EPAT 并抓取 log；

If the module has been welded or debugged separately, it is recommended that you connect to the EPAT and grab the log as shown below.

注意：由于 EC616/EC616s/QCX212 的 Debug 端口输出速率要求较高，建议使用支持 3M 或 6M 速率的 UART-to-USB Convertor (TTL)；

Note: the Debug port of the EC616/EC616s/QCX212 requires a high output rate. You are advised to use uart-to-usb Convertor (TTL) that supports 3M or 6M.





如果使用 EC616/QCX212 模组对应的 TE-B, 请在 “设备管理器→端口” 选择第三个 COM 端口;

If TE-B corresponding to EC616/QCX212 module is used, from "Device Manager → Ports" to select the third COM port.

二、EPAT 安装 (Installation)

EPAT 绿色安装, 解压后即可使用; 在 EPAT\bin 目录下, 运行 EPAT.exe.

EPAT is installation-free and can be used after decompression. Run EPAT.exe in the EPAT\bin.

注意:因为 EPAT 需要 VCMFC DLLs, 所以如果第一次运行 EPAT 失败, 请在 EPAT\bin 目录下安装 vc_redistEPAT.x86.exe.

Note: EPAT requires VCMFC DLLs, if your first run of EPAT fails, install vc_redistepat.x86. exe in the EPAT\bin directory.



EPAT icon

三、EPAT 连接 (Connection)

Debug log 抓取前, 请通过主串口 (TxR/RxD) 执行: (除 BC660K/BC950K)

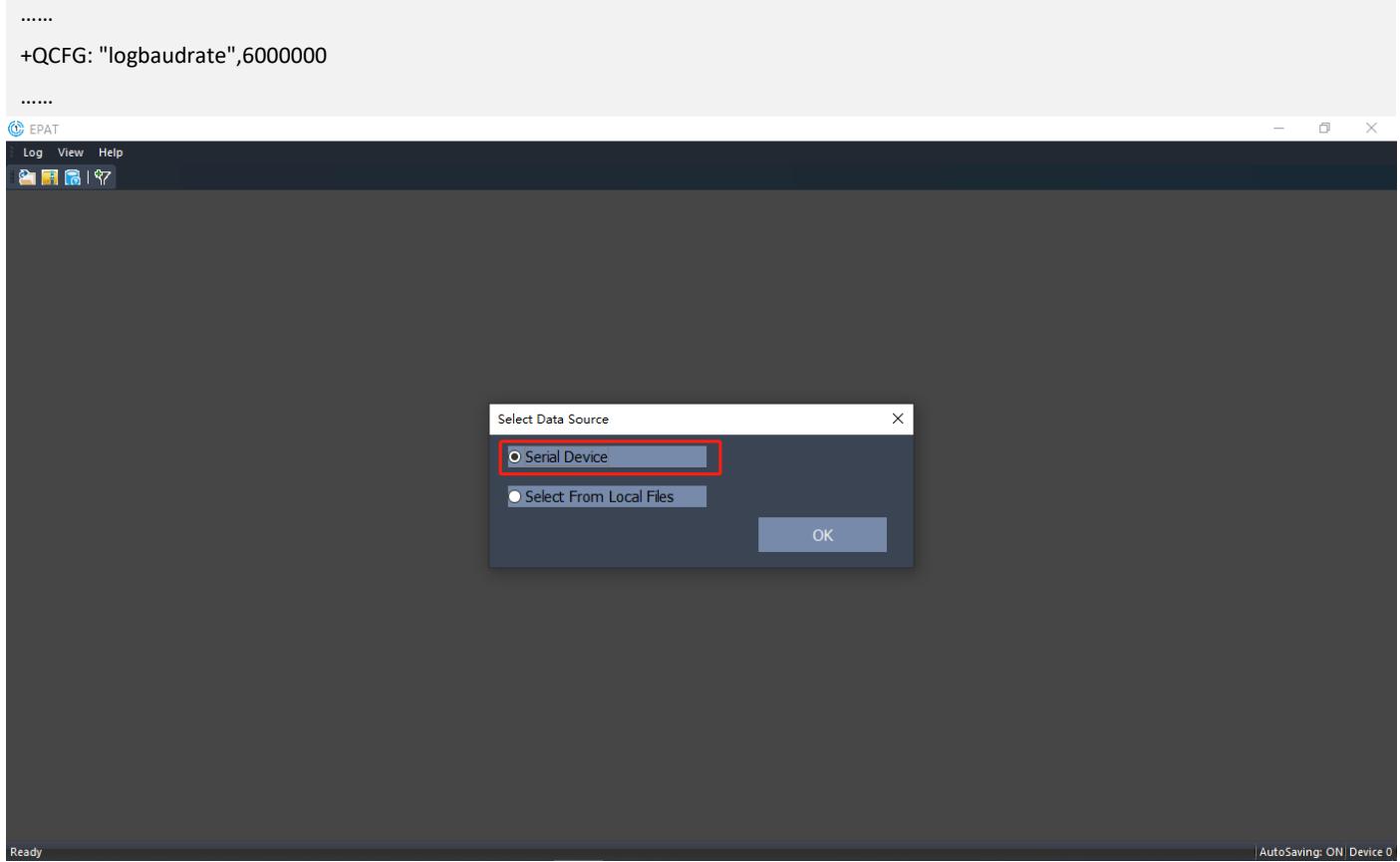
Before capturing the Debug log, excute the AT Command by the main serial port (TxR/RxD) :(BC660K/BC950K included)

AT+ECPCFG="logCtrl",2

通过 AT+QCFG?查询相应的模组默认配置波特率;

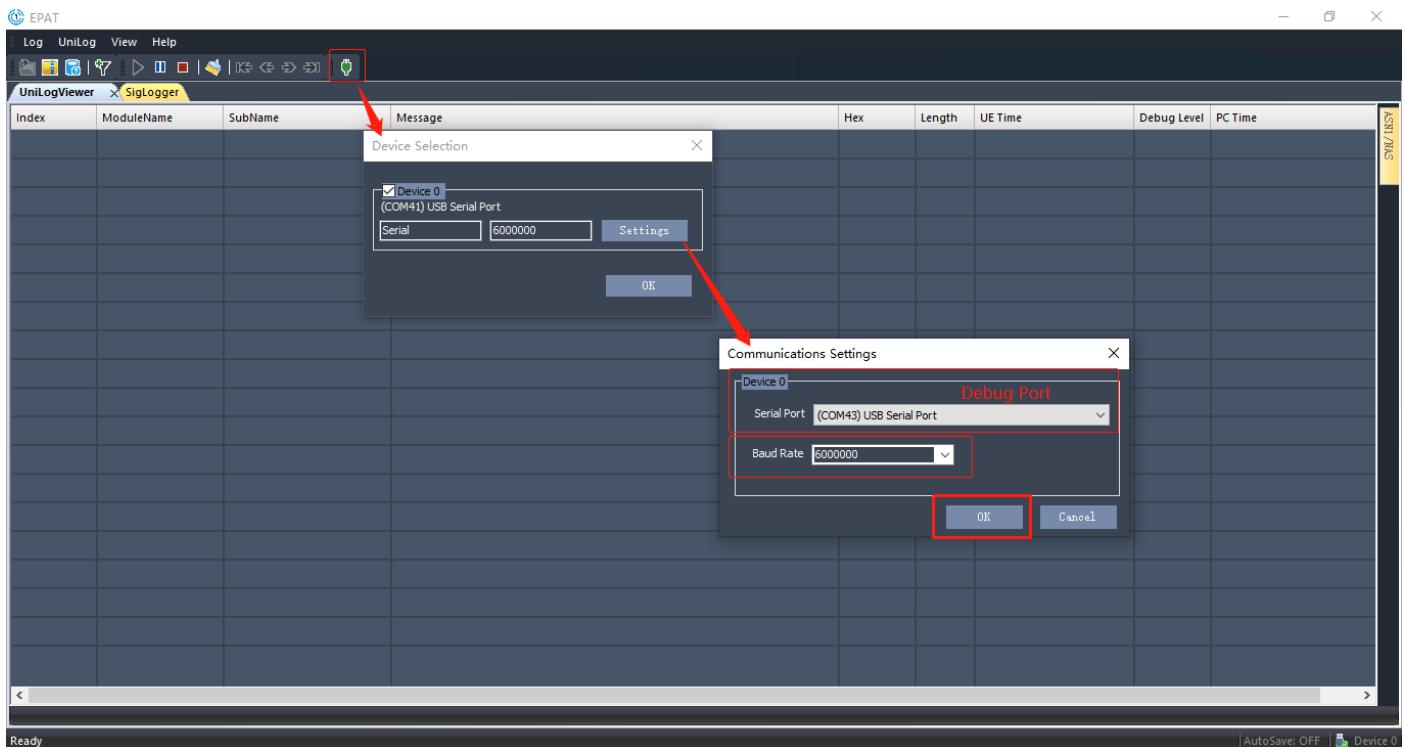
To query the default baud rate of the corresponding module by AT + QCFG?.

AT+QCFG?



点击如下图所示工具栏中的图标，选择 Debug 端口和配置波特率（与模组查询波特率一致）；

Click the icon in the toolbar as shown below, select Debug port and set baud rate (consistent with query baud rate of module);



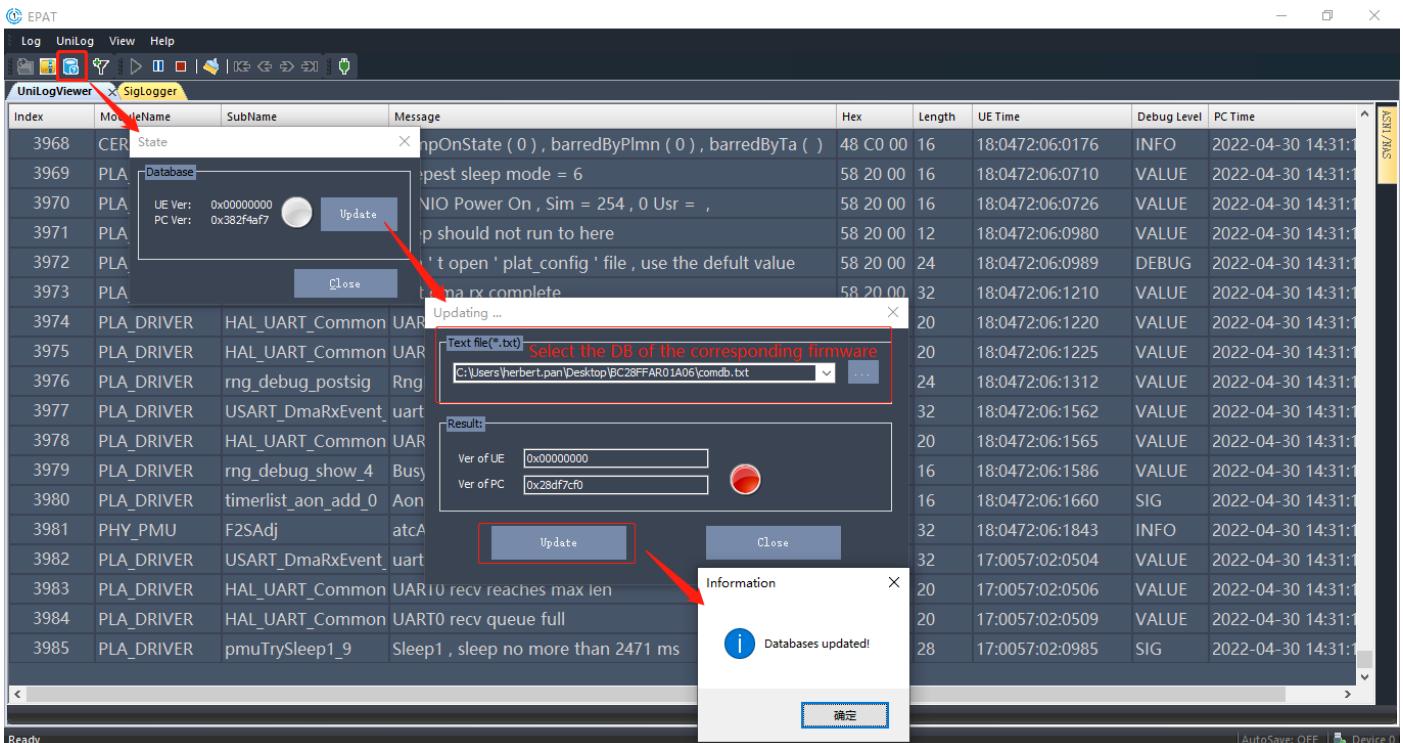
一般正常输出 LOG 如下图所示，如果 message 中输出大量 hex 码，需导入或更新 DB 文件；

Generally, the output LOG is as shown below. If a lot of HEX codes are output in Message, the DB file needs to be imported or updated.

Index	ModuleName	SubName	Message	Hex	Length	UE Time	Debug Level	PC Time
3021	PLA_DRIVER	pmuAonCtxChanged	PS flash write request = 2	58 20 00	12	30:0704:01:1339	VALUE	2022-04-30 14:22:4
3022	NAS	CeNasTaskEntry_2	CENAS vote to enter HIB state	49 60 00	8	30:0704:01:1345	VALUE	2022-04-30 14:22:4
3023	NAS	CeNasTaskEntry_3	CENAS vote to enter SLEEP2 state	49 60 00	8	30:0704:01:1364	VALUE	2022-04-30 14:22:4
3024	PS_SIG_DUMP	DUMP_FULL_SIGNAL	Sig = > SIG_CAC_CMI_IND(0x11f3), body len:8, body data	57 70 00	20	30:0704:01:1600	INFO	2022-04-30 14:22:4
3025	PLA_DRIVER	pmuAonCtxChanged	PS flash write request = 1	58 20 00	12	30:0704:01:1695	VALUE	2022-04-30 14:22:4
3026	ATCMD	atPrcoCacCmiIndSig	ATCMD CMI IND , sgId: 3 (DEV-2 / MM-3 / PS-4 / SIM-1)	58 30 00	16	30:0704:01:1795	INFO	2022-04-30 14:22:4
3027	PLA_DRIVER	SlowCounter32KFreq	32 KT Calibration Result = 0xfffec6a	58 20 00	12	30:0718:08:1511	VALUE	2022-04-30 14:22:4
3028	PHY_PMU	Calibr0	PhyPmuCalibr stop result = 3a944960	40 60 00	12	30:0718:08:1520	SIG	2022-04-30 14:22:4
3029	PLA_DRIVER	pmuVoteToSleep1St	Vote Sleep:L1PsSleepVoteFlag = 0x0-0\n	58 20 00	16	30:0718:09:0218	VALUE	2022-04-30 14:22:4
3030	PLA_DRIVER	pmuTrySleep1_1	worth sleep	58 20 00	8	30:0718:09:0921	VALUE	2022-04-30 14:22:4
3031	UICC_DRV	UiccDrvSleepPrepare	The uicc prepares to enter sleep1 mode...	4A 50 00	8	30:0718:09:1125	INFO	2022-04-30 14:22:4
3032	UICC_DRV	UiccDrvSleepPrepare	Pmu Aon Is not Latched , latch it	4A 50 00	8	30:0719:00:0405	INFO	2022-04-30 14:22:4
3033	PLA_DRIVER	pmuCheckCodeRun1	!!!!!! PMU Run Time Checker 5 Too Long , 1<<5 !!!!!!	58 20 00	20	30:0719:00:0691	VALUE	2022-04-30 14:22:4
3034	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x9	58 20 00	32	30:0719:00:1035	VALUE	2022-04-30 14:22:4
3035	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x1345 ,	58 20 00	20	30:0719:00:1046	VALUE	2022-04-30 14:22:4
3036	PLA_DRIVER	SwCntUpdate_02	SwCnt Update Output: Aon2048H = 0x0 , Aon2048L = 0x	58 20 00	20	30:0719:00:1064	VALUE	2022-04-30 14:22:4
3037	PHY_PMU	phySlpTimeUpdt	SleepTimeUpdate , origTimeDiff = 2953 , newTimeDiff =	40 60 00	16	30:0719:00:1111	INFO	2022-04-30 14:22:4
3038	PLA_DRIVER	Enter_Sleep1	Enter Sleep1: 2611 ms PreSlp = 1 ms Wakeup SC = 1297	58 20 00	28	30:0719:00:1684	VALUE	2022-04-30 14:22:4

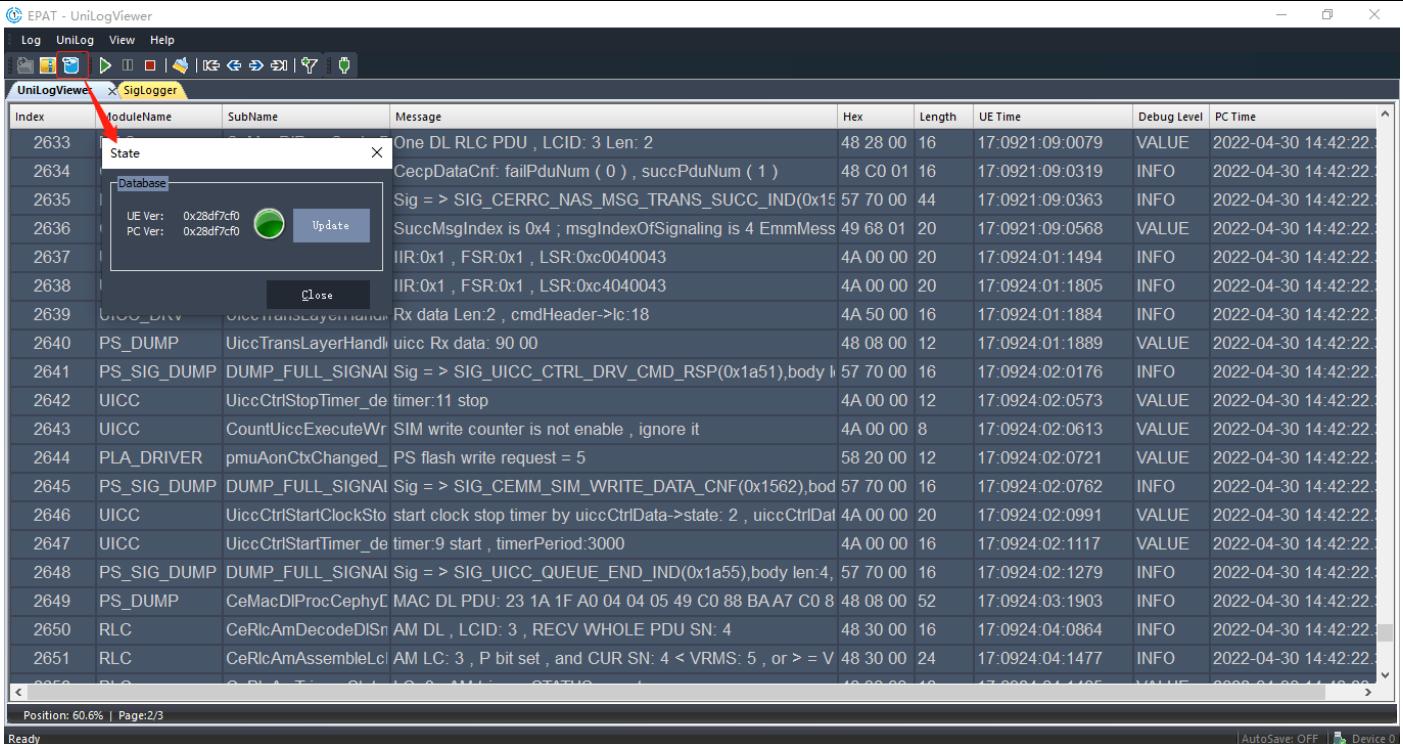
点击如下图所示工具栏中的图标，选择模组对应版本固件的 comdb.txt 文件，导入 DB 文件；

Click the icon in the toolbar as shown below, select the comdb.txt file of the corresponding firmware of the module, and import/update the DB file.



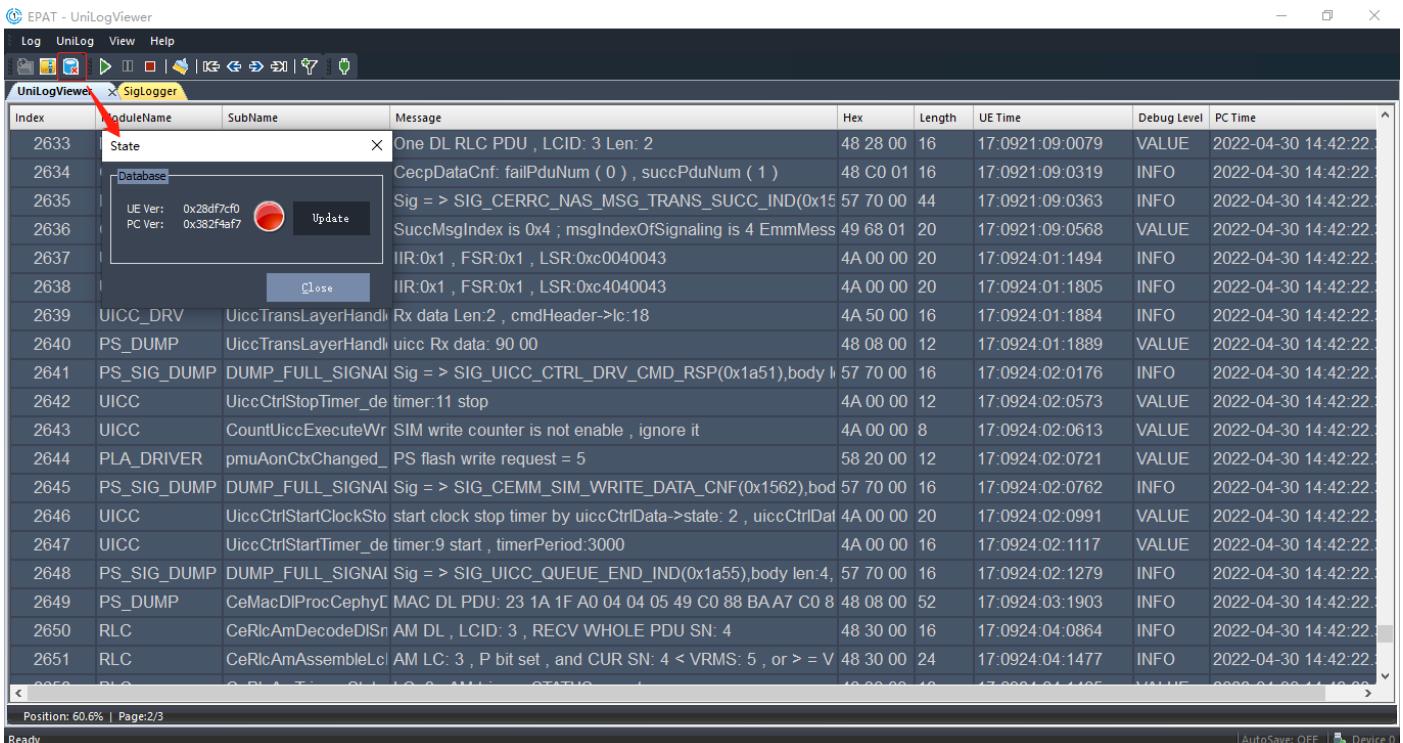
可以通过重启或 Reset，DB 状态将变更如下图所示；

By reset, the DB status changes as shown below.



如果导入的 DB 文件与当前模组固件版本不匹配，DB 状态将变更新如下图所示；

If the imported DB file does not match the current module firmware, the DB status will change as shown below.



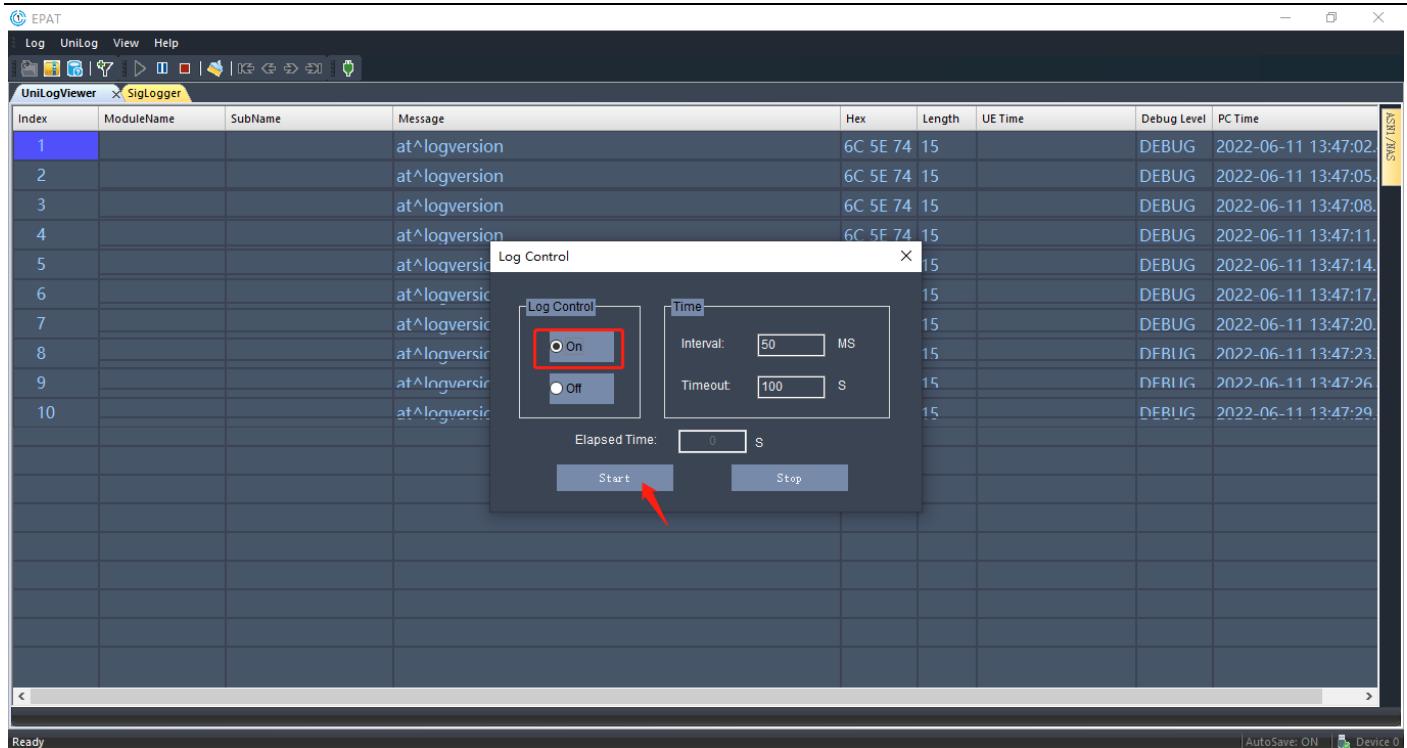
如果 EPAT 中“UniLogViewer”仅输出如下图所示日志消息，在菜单栏中选择“Log→Log Control”，随后在弹窗中选择“On”

并点击“Start”，窗口中将显示指令，多次执行后，重启模组或 Reset；或通过主串口执行指令 **AT+ECPCFG="logCtrl",2;**

打开 debug 输出；

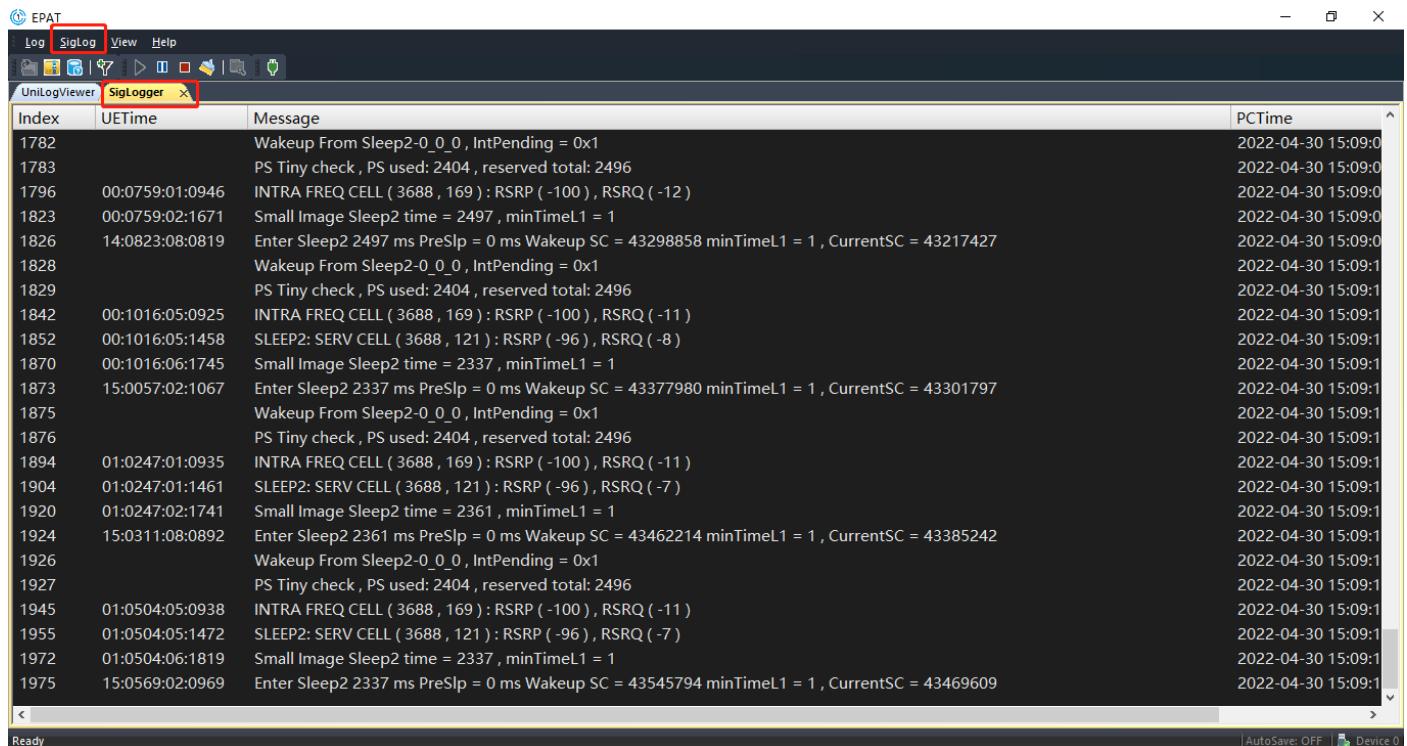
If the "UniLogViewer" in EPAT only outputs Log messages as shown below, select "Log→Log Control" in the menu bar, then select "On" and click "Start" in the popup window, then to display the command, after executing for several times, re-power

the module or Reset; **AT+ECPCFG="logCtrl",2;** Enable debug output;



可以通过下图所示，选择 SigLogger 窗口，并且选择选项栏中“SigLog→Only Show Protocol Signalling”，查看 NAS/AS 层消息；

As shown below, select "SigLog→Only Show Protocol Signalling" in the SigLogger window, to view NAS/AS Signalling/message.



Log SigLog View Help

Export As pcap file

Find

Start Record

Pause Record

Stop Record

Clear Viewer

Save As Text

Only Show Protocol Signalling

Only Show Favorite Signalling

PS Tiny check , PS used: 2404 , reserved total: 2496

2480 2022-04-30 15:09:4

RA FREQ CELL (3688 , 169) : RSRP (-101) , RSRQ (-13)

2493 2022-04-30 15:09:4

SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)

2503 2022-04-30 15:09:4

Small Image Sleep2 time = 2507 , minTimeL1 = 1

2520 2022-04-30 15:09:4

Wakeup From Sleep2 2507 ms PreSlp = 0 ms Wakeup SC = 44473554 minTimeL1 = 1 , CurrentSC = 44391799

2524 2022-04-30 15:09:4

Up From Sleep2-0_0_0 , IntPending = 0x1

2526 2022-04-30 15:09:4

PS Tiny check , PS used: 2404 , reserved total: 2496

2527 2022-04-30 15:09:4

04:0503:01:0931 INTRA FREQ CELL (3688 , 169) : RSRP (-101) , RSRQ (-13)

2540 2022-04-30 15:09:4

18:0567:08:0761 Enter Sleep2 2486 ms PreSlp = 0 ms Wakeup SC = 44557101 minTimeL1 = 1 , CurrentSC = 44476029

2568 2022-04-30 15:09:4

Wakeup From Sleep2-0_0_0 , IntPending = 0x1

2570 2022-04-30 15:09:4

PS Tiny check , PS used: 2404 , reserved total: 2496

2571 2022-04-30 15:09:4

INTRA FREQ CELL (3688 , 169) : RSRP (-102) , RSRQ (-14)

2584 2022-04-30 15:09:4

18:0823:08:0768 Enter Sleep2 2497 ms PreSlp = 0 ms Wakeup SC = 44641368 minTimeL1 = 1 , CurrentSC = 44559936

2613 2022-04-30 15:09:4

Wakeup From Sleep2-0_0_0 , IntPending = 0x1

2615 2022-04-30 15:09:5

PS Tiny check , PS used: 2404 , reserved total: 2496

2616 2022-04-30 15:09:5

04:1015:01:0938 INTRA FREQ CELL (3688 , 169) : RSRP (-102) , RSRQ (-14)

2629 2022-04-30 15:09:5

04:1015:01:1458 SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)

2639 2022-04-30 15:09:5

19:0055:08:0835 Enter Sleep2 2486 ms PreSlp = 0 ms Wakeup SC = 44724914 minTimeL1 = 1 , CurrentSC = 44643844

2660 2022-04-30 15:09:5

Wakeup From Sleep2-0_0_0 , IntPending = 0x1

2662 2022-04-30 15:09:5

PS Tiny check , PS used: 2404 , reserved total: 2496

2663 2022-04-30 15:09:5

05:0247:01:0941 INTRA FREQ CELL (3688 , 169) : RSRP (-101) , RSRQ (-13)

2676 2022-04-30 15:09:5

05:0247:01:1464 SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)

2686 2022-04-30 15:09:5

19:0311:08:0784 Enter Sleep2 2497 ms PreSlp = 0 ms Wakeup SC = 44809182 minTimeL1 = 1 , CurrentSC = 44727750

2705 2022-04-30 15:09:5

Log SigLog View Help

UnilogViewer SigLogger

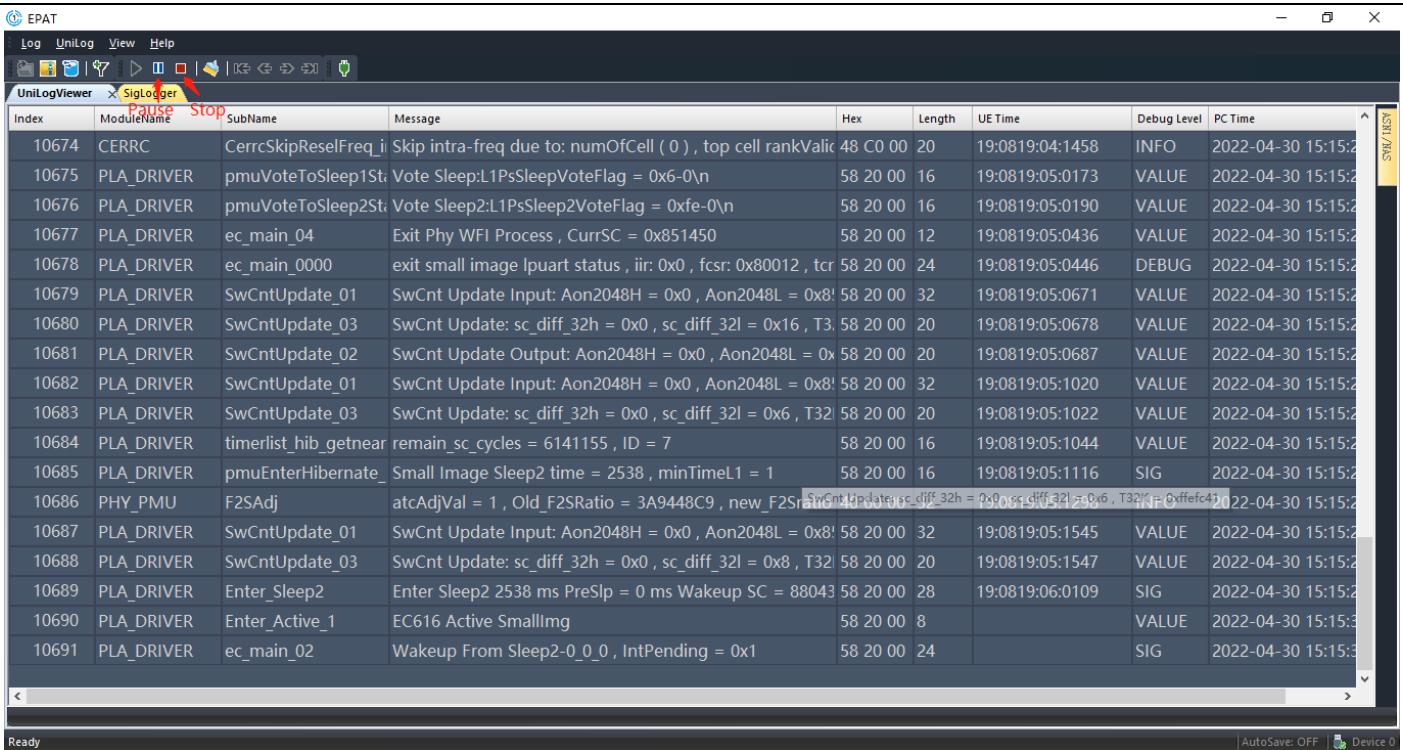
Index UETime Message

NAS/AS

Index	UETime	Message	PCTime
11550		Wakeup From Sleep2 2538 ms PreSlp = 0 ms	2022-04-30 15:16:2
11551		PS Tiny check , PS used: 2404 , reserved total: 2496	2022-04-30 15:16:2
11564	25:0819:04:0969	SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)	2022-04-30 15:16:2
11582	25:0819:05:1130	Small Image Sleep2 time = 2538 , minTimeL1 = 1	2022-04-30 15:16:2
11586	25:0819:06:0122	Enter Sleep2 2538 ms PreSlp = 0 ms Wakeup SC = 11153694 minTimeL1 = 1 , CurrentSC = 11070907	2022-04-30 15:16:2
11588		Wakeup From Sleep2 2538 ms PreSlp = 0 ms	2022-04-30 15:16:2
11589		PS Tiny check , PS used: 2404 , reserved total: 2496	2022-04-30 15:16:3
11602	26:0051:04:0794	SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)	2022-04-30 15:16:3
11620	26:0051:05:1757	Enter Sleep2 2527 ms PreSlp = 0 ms Wakeup SC = 11153694 minTimeL1 = 1 , CurrentSC = 11070907	2022-04-30 15:16:3
11622		Wakeup From Sleep2 2527 ms PreSlp = 0 ms	2022-04-30 15:16:3
11623		PS Tiny check , PS used: 2404 , reserved total: 2496	2022-04-30 15:16:3
11636	26:0307:04:0805	SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)	2022-04-30 15:16:3
11657	26:0307:05:1706	Enter Sleep2 2538 ms PreSlp = 0 ms Wakeup SC = 11153694 minTimeL1 = 1 , CurrentSC = 11070907	2022-04-30 15:16:3
11659		Wakeup From Sleep2 2538 ms PreSlp = 0 ms	2022-04-30 15:16:3
11660		PS Tiny check , PS used: 2404 , reserved total: 2496	2022-04-30 15:16:3
11673	26:0563:04:0961	SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)	2022-04-30 15:16:3
11687	26:0563:05:1034	Small Image Sleep2 time = 2538 , minTimeL1 = 1	2022-04-30 15:16:3
11690	26:0563:05:1890	Enter Sleep2 2527 ms PreSlp = 0 ms Wakeup SC = 11153694 minTimeL1 = 1 , CurrentSC = 11070907	2022-04-30 15:16:3
11692		Wakeup From Sleep2 2527 ms PreSlp = 0 ms	2022-04-30 15:16:3
11693		PS Tiny check , PS used: 2404 , reserved total: 2496	2022-04-30 15:16:3
11706	26:0819:04:0990	SLEEP2: SERV CELL (3688 , 121) : RSRP (-96) , RSRQ (-8)	2022-04-30 15:16:3
11723	26:0819:05:1159	Small Image Sleep2 time = 2538 , minTimeL1 = 1	2022-04-30 15:16:3
11727	26:0819:06:0094	Enter Sleep2 2538 ms PreSlp = 0 ms Wakeup SC = 11153694 minTimeL1 = 1 , CurrentSC = 11070907	2022-04-30 15:16:3

通过如下图所示工具栏中的暂停或停止图标，可以暂停或停止抓取 Log;

the pause or stop icon in the toolbar as shown below,to pause or stop grabbing Log.



四、日志保存 (Save Log)

4.1 自动保存(Automatically Save)

如下图所示, 通过选项栏 “Log→Preference” ,在弹窗中选择自动保存选项和保存路径, 以及配置保存最大文件大小;

(不推荐使用自动保存, 当 Log 达到最大自动保存大小时才能输入至自动保存路径)

As shown below, by the option bar "Log→Preference", select the automatic save option and save path in the popup window, and configure the maximum file size to save. (Automatic saving is not recommended , When Log meets the maximum autosave size, it can only be output to the autosave path)

EPAT

		Log	UniLog	View	Help				
		Open Log-File	Ctrl+O						
		Save Zip Log-File							
		RamDump							
Preference									
Log Control									
16269	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 16	27:0223:01:1712	VALUE	2022-04-30 15:21:0		
16270	CERRC	CerrcProcessReselEve	Reselection evaluation result: bReselNeeded (0) , forceR	48 C0 00 20	27:0223:01:1806	INFO	2022-04-30 15:21:0		
16271	PLA_DRIVER	pmuVoteToSleep1St	Vote Sleep:L1PsSleepVoteFlag = 0x6-0\n	58 20 00 16	27:0223:02:0718	VALUE	2022-04-30 15:21:0		
16272	PLA_DRIVER	pmuVoteToSleep2St	Vote Sleep2:L1PsSleep2VoteFlag = 0xe-0\n	58 20 00 16	27:0223:02:0734	VALUE	2022-04-30 15:21:0		
16273	PLA_DRIVER	ec_main_04	Exit Phy WiFi Process , CurrSC = 0x12f61fb	58 20 00 12	27:0223:02:0945	VALUE	2022-04-30 15:21:0		
16274	PLA_DRIVER	ec_main_0000	exit small image lpuart status, iir: 0x0 , fcsr: 0x80012 , tcr	58 20 00 24	27:0223:02:0955	DEBUG	2022-04-30 15:21:0		
16275	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 32	27:0223:02:1179	VALUE	2022-04-30 15:21:0		
16276	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x13 , T3	58 20 00 20	27:0223:02:1187	VALUE	2022-04-30 15:21:0		
16277	PLA_DRIVER	SwCntUpdate_02	SwCnt Update Output: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 20	27:0223:02:1195	VALUE	2022-04-30 15:21:0		
16278	PLA_DRIVER	timerlist_hib_check_v	Check Wakeup Timer Id = 7 , 6686113 , remain 32 k cycle	58 20 00 24	27:0223:02:1280	VALUE	2022-04-30 15:21:0		
16279	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 32	27:0223:02:1529	VALUE	2022-04-30 15:21:0		
16280	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x6 , T32	58 20 00 20	27:0223:02:1531	VALUE	2022-04-30 15:21:0		
16281	PLA_DRIVER	pmuEnterHibernate_	Small Image Sleep2 time = 2485 , minTimeL1 = 1	58 20 00 16	27:0223:02:1626	SIG	2022-04-30 15:21:0		
16282	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 32	21:0055:08:0294	VALUE	2022-04-30 15:21:0		
16283	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x6 , T32	58 20 00 20	21:0055:08:0296	VALUE	2022-04-30 15:21:0		
16284	PLA_DRIVER	Enter_Sleep2	Enter Sleep2 2485 ms PreSlp = 0 ms Wakeup SC = 19963	58 20 00 28	21:0055:08:0776	SIG	2022-04-30 15:21:0		

EPAT

		Log	UniLog	View	Help				
		UniLogViewer	SigLogger						
17164	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 32	26:0563:04:1318	VALUE	2022-04-30 15:22:0		
17165	PLA_DRIVER	SwCntUpdate_03	SwCnt Upd		26:0563:04:1332	VALUE	2022-04-30 15:22:0		
17166	PLA_DRIVER	SwCntUpdate_02	SwCnt Upd		26:0563:04:1350	VALUE	2022-04-30 15:22:0		
17167	PLA_DRIVER	timerlist_hib_get_8Hz	Current_8H		26:0563:04:1427	VALUE	2022-04-30 15:22:0		
17168	CERRC	CerrcProcessReselEve	Reselection		26:0563:04:1488	INFO	2022-04-30 15:22:0		
17169	PLA_DRIVER	pmuVoteToSleep1St	Vote Sleep:		26:0563:05:0166	VALUE	2022-04-30 15:22:0		
17170	PLA_DRIVER	pmuVoteToSleep2St	Vote Sleep:		26:0563:05:0181	VALUE	2022-04-30 15:22:0		
17171	PLA_DRIVER	ec_main_04	Exit Phy Wi		26:0563:05:0380	VALUE	2022-04-30 15:22:0		
17172	PLA_DRIVER	ec_main_0000	exit small ir		26:0563:05:0392	DEBUG	2022-04-30 15:22:0		
17173	PLA_DRIVER	SwCntUpdate_01	SwCnt Upd		26:0563:05:0609	VALUE	2022-04-30 15:22:0		
17174	PLA_DRIVER	SwCntUpdate_03	SwCnt Upd		26:0563:05:0621	VALUE	2022-04-30 15:22:0		
17175	PLA_DRIVER	SwCntUpdate_01	SwCnt Upd		26:0563:05:0961	VALUE	2022-04-30 15:22:0		
17176	PLA_DRIVER	SwCntUpdate_03	SwCnt Upd		26:0563:05:0963	VALUE	2022-04-30 15:22:0		
17177	PLA_DRIVER	SwCntUpdate_02	SwCnt Upd		26:0563:05:0966	VALUE	2022-04-30 15:22:0		
17178	PLA_DRIVER	pmuEnterHibernate_	Small Imag		26:0563:05:1054	SIG	2022-04-30 15:22:0		
17179	PHY_PMU	F2SAdj	atcAdjVal =		26:0563:05:1231	INFO	2022-04-30 15:22:0		
17180	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x1	58 20 00 32	26:0563:05:1482	VALUE	2022-04-30 15:22:0		
17181	PLA_DRIVER	Enter_Sleep2	Enter Sleep2 2527 ms PreSlp = 0 ms Wakeup SC = 21809	58 20 00 28	26:0563:06:0045	SIG	2022-04-30 15:22:0		

Ready AutoSave: OFF Device 0

4.2 手动保存(Manual save)

点击如下图工具栏图标，或“Ctrl+S”，或选择“Log→Save Zip Log-File”，保存 Log;

Click the toolbar icon in the below, or "Ctrl+S", or choose "Log→Save Zip log-file" to Save the Log;

Index	ModuleName	SubName	Message	Hex	Length	UE Time	Debug Level	PC Tim	ASYM
5113	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x204c14 , , 58 20 00 32	04:0928:05:1661	VALUE	2022			
5114	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x5 , T32K = 0xff 58 20 00 20	04:0928:05:1671	VALUE	2022			
5115	CERRC	CerrcGetHighestRankedCell	Highest ranked CELL (3688 , 169) , rank (-1648) 48 C0 00 20	04:0928:05:1792	INFO	2022			
5116	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x204c14 , , 58 20 00 32	04:0928:06:0027	VALUE	2022			
5117	PLA_DRIVER	timerlist_hib_get_8HZcount	Current_8HZ_CT = 8268 Pro_Current_CT = 8266 58 20 00 16	04:0928:06:0043	VALUE	2022			
5118	CERRC	CerrcProcessReselEvaluation	Reselection evaluation result: bReselNeeded (0) , forceReselect 48 C0 00 16	04:0928:06:0158	INFO	2022			
5119	CERRC	CerrcLeaveSleep2DueToSer	CERRC SLEEP2: s-SearchDeltaP (0) , Srxlev (22) , SrxlevRef (0) 48 C0 01 24	04:0928:06:0195	VALUE	2022			
5120	PLA_DRIVER	pmuVoteToSleep1State_1	Vote Sleep:L1PsSleepVoteFlag = 0x6-0\n 58 20 00 16	04:0928:06:0690	VALUE	2022			
5121	PLA_DRIVER	pmuVoteToSleep2State_1	Vote Sleep2:L1PsSleep2VoteFlag = 0xfe-0\n 58 20 00 16	04:0928:06:0705	VALUE	2022			
5122	PLA_DRIVER	ec_main_04	Exit Phy WFI Process , CurrSC = 0x204e226 58 20 00 12	04:0928:06:0967	VALUE	2022			
5123	PLA_DRIVER	ec_main_0000	exit small image Ipuart status , iir: 0x0 , fcsr: 0x80012 , tcr: 0xfdfe8 58 20 00 24	04:0928:06:0979	DEBUG	2022			
5124	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x204c15 , , 58 20 00 32	04:0928:06:1200	VALUE	2022			
5125	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x14 , T32K = 0x 58 20 00 20	04:0928:06:1210	VALUE	2022			
5126	PLA_DRIVER	timerlist_hib_check_wakeup	Check Wakeup Timer Id = 7 , 6690044 , remain 32 k cycles = 0 a 58 20 00 24	04:0928:06:1302	VALUE	2022			
5127	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x204c16 , , 58 20 00 32	04:0928:06:1551	VALUE	2022			
5128	PLA_DRIVER	SwCntUpdate_03	SwCnt Update: sc_diff_32h = 0x0 , sc_diff_32l = 0x6 , T32K = 0xff 58 20 00 20	04:0928:06:1554	VALUE	2022			
5129	PLA_DRIVER	timerlist_hib_getnearest_2	remain_sc_cycles = 4573414 , ID = 7 58 20 00 16	04:0928:06:1576	VALUE	2022			
5130	PLA_DRIVER	pmuEnterHibernate_3	Small Image Sleep2 time = 2472 , minTimeL1 = 1 58 20 00 16	04:0928:06:1646	SIG	2022			
5131	PLA_DRIVER	SwCntUpdate_01	SwCnt Update Input: Aon2048H = 0x0 , Aon2048L = 0x204c16 , , 58 20 00 32	06:0569:02:0317	VALUE	2022			

Position: 79.3% | Page:5/6

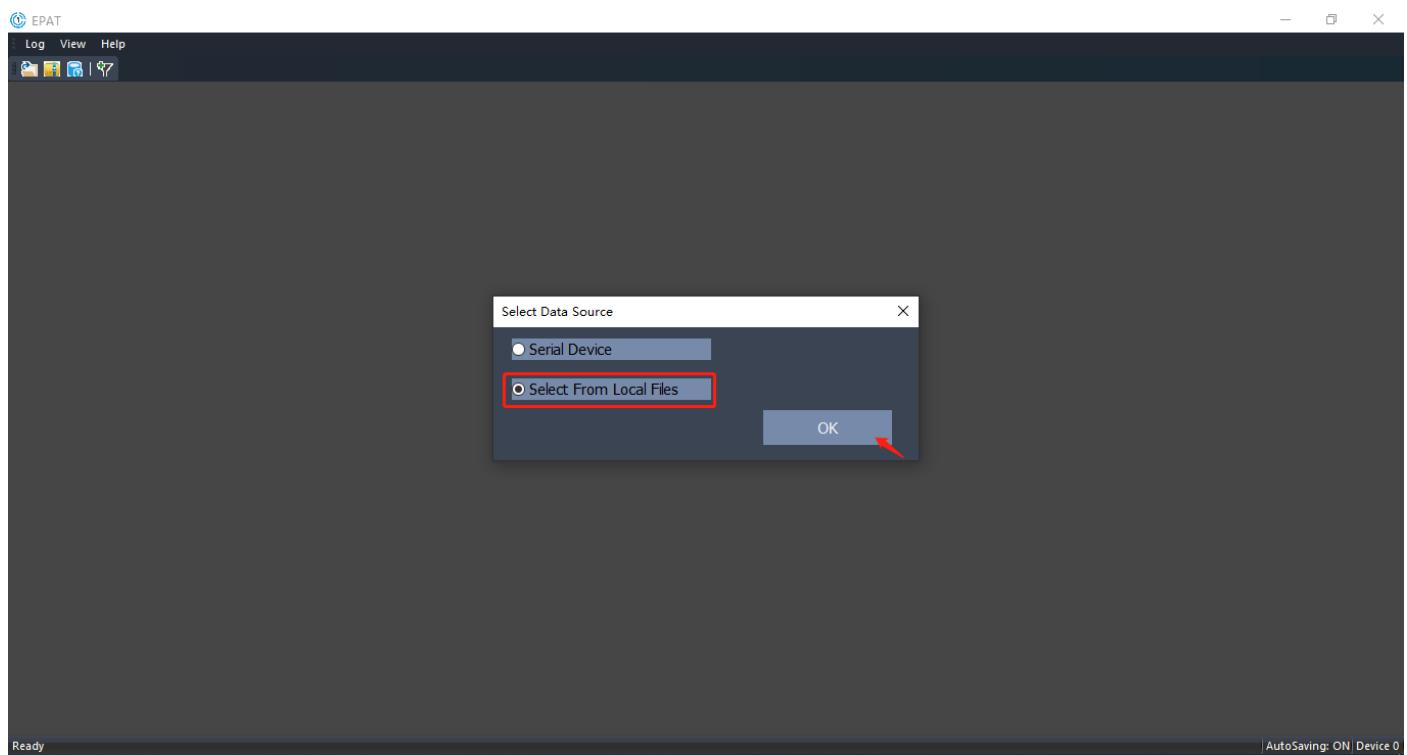
Ready AutoSave: ON Device 0

五、常见分析应用 (Common Analytical Application)

5.1 导入 LOG(Load Log)

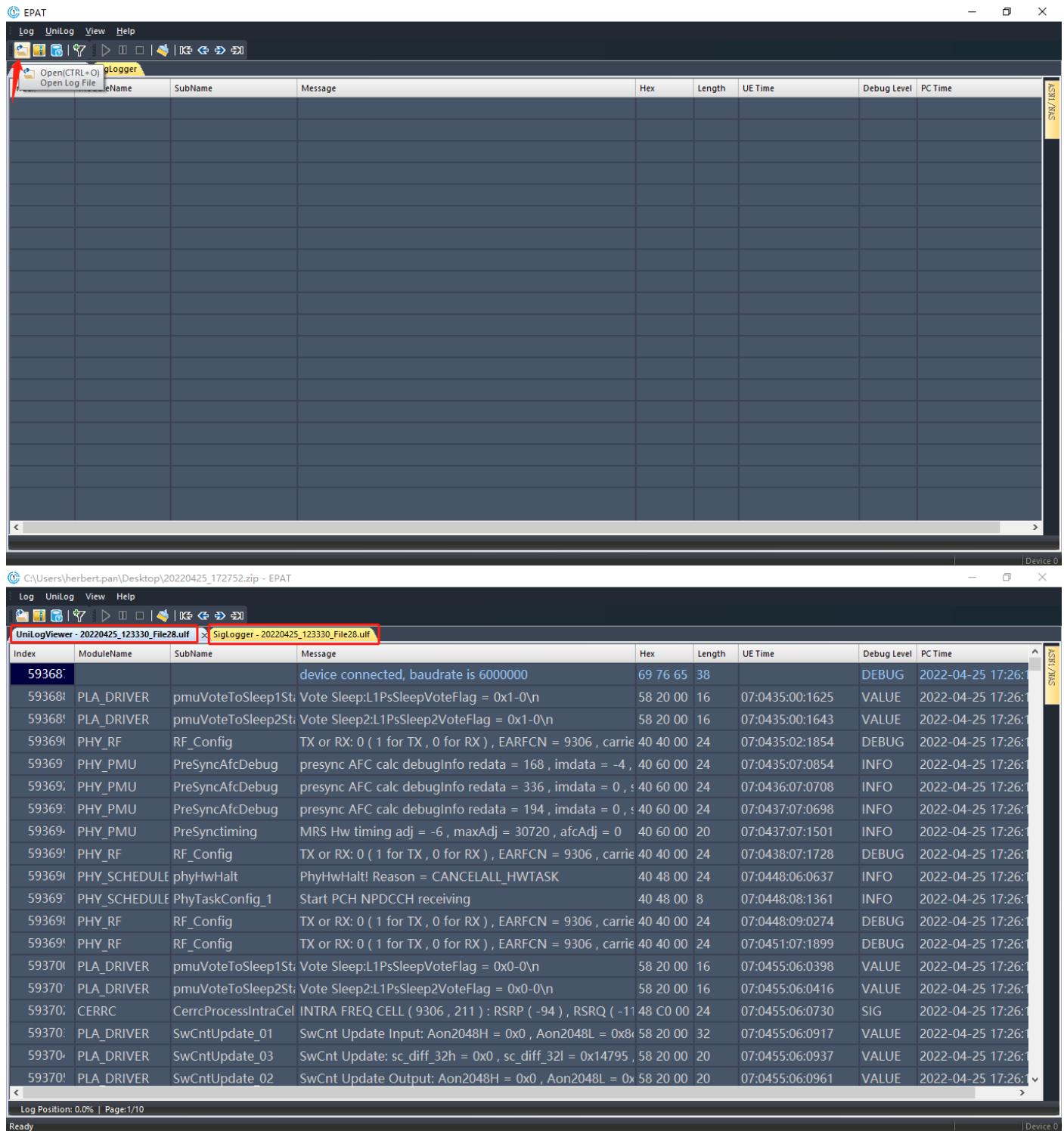
对输出的 LOG 进行分析时，需选择 “Select From Local Files” ,如下图；

To analyze the output logs, Select “Select From Local Files”, as shown below.



可以通过如下图所示工具栏的图标或选项栏 “Log→Open Log File”，导入分析 LOG 文件；

To import the analysis Log File through the toolbar icon or option bar "Log→Open Log File" as shown below.

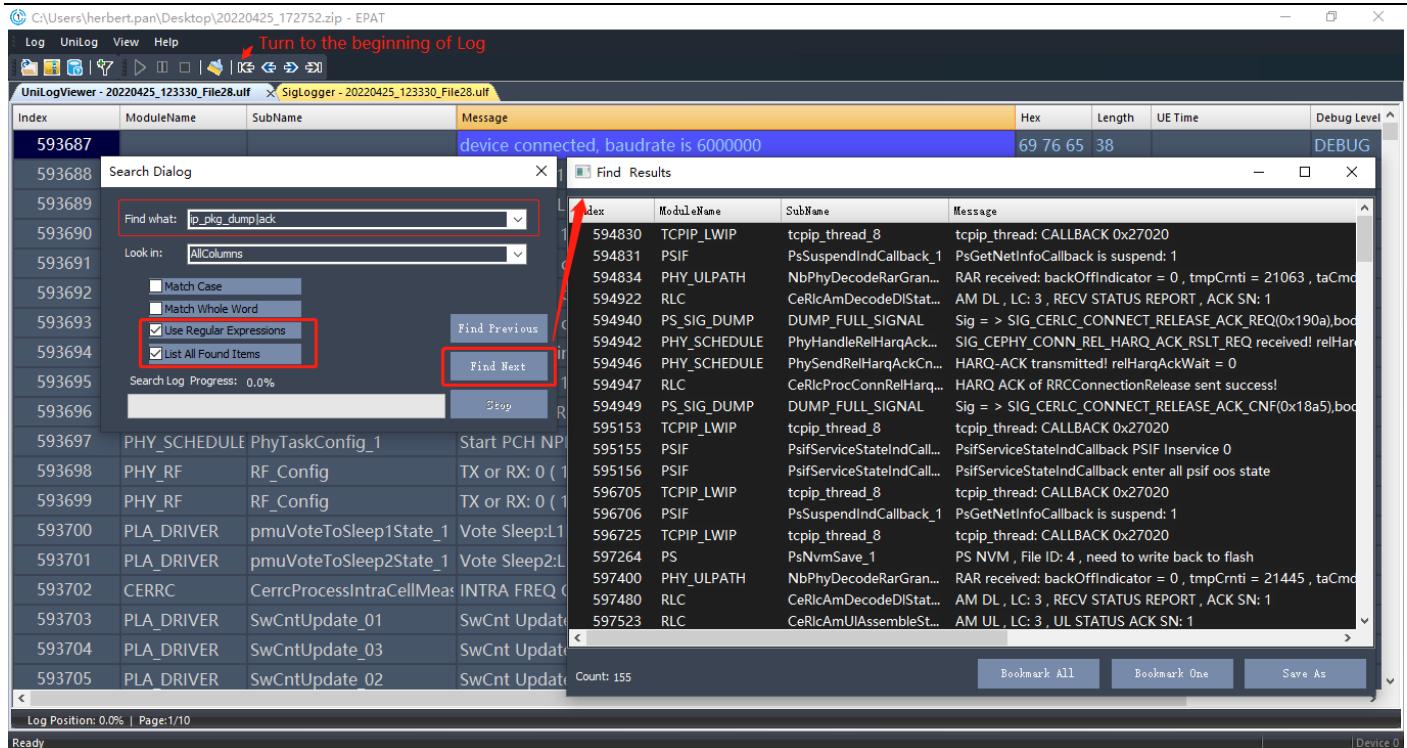


5.2 搜索/过滤(Search/Filter Log)

通过快捷方式 “Ctrl+F” 打开搜索/过滤窗口，如下图；勾选下图选项，可以通过单竖线 “|” 正则式过滤多个关键字；

Open the search/filter window by shortcut "Ctrl+F", as shown below. to select the below options, through single vertical bar

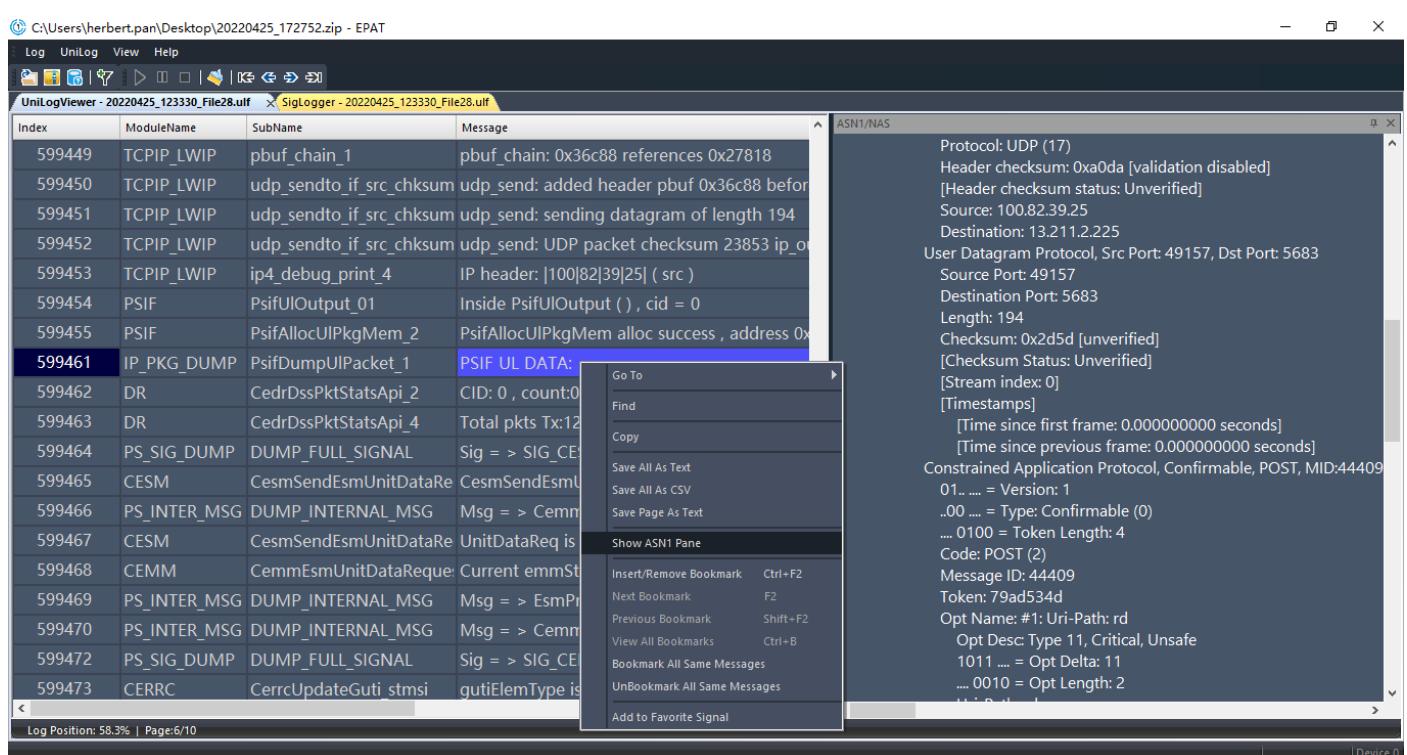
" | " regular filter multiple keywords;



5.3 数据解析(Data Analysis)

在 UniLogViewer 窗口，选择 ASN1/NAS 类型 message 消息，右击选择 “Show ASN1 Pane”，如下图；可以对 message 消息中的 ASN1/NAS 消息进行解析，可以更加深入地进行数据分析；

In the UniLogViewer window, select the ASN1/NAS type message, right click and choose "Show ASN1 Pane", as shown below; ASN1/NAS message in messages can be parsed to further analyze data.

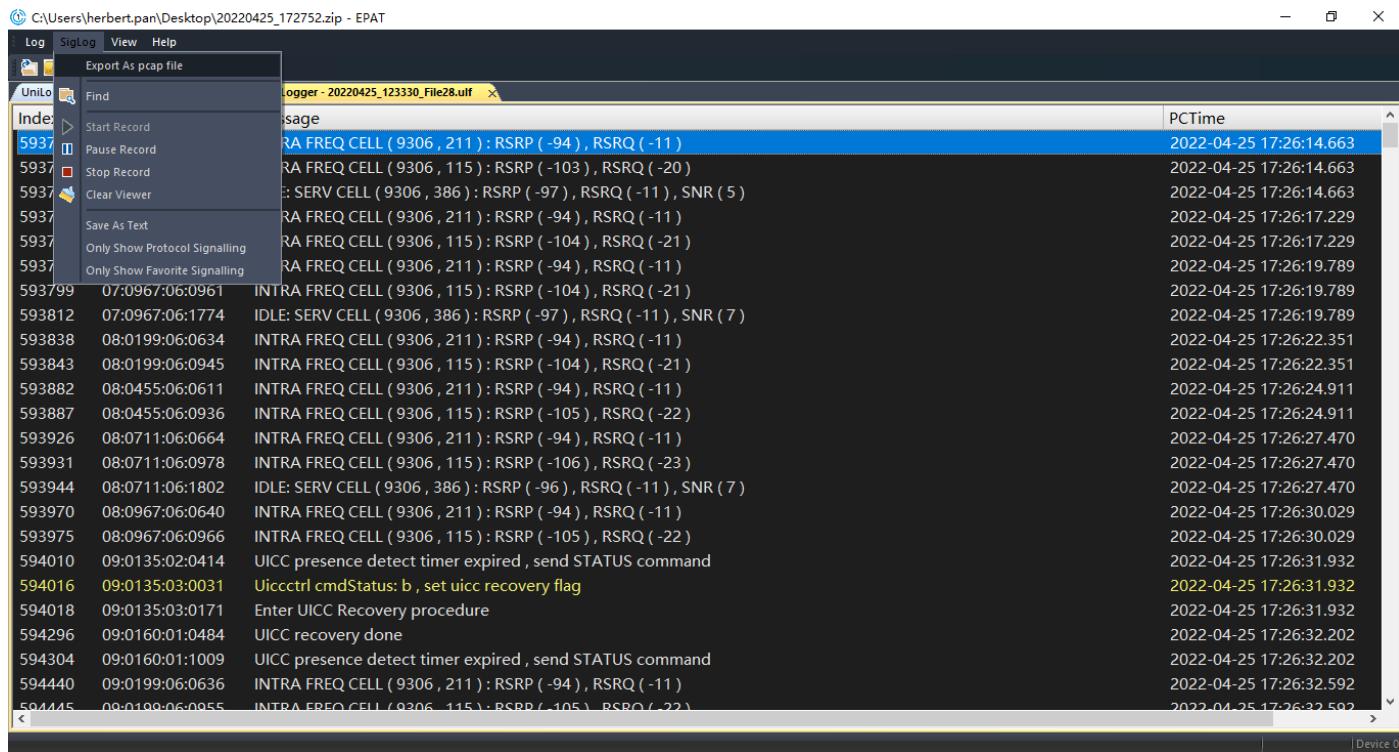


5.4 导出 Pcap(Export Pcap)

选择 SigLogger 窗口，通过选项栏 “SigLog→Export As pcap file”，如下图；可以导出 Pcap 文件，可以用于 Wireshark

分析；

To select SigLogger window and click the option bar "SigLog→Export As PCAP File", As shown below. You can export Pcap files for Wireshark analysis.



5.5 Dump 日志(Dump Log)

执行以下指令，启动 dump 输出，建议输出后，关闭 dump 操作；

Run the following command to start dump. After dump is output, you should stop dumping.

AT+QCFG="faultaction",3 //Dump 完整的日志到 EPAT 和 Flash，**重启后生效**。

complete Dump logs into the EPAT and Flash. And take effect after reboot or reset.

AT+QCFG="faultaction",4 //Dump 时直接复位，批量生产阶段设置此值。

The module is reset directly during Dump. This value is set during batch production.