SOP of Jumpstart Test

Revision: **1.18**
Create Date: **May 27, 2016**
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Author: **Melissa Wu**

Version history

Date	Ver.	Description	Author/Reviser
2016/05/27	1.0	1st release	Melissa Wu, Willy Liao
2016/05/30	1.1	Update chapter 2.6: - Remove to check the result “Not Required” of “Baseline Required”	Melissa Wu, Willy Liao
2016/05/31	1.2	Update chapter 3.1.5 for OS/Non OS APP list	Willy Liao
2016/06/08	1.3	Update description in chapter 2.1	Willy Liao
2016/06/30	1.4	Update pre-configuration procedure in chapter 1.7	Willy Liao
2016/08/16	1.5	Update pre-configuration procedure for PAT v1.6 in chapter 1.7	Elton Chen
2017/02/15	1.6	Update pre-configuration procedure for anti-virus in chapter 1.3 and 1.4	Willy Liao
2017/02/17	1.7	Update pre-configuration procedure for universal app and driver	Willy Liao
2017/06/05	1.8	Update pre-configuration procedure for Windows 10 S Update pre-configuration procedure for PAT v2.0 RC01	Elton Chen
2017/06/08	1.9	Update identify result for Jumpstart 2018 in chapter 3	Elton Chen
2017/11/01	1.10	Update defer RS3 Feature Update from WU in Appendix A	Elton Chen
2017/11/23	1.11	Remove AcerJSTool tool and Update AppendixA	Elton Chen
2017/12/20	1.12	Remove Appendix A and related notes	Elton Chen
2018/05/18	1.13	Update Performance Assessment Toolkit (PAT) 2.4 RTM Update Device setup & Preparation- 1.12, 1.13,1.15 Upate Execute assessments -2.2 Update Identify result Add Appendix A: Defer RS4 Feature Update from WU Add Appendix B: RS4 criteria	Melissa Wu
2018/06/29	1.13.1	Update Install Acer baseline image –Note Update Identify result – 3.2.2	Melissa Wu
2018/08/17	1.13.2	Add Appendix C: RS4 Image CSUP date starting 2018-08-01	Melissa Wu
2018/08/20	1.14	Update Performance Assessment Toolkit (PAT) 2.5 RTM Update Identify result & generate report Remove Appendix C: RS4 Image CSUP date starting 2018-08-01 Remove Appendix A: Defer RS4 Feature Update from WU	Melissa Wu
2018/10/12	1.15	Update Performance Assessment Toolkit (PAT) 2.6 RTM Update Toolkit now defaults to a testing prefix of OEM Add Appendix B: RS5 criteria (ref 3) Add Appendix C: Defer RS5 Feature Update from WU (ref. 1.5)	Melissa Wu
2018/12/14	1.15r	Update Device setup & Preparation - Remove 1.4-1.5 (Windows Update or the Windows Store) - Update 1.4 Wi-Fi settings to not connect the system to the Internet Remove Appendix C: Defer RS5 Feature Update from WU	Melissa Wu

2018/12/14	1.15rr	Update Device setup & Preparation - Remove 1.5 “Update signatures + engine”	Melissa Wu
2019/4/22	1.16	- Update Performance Assessment Toolkit (PAT) 2.7 RTM - Add the rules for selecting configurations to be tested in chapter 1 - Add 19H1 criteria in Appendix - Update RS4&RS5 criteria in Appendix - Update 19H1 Office name in chapter 5	Melissa Wu
2019/6/14	1.17	- Remove the rules for selecting configurations to be tested in chapter 1 - Update ACPI Wake Timer/RTC Timer Capability for Faststartup assessment in chapter 2	Melissa Wu
2019/8/5	1.18	- Add HVCI&VBS Capability for Faststartup in chapter 2 - Update Acer baseline image patch’s screenshot in chapter 5	Melissa Wu

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1. Configuration selection

This section describes how to select configuration for test. Before selecting the configuration for test, please ensure the all CPU models in the AVL of specific project are listed in the latest Jumpstart performance tool CPU list. You can find the list from following path. From the list, you can know which segment is belonged to for specific CPU. **If the CPU isn't listed in the table, please consult with Acer Windows team (HQAcer.Windows@acer.com) to confirm which configuration should be adopted.**

Path: C:\AcerJumpstartTool\JumpstartToolkit\packages\pt.v2\pt.cpulist.v2.csv

2. Device setup & Preparation

Note: following is the high level summary of setup and pre-preparation steps, please refer to latest Performance Assessment Toolkit Test Guidance.docx which is included in the "AcerJumpstartTool\JumpstartTookit\Documentation and Samples" folder

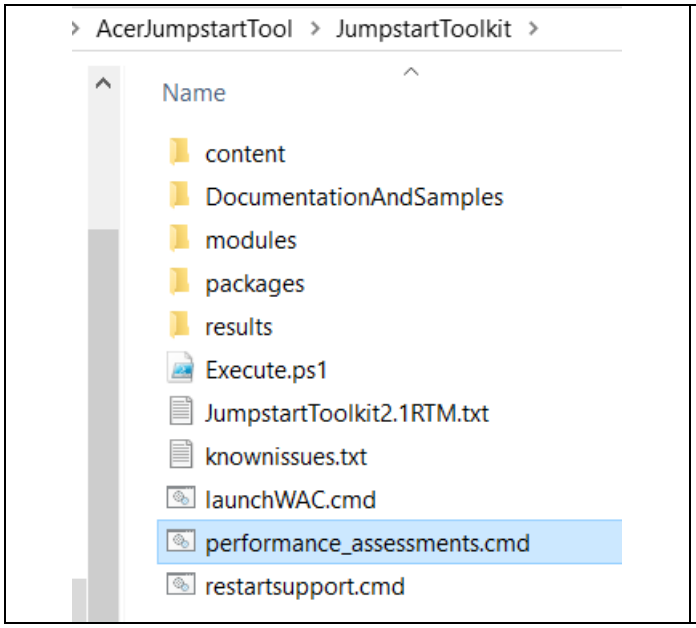
- **Do not connect the system to the Internet prior to running the performance assessments. This helps prevent updaters from changing the configuration of the system before or during testing.**
- **Avoid connecting unnecessary external devices to the system. External drives used to copy tools to the system should be removed prior to running any performance assessments.**

2.1 Connect AC power
2.2 OOBE system and named the user name as "acer"
2.3 After OOBE, copy "AcerJumpstartTool" to "C:\"
2.4 Turn on Wi-Fi but do not connect the system to the Internet
2.5 For all Anti-Virus / Anti-Malware including Windows Defender:
    - Perform a full system scan
2.6 For 3rd party Anti-Virus / Anti-Malware if possible disable auto-updates and scheduled scans
    - Note: This step is required in case 3rd party software schedules and runs during the assessment which may impact results
    - Note: On Windows Pro SKU, you can disable AV updates for Windows Defender, but Windows Home SKUs do not allow disabling updates. This does not impact results and is included for information purposes. If a full scan is not performed it is possible that a scan could run during the assessment.

2.7 Restart system

2.8 Make sure no external components plugged in unless they are provided with the device\

2.9 Double click “**performance_assessments.cmd**” in the JumpstartToolkit folder

	Location: **C:\AcerJumpstartTool\JumpstartToolkit**

2.10 S – Set **autologon**

2.11 Enter “T” for system test prefix (current: OEM)

- Change prefix to **OEM** for OEM Image (current: **OEM**)
- Ensure prefix is **Baseline** for Baseline image (current: **Baseline**)

2.12 If the **ACPI Wake Timer** system device is **not** present, please go to ‘**C** - Advanced Configuration and Optional Assessments’ for further settings

System support ACPI Wake Timer	System support RTC Timer
● Enter ‘C’ ● Status will be on (J - Toggle to use ACPI Wake Timer Capability for Faststartup assessment [current status: **on**])	● Enter ‘C’ ● Enter ‘J’ ● Status will be off (J - Toggle to use ACPI Wake Timer Capability for Faststartup assessment [current status: **off**])

2.13 If the **HVCI&VBS** system device is present, please manual apply the registry **”HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\CrashControl\AutoReboot=0”** before running toolkit

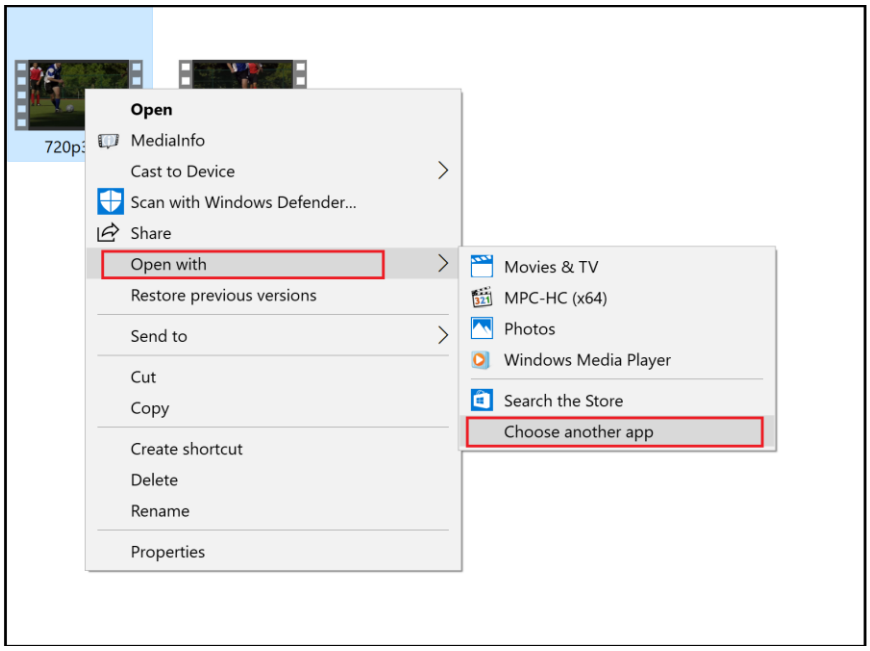
2.14 Enter “P” for system pre-configuration

- Input “Y” for Do you want to dump msinfo32, services and tasks data?
- Input “N” for Do you want to execute a custom script?
- Force to terminate the Windows PowerShell if hang on rundll32.exe.

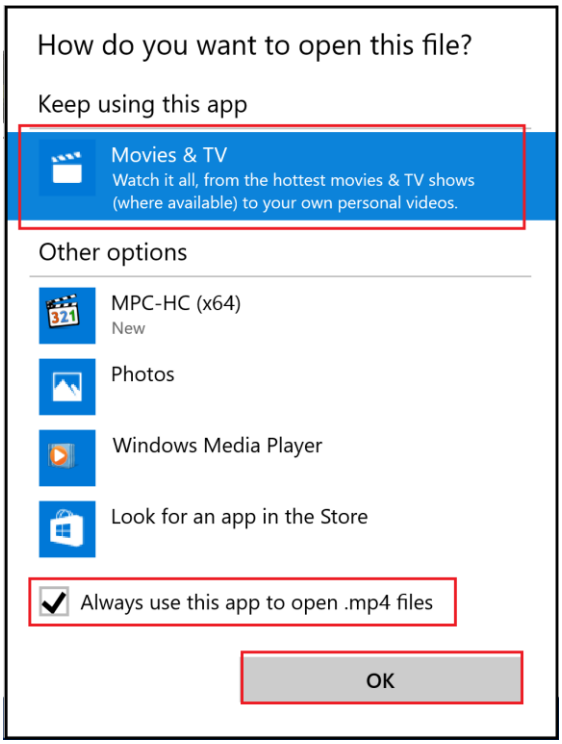
2.15 Restart system

Note: If you have installed 3rd party media playback applications, you should make sure that .MP4 files are associated with "Movies & TV" prior to launching the battery life assessment.

- Browse to the folder "Content" under the path where the toolkit was extracted to (Example: c:\AcerJumpStartToolV1.00.1015\Perf2.6Oct2018-RTM\content)
- Right click on one of the .mp4 movie files, select "Open with" and then "Choose another app"



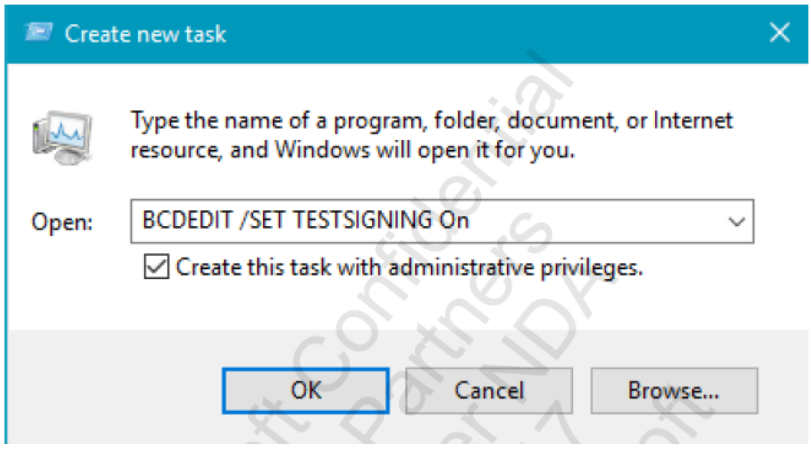
- Select "Movies & TV", check the box "Always use this app to open .mp4 files", and click 'OK'



Note: For Windows 10 S, follow the below steps to setup the test environment.

1. Disable firmware Secure Boot on BIOS menu.
2. Open Task Manager
3. Select “File->Run New Task” and check the option to execute with admin privileges.
4. Execute the following command line.

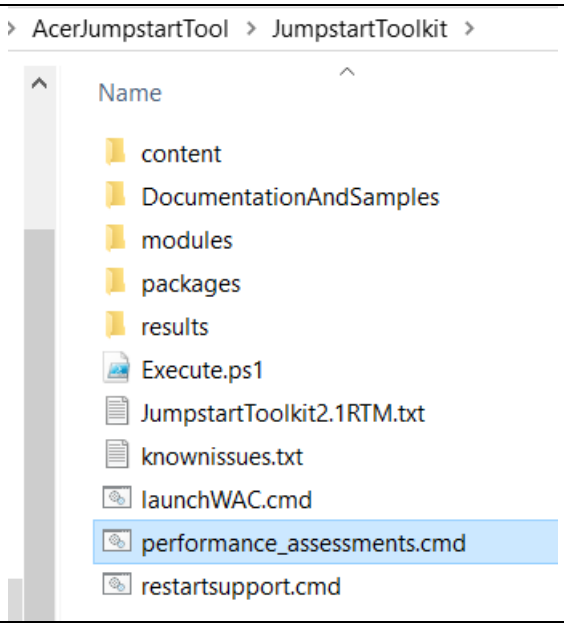
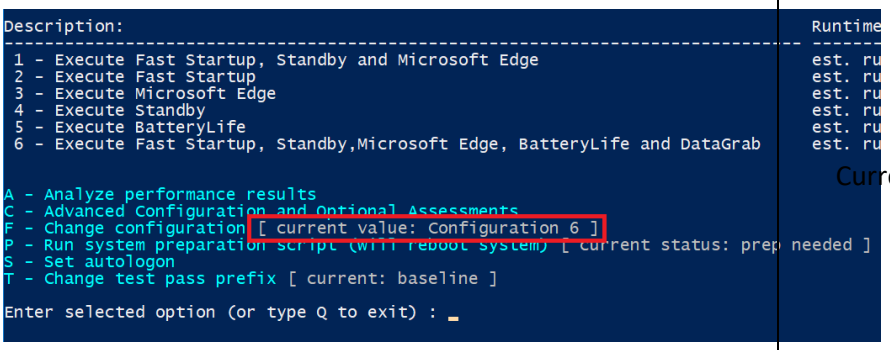
   BCDEDIT /SET TESTSIGNING On



5. Reboot the system from the Start menu.
6. Copy all test tools and binaries from “cloudskutools” to “C:\TESTTOOLS”
7. Launch C:\TESTTOOLS\CMD.EXE from the Task Manager menu (File-> Run New Task as admin)
8. Run “InstallAuditPolicy.cmd” on CMD command line.
9. Reboot the system.

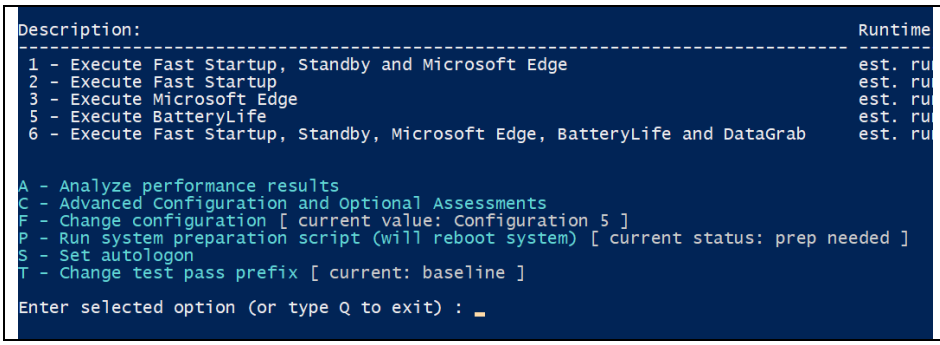
3.Execute assessments

3.1 Double click to run "**performance_assessments.cmd**" in the JumpstartToolkit folder and record **the "JumpStart Configuration" number** (#1~6)

<table>
<tr>
<td> 
</td>
<td>Location:
C:\AcerJumpstartTool\JumpstartToolkit</td>
</tr>
<tr>
<td> 
</td>
<td>Current Value : Configuration 6</td>
</tr>
</table>

3.2 Run Jumpstart test based on your purpose.

- "1- Execute Fast Startup, Standby and Microsoft Edge ": 1
- "2- Execute Fast Startup" : 2
- "3- Execute Microsoft Edge" : 3
- "4-Excute Standby" : 4



Resume from S3 is hidden when system has Modern Standby enabled

- "5- Execute Battery life" : 5

4.Identify result & generate report

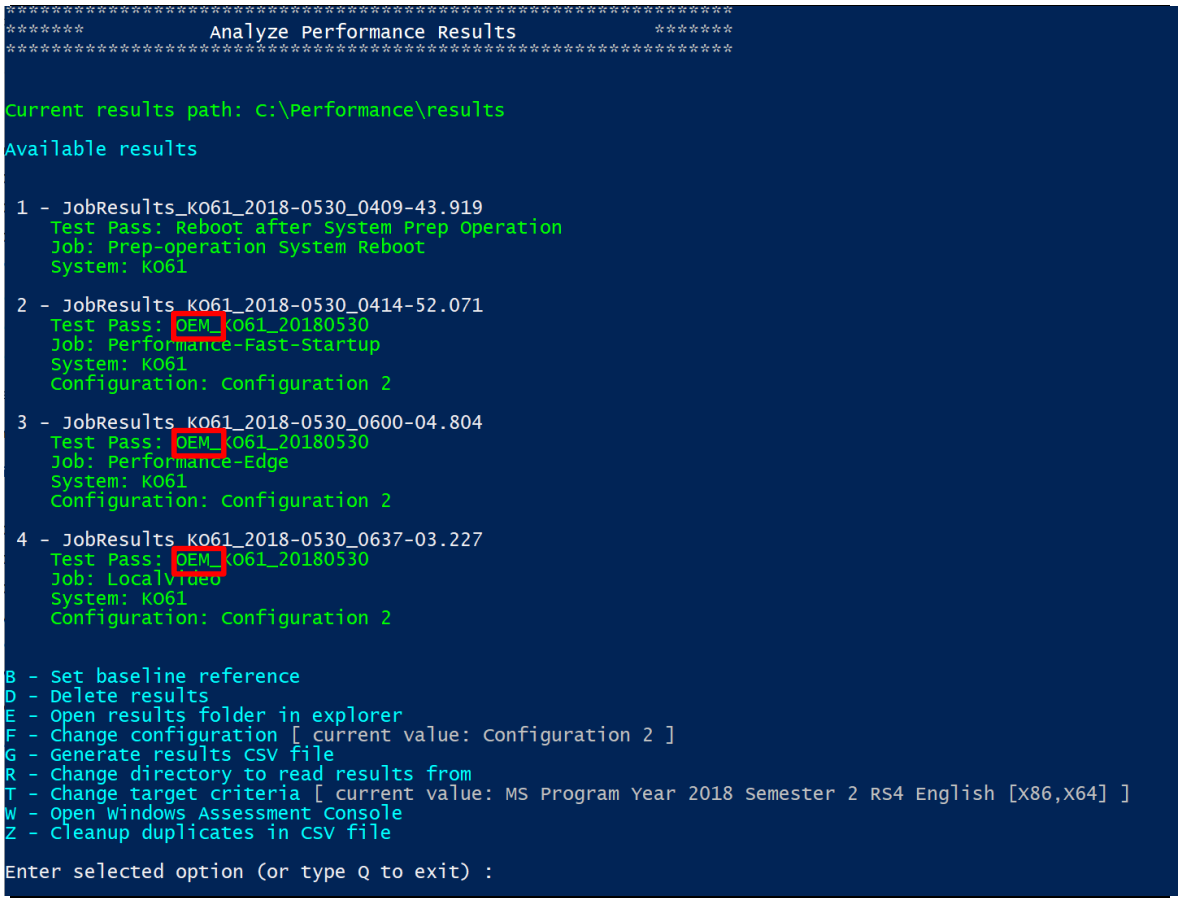
Performance Assessment Toolkit (PAT) 2.4 RTM and above removing the accompanying excel spreadsheet, you need follow new instructions to verify and generate the results without spreadsheet

Note: For criteria please refer to Appendix.

4.1 To generate the results from the OEM image:

4.1.1 From the Main Menu, select option **A - Analyze performance results**

This will enumerate the available test results. Take note the test pass prefix embedded in the name of each Test Pass value: **OEM**



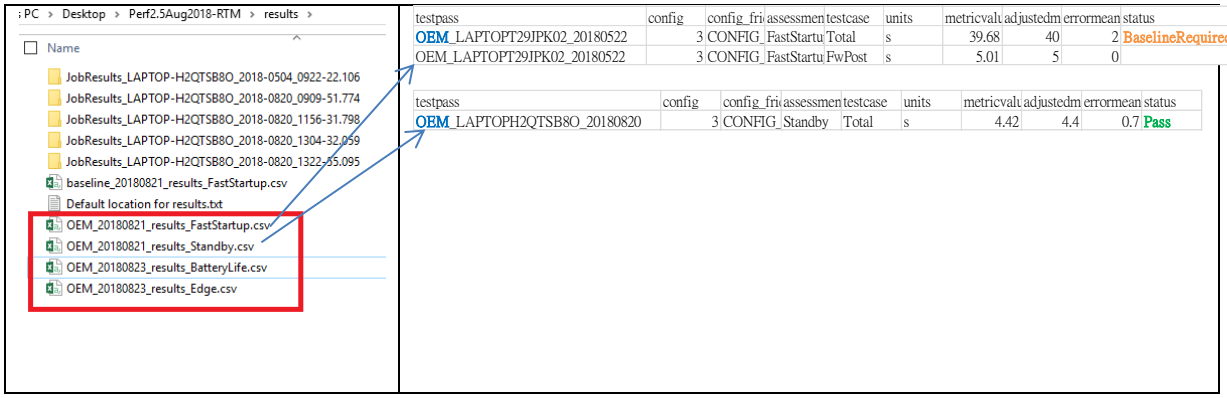
4.1.2 For each OEM image assessment result, enter the corresponding result number into the prompt **Enter selected option (or type Q to exit) :**

Note: Skip over items titled **Reboot after System Prep Operation**, as these are part of the system preparation task, and are not actual assessment results.

In the example image above, result #2 (**Performance-Fast-Startup**) will be the first test result to

be selected:

```
Enter selected option (or type Q to exit) : 2
```



a. **Totally 4 OEM csv files :** Need rename each OEM results corresponds to the OEM csv files as <OEM>_<date>_results_Item.csv (Item: FastStartup, Edge, BatteryLife, Standby)

4.1.3 Open this CSV file in Excel

4.1.4 Verify the results of each assessment by checking the column titled **status**

testpass	config	config_friendly	assessment	testcase	units	metricvalue	adjustedmean	errormean	status	samplesize	outlierscount	abnormalscount	isValid
OEM_KO61	2	CONFIG_2_ENTRY	FastStartup	Total	s	31.9	32	2	Pass	10	0	0	1
OEM_KO61	2	CONFIG_2_ENTRY	FastStartup	FwPost	s	140.59	140	10		10	0	0	1
OEM_KO61	2	CONFIG_2_ENTRY	Edge	Total	ms	6049.9	6050	90	BaselineRequired	10	0	0	1
OEM_KO61	2	CONFIG_2_ENTRY	BatteryLife	FullDrain	mins	485	485	0	Pass	1	0	0	1

a. **Pass**: The assessment passed the performance target

➔ **ODM only need to submit <OEM>_<date>_results_Item.csv file to DQM and QT teams**

b. **Fail**: The assessment failed because the cap was exceeded

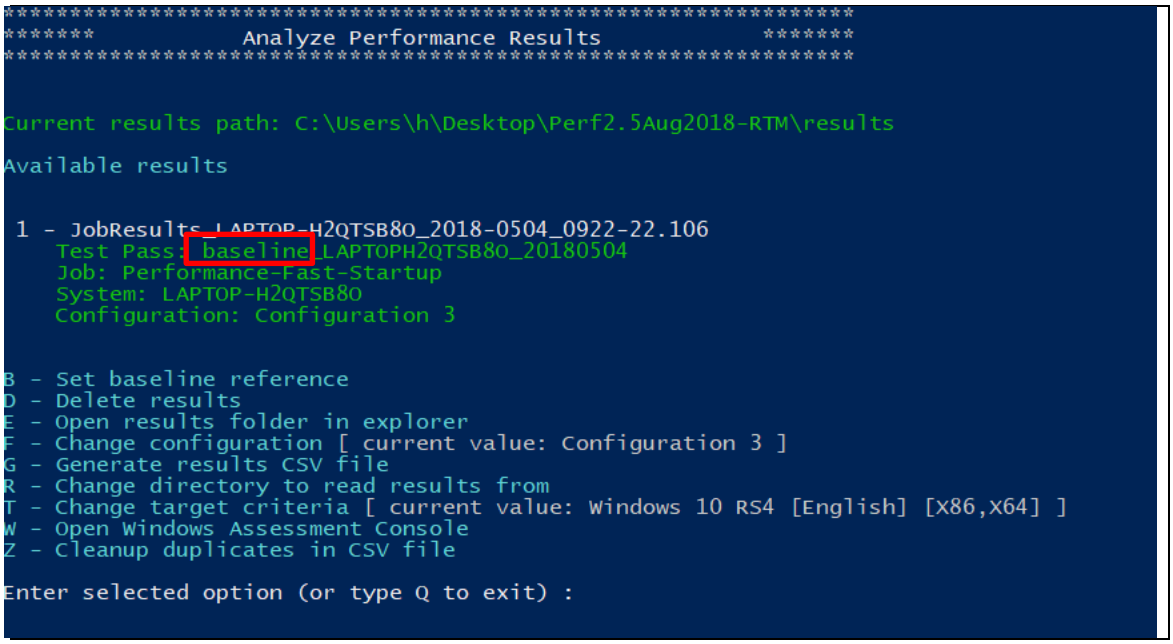
➔**ODM need to provide the logs for further analysis,** need rename <OEM>_<date>_results_Item.csv to <OEM>_<date>_results_Item_OverCap.csv

c. **BaselineRequired**: The assessment exceeded the performance target, but not the cap. A baseline result is required to determine if the OEM image is within 20% of baseline

4.2 To generate the results from the baseline image:

4.2.1 From the Main Menu, select option **A - Analyze performance results**

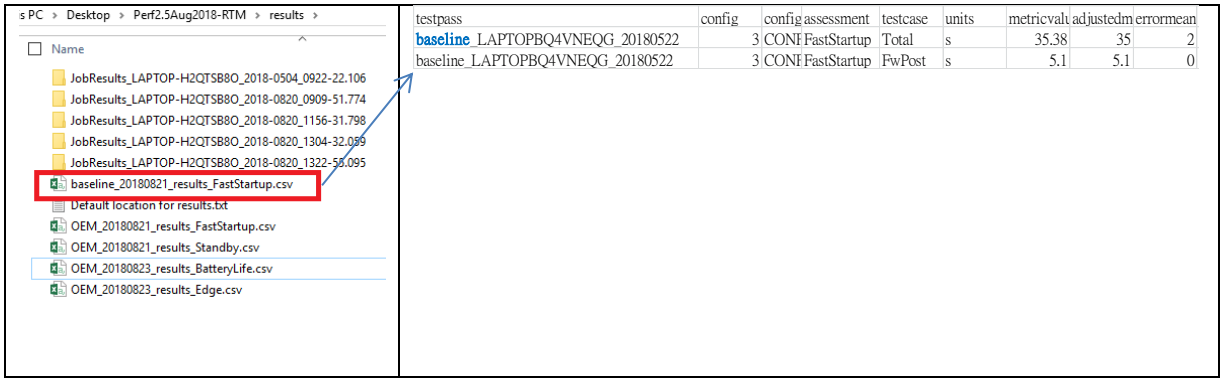
This will enumerate the available test results. Take note the test pass prefix embedded in the name of each Test Pass value: **baseline**



4.2.2 For each baseline image assessment result, enter the corresponding result number into the prompt **Enter selected option (or type Q to exit) :**

Note: Skip over items titled **Reboot after System Prep Operation**, as these are part of the system preparation task, and are not actual assessment results.

In the example image above, result #1 (**Performance-Fast-Startup**) will be the first test result to be selected:



testpass	config	config	assessment	testcase	units	metricvalu	adjustedm	errormean
baseline_LAPTOPBQ4VNEQG_20180522	3	CONF	FastStartup	Total	s	35.38	35	2
baseline_LAPTOPBQ4VNEQG_20180522	3	CONF	FastStartup	FwPost	s	5.1	5.1	0

a. **baseline csv files :** Need rename each baseline results corresponds to the baseline csv files as <Baseline >_<date>_results_Item.csv (Item: FastStartup, Edge, BatteryLife, Standby)

4.2.3 Open this CSV file in Excel

4.2.4 Verify the results of each assessment by checking the column titled **metricvalue**

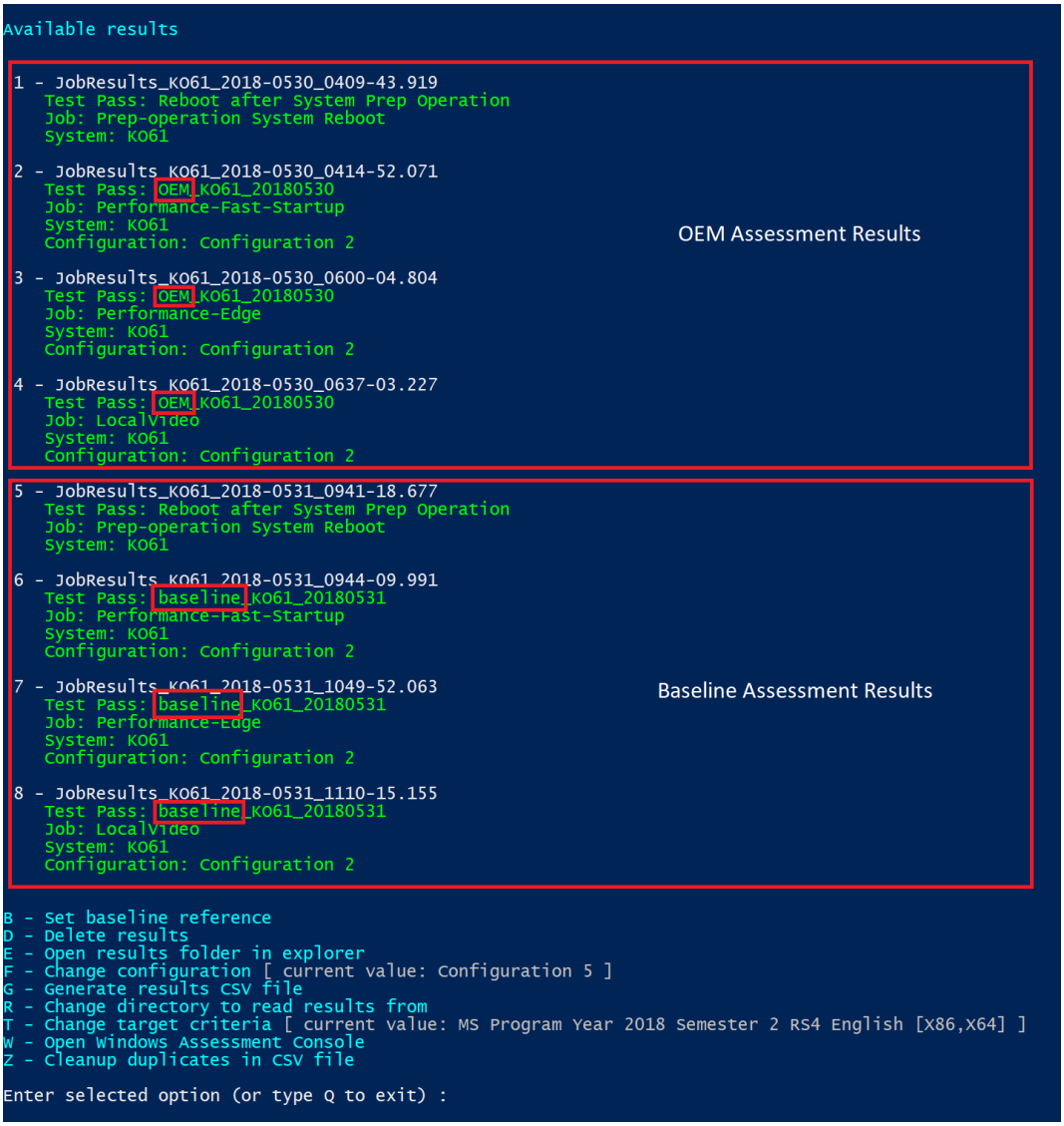
testpass	config	config	assessment	testcase	units	metricvalu	adjustedm	errormean
baseline_LAPTOPBQ4VNEQG_20180522	3	CONF	FastStartup	Total	s	35.38	35	2
baseline_LAPTOPBQ4VNEQG_20180522	3	CONF	FastStartup	FwPost	s	5.1	5.1	0

4.3 Review the generated OEM CSV file after completing baseline and OEM for each OEM assessment result:

4.3.1 Copy **baseline** image “AcerJumpStartToolV1.00.1014\Perf2.5Aug2018-RTM\results” and **merged** into **OEM** image folder “AcerJumpStartToolV1.00.1014\Perf2.5Aug2018-RTM\results”

4.3.2 Select option **A - Analyze performance results** from the toolkit main menu

This will enumerate a list of available results. Take note the test pass prefix embedded in the name of each Test Pass value:



4.3.3 For each OEM image assessment result (including the items that did not require baseline), enter the corresponding result number into the prompt **Enter selected option (or type Q to exit) :**

Note: Skip over items titled **Reboot after System Prep Operation**, as these are part of the system preparation task, and are not actual assessment results.

In the example image above, result #2 (**Performance-Fast-Startup**) will be the first test result to be selected:

```
Enter selected option (or type Q to exit) : 2
```

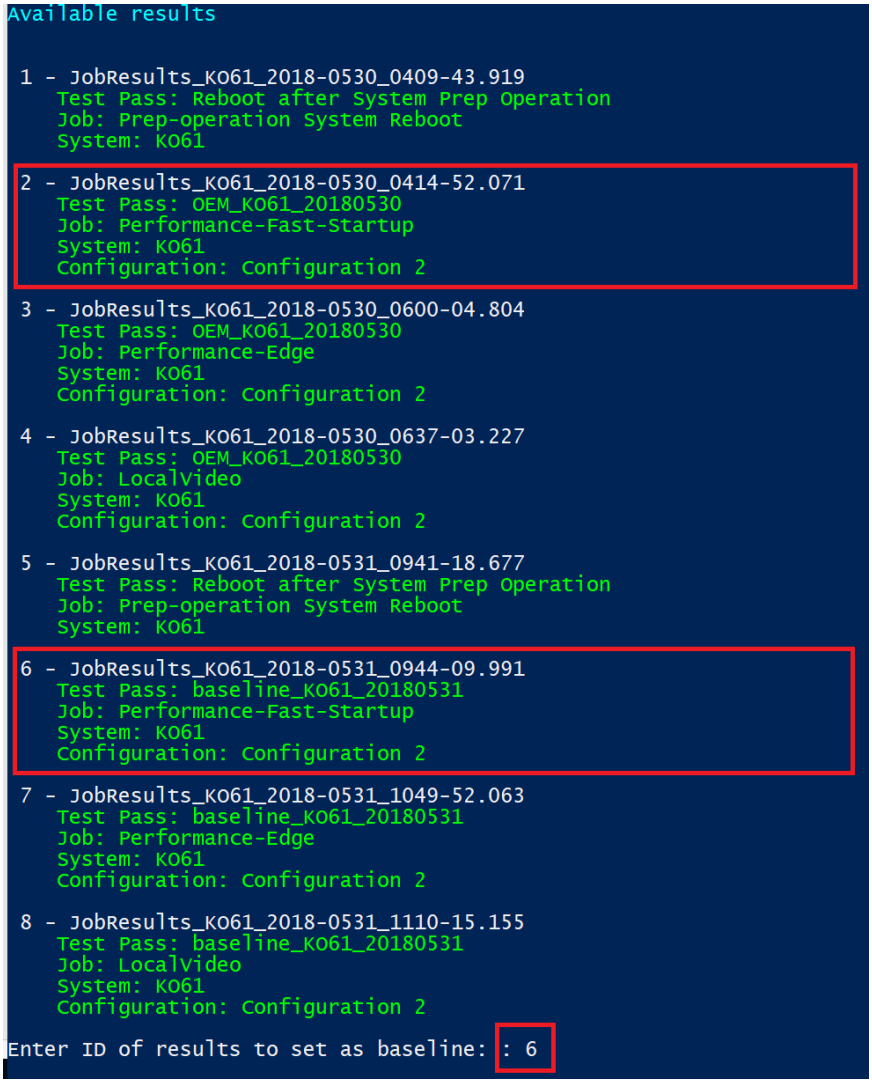
4.3.4 The toolkit will display information about the result:

```
-----------------------------------------
Extraction of metrics from the results XML
-----------------------------------------

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
>>>> Assessment: FastStartup
>>>> Execution Status [Error: 0][ErrorAndWarningsCount: 1][Exit Code: 0]
>>>> Analysis Status [Error: 0][ErrorAndWarningsCount: 0][Exit Code: 0]
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

FastStartup_FwPost (sec)
Metrics: 119.834 132.41 132.411 132.411 132.412 144.991 144.991 151.304 151.304 163.88
Average (n=10): 140.59 s
Outlier boundaries: [ .. ; 179.64 ] s
Metrics: 119.834 132.41 132.411 132.411 132.412 144.991 144.991 151.304 151.304 163.88
Sanitized average (n=10): 140.59 s
StdDev: 12.95
Significant digits: 140 +\- 10 s

FastStartup_MainPath (msec)
Metrics: 19934 20012 20328 20472 20558 20698 21006 21056 21114 21359
Average (n=10): 20,653.70 ms
Outlier boundaries: [ .. ; 21,932.00 ] ms
Metrics: 19934 20012 20328 20472 20558 20698 21006 21056 21114 21359
Sanitized average (n=10): 20,653.70 ms
StdDev: 480.19
Significant digits: 20700 +\- 500 ms

FastStartup_Post (msec)
Metrics: 9500 9500 10000 10500 11000 11000 11500 12500 12500 14500
Average (n=10): 11,250.00 ms
Outlier boundaries: [ .. ; 15,500.00 ] ms
Metrics: 9500 9500 10000 10500 11000 11000 11500 12500 12500 14500
Sanitized average (n=10): 11,250.00 ms
StdDev: 1,567.91
Significant digits: 11000 +\- 2000 ms

FastStartup_Suspend (sec)
Metrics: 12.826 12.981 12.995 13.141 13.142 13.152 13.23 13.53 14.239 14.828
Average (n=10): 13.41 s
Outlier boundaries: [ .. ; 14.11 ] s
Metrics: 12.826 12.981 12.995 13.141 13.142 13.152 13.23 13.53
Sanitized average (n=8): 13.12 s
StdDev: 0.21
Significant digits: 13.1 +\- 0.2 s

FastStartup_Total (sec)
Metrics: 29.972 30.328 30.512 30.614 30.934 32.056 32.198 33.058 33.506 35.859
Average (n=10): 31.90 s
Outlier boundaries: [ .. ; 36.72 ] s
Metrics: 29.972 30.328 30.512 30.614 30.934 32.056 32.198 33.058 33.506 35.859
Sanitized average (n=10): 31.90 s
StdDev: 1.84
Significant digits: 32 +\- 2 s

Applying program filter
-----------------------------------------

Pass/fail determination
-----------------------------------------

FastStartup - FwPost : 140.59 s
FastStartup - Total : 31.9 s
Target: 28 s
Cap: 44 s
Status: Need baseline data
Summary table

testpass          config config_friendly    assessment  testcase units metricvalue adjustedmean errormean status
--------          ------ ---------------    ----------  -------- ----- ----------- ------------ --------- ------
OEM_KO61_20180530      2 CONFIG_2_ENTRY_SSD FastStartup Total    s     31.9                  32         2 BaselineRequired
OEM_KO61_20180530      2 CONFIG_2_ENTRY_SSD FastStartup FwPost   s     140.59               140        10
```

Followed by a prompt **Press any key to continue . . .**

If the status of the result is **BaselineRequired**, then after a key is pressed, the toolkit will prompt **Do you want to select a baseline and reprocess results? [Y/N]:**

Choose **Y** and then enter the corresponding baseline assessment result to be used for the comparison:



In the above example, baseline result 6 corresponds to the OEM result 2 being processed.

The tool will determine if the baseline and OEM result have a delta of less than 20%, and generate a pass/fail result:

```
Pass/fail determination
-----------------------------------------

FastStartup - FwPost : 140.59 s
FastStartup - Total : 31.9 s
Target: 28 s
Cap: 44 s
Baseline + 20% [28.91 s + 6.09 s]: 35 s
Regression allowance: 6.09 s
Raw delta: 2.99 s
Status: Passed

Summary table

testpass          config config_friendly    assessment  testcase units metricvalue adjustedmean errormean status
--------          ------ ---------------    ----------  -------- ----- ----------- ------------ --------- ------
OEM_KO61_20180530      2 CONFIG_2_ENTRY_SSD FastStartup Total    s     31.9                 32         2 Pass
OEM_KO61_20180530      2 CONFIG_2_ENTRY_SSD FastStartup FwPost   s     140.59              140        10

Press any key to continue . . .
```

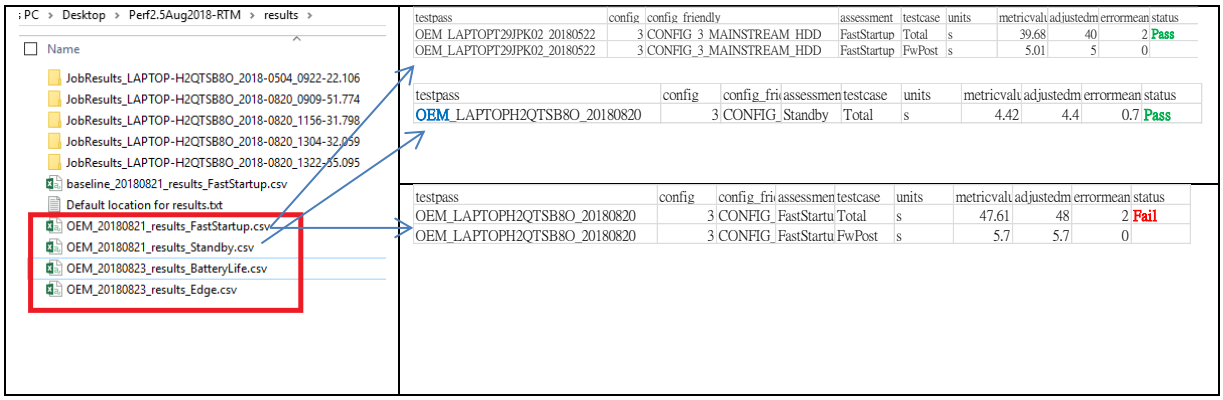
Press a key to continue when prompted, and the result will be written to the csv file.

~~**Note**: When prompted with **CSV [O]verwrite, [A]ppend or do nothing ? :**, choose **A** to append the result to the CSV file.~~

a. **Totally 4 OEM csv files :** Need rename each OEM results corresponds to the OEM csv files as <OEM>_<date>_results_Item.csv (Item: FastStartup, Edge, BatteryLife, Standby)

b. **baseline csv files :** Need rename each baseline results corresponds to the baseline csv files as <Baseline >_<date>_results_Item.csv (Item: FastStartup, Edge, BatteryLife, Standby)

4.3.5 Review the generated OEM CSV files after completing steps 3.3.3 and 3.3.4 for each OEM assessment result:



a. **Pass**: The assessment passed the performance target

➔ **ODM only need to submit <OEM>_<date>_results_Item.csv file to DQM and QT teams**

b. **Fail**: The assessment failed because the cap was exceeded

➔**ODM need to provide the logs for further analysis,** need rename <OEM>_<date>_results_Item.csv to <OEM>_<date>_results_Item_OverCap.csv

c. ~~**BaselineRequired**~~ **-> Pass**: The assessment is within 20% of baseline

➔ **ODM need to submit <OEM>_<date>_results_Item.csv and <Baseline>_<date>_results_Item.csv files to DQM and QT teams**

d. ~~**BaselineRequired**~~ **-> Fail**: The assessment is over 20% of baseline

➔**ODM need to provide the logs for further analysis,** need rename <OEM>_<date>_results_Item.csv and <Baseline>_<date>_results_Item.csv to <OEM>_<date>_results_Item_Over20Delta.csv and <Baseline>_<date>_results_Item_Over20Delta.csv

5.Install Acer baseline image

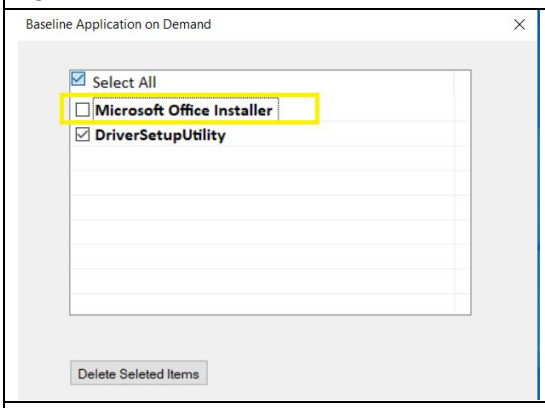
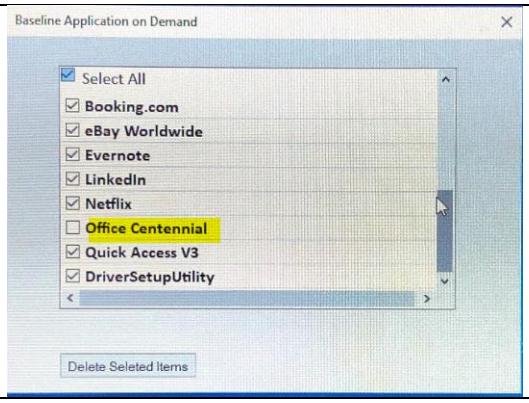
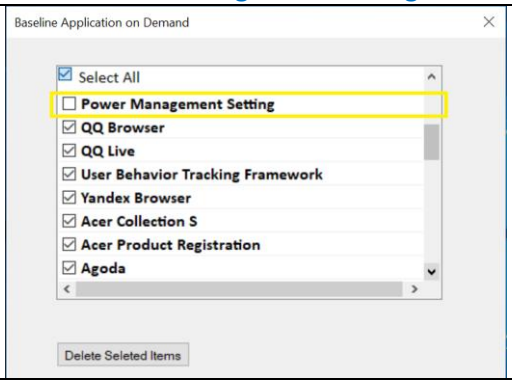
5.1 To re-image system, make sure to include the patch "Add APP OnDemand Tool_For WIN10 ALL Base" or "Jumpstart Performance test Image Patch_For WIN10 ALL Base"

5.2 In audit mode, the UI of Baseline Application on Demand tool will show up as following screen shot.

5.3 Select all items in the list, click "Delete Selected Items" button and then click "X" to close UI. System will continue the installation procedures for Acer baseline image.

Note: Uncheck "Microsoft Office Installer & Power management settings" (19H1)/"office centennial & Power management settings"(RS5) checkbox in UI (For all images except Japanese)

Note: "Delete Selected Items" is mean those selected apps will not be installed at preload stage

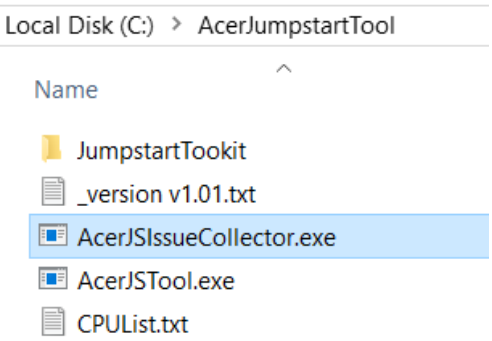
<table>
<tr><th>19H1</th><th>RS5</th></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td colspan="2">Power management settings</td></tr>
<tr><td colspan="2"> 
</td></tr>
</table>

6.Issue analysis

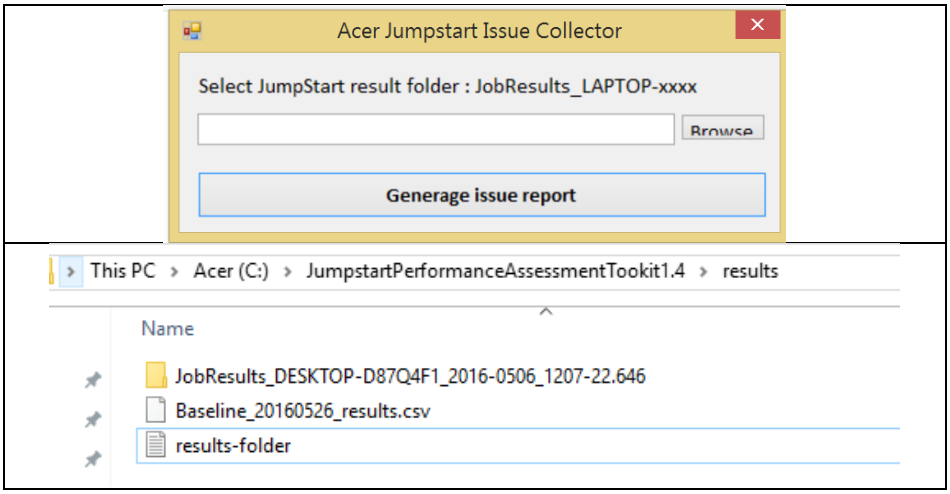
For **failed** Jumpstart items please follow below procedures to analyze issue.

6.1 Fast Startup

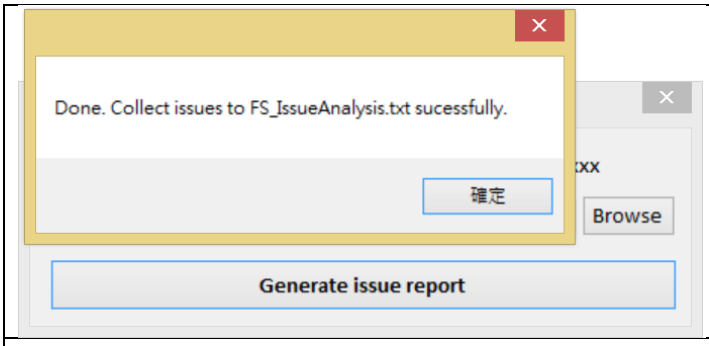
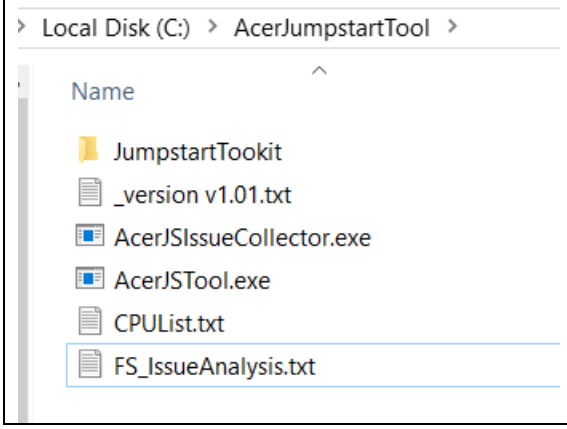
6.1.1 Click “AcerJSIssueCollector.exe” to do Fast Startup issue analysis

	Location: Location: **C:\AcerJumpstartTool**

6.1.2 Browse to the path of “JobResults_xxx”



6.1.3 Tool will generate “FS_IssueAnalysis.txt” after “Done. Collect issues to AnalysisIssue.txt successfully.” show up.

<table>
<tr>
<td> 
</td>
<td></td>
</tr>
<tr>
<td> 
</td>
<td>Location: Location: Location:
C:\AcerJumpstartTool</td>
</tr>
</table>

6.1.4 Open the “FS_IssueAnalysis.txt” to check non-OS Apps then post issue. Refer to chapter 3.1.5 for the detail in checking non-OS Apps (Ie. ePowerButton_NB.exe)

FastStartup Issues :

[Severity 0]
Process System (4) reads 25MB from storage during Fast Startup - Resume Post On/Off
Process System (4) flushes 9 times to storage during Fast Startup - Resume Post On/Off
Process SearchUI.exe (6216) flushes 4 times to storage during Fast Startup - Resume Post On/Off
[Severity 1]
Process explorer.exe uses the CPU for 3.3 seconds during Fast Startup - Resume Post On/Off
Process svchost.exe uses the CPU for 2.5 seconds during Fast Startup - Resume Post On/Off
Process System uses the CPU for 1.4 seconds during Fast Startup - Resume Post On/Off
Process svchost.exe uses the CPU for 1.1 seconds during Fast Startup - Resume Post On/Off
Process backgroundTaskHost.exe uses the CPU for 987 milliseconds during Fast Startup - Resume Post On/Off
Process sppsvc.exe uses the CPU for 870 milliseconds during Fast Startup - Resume Post On/Off
Process AdminService.exe uses the CPU for 769 milliseconds during Fast Startup - Resume Post On/Off
Process SearchUI.exe uses the CPU for 760 milliseconds during Fast Startup - Resume Post On/Off
Process RuntimeBroker.exe uses the CPU for 745 milliseconds during Fast Startup - Resume Post On/Off
Process axe.exe uses the CPU for 623 milliseconds during Fast Startup - Resume Post On/Off
Process svchost.exe uses the CPU for 533 milliseconds during Fast Startup - Resume Post On/Off
Process explorer.exe (6268) reads 3.4MB from storage during Fast Startup - Resume Post On/Off
Process ePowerButton_NB.exe (6404) reads 3.2MB from storage during Fast Startup - Resume Post On/Off
Process System (4) writes 2.1MB to storage during Fast Startup - Resume Post On/Off

Identify non-OS App

Non-OS App list:

OS App	System, SearchUI.exe, explorer.exe, svchost.exe, BackgroundTaskHost.exe, sppsvc.exe, RuntimeBroker.exe, axe.exe
Non-OS App	ePowerButton_NB.exe (Acer Quick Access) UBTService.exe (Acer UEIP) abDocsDllLoader.exe (Acer abDoc) AgStdAio.exe (Acer Control Center) DashlaneUpgradeService.exe (Dashlane) HostAppServiceUpdater.exe (App Explorer) mcshield.exe, McSvHost.exe (McAfee) isa.exe (Intel Security Assistant) Nvbackend.exe (NVidia) InputDetect.exe

For processes not included in above list, you can identify whether it is an OS App by searching the process name in OS partition (e.g. C:\) and checking the detail information such as file path and file property. If the file path contains the name of Acer or other IHV/ISV, then it should be non-OS App.

If cannot identify whether an App is non-OS App or not, please contact HQAcer.Windows@acer.com **for further clarification**.
If you found a non-OS Apps that is not included in Non-OS App list, please inform HQAcer.Windows@acer.com, we will update the list.

6.2 Edge and Battery life

6.2.1 Provide upload ZIPPED Jumpstart log folder (ex: JobResults_xxx), result CSV file and Performance_Assessment_Toolkit_Reporting_Template.xlsx to the following FTP.

- FTP: 60.248.111.123
- **Directory** : /Performance/Win10/Jumpstart
- **Account** / **Password**: Same as image download account / password

6.2.2 Contact HQAcer.Windows@acer.com for further issue analysis

Appendix A: RS4&RS5 criteria

(Updated April 9, 2019)

Configurations	Configuration 1	Configuration 2	Configuration 3	Configuration 4	Configuration 5	Configuration 6
Segment	**Entry / Value**	**Entry / Value**	**Mainstream**	**Mainstream**	**High-end**	**High-end**
Processor class	Low End CPU (e.g. Intel Atom Celeron, Pentium; AMD E1, E2, A4, A6, A8, A9, Athlon)	Low End CPU (e.g. Intel Atom Celeron, Pentium; AMD E1, E2, A4, A6, A8, A9, Athlon)	Mainstream CPU (e.g. Intel Core i3, i5; AMD A10, Ryzen 3, Ryzen 5; Qualcomm Snapdragon)	Mainstream CPU (e.g. Intel Core i3, i5; AMD A10, Ryzen 3, Ryzen 5; Qualcomm Snapdragon)	High-end CPU (e.g. Intel Core i7, i9, Xeon; AMD FX, Ryzen 7, Threadripper)	High-end CPU (e.g. Intel Core i7, i9, Xeon; AMD FX, Ryzen 7, Threadripper)
RAM size	<=4GB	<=4GB	≥4GB	≥4GB	≥8GB	≥8GB
Disk type	Any HDD	Any SSD or eMMC	Any HDD	Any SSD	Any HDD	Any SSD
Screen size	≤ 14.1"	≤ 14.1"	Any Screen Size	Any Screen Size	Any Screen Size	Any Screen Size
Screen Resolution	>HD (720p)	>HD (720p)	≥ FHD (1080p)	≥ FHD (1080p)	≥ FHD (1080p)	≥ FHD (1080p)
Fast Startup target ≤ Value	43	33	32	26	28	22
Microsoft Edge target ≤ Value	3.25	3.25	2	2	1.75	1.75
Battery Life target ≥ Value	6.5	7	6.5	8	7	8
Resume From Standby Time (s3)	13	13	11	10	9	8
Fast Startup Cap	62	48	54	32	44	30

Appendix B: 19H1 criteria

(Updated April 9, 2019)

Configurations	Configuration 1	Configuration 2	Configuration 3	Configuration 4	Configuration 5	Configuration 6
Segment	**Entry / Value**	**Entry / Value**	**Mainstream**	**Mainstream**	**High-end**	**High-end**
Processor class	Low End CPU (e.g. Intel Atom Celeron, Pentium; AMD E1, E2, A4, A6, A8, A9, Athlon)	Low End CPU (e.g. Intel Atom Celeron, Pentium; AMD E1, E2, A4, A6, A8, A9, Athlon)	Mainstream CPU (e.g. Intel Core i3, i5; AMD A10, Ryzen 3, Ryzen 5; Qualcomm Snapdragon)	Mainstream CPU (e.g. Intel Core i3, i5; AMD A10, Ryzen 3, Ryzen 5; Qualcomm Snapdragon)	High-end CPU (e.g. Intel Core i7, i9, Xeon; AMD FX, Ryzen 7, Threadripper)	High-end CPU (e.g. Intel Core i7, i9, Xeon; AMD FX, Ryzen 7, Threadripper)
RAM size	<=4GB	<=4GB	≥4GB	≥4GB	≥8GB	≥8GB
Disk type	Any HDD	Any SSD or eMMC	Any HDD	Any SSD	Any HDD	Any SSD
Screen size	≤ 14.1"	≤ 14.1"	Any Screen Size	Any Screen Size	Any Screen Size	Any Screen Size
Screen Resolution	>HD (720p)	>HD (720p)	≥ FHD (1080p)	≥ FHD (1080p)	≥ FHD (1080p)	≥ FHD (1080p)
Fast Startup target ≤ Value	40	33	29	18	26	15
Microsoft Edge target ≤ Value	3.25	3.25	2	2	1.75	1.75
Battery Life target ≥ Value	6.5	7	6.5	8	7	8
Resume From Standby Time (s3)	7	6	7	5	7	5
Fast Startup Cap	62	48	54	32	44	30