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SP MultiPort Download Tool User Guide

2016/07/26

ACS7/ST

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- Feature introduction
- Scan com port
- Image checksum verify

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Feature introduction

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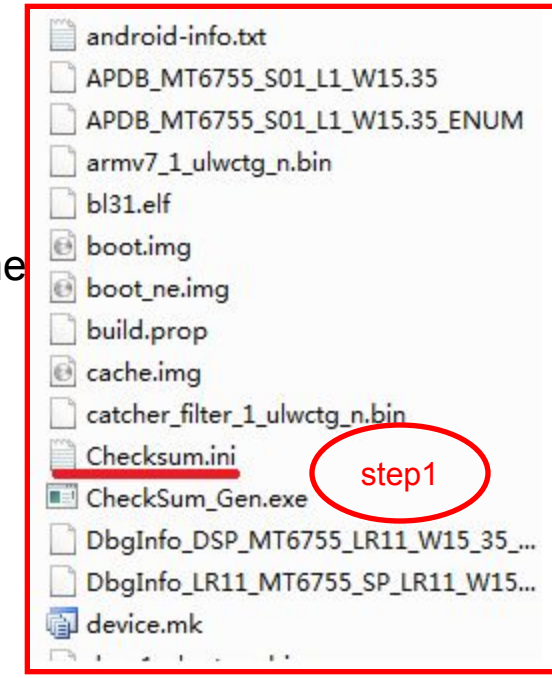
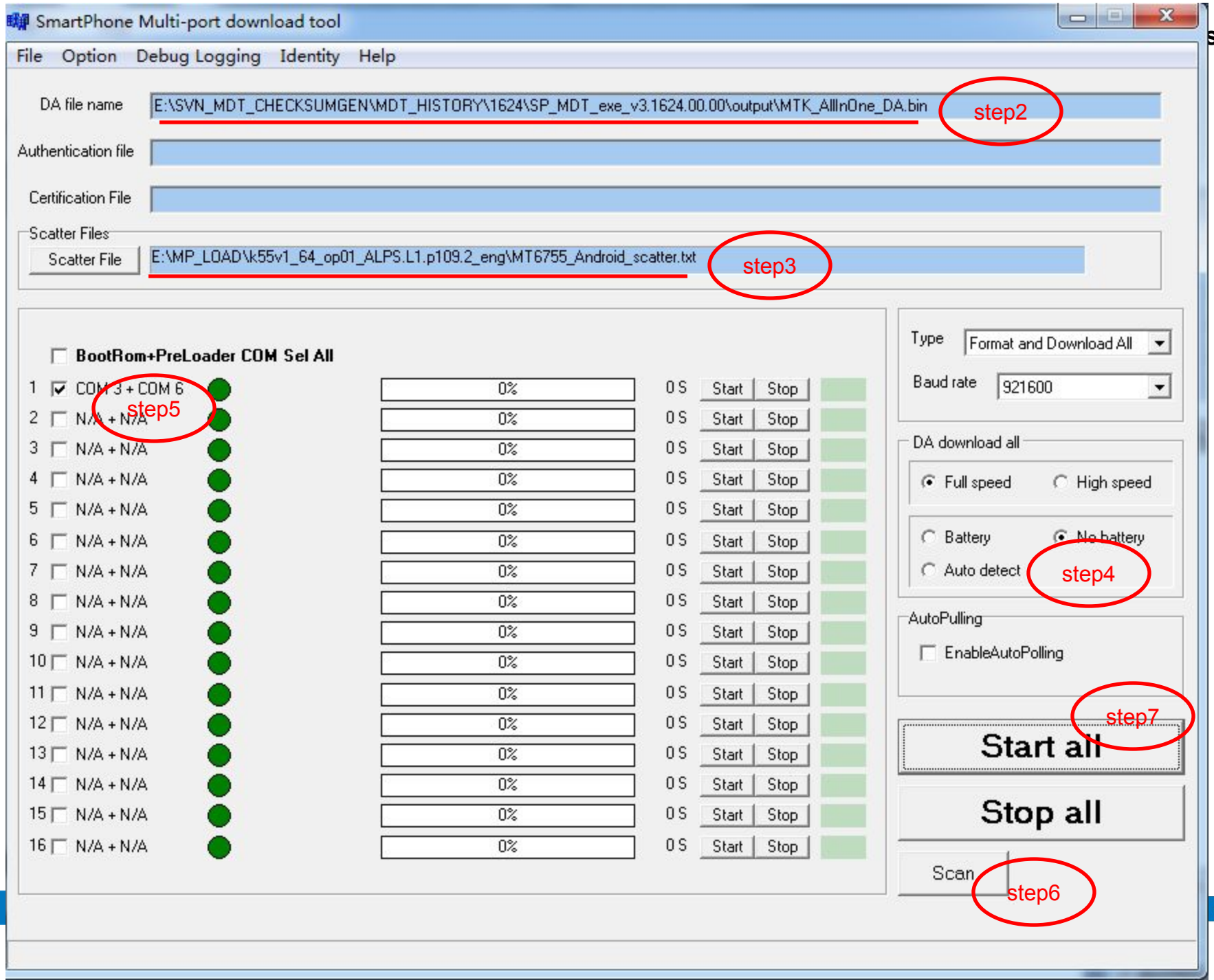
Feature introduction

- Get started
- Download Type
- Download speed
- Battery option
- Auto polling
- Checksum level

Get started

- Step1: make sure the checksum.ini of SW image has been generate
- Step2: select Download agent
- Step3: select scatter file
- Step4: configure the battery option
- Step5: select how many phones to download at the same time
- Step6: Scan com port
- Step7: click the start button to download
- Step8: plug in the phone which has been powered off




SmartPhone Multi-port download tool
File Option Debug Logging Identity Help
DA file name
E:\SVN_MDT_CHECKSUMGEN\MDT_HISTORY\1624\SP_MDT_exe_v3.1624.00.00\output\MTK_AllInOne_DA.bin
step2
Authentication file
Certification File
Scatter Files
Scatter File
E:\MP_LOAD\k55v1_64_op01_ALPS.L1.p109.2_eng\MT6755_Android_scatter.txt
step3
BootRom+PreLoader COM Sel All
1 COM 3 + COM 6
step5
2 N/A + N/A
3 N/A + N/A
4 N/A + N/A
5 N/A + N/A
6 N/A + N/A
7 N/A + N/A
8 N/A + N/A
9 N/A + N/A
10 N/A + N/A
11 N/A + N/A
12 N/A + N/A
13 N/A + N/A
14 N/A + N/A
15 N/A + N/A
16 N/A + N/A
0%
0 S
Start
Stop
Type
Format and Download All
Baud rate
921600
DA download all
Full speed
High speed
Battery
No battery
Auto detect
step4
AutoPulling
EnableAutoPolling
step7
Start all
Stop all
Scan
step6

Download Type

- Format and Download All
  - Format whole flash and download all the image
- Format all
  - Format whole flash
- Firmware upgrade
  - Calibration data will be keeped, other partition will be format and download all the image
- Format bootloader
  - format preloader only

Download speed

- Full speed(usb1.1)
  - Will do nothing
- High speed(usb2.0)
  - will check usb speed, if it's full speed, it will change to DA high speed port

Battery option

- Battery
  - The power support sourc is battery
- No battery
  - The power support source is usb, tool will enable charger to get power from usb
- Auto detect
  - Tool will detect if battery exists, then choose which power source

  if yes, choose battery

  if not, choose usb

Auto polling

- If enable, the tool will start the download again automaticly each time finishing the download.

Checksum level

- Disable checksum
  - Will not do checksum when download
- Enable usb+dram checksum
  - Keep the data's integrity, the progress from pc dram to phone dram
- Enable flash checksum
  - Keep the data's integrity, the progress from phone dram to phone flash
- Enable checksum all
  - Do the both usb+ dram and flash checksum, keep the data's integrity, the progress from pc dram to phone flash
  - Note:the checksum will takes more time when download

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Scan com port

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Scan com port

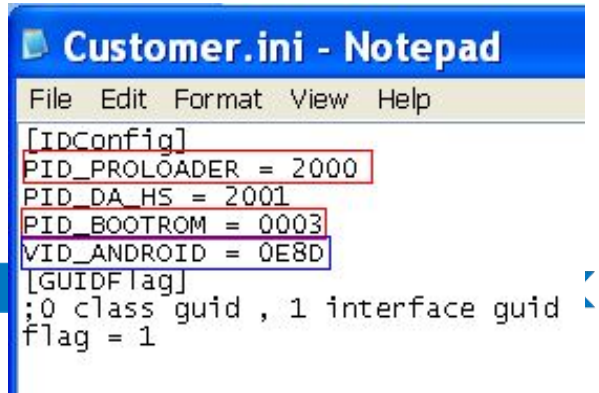
- Before the download, you should scan the com port

- Why scan com port?

 After that there is no need to scan com port each download, which can make download more stable and a little quicker

自动扫口—介绍(before MT6737)

- **扫口原理:**
  - 插入设备时，先扫Bootrom com，然后通过bootrom下载DA到手机，接着DA run起来后枚举出Preloader Com，以便达到同时扫出Bootrom com和Preloader Com的目的
- **扫口前准备:**
  - 使用W1308版本或者之后的MDT tool
  - [MUST]选择与MDT对应版本的DA和设备对应的Scattere file
  - 准备一只没有下载过的USB设备，即空机，插入USB即可触发进入扫口。
    注:如果没有空机并且设备有接出Kcol0下载触发按键，则也可以通过压下Kcol0来触发进入扫口。
- MDT Tool**如何识别**Bootrom口和Preloader口
  - 工具根目录的配置文件Customer.ini
  - Vid&Pid如右图:
    - Bootrom为0E8D&0003
    - Preloader为0E8D&2000



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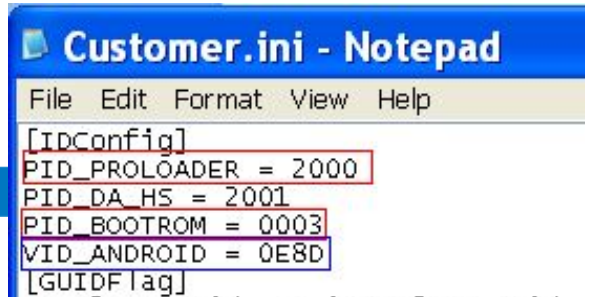
自动扫口—介绍(MT6737&After)

- **扫口原理：**
  - 从MT6737开始，支持自动识别口进行扫口功能，即不局限于空板或者按download key进行扫口。插入设备时，会根据枚举出来的口自动识别进行扫口。
    - 如果插入设备出来为preloader com，工具会先扫preloader com，然后通过preloader将DA下载到手机，接着DA run起来后枚举出bootrom com，以便同时扫出bootrom com和preloader com的目的。
    - 如果插入设备出来为bootrom com，工具会先扫bootrom com，然后通过bootrom下载DA到手机，接着DA run起来后枚举出preloader Com，以便达到同时扫出bootrom com和preloader Com的目的。
- **扫口前准备：**
  - 使用W1728版本或者之后的MDT tool
  - [MUST]选择与MDT对应版本的DA和设备对应的Scattere file
- MDT Tool**如何识别**Bootrom口和Preloader口
  - 工具根目录的配置文件Customer.ini
  - Vid&Pid如右图：
    - Bootrom为0E8D&0003
    - Preloader为0E8D&2000



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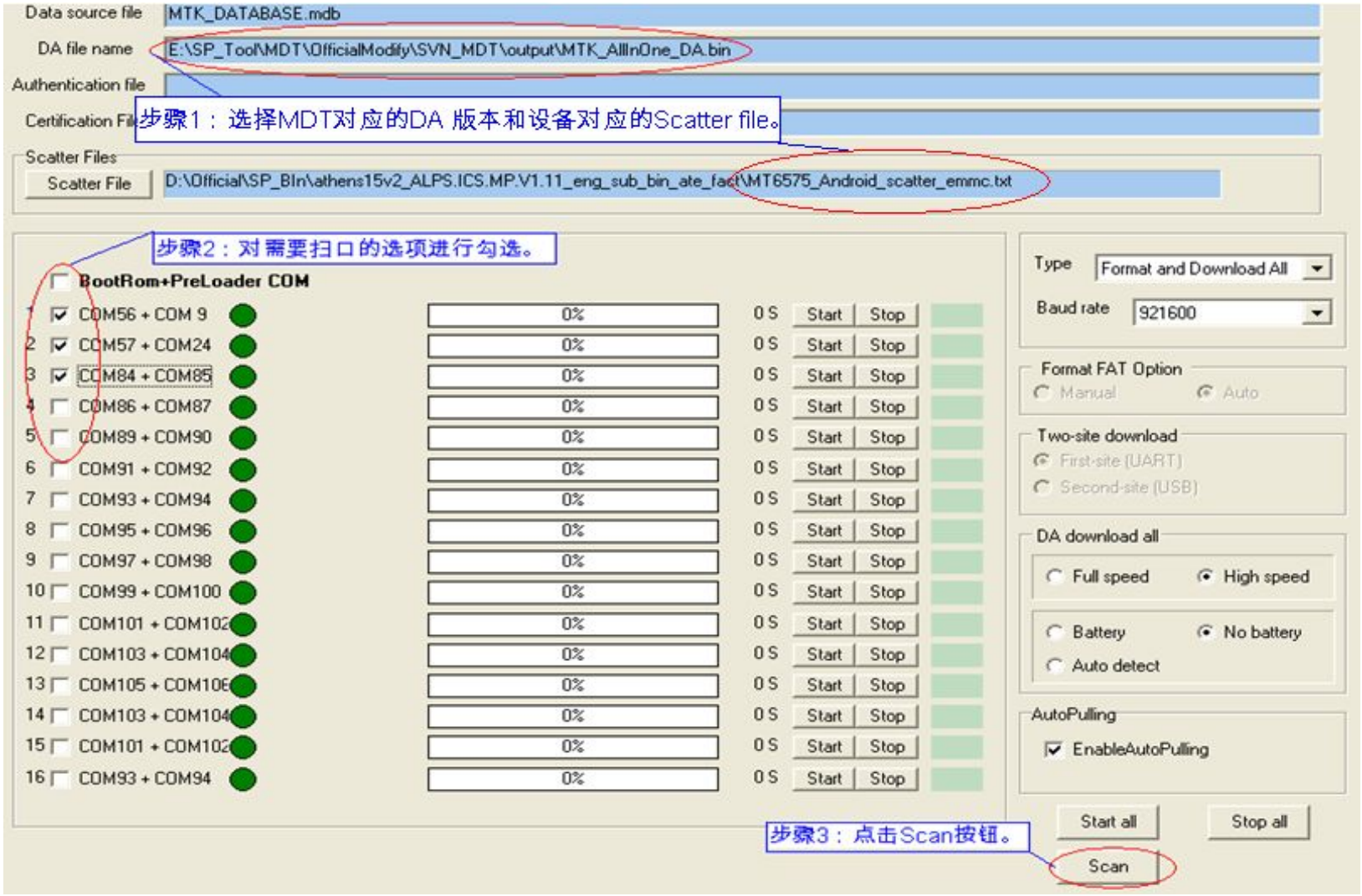
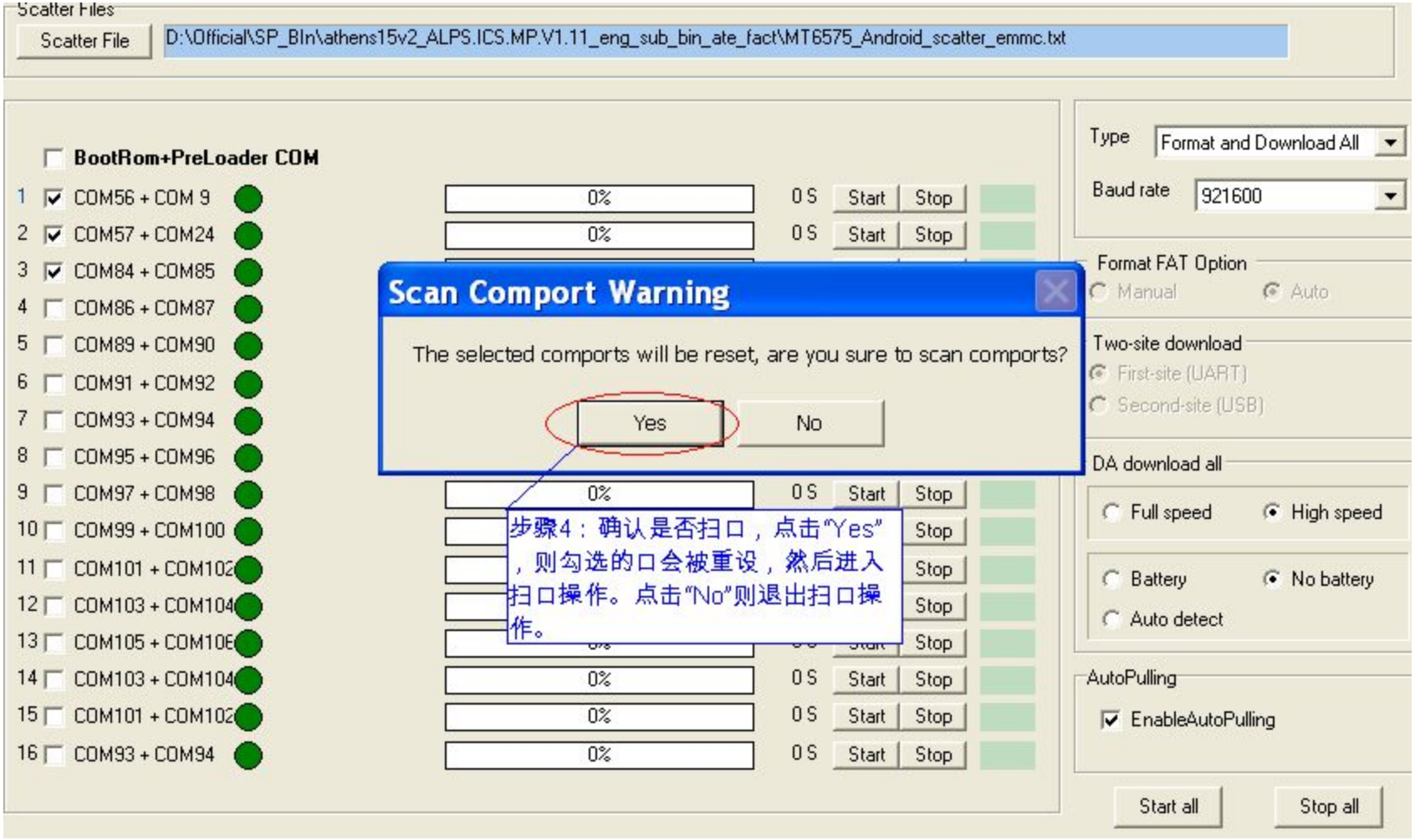
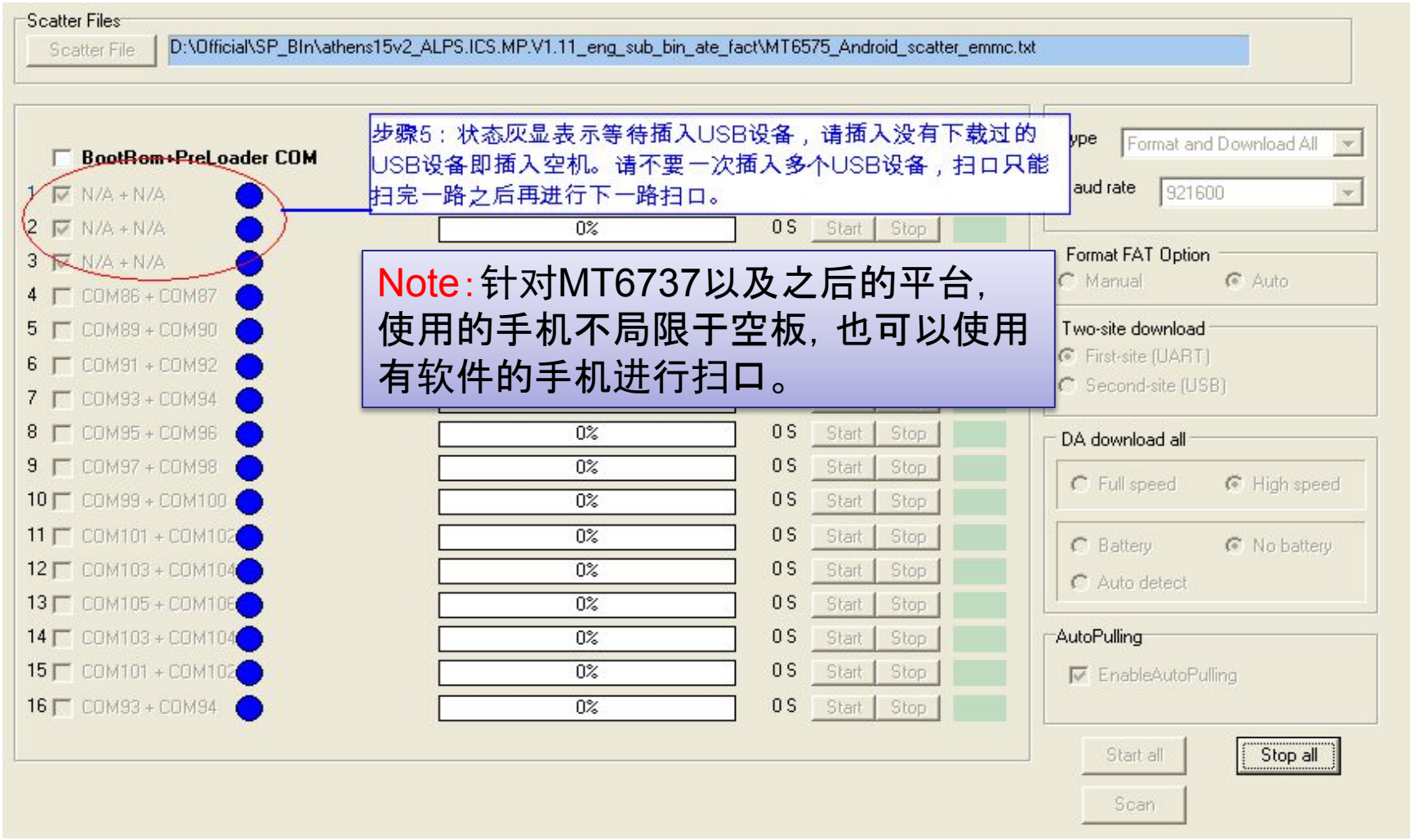
自动扫口—步骤(1)


Data source file
MTK_DATABASE.mdb
DA file name
E:\SP_Tool\MDT\OfficialModify\SVN_MDT\output\MTK_AllInOne_DA.bin
Authentication file
Certification File
步骤1：选择MDT对应的DA 版本和设备对应的Scatter file。
Scatter Files
Scatter File
D:\Official\SP_Bin\athens15v2_ALPS.ICS.MP.V1.11_eng_sub_bin_ate_fact\MT6575_Android_scatter_emmc.txt
步骤2：对需要扫口的选项进行勾选。
BootRom+PreLoader COM
1 COM56 + COM 9
2 COM57 + COM24
3 COM84 + COM85
4 COM86 + COM87
5 COM89 + COM90
6 COM91 + COM92
7 COM93 + COM94
8 COM95 + COM96
9 COM97 + COM98
10 COM99 + COM100
11 COM101 + COM102
12 COM103 + COM104
13 COM105 + COM106
14 COM103 + COM104
15 COM101 + COM102
16 COM93 + COM94
0%
0 S
Start
Stop
Type
Format and Download All
Baud rate
921600
Format FAT Option
Manual
Auto
Two-site download
First-site (UART)
Second-site (USB)
DA download all
Full speed
High speed
Battery
No battery
Auto detect
AutoPulling
EnableAutoPulling
步骤3：点击Scan按钮。
Start all
Stop all
Scan

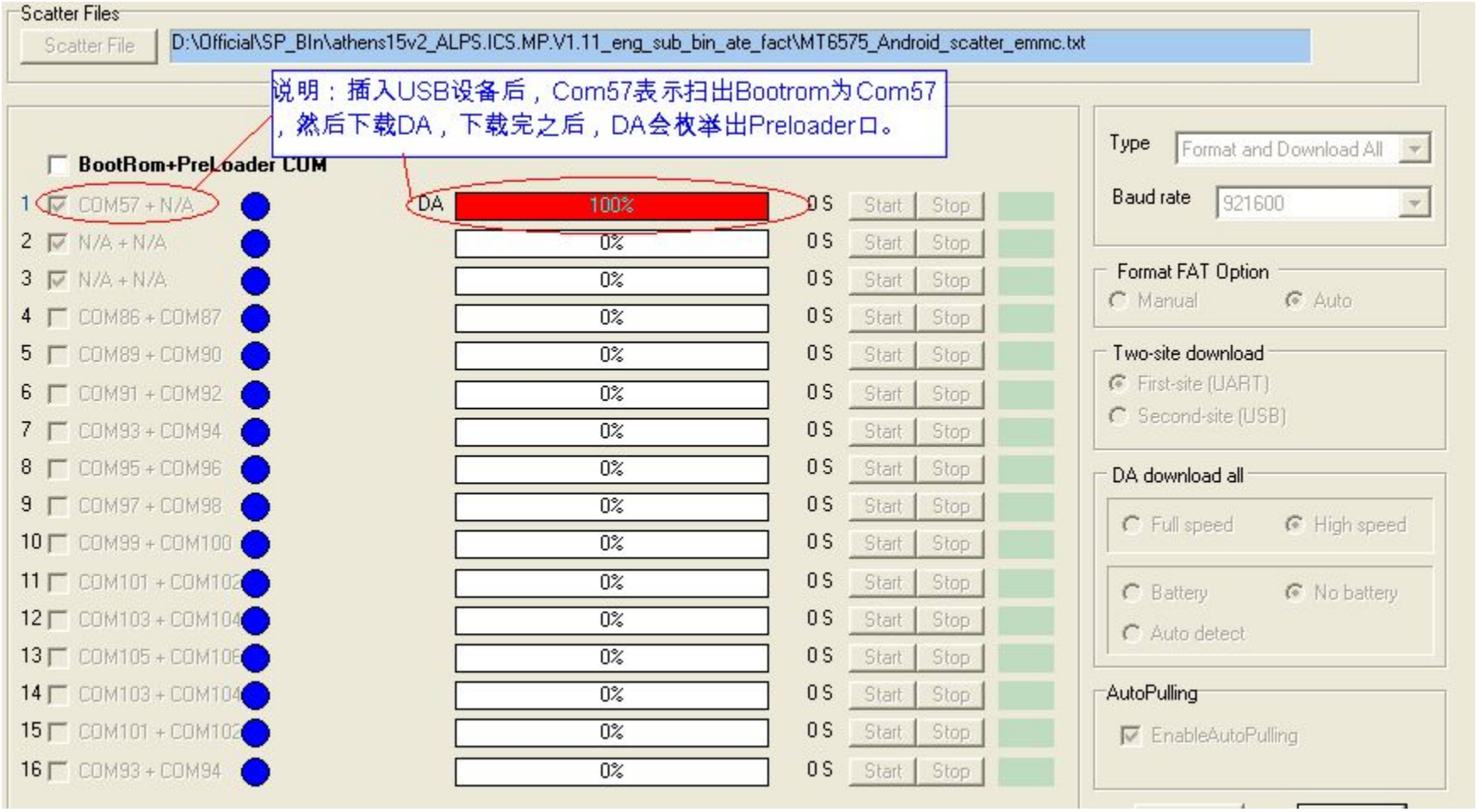
自动扫口—步骤(2)


Scatter Files
Scatter File
D:\Official\SP_Bin\athens15v2_ALPS.ICS.MP.V1.11_eng_sub_bin_ate_fact\MT6575_Android_scatter_emmc.txt
BootRom+PreLoader COM
1 COM56 + COM 9
2 COM57 + COM24
3 COM84 + COM85
4 COM86 + COM87
5 COM89 + COM90
6 COM91 + COM92
7 COM93 + COM94
8 COM95 + COM96
9 COM97 + COM98
10 COM99 + COM100
11 COM101 + COM102
12 COM103 + COM104
13 COM105 + COM106
14 COM103 + COM104
15 COM101 + COM102
16 COM93 + COM94
0%
0 S
Start
Stop
Scan Comport Warning
The selected comports will be reset, are you sure to scan comports?
Yes
No
步骤4：确认是否扫口，点击"Yes"，则勾选的口会被重设，然后进入扫口操作。点击"No"则退出扫口操作。
Type
Format and Download All
Baud rate
921600
Format FAT Option
Manual
Auto
Two-site download
First-site (UART)
Second-site (USB)
DA download all
Full speed
High speed
Battery
No battery
Auto detect
AutoPulling
EnableAutoPulling
Start all
Stop all

自动扫口—步骤(3)


Scatter Files
Scatter File
D:\Official\SP_Bin\athens15v2_ALPS.ICS.MP.V1.11_eng_sub_bin_ate_fact\MT6575_Android_scatter_emmc.txt
步骤5：状态区显表示等待插入USB设备，请插入没有下载过的USB设备即插入空机。请不要一次插入多个USB设备，扫口只能扫完一路之后再进行下一路扫口。
BootRom+PreLoader COM
1 N/A + N/A
2 N/A + N/A
3 N/A + N/A
4 COM86 + COM87
5 COM89 + COM90
6 COM91 + COM92
7 COM93 + COM94
8 COM95 + COM96
9 COM97 + COM98
10 COM99 + COM100
11 COM101 + COM102
12 COM103 + COM104
13 COM105 + COM106
14 COM103 + COM104
15 COM101 + COM102
16 COM93 + COM94
0%
0 S
Start
Stop
Note：针对MT6737以及之后的平台，使用的手机不局限于空板，也可以使用有软件的手机进行扫口。
ype
Format and Download All
aud rate
921600
Format FAT Option
Manual
Auto
Two-site download
First-site (UART)
Second-site (USB)
DA download all
Full speed
High speed
Battery
No battery
Auto detect
AutoPulling
EnableAutoPulling
Start all
Stop all
Scan

自动扫口—步骤(4)


Scatter Files
Scatter File
D:\Official\SP_Bin\athens15v2_ALPS.ICS.MP.V1.11_eng_sub_bin_ate_fact\MT6575_Android_scatter_emmc.txt
说明：插入USB设备后，Com57表示扫出Bootrom为Com57，然后下载DA，下载完之后，DA会枚举出Preloader口。
BootRom+PreLoader COM
1 COM57 + N/A
2 N/A + N/A
3 N/A + N/A
4 COM86 + COM87
5 COM89 + COM90
6 COM91 + COM92
7 COM93 + COM94
8 COM95 + COM96
9 COM97 + COM98
10 COM99 + COM100
11 COM101 + COM102
12 COM103 + COM104
13 COM105 + COM106
14 COM103 + COM104
15 COM101 + COM102
16 COM93 + COM94
DA
100%
0%
0 S
Start
Stop
Type
Format and Download All
Baud rate
921600
Format FAT Option
Manual
Auto
Two-site download
First-site (UART)
Second-site (USB)
DA download all
Full speed
High speed
Battery
No battery
Auto detect
AutoPulling
EnableAutoPulling

自动扫口—步骤(5)

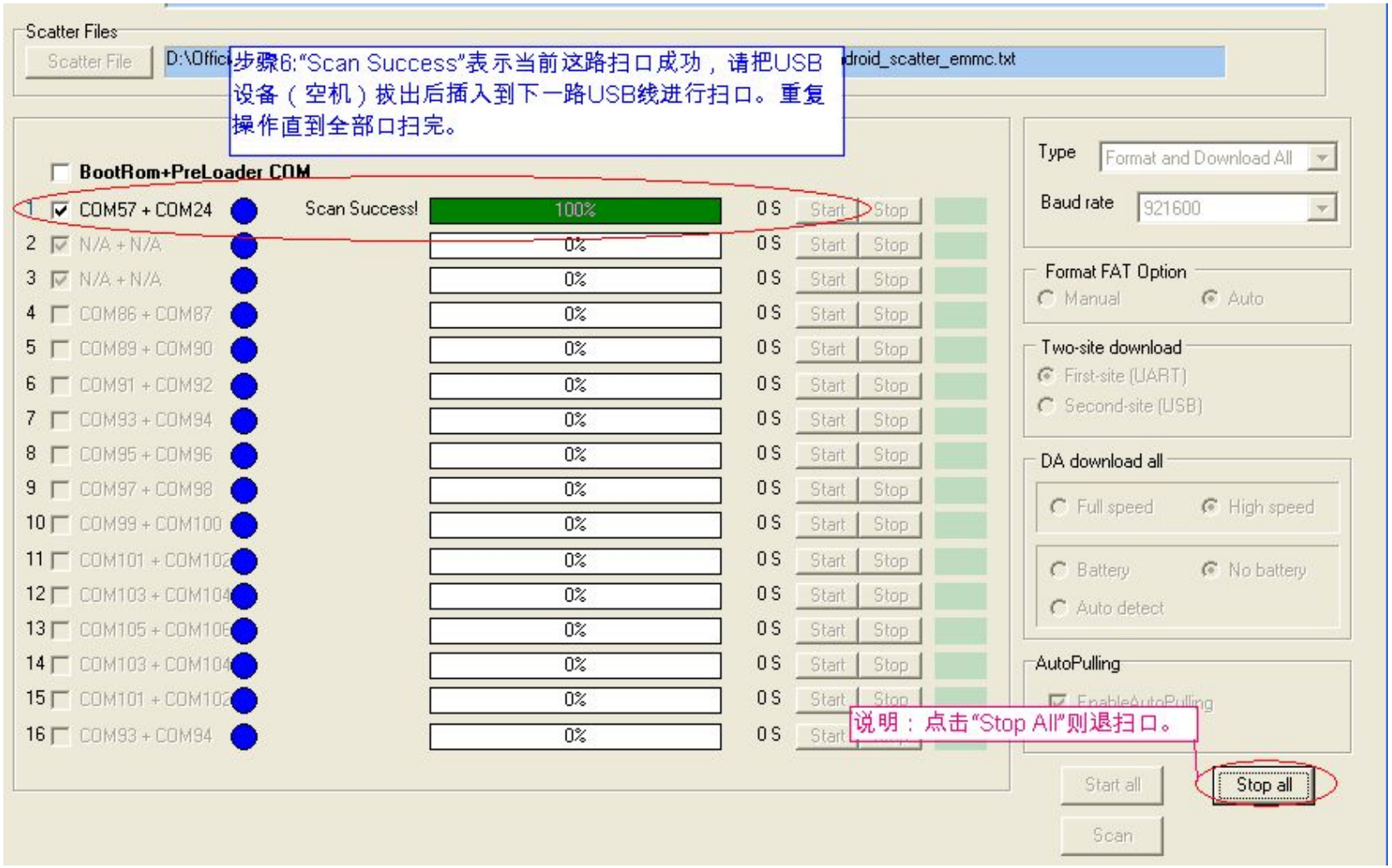

Scatter Files
Scatter File
步骤6:"Scan Success"表示当前这路扫口成功，请把USB设备（空机）拔出后插入到下一路USB线进行扫口。重复操作直到全部口扫完。
BootRom+PreLoader COM
1 COM57 + COM24
Scan Success!
100%
2 N/A + N/A
3 N/A + N/A
4 COM86 + COM87
5 COM89 + COM90
6 COM91 + COM92
7 COM93 + COM94
8 COM95 + COM96
9 COM97 + COM98
10 COM99 + COM100
11 COM101 + COM102
12 COM103 + COM104
13 COM105 + COM106
14 COM103 + COM104
15 COM101 + COM102
16 COM93 + COM94
0%
0 S
Start
Stop
Type
Format and Download All
Baud rate
921600
Format FAT Option
Manual
Auto
Two-site download
First-site (UART)
Second-site (USB)
DA download all
Full speed
High speed
Battery
No battery
Auto detect
AutoPulling
EnableAutoPulling
说明：点击"Stop All"则退扫口。
Start all
Stop all
Scan

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Image checksum verify

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Image checksum verify

- In order to keep the image in pc disk is correct, the tool will verify the image after click the start button.

- Pls make sure that the checksum.ini is together with the SW load under the same directory.

How to generate checksum.ini?

- **Step 1**: get the checksum_gen.exe
- -the checksum_gen.exe is released with SP Multiport Download Tool from MTK online

- **Step 2**: generate checksum.ini
- -put the checksum_gen.exe together with SW load, and start the checksum_gen.exe

- Note1:pls make sure that the version of checksum_gen tool is the same as SP Multiport Download Tool.
- Note2: it's better to generate the checksum.ini immediately after the SW load built, the src code of checksum_gen support linux os.

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FAQ

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FAQ

- **问:除了自动扫口，是否可以在SPMultiPortFlashDownloadProject.ini对comport口进行配置？**

  答:可以。

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Thanks

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