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# **RSD Lite User Manual & Release Notes Version 4.4**

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# **RSD Lite User Manual Section**

## **Highlights of changes in this version of RSD Lite**

- Add support to clean the image after flash is completed and the flash file has been updated with the same name
- Improve the Tcmd process for 3G products
- Add flash support for Duo
- Add flash support for Ischia

### **Driver Changes**

**Motorola Driver Installation 3.5.0 or later is recommended for this RSD Lite release.**

There will be no device drivers installed along with the tool. However, driver installation will be launched after RSD Lite installation, if a newer driver version is available. You can opt to launch the driver installer.

**To install latest Motorola driver, please use the web link at:**

**<http://compass.mot.com/go/motoroladriverinstaller>**

## **Installation of Motorola Drivers**

**\*\*\*\*\* Important Note \*\*\*\*\* PLEASE READ \*\*\*\*\***

**Moving forward in RSD Lite, there will be no device drivers installed along with the tool.**

**For installing latest Motorola drivers, please use the web link at:**

**<http://compass.mot.com/go/motoroladriverinstaller> and follow the instructions provided in this web link.**

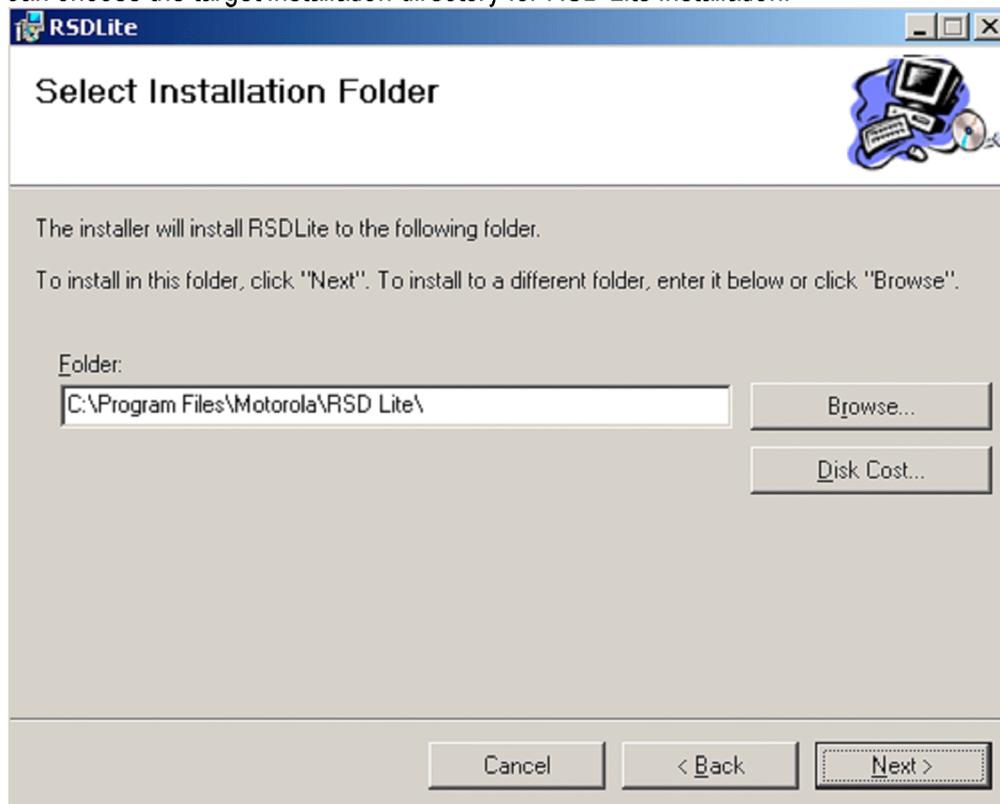
If you are still having any driver installation issues, please use the driver uninstaller available in <http://compass.mot.com/go/motoroladriverinstaller> and uninstall all the drivers using the uninstaller following the instructions provided in this website. Reinstall the drivers following the instructions on the website and connect the phone again.

## RSD Lite Installation Files

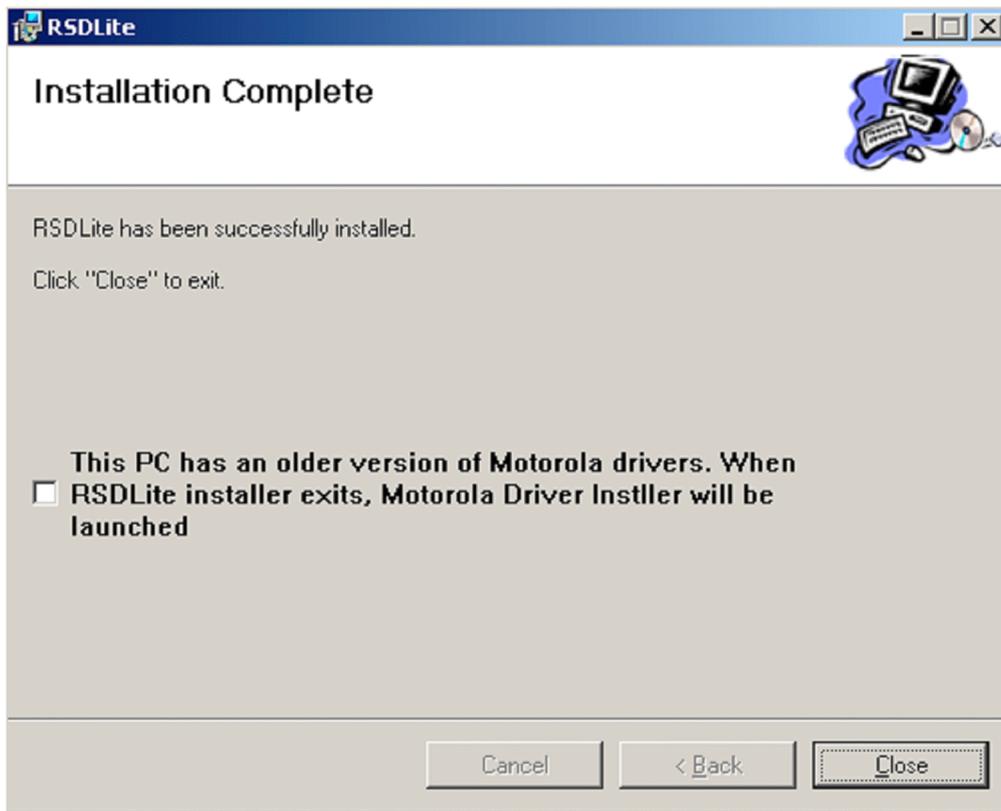
The RSD Lite program is a MSI (Microsoft Installer) based setup. The RSD Lite installer file extension is .msi; Just double-click the .msi file, to install the RSD Lite application.

When installing a new version, the previous version will be un-installed by the new version.

User can choose the target installation directory for RSD Lite installation.



RSD Lite installer will automatically check the PC for the latest Motorola driver installation version. Upon finding a newer version at the Driver site (<http://compass.mot.com/go/motoroladriverinstaller>) the driver installation will be launched after RSD Lite installation is complete. User can opt NOT to launch the driver installer using the check box in the last dialog of RSD Lite installation. (refer to screen shot below)



## RSDLite feature details:

### Command Line Usage details

RSDLite can be launched by the command line method. The usage of command line has the syntax as following:

```
<PROMPT> [RSDLite Launching path] [-f] [Flash/Flex file path] {[Option parameter]...}  
Option parameter = [Option command line parameter] {value}
```

The details of description of command line parameters are below:

“-f ”: It is mandatory in the command line method and used to separator the application path and flash/flex file path.

“-t ”: It is an optional parameter and the followed parameter must specify the time out value which is used to decide when to start flash/flex operation. If the value is less than the default value defined in RSDLite.ini file, the default value should be should used.

“-s ”: It is an optional parameter and it means that it should suppress all prompts of RSDLite.

“-c ”: It is an optional parameter and it means that RSDLite should be closes automatically when it finishes flash/flex operation.

“-h ”: It is an optional parameter and the followed value designates the action after flash. Otherwise the default action in PST.ini file will be used.

“-x ”: It is an optional parameter and the followed value designates the action after flex. Otherwise the default action in PST.ini file will be used.

“-p ”: It is an optional parameter and it specifies the value for MFF loop feature. Otherwise the default action in PST.ini file will be used.

“-m ”: It is an optional parameter and it specifies the work mode. Otherwise the default action in PST.ini file will be used.

The parameters can combine freely. The order of the parameter is not cared in the command line.

As to the application file path and flash/flex file path, they can be expressed as in the way either the relative path or the absolute path. The formats are as following:

- ..\XXX\SDL.exe
- ..\XXX\XX\..\XX\xx.sdf
- D:\XXX\XXX\SDL.exe

An example for command line of RSDLite is as following:

```
D:\SDL.exe -f D:\abc.shx -t 10 -s -c -h 1 -x 0 -p 2 -m 1
```

## ODM Usage details

The following ODM serial phones are being supported as of now:

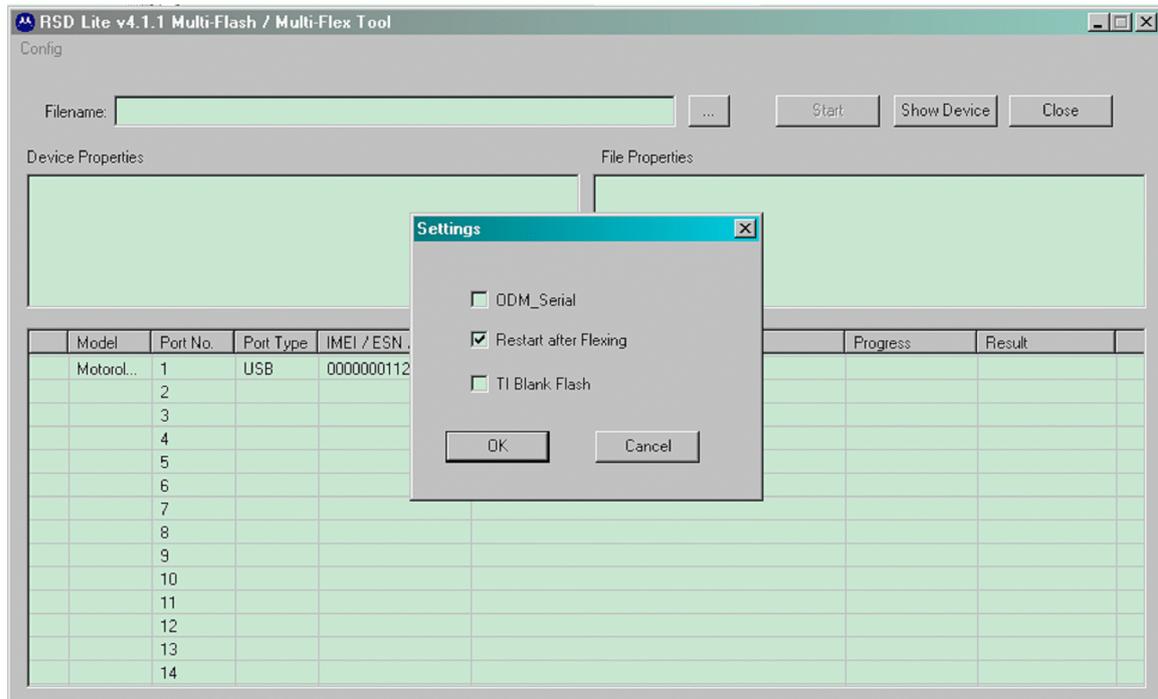
- Tango – Serial Phone based on TI-Locosto chipset

Other ODM USB phones supported as of now for flashing are:

- Borneo
- Lipari MT
- Salina HT

**ODM Serial Drivers:** Please install the ODM drivers, as needed for the ODM phones. The serial drivers are to be obtained from the ODM teams handling the project. For ODM-Serial driver issues, please contact the appropriate teams.

Click on the ODM-Serial checkbox for ODM Serial phones, as shown below.



Connect the ODM phone (Serial or USB) and start flashing the phone by pressing the start button.

**For non-ODM/ODM USB phones, please uncheck the ODM-Serial Checkbox provided in RSD Lite and run the tool.**

### TI Blank Flash Usage Details

TI OMAP, Locosto USB phones can be blank flashed using this option. Following are the steps to use the Blank Flash option

- Select the check box
- Connect the phone
- The phone will be enumerated in Blank flash mode
- Select appropriate file and click start button.

### Additional options in RSDLite.ini file

The RSDLite.ini file is installed in the RSD Lite folder. Users can configure the following settings by modifying the RSDLite.ini file settings.

- ◆ MFFLoopFeature  
Users can perform flash or flex operations in a continuous loop. The number of iterations of flashing/flexing to be done can be specified here. After every iteration RSD Lite will continue as if the user clicked the start button until the number of loops specified in this option is performed.
- ◆ MaxFlashLogFileSize  
This option is to configure the maximum size of flash module log file size.
- ◆ FlashLog  
Enable (1) or Disable (0) Flash log.
- ◆ MaxLogFileSize  
This option controls the maximum size of the RSD Lite log file. Once the log file reaches the maximum size, a new log file will be created to continue logging.
- ◆ LogType  
Enable (1) or Disable (0) RSD Lite log.
- ◆ WorkMode  
PST Framework work mode. This decides the type of devices that the tool is going to be used with.

Option Values		Meaning
MODE_NONE	=0x00	No mode is selected
MODE_USB	=0x01	Enable work on USB only
MODE_SERIAL	=0x02	Enable work over Serial only
MODE_SIMULATOR	=0x04	Enable work on Socket for simulator
MODE_NETWORK	=0x08	Enable work on network only
MODE_DETECTION_OFF	=0x10	Disable driver notifications
<b>Mode combinations</b>		
MODE_USB_SERIAL	=0x03	Enable work on USB + Serial
MODE_USB_SERIAL_SOCKET	=0x07	Enable work on USB + Serial + Socket
MODE_USB_NETWORK	=0x09	Enable work on NETWORK over USB
MODE_USB_SERIAL_SOCKET_NETWORK	=0x0F	Enable work on USB + Serial + Socket + Network over USB
MODE_ALL_NO_SERIAL	=0x0D	Enable work for all modes except Serial
MODE_ALL	=0x0F	Enable work for all modes

- ◆ AfterFlexOption  
Options for post-flex operations
  - 0 - Restart the phone
  - 1 - No action needed

- ◆ AfterFlashOption  
Options for post-flash operations

Option Values	Meaning
E_POWERDN_SYNCHRONOUS=0,	Power down all phones synchronously
E_RESTART_SYNCHRONOUS=1	Restart all phones synchronously
E_POWERDN_ASYNCHRONOUS=2	Power down the individual phone which has completed flashing and not wait for other phones
E_RESTART_ASYNCHRONOUS=3	Restart the individual phone which has completed flashing and not wait for other phones
E_SYNC_NOACTION_NEEDED=4	For the GUI to keep threads synchronized for multiple
E_ASYNC_NOACTION_NEEDED=5	No synchronization for multiple devices
E_RESTART_SYNC_NOWAITFORREENUM=6	Synchronized restart commands only, but will not wait for device re-enumeration. The method will return without waiting for re-enumeration.
E_RESTART_ASYNC_NOWAITFORREENUM=7	Asynchronous restart command, but will not wait for device re-enumeration. The method will return without waiting for re-enumeration.
E_PDN_AFTANY_ERROR_RESTART_ASYNC =8	Power down after any error restart asynchronous- needed for GNPO
E_PDN_AFTANY_ERROR_PDN_ASYNC =9	Power down after any error. Pdn. asynchronous- needed for GNPO
E_RESTART_AFTANY_ERROR_RESTART_NOWAIT_SYNC =10	Restart after any error. Restart no wait synchronous - needed for GNPO
E_RESTART_AFTANY_ERROR_RESTART_NOWAIT_ASYNC =11	Restart after any error. Restart no wait asynchronous- needed for GNPO

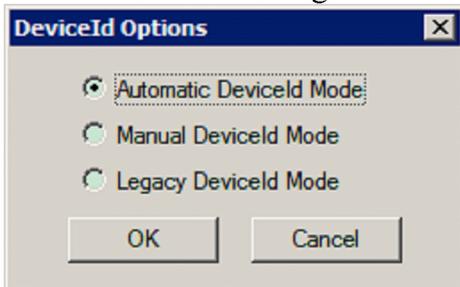
Note that if it runs a loop test, only the value 1, 3 and 8 are supported.

- ◆ TIROMBlankFlash  
Options for post-flex operations
  - 0x00 - TI OMAP, Locosto USB phones can not be blank flashed
  - 0x01 - TI OMAP, Locosto USB phones can be blank flashed
 Following are the steps to use the Blank Flash option
  - Set the entry in RSDLite.ini file
  - Start RSDLite
  - Connect the phone
  - The phone will be enumerated in Blank flash mode
  - Select appropriate file and click start button.

## DeviceID Allocation Usage Details

Suggested Steps to Enable DeviceID Allocation Functionality:

- Use DeviceIdAllocationTool.exe to allocation DeviceID, details please refer to the “DeviceID Allocation Tool UserManual”.
- Close DeviceIdAllocationTool.exe, launch RSDLite.
- Select Menu: Config-> DeviceId Options



- Select one mode you want, click “OK” to finish it or “Cancel” to cancel this operation.

If following Dialog box is popup, it means the RSDLite should be closed and re-launched to make the DeviceID option selection take effective.



## Windows OS Details for RSD Lite

### Foreign language Operating Systems:

The required 4 XP hot fix files named: Q814560, Q816843, Q822603 and Q810400 for foreign language OS, will not be installed via RSD Lite installer.

To install foreign language XP hot fixes, please visit: <http://compass.mot.com/go/153319459>;

### XP with Service Pack1:

For English OS only, the required 4 XP hot fix files named: Q814560, Q816843, Q822603 and Q810400 will be installed via RSD Lite installer program. Install these hot fixes first when prompted, and then try installing RSD Lite application. This English version of hot fixes will be installed only once.

**XP with Service Pack2:**

For XP with SP2, the above named hot fix files are included and installed with SP2 by Microsoft Corporation. Thus, users do not need to install them manually. The RSD Lite application will not install XP hot fixes for SP2 machines.

RSD Lite program is released in English language only.

The system requires that you have to log on as an Administrator, to install the necessary drivers for each MA type of the phone.

Re-naming of RSD Lite folder or moving to different location is not recommended. If re-named or moved, RSD Lite program will not work.

**PC/HW Requirements****Host Controller Cards**

- The controller must have two type A USB ports
- The controller must be at least USB v1.1 compliant.
- The controller must NOT have a Via Technologies or Lucent Host controller.
- Microsoft's drivers must support the controller.
- The controller ports must reside directly on the controller PCB.
- The controller's packaging or PCB must have the "USB" compliance insignia printed on either of them.
- The controller must be USB IF compliant
- The controller card must not be the same type of host controller as the motherboard. In other words if the mother boards is a Universal Host Controller then the PCI card must be an Open Host Controller (OHCI).

**PC Requirements**

- Pentium III, 500MHz or faster
- 128MB of RAM
- Windows XP SP1 or higher
- Windows 2000 SP2 or higher

**HW Setup**

- Belkin 7 port hub F5U027 or a USB v1.1 compliant 7 port hub.

## **Do's / Don'ts with RSD Lite**

- Applications that are a known problem are True Sync and HotSync. They should not be active while using RSD Lite.
- RSD Lite and RSD programs can co-exist on the same PC but should not be run simultaneously.
- The security key (wibu key) is not needed to run RSD Lite program.
- Before flashing or flexing, the phone must be plugged in and completely powered-up.

## **RSD Lite Component Details**

### **Drivers and Docking Stations:**

- The drivers are provided as available in the driver installer at this time.
- USB support only (No Serial support).
- RSD Lite does not support communication through docking stations due to limitations of docking stations.
- USB cables have to be directly connected to ports on the laptop.
- Device installation is simplified by pre-installing INF and driver files for Windows 2000 systems.
- If using USB hubs, daisy-chain setup is not supported.

### **RSD Lite Flash**

- Flashing over USB and flashing the simulator cannot be performed simultaneously.
- CSV log file displays BL & RDL Download time details

### **RSD Lite Flex**

- Support for Flexing with the new HSR format

### **Suspend mode after flex operation in RSD Lite:**

Only users who want the phone in suspend mode after the flex operation will need set the "AfterFlexOption" with the value 1 in RSDLite.ini file. The tool will restart the phone after the flexing operation if option for action after flex option is set up with the value 0. Therefore, if the desired behavior is restarting the phone after the flexing operation (that's the behavior in RSD Lite 2.7 and 2.8), set the value to 0.

## Debugging, Logging and Error Messages in RSD Lite

List of log files needed while reporting issues:

- 1) swdl.txt
- 2) xx\_xx\_xx\_xx\_PST\_Core.log
- 3) FlashErrorLogxx\_xx\_xx\_xx\_xx.log
- 4) flexerror.txt
- 5) USBView Snap Shot

All error messages are logged in text files.

The firmware upgrade and multi-upgrade error messages are logged in: swdl.txt file, which is created in RSD Lite folder. This swdl.txt file is always created and messages are logged sequentially by date/time. User must have write access to this folder.

The flex operation error messages are logged in flexerror.txt, which is created in RSD Lite\PhoneFileLog folder. This flexerror.txt file is created only when there is an error during flex operation. User must have write access to this folder.

FlashErrorLog.txt file is created whenever a flash related error occurs. It is created in the RSD Lite folder. User must have write access to this folder.

Flash break-up time can be logged to a CSV File in RSD Lite v1.7.1 Release onwards. The details provided will contain the flashing time for each code group and size of CGs etc. This feature is turned OFF by default. For more details, please refer User manual.

**For all flash / Framework error lookup, please refer <http://compass.mot.com/go/rsdlite> and type in the error number into the Spreadsheet following the instructions provided in the spreadsheet.**

### Turning ON logs for Framework and Flash in RSD Lite

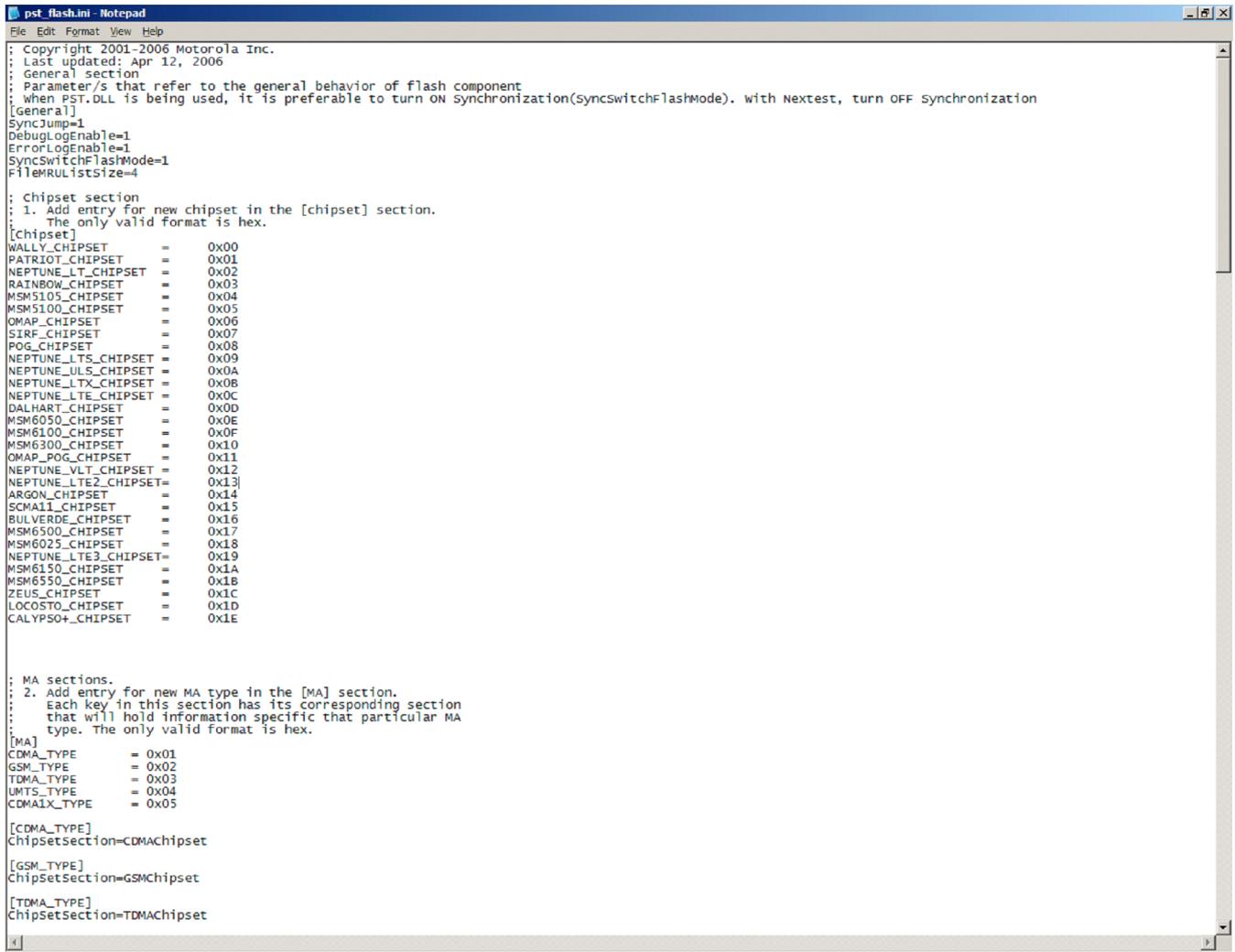
For debugging purposes, the logs may have to be turned ON in RSD Lite. Please delete all the existing log files in C:\Program Files\Motorola\RSD Lite directory.

For Framework logs, please change the value in **pst.ini** file in C:\Program Files\Motorola\RSD Lite directory

[CORE\_LOGGING]

Level = 0x00000000 and set the core logging level value to 0xFFFFFFFF.

For Flash logs, set the values of DebugLogEnable and ErrorLogEnable to 1, in **pst\_flash.ini** file.



```
File Edit Format View Help
; Copyright 2001-2006 Motorola Inc.
; Last updated: Apr 12, 2006
; General section
; Parameter/s that refer to the general behavior of flash component
; when PST.DLL is being used, it is preferable to turn ON synchronization(syncswitch=flashMode). with Nextest, turn OFF Synchronization
[General]
SyncJump=1
DebugLogEnable=1
ErrorLogEnable=1
SyncSwitchFlashMode=1
FileMRUListSize=4

; Chipset section
; 1. Add entry for new chipset in the [chipset] section.
; The only valid format is hex.
[chipset]
WALLY_CHIPSET = 0x00
PATRIOT_CHIPSET = 0x01
NEPTUNE_LT_CHIPSET = 0x02
RAINBOW_CHIPSET = 0x03
MSM5105_CHIPSET = 0x04
MSM5100_CHIPSET = 0x05
OMAP_CHIPSET = 0x06
SIRF_CHIPSET = 0x07
POG_CHIPSET = 0x08
NEPTUNE_LTS_CHIPSET = 0x09
NEPTUNE_ULS_CHIPSET = 0x0A
NEPTUNE_LTX_CHIPSET = 0x0B
NEPTUNE_LTE_CHIPSET = 0x0C
DALHART_CHIPSET = 0x0D
MSM6050_CHIPSET = 0x0E
MSM6100_CHIPSET = 0x0F
MSM6300_CHIPSET = 0x10
OMAP_POG_CHIPSET = 0x11
NEPTUNE_VLT_CHIPSET = 0x12
NEPTUNE_LTE2_CHIPSET = 0x13
ARGON_CHIPSET = 0x14
SCM11_CHIPSET = 0x15
BULVERDE_CHIPSET = 0x16
MSM6500_CHIPSET = 0x17
MSM6025_CHIPSET = 0x18
NEPTUNE_LTE3_CHIPSET = 0x19
MSM6150_CHIPSET = 0x1A
MSM6550_CHIPSET = 0x1B
ZEUS_CHIPSET = 0x1C
LOCOSTO_CHIPSET = 0x1D
CALYPSO+_CHIPSET = 0x1E

; MA sections.
; 2. Add entry for new MA type in the [MA] section.
; Each key in this section has its corresponding section
; that will hold information specific that particular MA
; type. The only valid format is hex.
[MA]
CDMA_TYPE = 0x01
GSM_TYPE = 0x02
TDMA_TYPE = 0x03
UMTS_TYPE = 0x04
CDMA1X_TYPE = 0x05

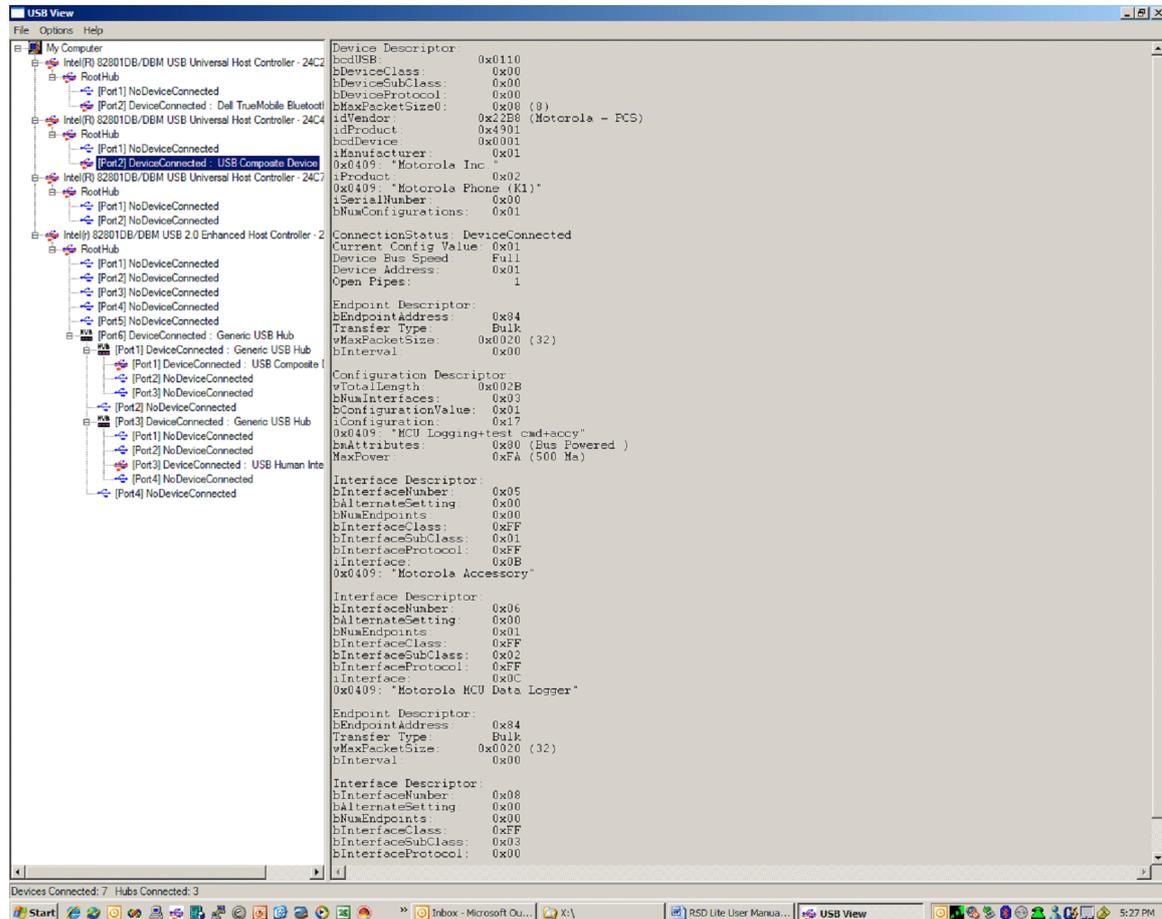
[CDMA_TYPE]
ChipsetSection=CDMAChipset

[GSM_TYPE]
ChipsetSection=GSMChipset

[TDMA_TYPE]
ChipsetSection=TDMAChipset
```

## USB View snapshots

Please provide the snapshot details (Example shown below for a Motorola device)



## Support Limitations and known issues

- If a phone is subsidy locked, RSD Lite will ignore errors returned by the phone when flexing secure elements and continue. The phone must be manually unlocked prior to flexing to properly write secure elements.
- The FSAC timeout has been increased to 600 seconds.
- RSD Lite will use the generic flex class if the SEEM Technology information is blank.
- A Master Clear is not issued after a flex procedure.

## **Support Contact(s)**

RSD Lite Mailing List : RSDLITE@motorola.com

Driver Mailing List : INFDRVMO@motorola.com

Escalation contacts:

For RSD Lite issues — Satya Calloji (ASC150)

USB / BLAN driver related issues - Balachandar Swami (W60013).

# **RSD Lite Release Notes Section**

For all labels details, please refer to <http://compass.mot.com/go/sdkcrs>

#### **Labels included in RSD Lite v4.4 release**

- Framework label: FW\_N\_08.33.01I\_ZCH45\_INT
- Flash label: FLASH\_N\_08.33.01I\_ZCH45\_INT
- Flex label: FLEX\_N\_08.33.01I\_ZCH45\_INT
- RSD lite label: RSD-RSDL\_N\_08.33.01I\_ZCH45\_INT

#### **Labels included in RSD Lite v4.3 release**

- Framework label: FW\_N\_08.19.01I\_ZCH45\_INT
- Flash label: FLASH\_N\_08.19.01I\_ZCH45\_INT
- Flex label: FLEX\_N\_08.19.01I\_ZCH45\_INT
- RSD lite label: RSD-RSDL\_N\_08.19.02I\_ZCH45\_INT

#### **Labels included in RSD Lite v4.2 release**

- Framework label: FW\_N\_08.14.01I\_ZCH45\_INT
- Flash label: FLASH\_N\_08.14.01I\_ZCH45\_INT
- Flex label: FLEX\_N\_08.14.01I\_ZCH45\_INT
- RSD lite label: RSD-RSDL\_N\_08.14.01I\_ZCH45\_INT

#### **Labels included in RSD Lite v4.1 release**

- Framework label: FW\_N\_08.04.01I\_ZCH45\_INT
- Flash label: FLASH\_N\_08.04.01I\_ZCH45\_INT
- Flex label: FLEX\_N\_08.04.01I\_ZCH45\_INT
- RSD lite label: RSD-RSDL\_N\_08.04.01I\_ZCH45\_INT

#### **Labels included in RSD Lite v4.0.1 release**

- Framework label: FW\_N\_07.47.01I\_ZCH45\_INT
- Flash label: FLASH\_N\_07.48.02I\_ZCH45\_INT
- Flex label: FLEX\_N\_07.47.01I\_ZCH45\_INT
- RSD lite label: RSD-RSDL\_N\_07.48.02I\_ZCH45\_INT

#### **Labels included in RSD Lite 4.0 Release**

- Framework label: FW\_N\_07\_46.01I\_IL93\_INT
- Flash label: FLASH\_N\_07.46.01I\_ZCH45\_INT
- Flex label : FLEX\_N\_07.46.01I\_ZCH45\_INT
- RSD Lite label: RSD-RSDL\_N\_07.46.01I\_ZCH45\_INT

**Labels included in RSD Lite 3.9.1 Release.**

- Framework and TCI db files label: FW\_N\_07.36.01I\_IL93\_INT
- Flash label: FLASH\_N\_07.36.01I\_IL93\_INT
- Flex label : FLEX\_N\_07.36.01I\_IL93\_INT
- RSD Lite label: RSD-RSDL\_N\_07.36.01I\_IL93\_INT

**Labels included in RSD Lite 3.9 Release**

- Framework and TCI db files label: FW\_N\_07\_34.01I\_IL93\_INT
- Flash label: FLASH\_N\_07.34.01I\_ZCH45\_INT
- Flex label : FLEX\_N\_07.34.02I\_ZCH45\_INT
- RSD Lite label: RSD-RSDL\_N\_07.34.02I\_ZCH45\_INT

**Labels included in RSD Lite 3.8 Release**

- Framework and TCI db files label: FW\_N\_07.26.01I\_IL93\_INT
- Flash label: FLASH\_N\_07.26.01I\_IL93\_INT
- RSD Lite label: RSD-RSDL\_N\_07.26.01I\_IL93\_INT