EPAT 操作指导与参考

EPAT User manual

（双语版）

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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

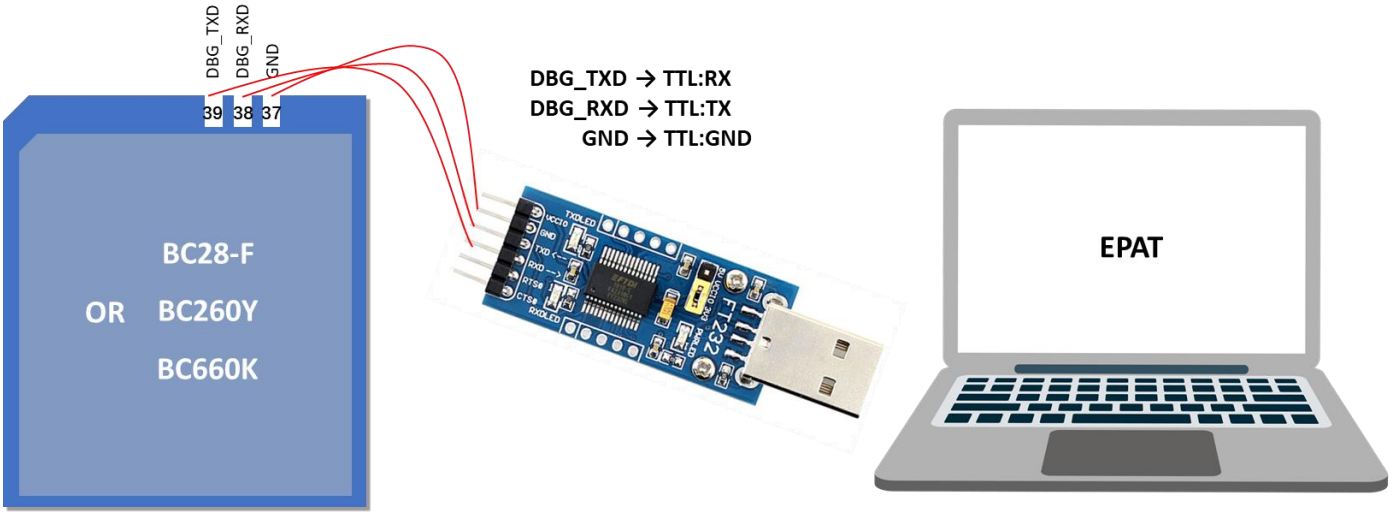
1.3 设备连接（Device Connection）

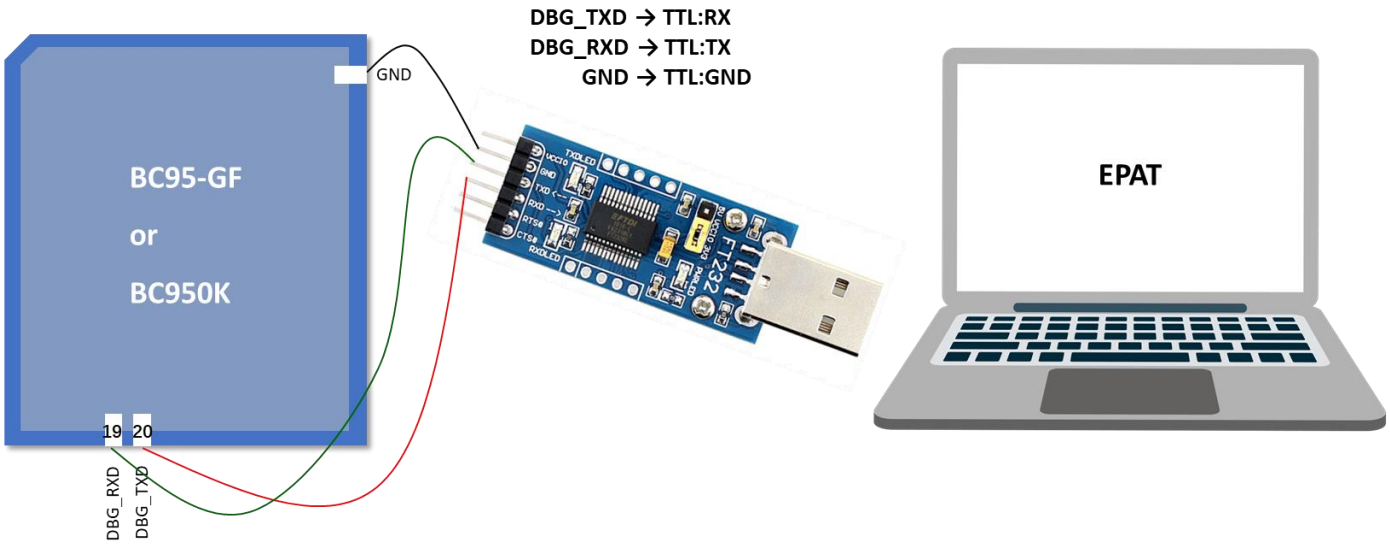
如果模组已完成贴片或对单独对模组进行调试，建议参考下面连接方式连接 EPAT 并抓取 log；

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 VCMFCDLLs，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 VCMFCDLLs, 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（TxD/RxD）执行：(除 BC660K/BC950K)

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

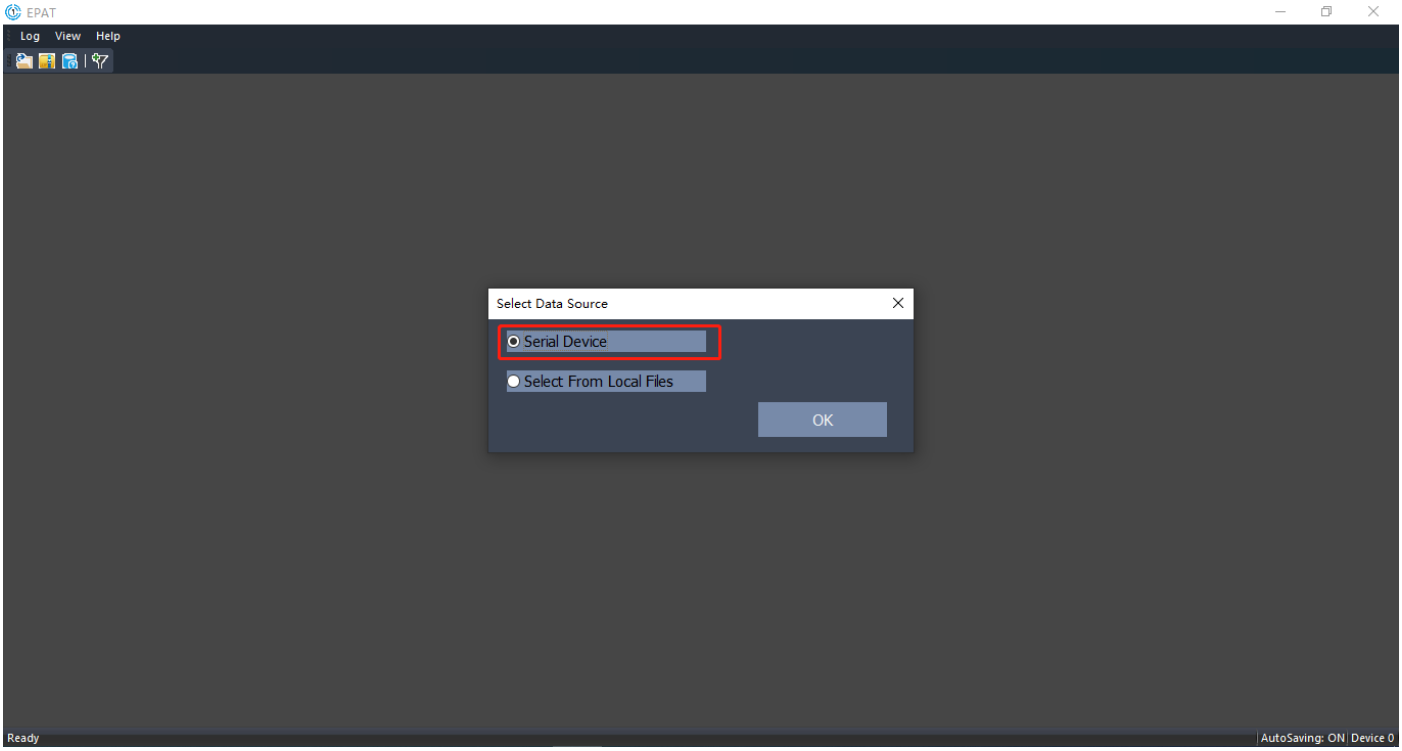
```
AT+ECPCFG="logCtrl",2
```

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?.

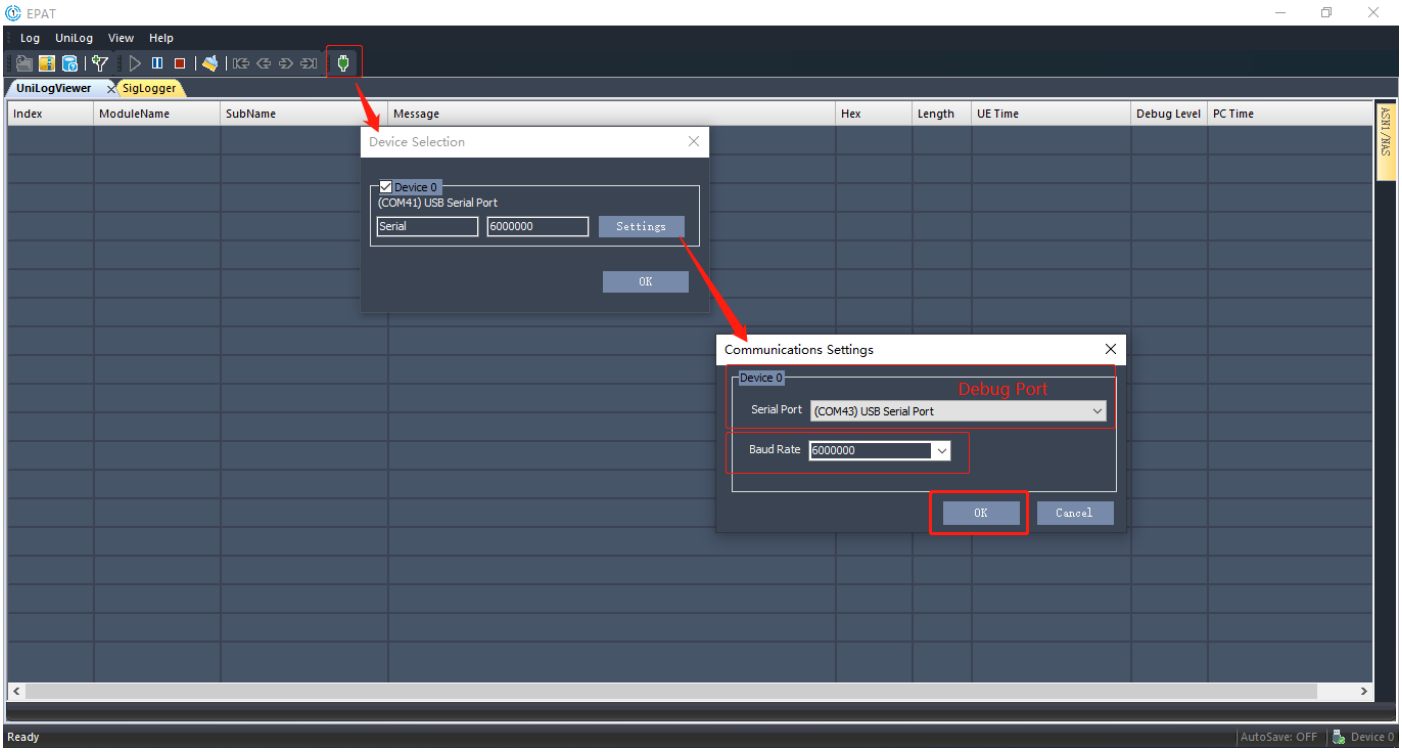
```
AT+QCFG?
```

```
.....
+QCFG: "logbaudrate",6000000
.....
```



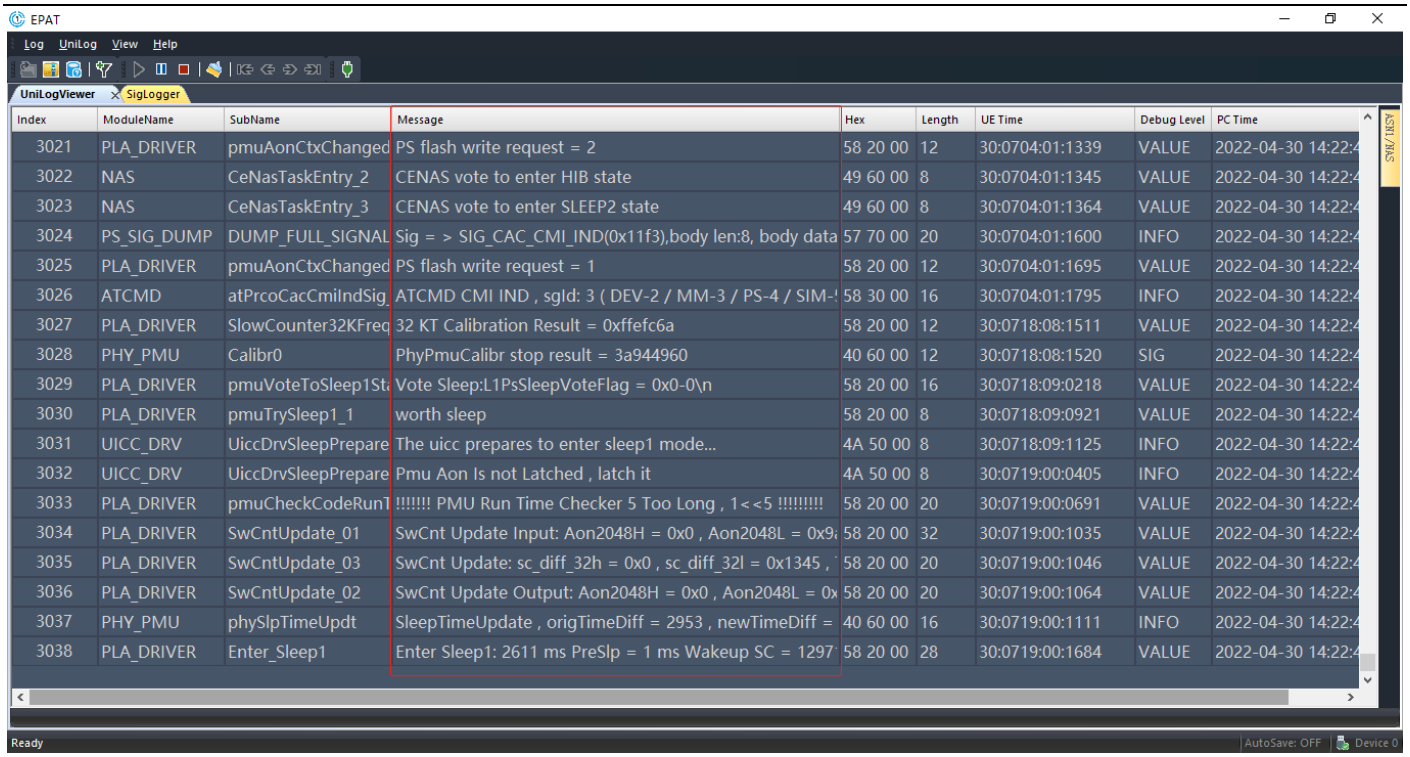
点击如下图所示工具栏中的图标，选择 Debug 端口和配置波特率（与模组查询波特率一致）；

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



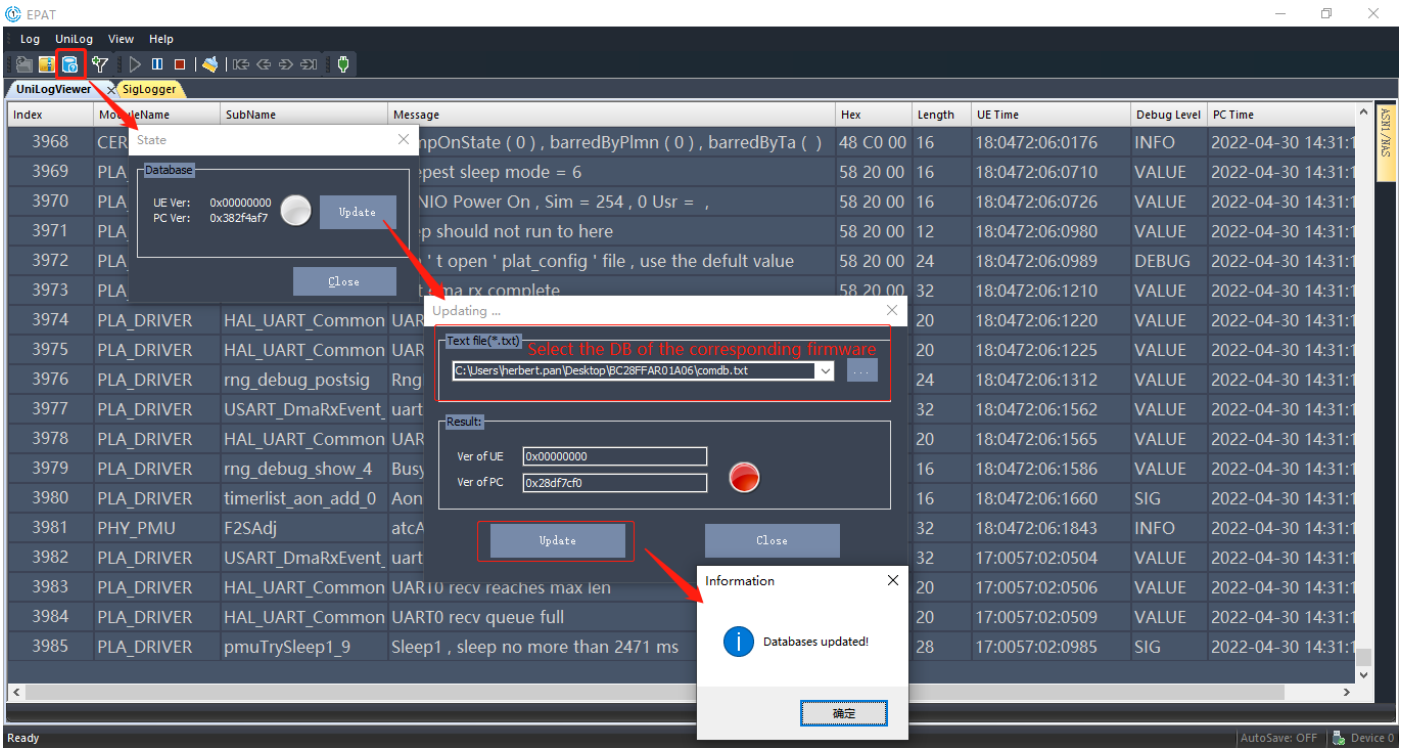
一般正常输出 LOG 如下图所示，如果 message 中输出大量 hex 码，需导入或更新 DB 文件；

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.



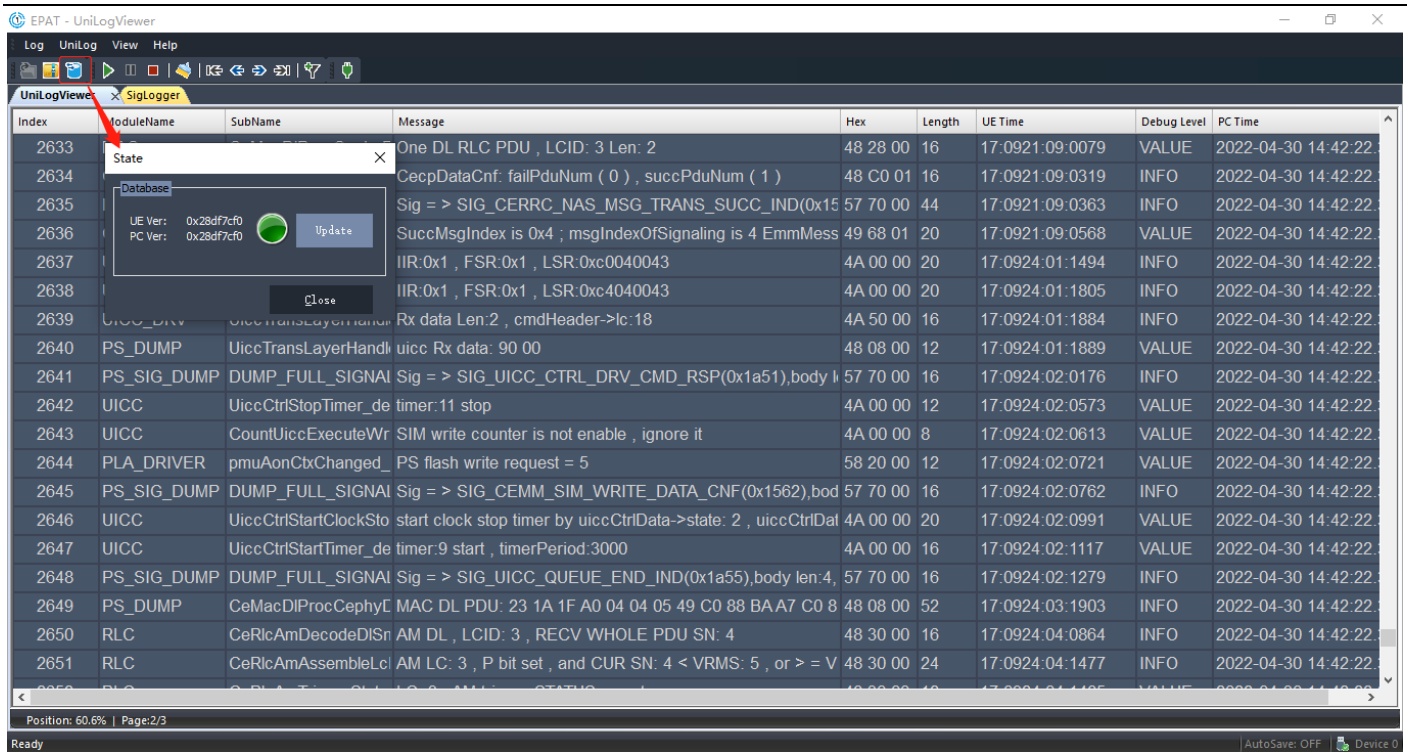
点击如下图所示工具栏中的图标，选择模组对应版本固件的 comdb.txt 文件，导入 DB 文件；

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.



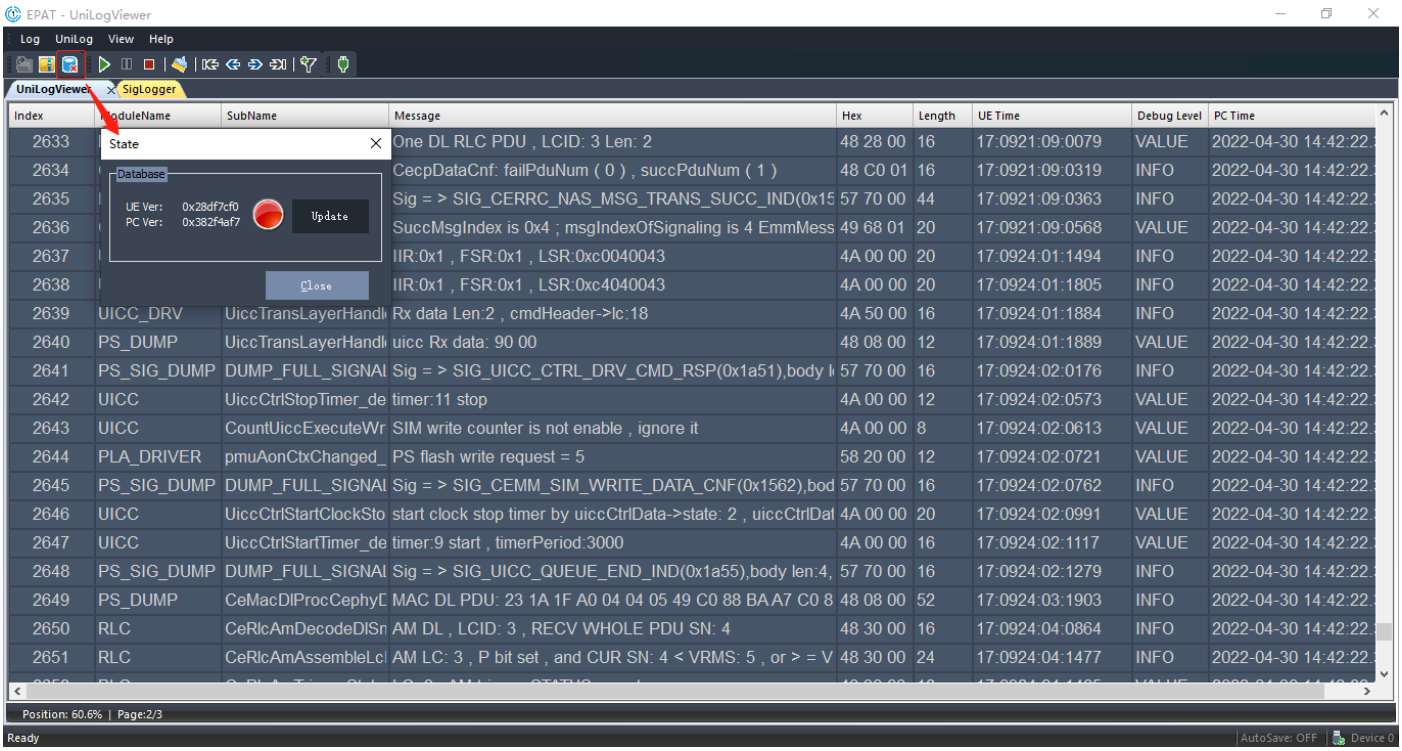
可以通过重启或 Reset，DB 状态将变更如下图所示；

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；

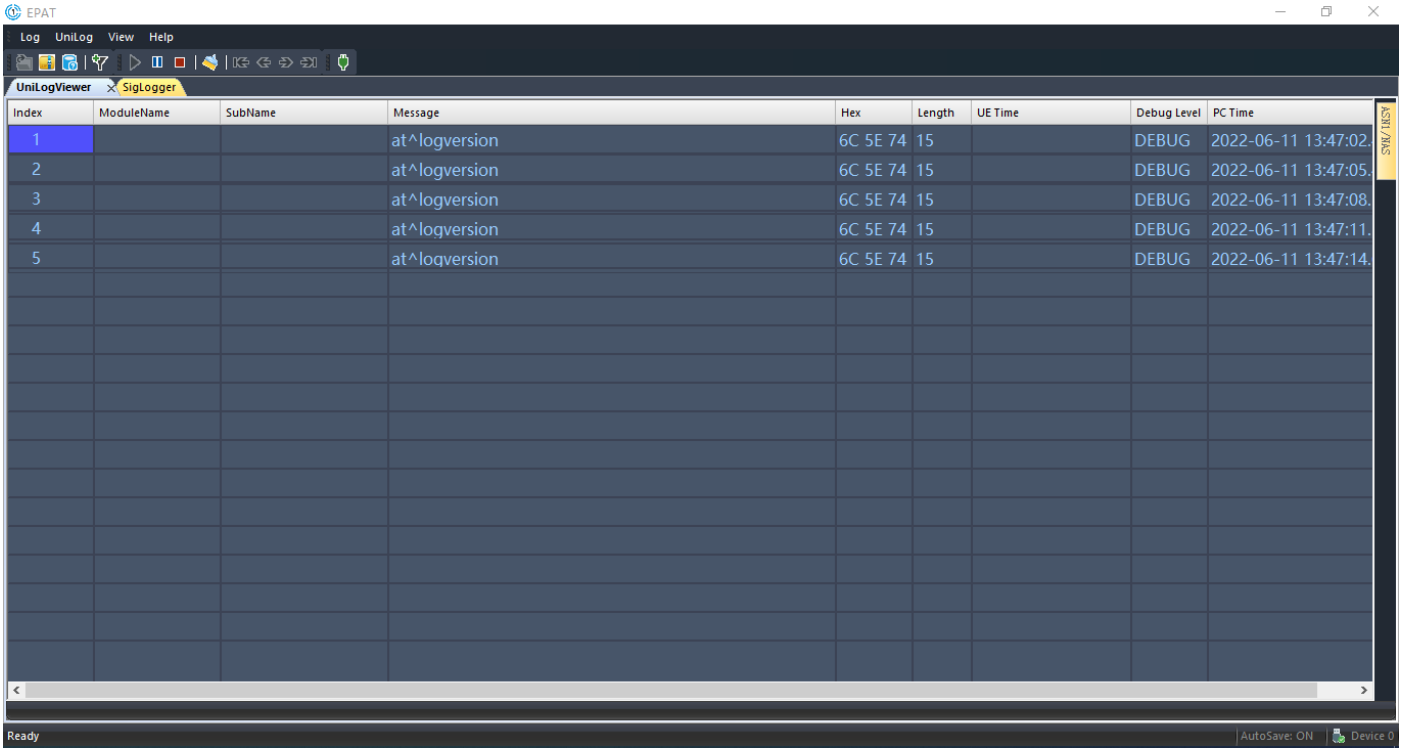
If the imported DB file does not match the current module firmware, the DB status will change as shown below.

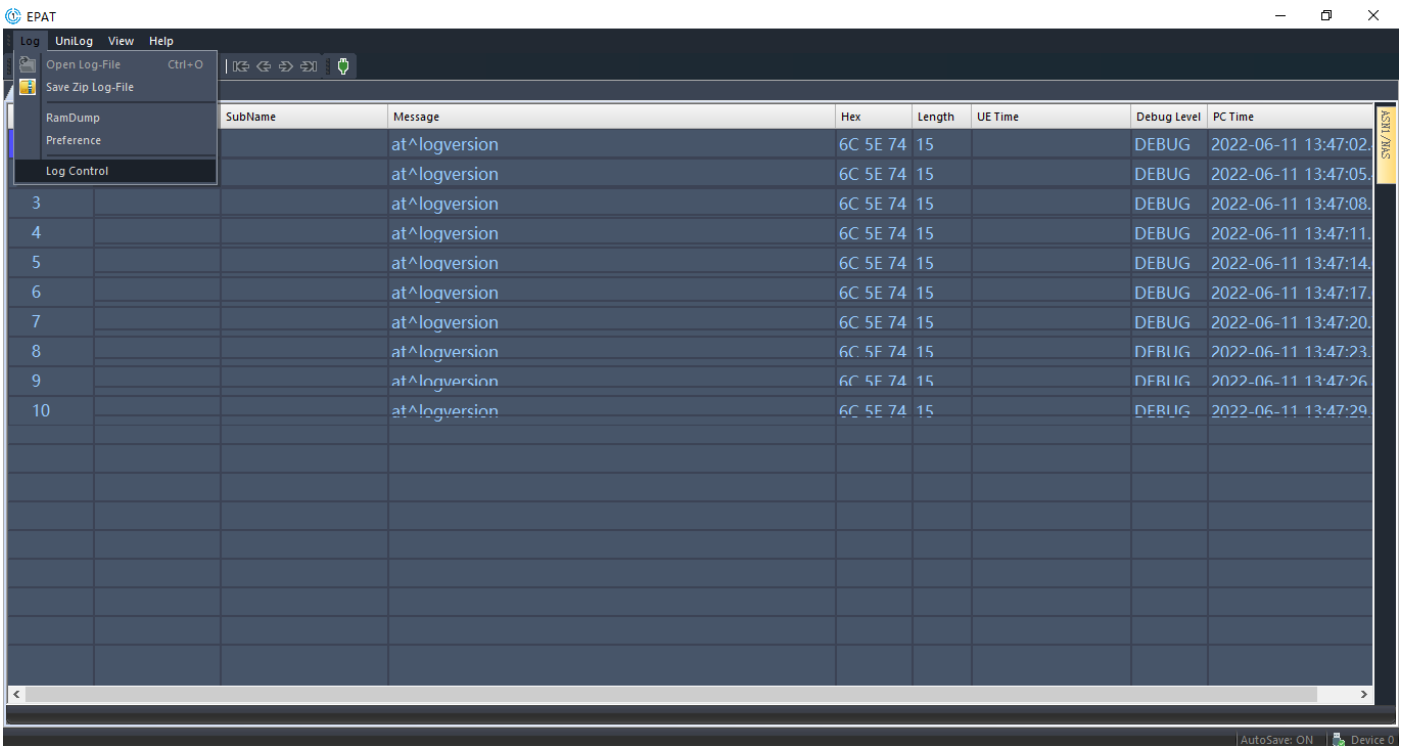


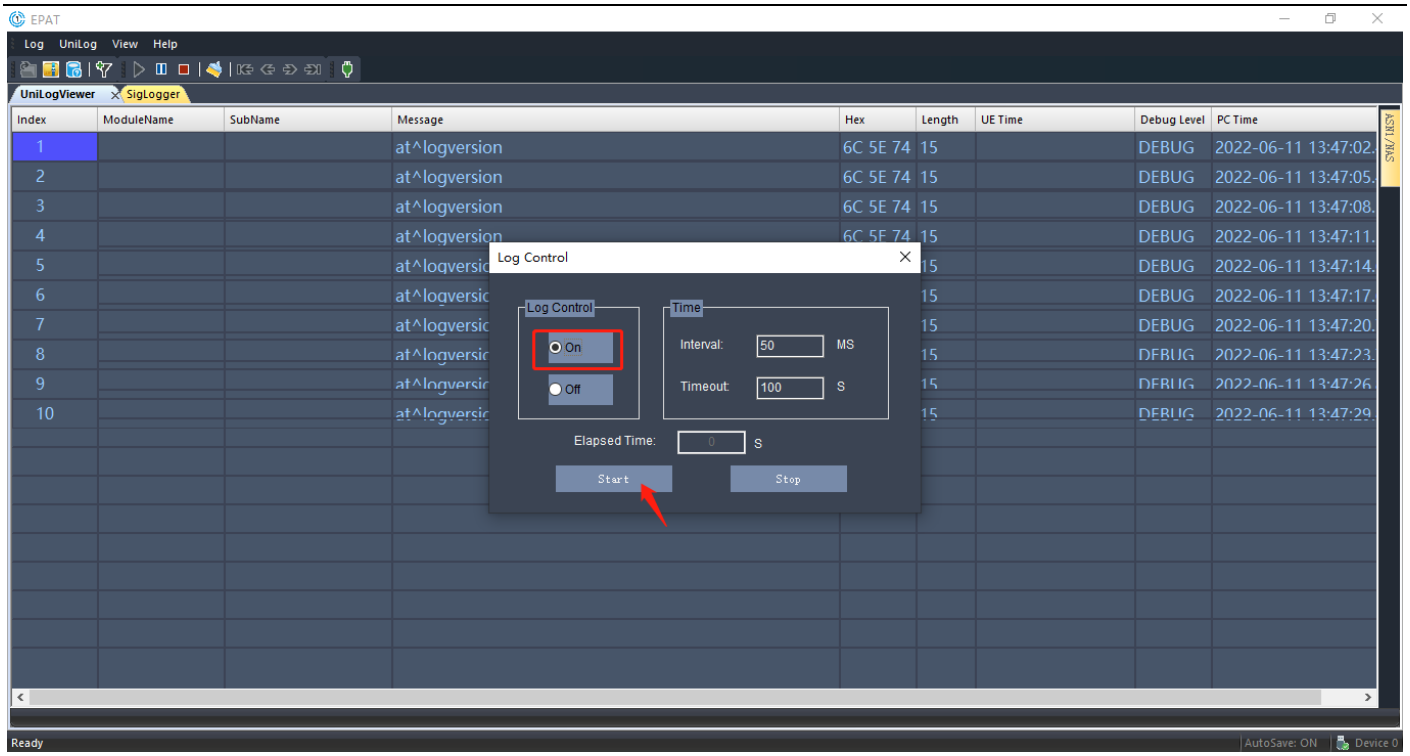
如果 EPAT 中"UniLogViewer"仅输出如下图所示日志消息，在菜单栏中选择"Log→Log Control",随后在弹窗中选择"On"并点击"Start",窗口中将显示指令，多次执行后，重启模组或 Reset；或通过主串口执行指令 **AT+ECPCFG="logCtrl",2**;打开 debug 输出；

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;

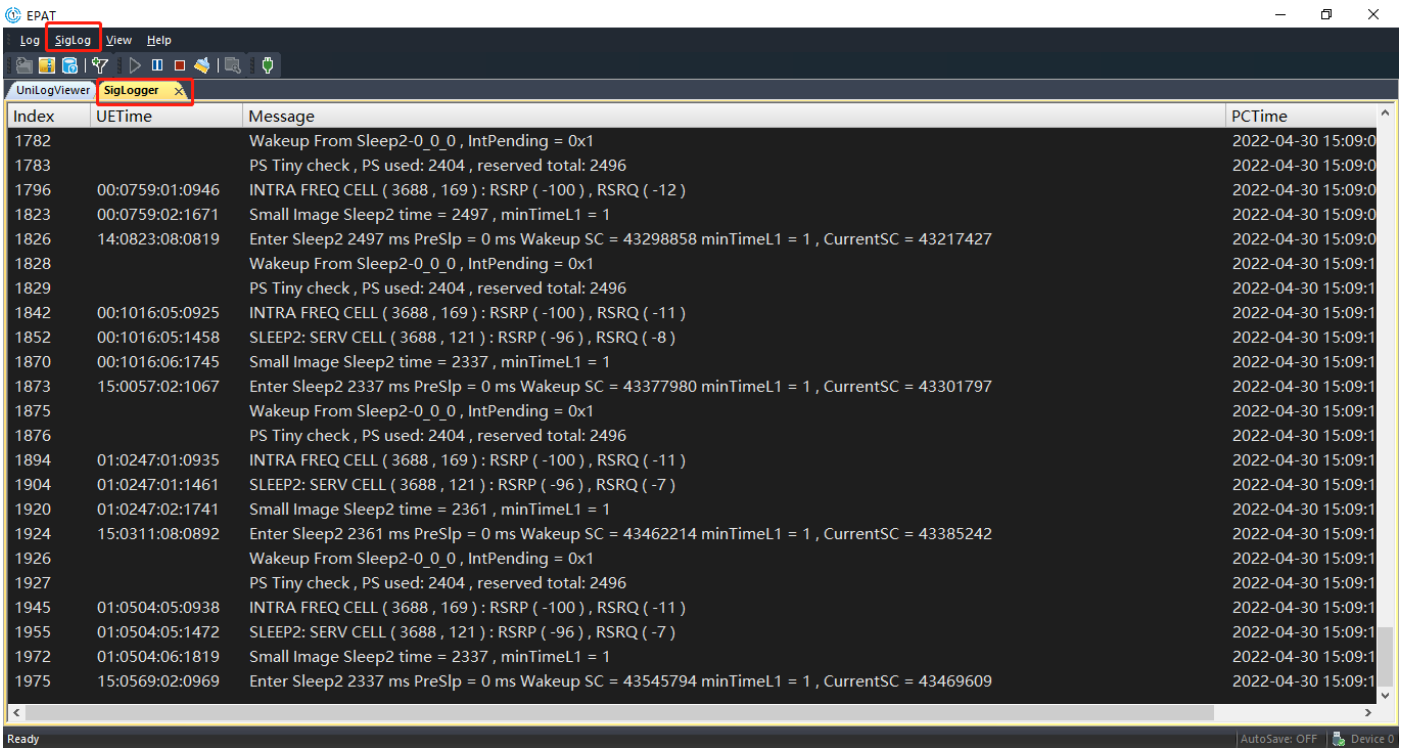


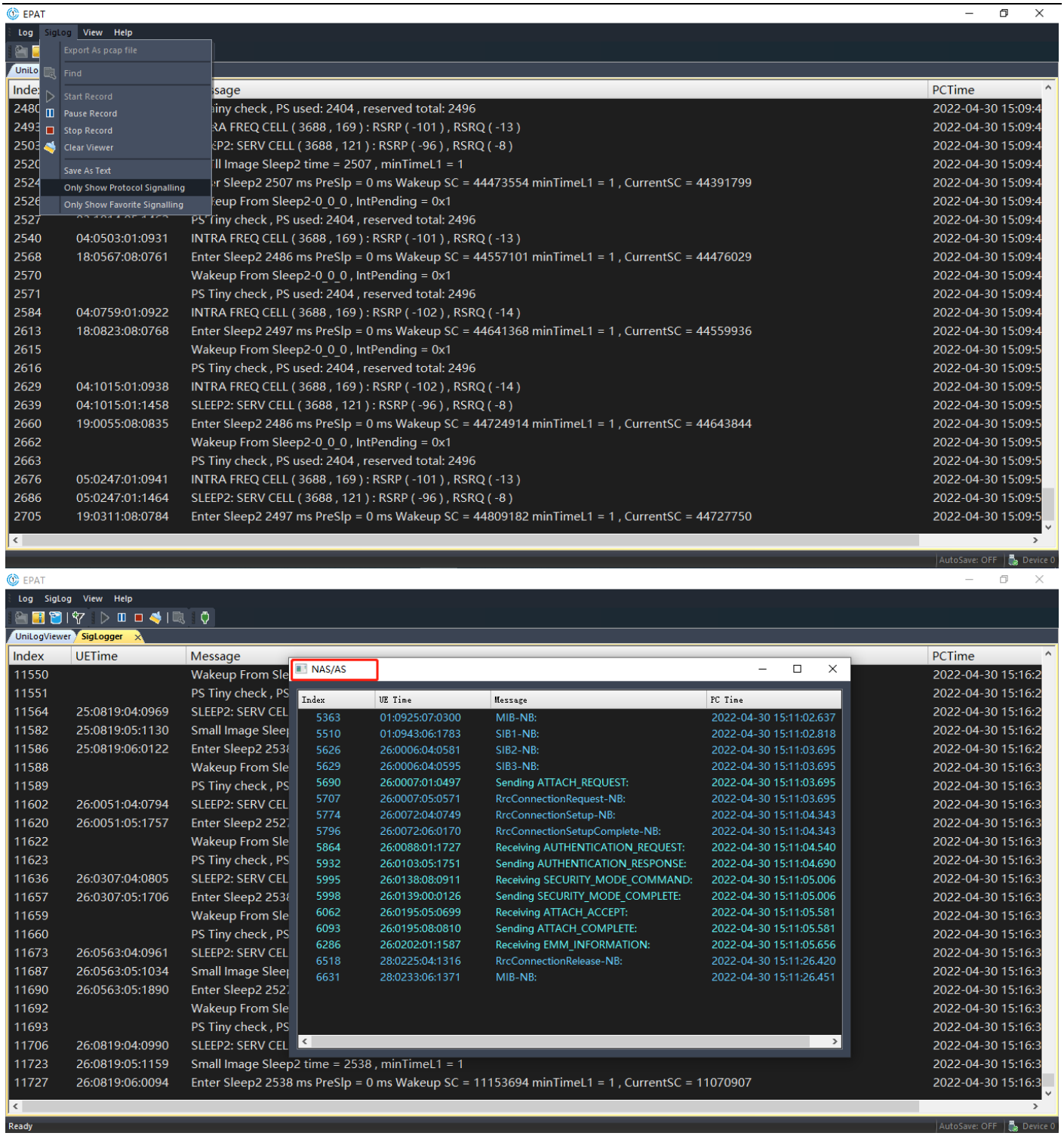




可以通过下图所示，选择 SigLogger 窗口，并且选择选项栏中“SigLog→Only Show Protocol Signalling”，查看 NAS/AS 层消息；

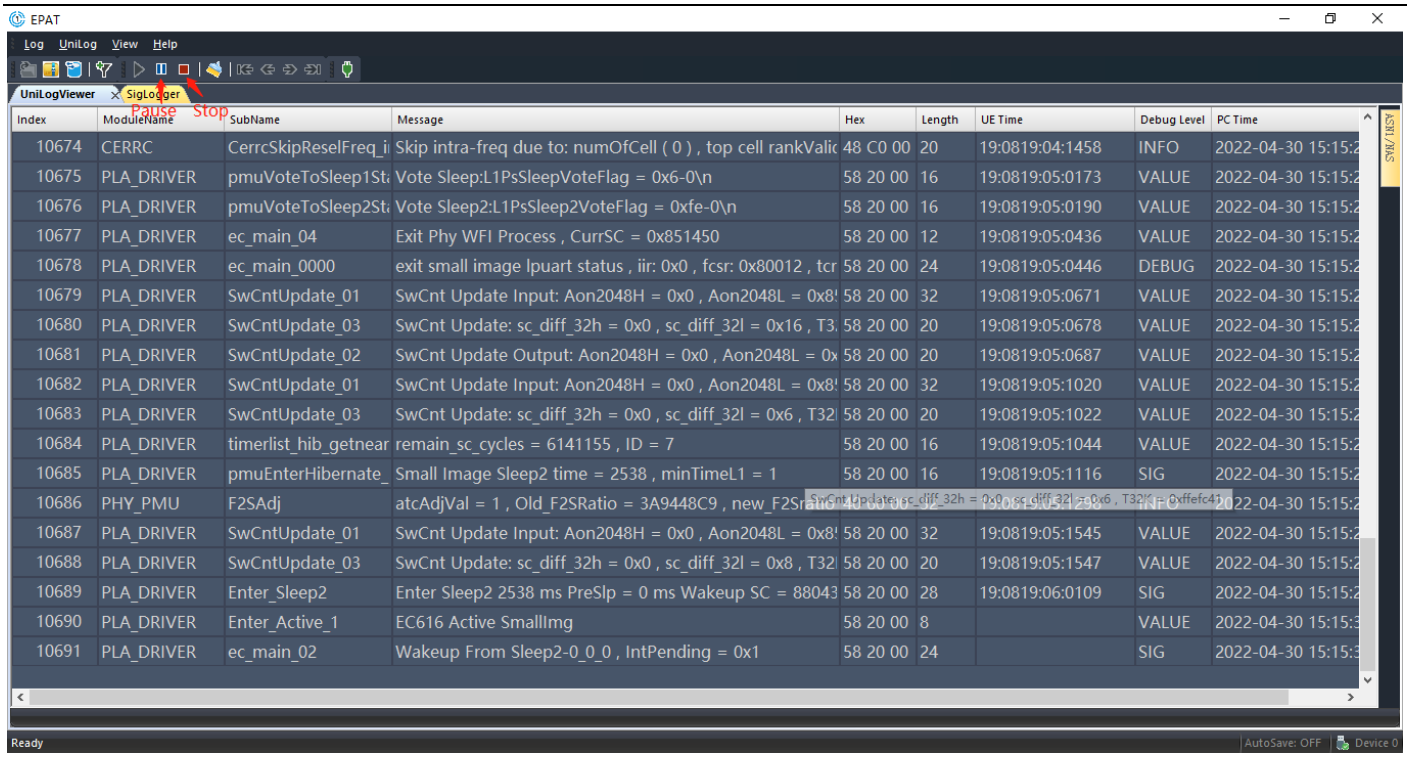
AS shown below,select ”SigLog→Only Show Protocol Signalling” in the SigLogger window, to view NAS/AS Signalling/message.





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.



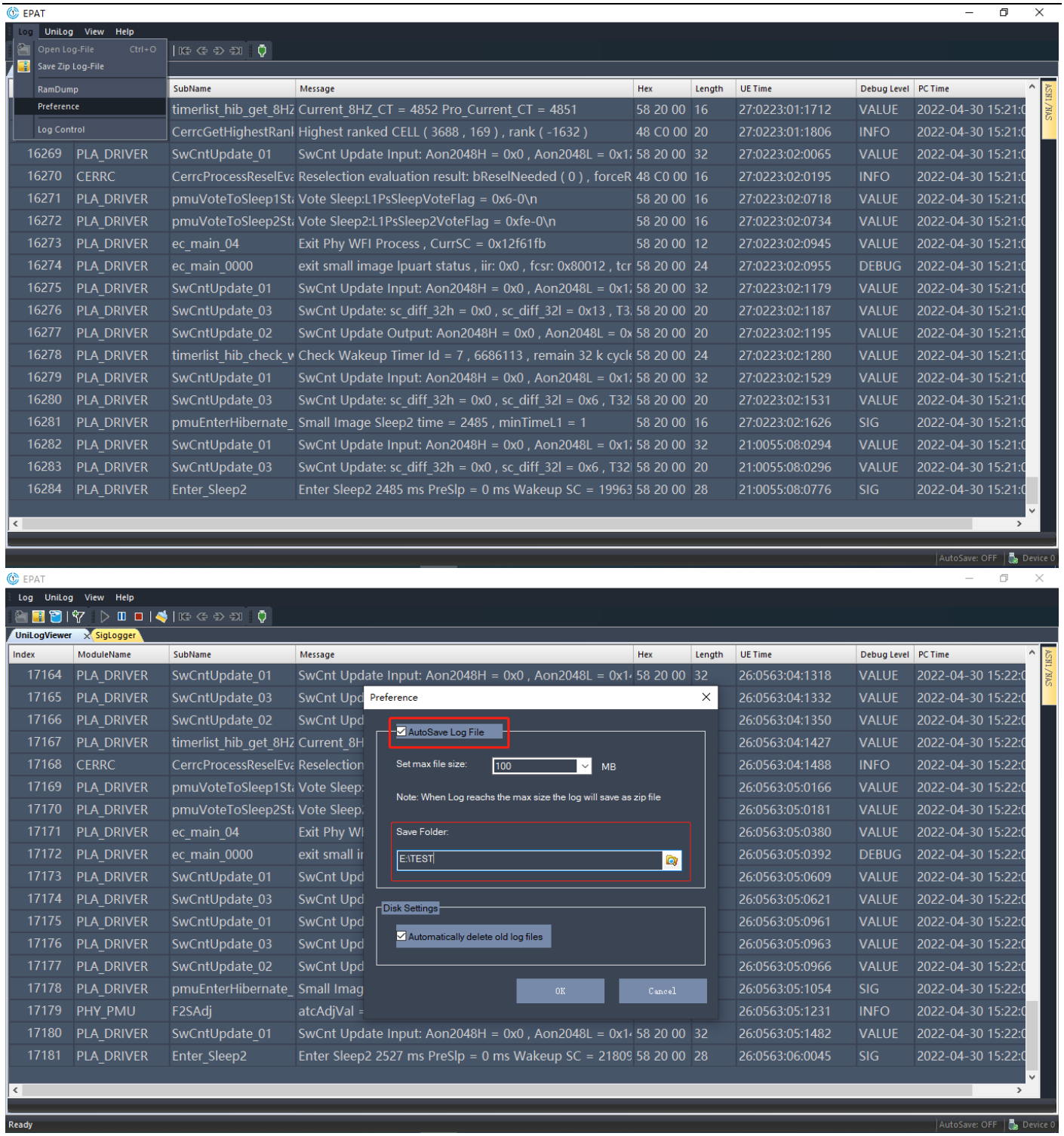
四、日志保存（Save Log）

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）

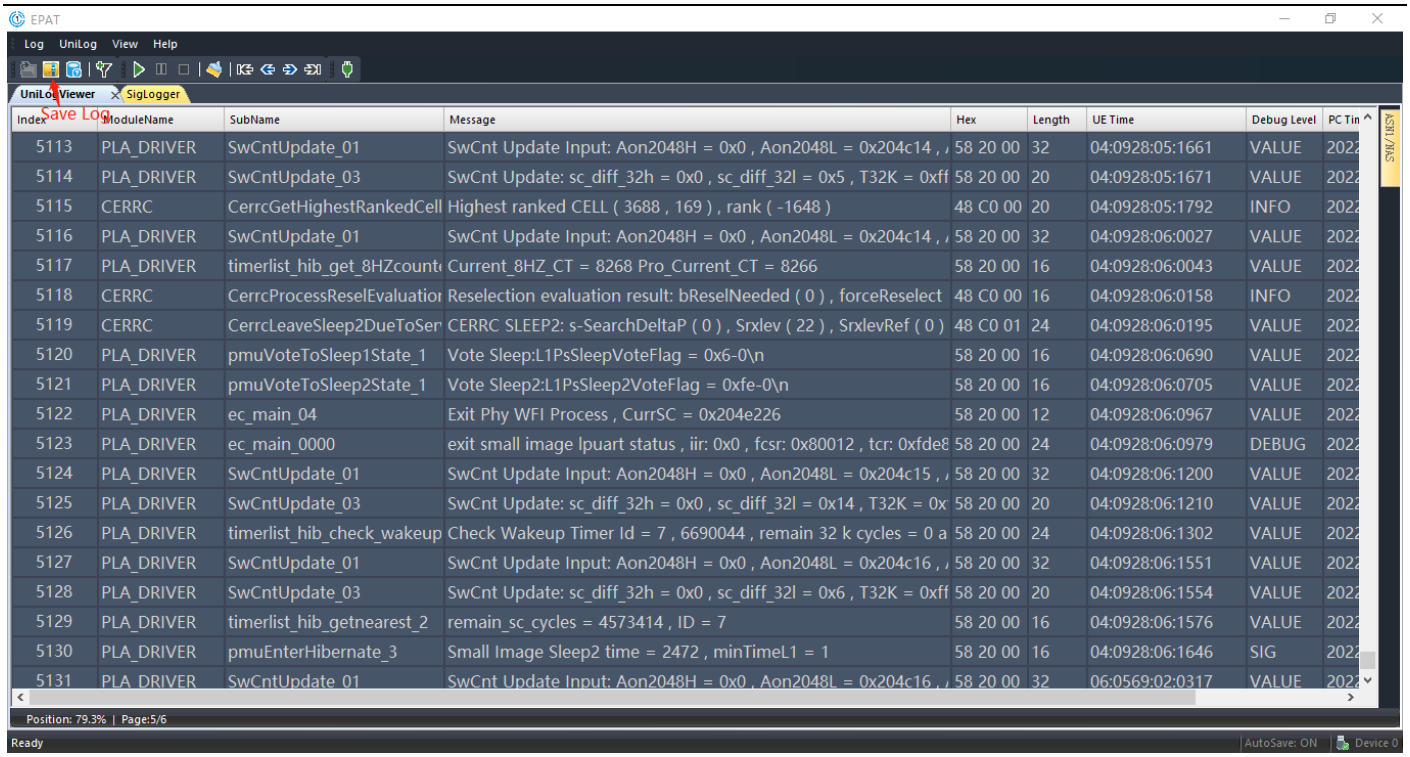
As shown below, by the option bar "Log→Preference", select the automatic save option and save path in the popup window, and configure the maximum file size to save. (Automatic saving is not recommended， When Log meets the maximum autosave size, it can only be output to the autosave path)



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;

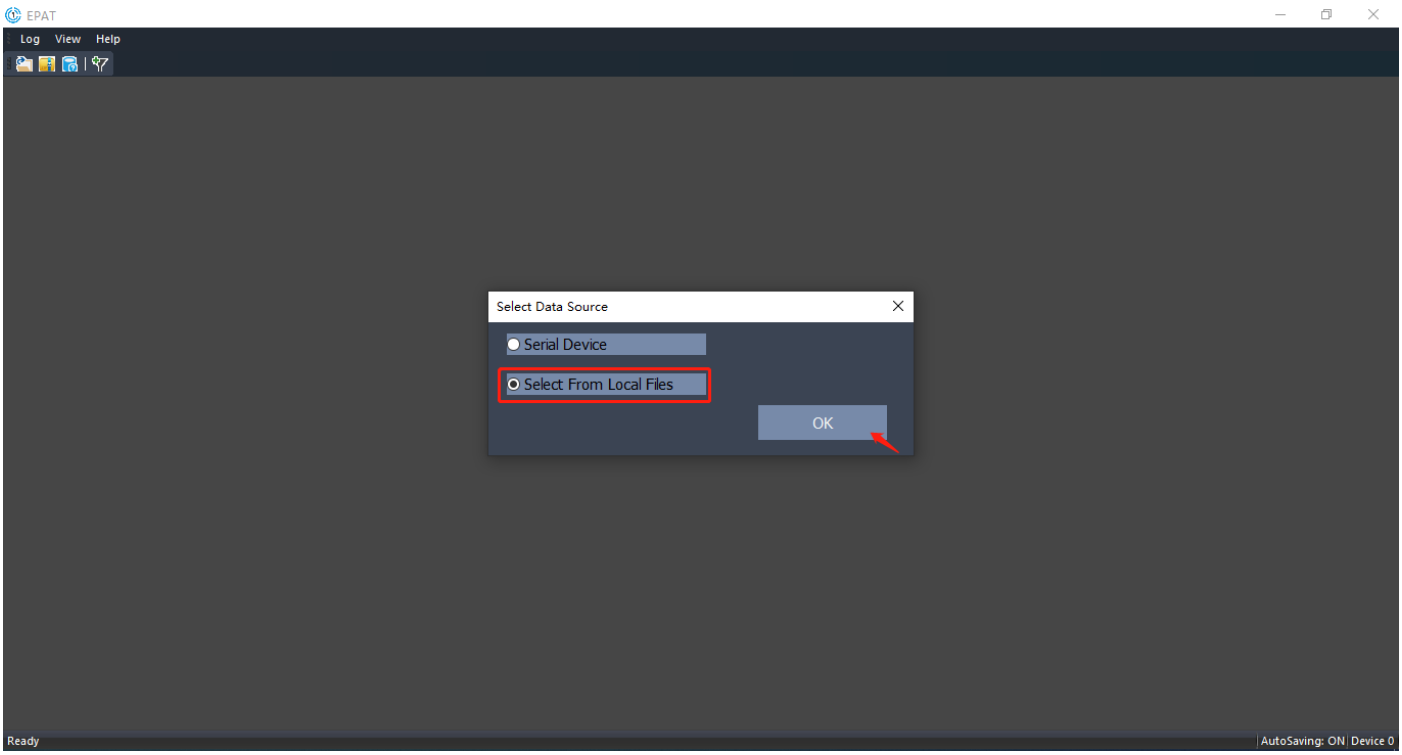


五、常见分析应用（Common Analytical Application）

5.1 导入 LOG(Load Log)

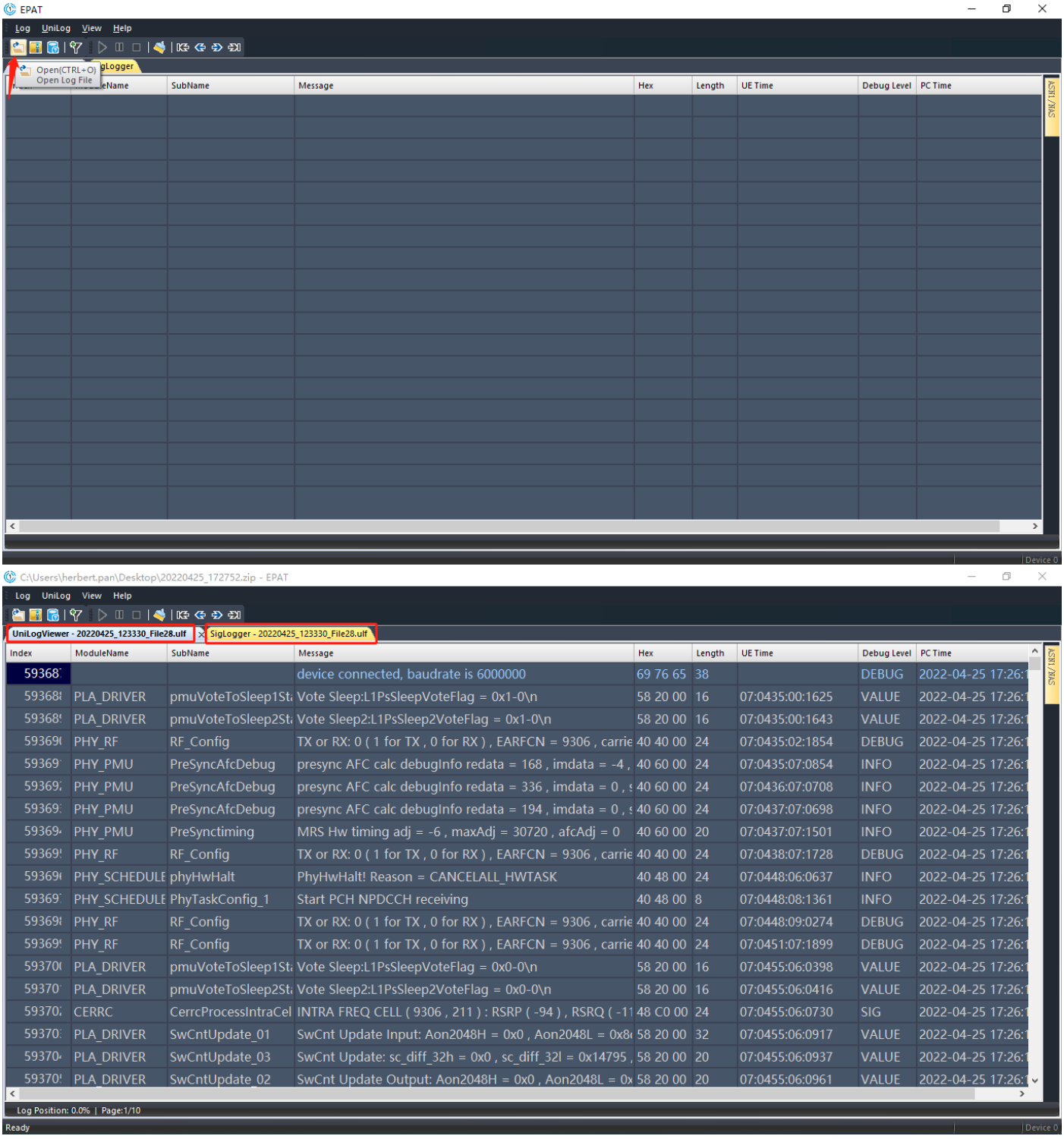
对输出的 LOG 进行分析时，需选择“Select From Local Files”,如下图;

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;

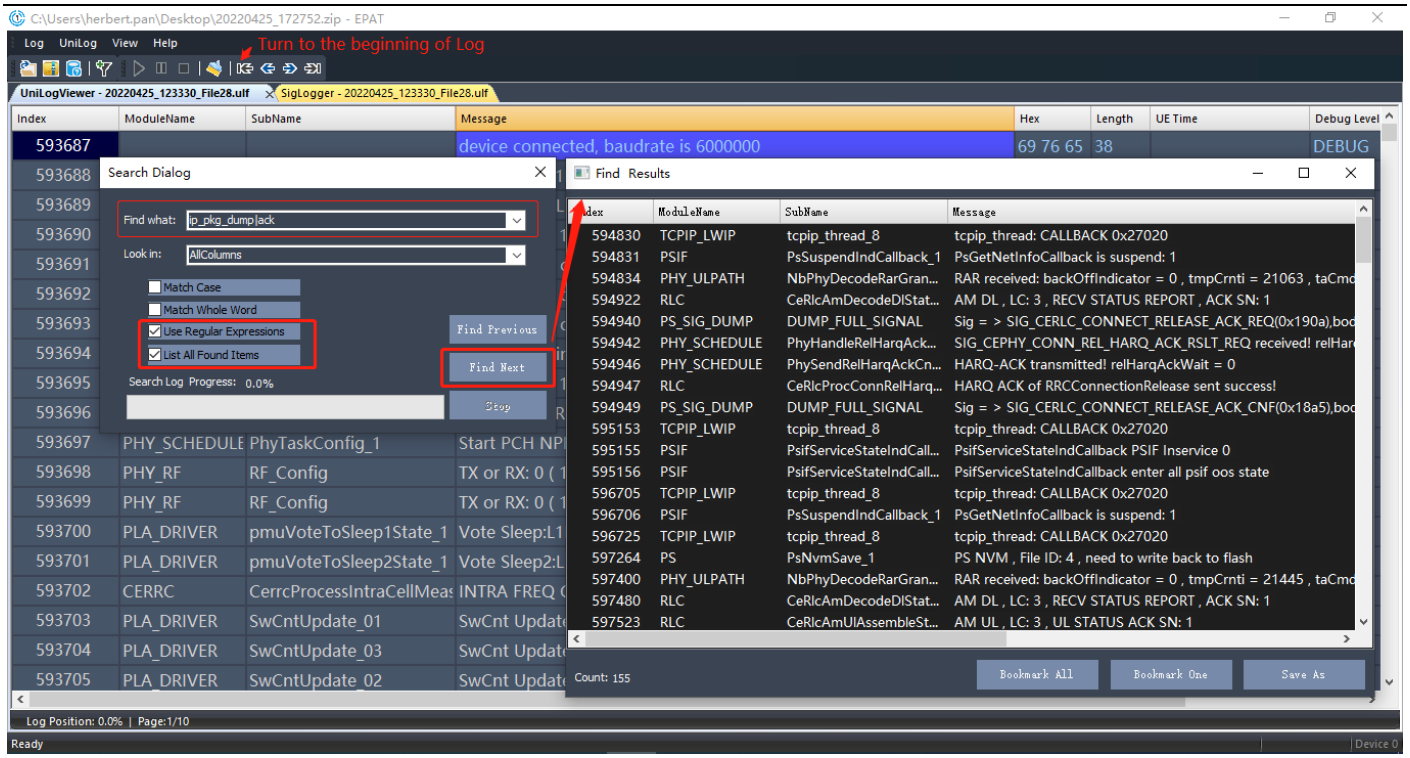
To import the analysis Log File through the toolbar icon or option bar "Log→Open Log File" as shown below.



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；

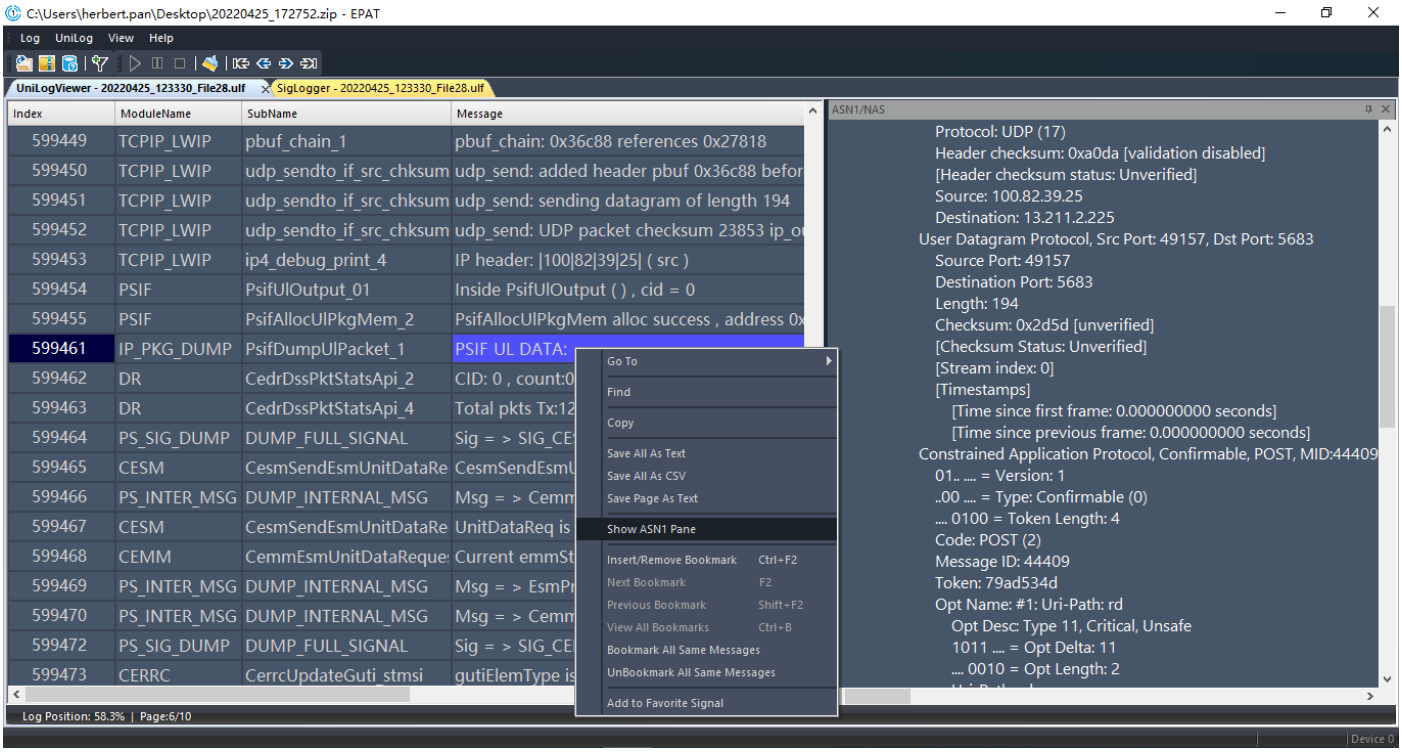
Open the search/filter window by shortcut "Ctrl+F", as shown below. to select the below options, through single vertical bar "|" regular filter multiple keywords;



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；

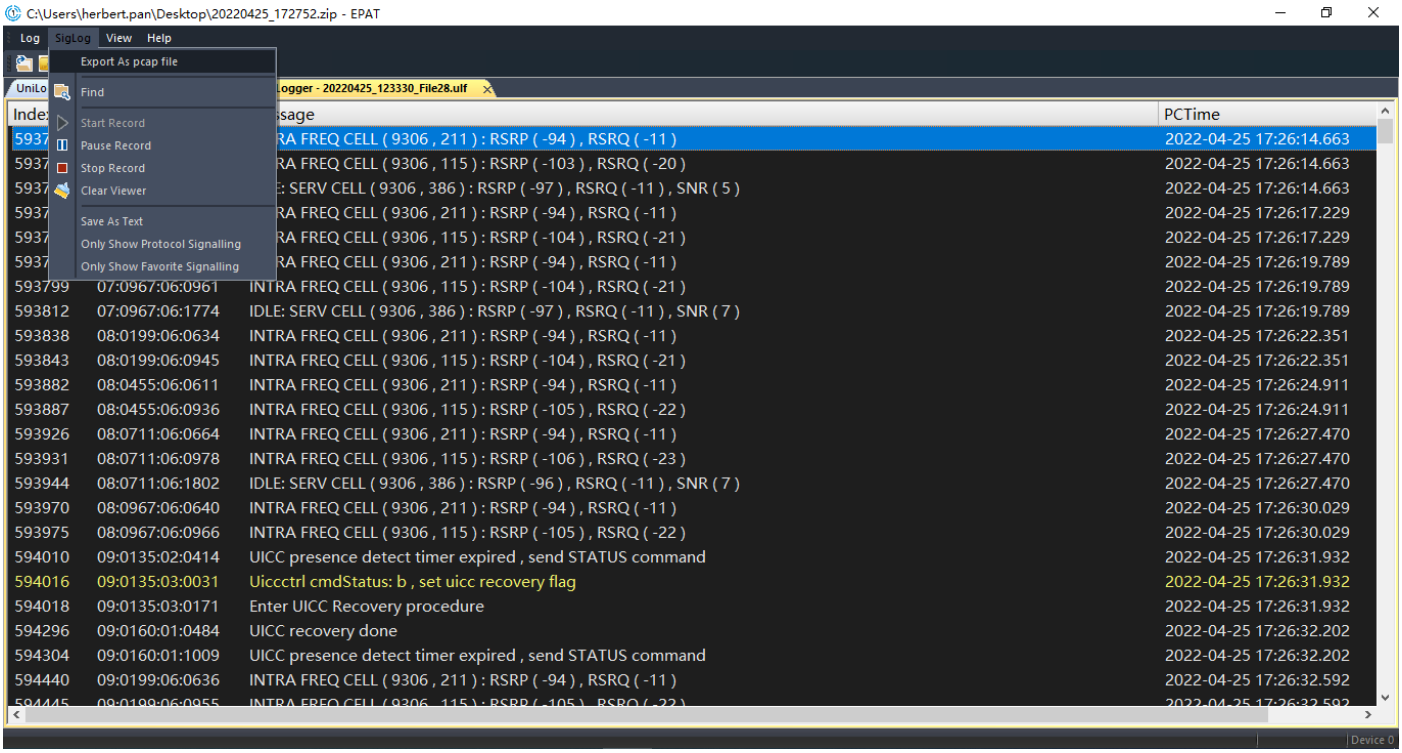
In the UniLogViewer window, select the ASN1/NAS type message, right click and choose "Show ASN1 Pane", as shown below; ASN1/NAS message in messages can be parsed to further analyze data.



5.4 导出 Pcap(Output 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.
```