



INTEL PROSET/WIRELESS WIFI SOFTWARE V20.120.0.100 PRODUCTION VERSION RELEASE

CCG Wireless Marketing
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Release Overview

Intel is announcing the 20.120.0.100 Production Version (PV) release of the Intel® PROSet/Wireless WiFi Software

- This version is a PV version to support KBL, GLK, CNL, CFL, WHL and AML platforms and a maintenance release that addresses known issues reported in previous software versions
- This software package includes updates to: 20.120.0.100 driver for the following devices: JfP1, JfP2, ThP2, WsP, SfP and StP
- This release contains certified drivers for Windows 10 Fall Creators Update (RS3) , Windows 10 April 2018 Update (RS4) and Windows 10 October 2018 Update (RS5)
- From 20.100.0.100 onwards
 - For RS5 DDD and RLG file location changed to C:\Windows\System32\Drivers\DriverData\Intel\WLAN - additional details on slide 17
 - added 'Intel® PROSet/Wireless WiFi extension' software (codename PIE) for Windows 10
 - PIE Extension/Component INFs and binaries have been added to the layout – for additional information about PIE, please see slides 12-14

General Information

WiFi Software Build

- WiFi TIC STHWFW4677_20.120.0.100
 - Includes 20.120.0.100 for Win10 RS3/RS4/RS5 (JfP1/JfP2/ThP2/WsP/SfP/StP/SdP)
 - Includes 19.10.15.1 for Win7,8.1 (WsP/SfP/StP/SdP)
 - Includes 18.33.15.1 for Win7,8.1,10 RS3/RS4/RS5 (WP1/WP2/StP-C)
- VIP Kit #130910

Tested Platforms

- KBL-R, KBL-Y/U, KBL-S, KBL-H, SKL-Y/U, APL, BDW-Y/U, GLK, GLK-R, CNL, CFL, KBL-Y R, WHL, AML

Supported Operating Systems (see layout slide for more details)

Supported Hardware
(see layout slide for more details)

- JfP1
- JfP2
- ThP2
- WsP
- OkP
- SfP
- DgP
- SdP
- StP2 (C0/D0/D1)
- StP1
- MpP
- WP2
- WP1

OS Wireless HW	win7 32/64 bit	win8.1 32/64 bit	win10 32/64 bit
Jefferson Peak 1 (SA and Div)			64
Jefferson Peak 2			64
Thunder Peak 2			64
Windstorm Peak 8265 skus	V	64	64
Oak Peak 18265 skus	V	64	64
Sandy Peak 3168 skus	V	V	V
Pine Peak 11000 skus	V	64	64
Lightning Peak 8x70 skus	V	64	64
Snowfield Peak 8260 skus	V	64	64
Douglas Peak 18260 skus	V	64	64
Stone Peak 2 7265 skus	V	V	V
Stone Peak 1 3165 skus	V	V	V
Maple Peak 17265 skus	V	64	64
Wilkins Peak 2 7260 skus	V	V	V
Wilkins Peak 1 3160 skus	V	V	V

20.120.0.100 PV Release – WiFi Package Layout

The Windows 10 driver for SfP/WsP will stay on the 20.70.x.y branch and its binary name will remain Netwtw06.sys.

The Windows 10 driver version for JfP/ThP will be 20.90.x.y and its binary name will be Netwtw08.sys.

The **blue** areas indicate the new SW in this release (e.g 20.120.0.100), all other drivers included in the package are from a previous release.

	Win7	Win8.1	Win10	Win10 DCH
JfP1/9461/9462	N/A	N/A	20.120.0.100 NetWTw08 NetWTw06 NetWT(n/w)04	20.120.0.100 NetWTw08 NetWTw06 NetWT(n/w)04
JfP2/9560				
ThP2/9260				
WsP/8265	19.10.15.1 NetWS(n/w)04	19.10.15.1 NetWB(n/w)04		
SfP/8260				
SdP/3168				
StP1/3165				
StP2-D/7265	18.33.15.1 NetWS(n/w)02	18.33.15.1 NetWB(n/w)02	18.33.15.1 NetWT(n/w)02	N/A
StP2-C/7265			18.33.15.1 NetWB(n/w)02	
WP1/3160				
WP2/7260				

n=32bit w=64bit. Some HW support only 64bit

Corrected Customer Issues since 20.110.0.100

20.120.0.100 driver only

Key	Summary	OS/HW
WIFI-16461	uCode ASSERT: rtStatus = 0x84	Win10/JfP/ThP2
WIFI-12859	BIOS setting is not applied in DRTU (08048_11_1832_0g) - WRDS"	Win10/JfP/ThP2
WIFI-13938	Yellow bang happened on 9260 when doing reboot test	Win10/JfP/ThP2/SdP/StP/SfP/WsP
WIFI-14284	connection drop under Modern standby.	Win10/JfP/ThP2
WIFI-14589	Miracast connection fails after repeating the connection	Win10/JfP/ThP2
WIFI-15127	[BSOD_0x50][Netwtw08!rfdQueueGetMemDescriptorRFH+0x8c] BSOD 0x50 happens when keep system idle	Win10/JfP/ThP2
WIFI-15279	[YB][8265][TXRX_ASSERT 0x4D0B/0x039C]WiFi Yellow Bang when running reboot aging(100% failure rate)	Win10/JfP/ThP2/SdP/StP/SfP/WsP
WIFI-15326	consecutive error (5010/5005/5035/5002) during S3/S4 stress test	Win10/JfP/ThP2
WIFI-15943	[GLK/W10/9461] Wlan icon show red X and click show "No wi-fi Networks found" when earch device via Win+K	Win10/JfP/ThP2
WIFI-15175	[THP2 1216][BSOD_0x7E][AV_Netwtw08!prvhAmtHeciSendIrp] Stress_MS_BSOD code SYSTEM_THREAD_EXCEPTION_NOT_HANDLED w dump.(BSOD code7E)	Win10/JfP/ThP2
WIFI-14721	[KBL][8265][RS4] Wifi radio is off and cannot be turned on after enabling HW rfkill	Win10/SfP/WsP
WIFI-14049	[KBL][3168[Win10 RS5]Miracast becomes disabled after S3 cycle	Win10/SdP/StP

PROSet/PIE Corrected Issues since 20.110.0.100

Key	Summary	OS/HW
WIFI-15119	[W10/all platform] Driver cannot be installed via double click setup.exe	Windows 10
WIFI-15619	The warning message "Exception: access is denied" pop up if click change in Programs and Features	Windows 10
WIFI-16486	Wlan driver v20.110.0.3 Setup.exe behavior is different than 20.100.0.4	Windows 10

DCRs resolved since 20.110.0.100

Key	Summary	OS/HW
DCR-324	Placeholder for supporting D3Cold enablement via extension INF – disabled by default. Due to this DCR Special config INF WifiDrv08Customizations.inf version will be changed. No changes requested for now from customers. No changes in driver behavior	Win10/JfP2/ThP2
DCR-78	BIOS parameter inspection – tool extension	Win10/WsP/JfP2/ThP2
DCR-304	CSI(Channel State Information) Reporting - Windows10 JfP-ThP	Win10/JfP2/ThP2

Extension INF/ Component INF changes since 20.110.0.100

INF	Version	Summary	OS/HW
ProSetSWComponent.inf	20.120.0	Time and date updated	JfP/ThP2/SfP/WsP/SdP/StP
ProSetExtension.inf	20.110.0	No changes	JfP/ThP2/SfP/WsP/SdP/StP
Special Configs: WifiDrv06Customizations.inf	20.90	No changes	SfP/WsP
Special Configs: WifiDrv08Customizations.inf	20.120	Placeholder for supporting D3Cold enablement via extension INF – disabled by default. By default, D3Cold is disabled – please do not change. No changes in driver behavior. Please see DCR slide – DCR-324	JfP/ThP2
PieComponent.inf	20.1120	Time and date updated	JfP/ThP2/SfP/WsP/SdP/StP
PieExtension.inf	20.1120	HWID updated	JfP/ThP2/SfP/WsP/SdP/StP

Software Known Issues and Limitations – 20.120.0.100

Jira related	Description	HW	OS	Notes
WIFI-15710	[PHY][TVA][Jfp1 DIV] up to 15% TpT degradation 11a TX	JfP1 Antenna Diversity	Win10	No degradation from 20.110, 20.110 scenario not tested
WIFI-15182	[WHQL][WiFi] Wi-Fi Direct Service Pairing and Reconnect Tests - Functional fails to error "System.Runtime.InteropServices.COMException (0x80004005)" during profile connect. [Recoverable][14/18]	JfP2/ThP	Win10	Test passed, but take a longer time. Suspected OS related, under check

Product Health

Domain	20.120	Details
Connectivity		
Platform		
Data Path \ TpT		WiFi-15710 - [PHY][TVA][Jfp1 DIV] up to 15% TpT degradation 11a TX. <u>Jfp1 Div Only</u> The bug is not a regression. Was not tested as part of 20.110.
Miracast		
SoftAP		
BT-Coex		
WiFi Device Power		
Cert (WHQL)		

Legend:

	Broken, Not usable
	Usable, major issues exist
	Usable

<Color Guidelines>

Critical bug(s) or critical usability issues

minimum 1 High P1. if >=5 High P1 – mandatory. Also if > 20 High - mandatory

What is the new PROSet all about?

- The code name for the new version of PROSet is 'PIE' (PROSet IHV Extension)
- Important characteristics of PIE:
 - Much more modular, smaller and extensible
 - Easier to install and deploy, both on Windows Update and in the factory
 - Only contains functionality that is applicable for Windows 10
 - DCH-compliant so it can be used in all Windows 10 Editions

PIE Software – Call for Action

- OEMs need to update their applications/services that will interface with the MurocApi.dll in PIE
 - Location of the MurocApi.dll has changed, now in the Driver Store per OS requirements
- OEMs are requested to validate the new PROSet software (PIE)
 - Validate PIE with your applications/services that interface with the current PROSet software (PROSet APIs) on Windows 10
- For more details on PIE, see document ID# [605864](#)

PIE Software – Call for Action

Important!

- With the 20.100 release OEMs are requested to use the PIE software on new Windows 10 platforms (with RS3 or later)
- Installation of the PIE software is only required if the OEM has an application that interfaces with the PROSet APIs or if certain PROSet functionality is needed on the platform (e.g WoWLAN from S5).
- The PIE software is not required to be installed on Intel® vPro™ platforms to enable the wireless Profile Sync functionality for Intel® AMT, since the Profile Sync capability becomes part of the CSME package¹, starting with CFL-S/H Refresh Corporate and WHL-U Corporate platforms.

¹ See communication (ID#[605863](#)) 'Intel Wi-Fi: New 'Intel® Wireless Manageability Driver' and 'Profile Sync' for Intel® AMT support

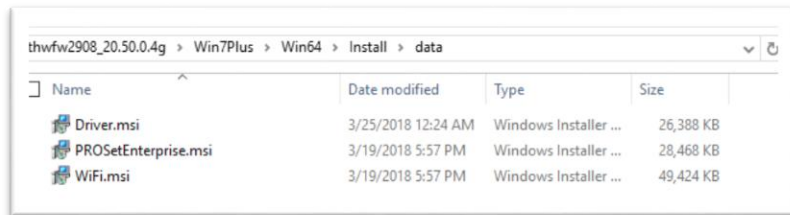
Split PROSet/Wireless in the 20.100 Release

- Split the current WiFi.MSI (which contains PROSet) into two separate ones: one for Windows 7/8.1* and one for Windows 10*.
- The PROSet installer (Setup.exe) will do an additional check at runtime to detect the Windows* OS version and execute the relevant MSI.



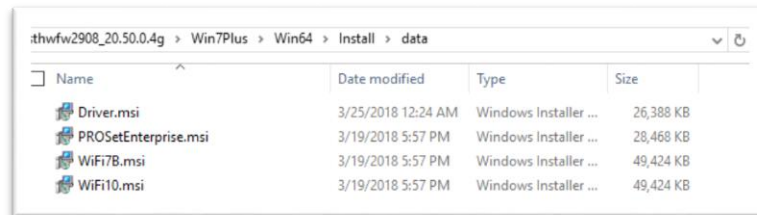
Split PROSet/Wireless – Details

- Changes in the Wi-Fi release layout
 - Both the `\Win7Plus\Win32\Install\data` and `\Win7Plus\Win64\Install\data` directories will have 2 WiFixy.MSI files
 - Since each WiFixy.MSI is ~50MB, the overall size of the release layout has increased with ~100 MB



Name	Date modified	Type	Size
Driver.msi	3/25/2018 12:24 AM	Windows Installer ...	26,388 KB
PROSetEnterprise.msi	3/19/2018 5:57 PM	Windows Installer ...	28,468 KB
Wi-Fi.msi	3/19/2018 5:57 PM	Windows Installer ...	49,424 KB

Earlier



Name	Date modified	Type	Size
Driver.msi	3/25/2018 12:24 AM	Windows Installer ...	26,388 KB
PROSetEnterprise.msi	3/19/2018 5:57 PM	Windows Installer ...	28,468 KB
Wi-Fi7B.msi	3/19/2018 5:57 PM	Windows Installer ...	49,424 KB
Wi-Fi10.msi	3/19/2018 5:57 PM	Windows Installer ...	49,424 KB

Release 20.100 onwards

Notes on the DDD Debug Layout Usage

Included with the user distributed layouts is also a DDD debug layout. This layout incorporates debug capabilities to be used by OEM validation teams to provide logs and information about an issue to Intel engineering.

This layout is not to be included on production systems or to be shared with end-user customers.

To use the DDD layout, follow the instructions below:

- 1) Clean the Windows event log by the following commands with administrator prompt.
wevtutilcl system
wevtutilcl application
wevtutilcl Microsoft-Windows-WLAN-AutoConfig/Operational
- 2) Install DDD release.
- 3) Perform test until issue reproduction.
- 4) Note down the exact time when issue reproduced.
- 5) Disable WiFidevice in the device manager.
- 6) Copy all files below to share with Intel:
 - I. "System.evtx" under C:\Windows\System32\winevt\Logs
 - II. "Application.evtx" under C:\Windows\System32\winevt\Logs
 - III. "Microsoft-Windows-WLAN-AutoConfig%4Operational.evtx" under C:\Windows\System32\winevt\Logs
 - IV. "WiFiLog-XXX.log" under C:\ (for RS3/RS4) and C:\Windows\System32\Drivers\DriverData\Intel\Wlan Out\RLG\WiFiLog (for RS5)
 - V. "dddLog_XXX.bin" under C:\Windows\Temp\DDDLogs\ (for RS3/RS4) and C:\Windows\System32\Drivers\DriverData\Intel\Wlan\Out\DDD (for RS5)
 - VI. "MurocLog.log" under C:\Program Files\Intel\WiFi\UnifiedLogging\
 - VII. "MEMORY.DMP" under C:\Windows\System32

Abbreviations

Acronym	Description	Intel formal code name
JfP1- DA	Jefferson Peak-1 Diversity antenna	Intel® Wireless-AC 9462
JfP1- SA	Jefferson Peak-1 Single antenna	Intel® Wireless-AC 9461
JfP2	Jefferson Peak-2	Intel® Wireless-AC 9560
ThP2	Thunder Peak-2	Intel® Wireless-AC 9260
KbL	Kaby lake platform	7 th Generation Intel Processor
WsP	Windstorm peak	Intel(R) Dual Band Wireless-AC 8265
SdP	Sandy Peak	Intel(R) Dual Band Wireless-AC 3168
StP-2	Stone Peak-2	Intel(R) Dual Band Wireless-AC 7265
StP-1	Stone Peak-2	Intel(R) Dual Band Wireless-AC 3165
SfP	Snow field Peak	Intel(R) Dual Band Wireless-AC 8260
WkP-2	Wilkins Peak 2	Intel(R) Dual Band Wireless-AC 7260
WkP-1	Wilkins Peak 1	Intel(R) Dual Band Wireless-AC 3160
OkP	Oak Peak	Intel® Tri-Band Wireless 18265

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Estimated results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown". Implementation of these updates may make these results inapplicable to your device or system.

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