

CATStudio Multi-UE Log Capture/Analysis Guide

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1 How to capture logs from multiple devices connected to one PC

For introduction on how to capture UE log in CATStudio Online mode, please refer to:

[Manual\CatStudio_OnlineLogAnalysis_Tutorial_Brief_enu.pdf](#)

When multiple UE are connected, there are 2 methods to capture their logs concurrently:

1. Copy the directory of CATStudio Release to another location, and launch multiple CATStudio instances in Online mode;
2. Connect to multiple devices in one CATStudio instance in Online mode and capture logs.

Whichever you choose, Communication Settings need to be configured manually to assign different Diag / RawData devices for different UE, and Auto Detection should not be used. Please refer to:

[Manual\Catstudio_Communication_Guide_enu.pdf](#)

The difference between them is that the recorded / exported ICL / ZIP logs would be independent for multiple CATStudio instances connected to different UE, or multiplexed for a single CATStudio instance connected to multiple UE. Device filter would be needed in the latter case to analyze individual logs.

2 How to launch multiple CATStudio instances in Online mode

As it is stated in CATStudio Brief Tutorial, multiple CATStudio processes could be run in Offline mode, while only one CATStudio.exe could be started in Online mode. The rationale is that multiple processes with the same path of CATStudio.exe share the same paths for configurations and database files, which would be updated by different instances in Online mode when updating settings for Device Communication, Update DB, etc., while only the latest configurations on the disk would be used on Export Log, leading to possible mismatch with the configurations for actual capturing, and thus detection and restriction for multiple instances in Online mode are applied. To avoid the problem and bypass the limitation, you can copy the directory of CATStudio Release Package to another location, or just extract from the Release archive to different paths, and then launch the corresponding Exec\CATStudio.exe. In this way multiple instances of CATStudio Online mode could be launched (still only one

instance in Online mode could be started under one directory), and simultaneous log capture and online analysis could be started after configuring Communication Settings and DB for respective devices connected to different CATStudio instances.

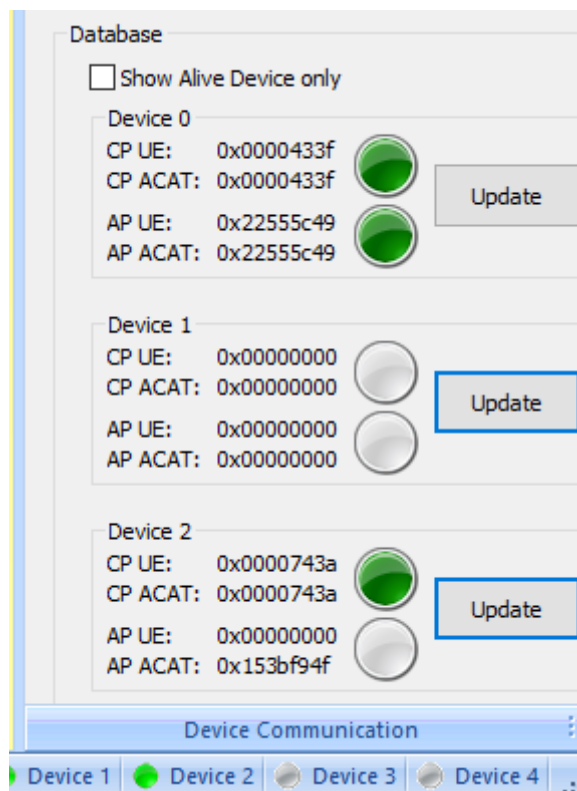
This method of launching multiple instances is easy to operate, and the task bar icons for multiple instances under different directories would not be grouped, which makes it easy to switch between them. This is the recommended method to capture logs from multiple UE.

The following sections are for single-instance methods to capture / analyze logs from multiple UE, which could be skipped if you choose to take the multiple-instance approach.

3 How to use a single instance to capture / analyze logs from multiple devices

3.1 Logger/DevComm Capture Configuration

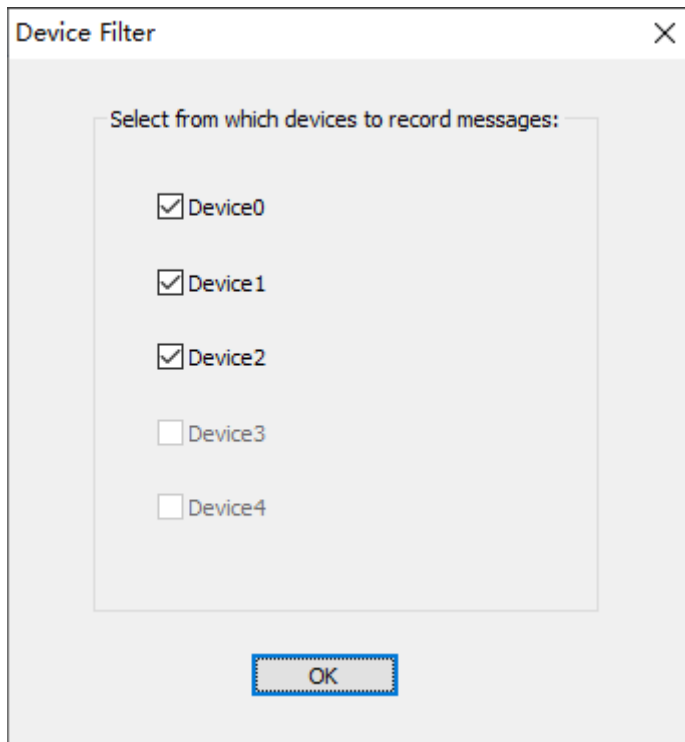
Ref. [Catstudio_Communication_Guide_enu.pdf](#) and [Catstudio_UpdateDB_Guide_enu.pdf](#), you can make it work by checking multiple Device options in Device Communication panel, clicking Settings to configure the connection respectively, and then in the Logger panel clicking Update to update DB for Diag devices to make the indicators green, as shown below.



CATStudio support up to 5 device connections numbered from Device 0 to 4. Therefore a maximum of 5 UE could be captured in a single CATStudio instance if only the Diag devices are connected, or a maximum of 2 UE if both Diag and AT serial port are to be connected for each UE. There is no such limitation for multiple-instance method.

3.2 LogViewer Analysis Configuration

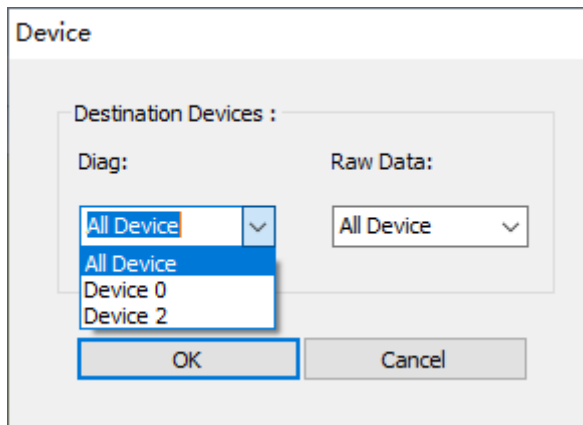
Choose Device Filter under LogViewer menu, and select the devices to analyze messages from in the pop-up dialog, as shown below. By default logs from all devices are analyzed.



After confirmation, the log list would be refreshed in Offline mode, while only the upcoming logs are filtered by device in Online mode. To refresh the list in the latter case, click Pause on the tool bar and then the Refresh button.

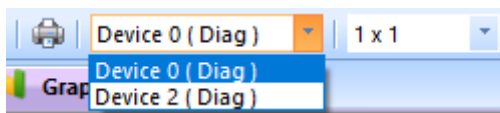
3.3 MiniViewer Analysis Configuration

Once switched to MiniViewer tab, click Set Current Device under Display menu, and choose the Diag and AT serial port devices in the pop-up dialog, as shown below.



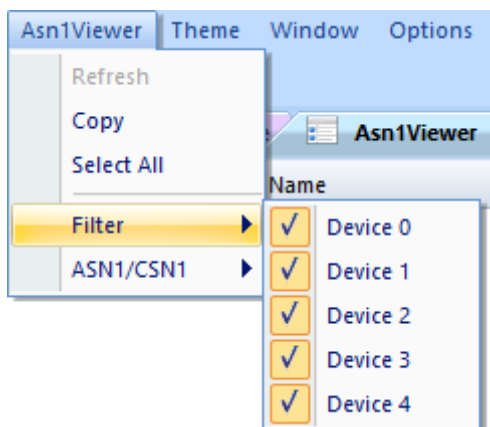
3.4 GraphViewer Analysis Configuration

Click the combo box in the GraphViewer tool bar to choose the Diag device to analyze logs from, as shown below.



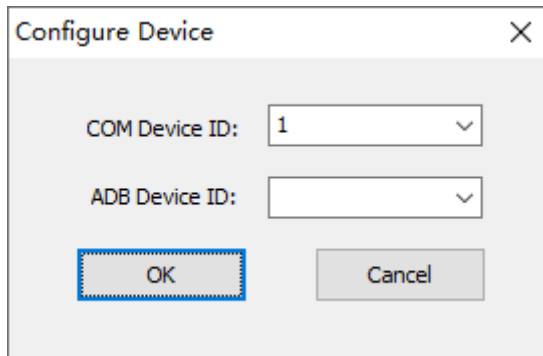
3.5 Asn1Viewer Analysis Configuration

Choose the devices to analyze logs from in the Filter sub-menu under Asn1Viewer menu, as shown below.



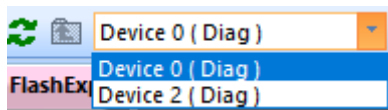
3.6 UeConsole Connection Configuration

Click Configure Device under UeConsole menu, and choose the COM (serial port) device to connect to, as shown below.



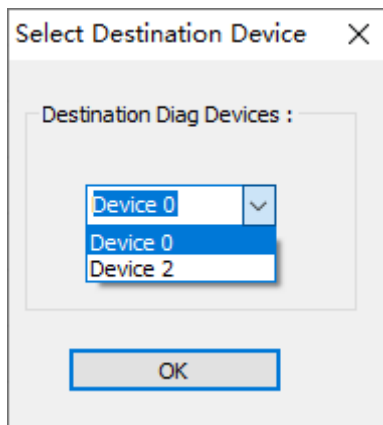
3.7 FlashExplorer Connection Configuration

Click the combo box in the FlashExplorer tool bar to choose the Diag device to connect to, as shown below.



3.8 CommandConsole Connection Configuration

Click the button of Destination at the left of CommandConsole panel, and choose the target Diag device to send the command to, as shown below.



4 Appendix

4.1 Report issues

Please visit webs: <http://support.asrmicro.com>.

Or submit an issue at CQ web: <http://sh2-cq01.asrmicro.com/cqweb/login>.

4.2 Update this document

Please send updated document to lianghuxu@asrmicro.com, with "PHS CATStudio document update: ..." title for merging, and you will receive merged latest version.

4.3 Revision History

Document No and Revision	Description	Date
1.0	Initial version	2021-4-20