NALib Modification Guide for Adding the TDA BLE Reader

1. For developers who have already developed applications for Thai ID card reading with TDA NALib and want to improve the application to be able to use the Bluetooth 4.0 BLE readers.

2. Modification has 3 steps.

   2.1 Copy the new library file (NALib.aar 0.1.1301 or above) that supports BLE from the new SDK to replace the old NALib.aar in your project.

   2.2 Change the **listOption** value in **getReaderListNA** function.

   - Set bit D2 (BLE0) to 1 to indicate that the BLE0 reader (TDA301BL, TDAi301BL, TDA301BLM and TDAi301BLM) is to be used.
     - The original D2 bit is not used, it has a value of 0.
   - Set bit D3 (BLE1) to 1 to indicate that the BLE1 reader (TDA3901BE) is to be used.
     - The original D3 bit is not used, it has a value of 0.
   - Change data of bit D6 (NA_FIRST) from 1 to 0
     - Because NA_FIRST is not suitable for the BLE readers in case of multiple readers powered on at the same time.
   - Example of recommended **listOption** values.
     - 0x95 (NA_USB + NA_BLE0 + NA_SCAN + NA_POPUP)
       - Will Scan for all plugged-in USB readers and powered BLE0 readers (TDA301BL, TDAi301BL, TDA301BLM and TDAi301BLM)
     - 0x9F (NA_USB + NA_BT + NA_BLE0 + NA_BLE1 + NA_SCAN + NA_POPUP)
       - Preparing for all readers type may be used in the future. Then we will not re-write the source code if users change to use other reader type.
       - Will Scan for all plugged-in USB, Bluetooth 3.0 and BLE readers until time out. While scanning, a pop-up window will be displayed to the user. The user can select the desired reader by himself.

   2.3 Try to build a new APK file, some optimizations may be required, such as **minSDKVersion**.

Notes

- The BLE reader can be used immediately after it is turned on. No need to pair in the Android system anymore. It will error if you pair them.
- You can view the **listOption** setting details of the **getReaderListNA** function in the **TDA NALib SDK Developer's Manual**.