



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF) FOR MEP OPT-IN VERSION 2

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[Confidential – Distribution with NDA]



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

“RESELL” of AMDMEPENum.INF or MEP Extension INF

- AMDMEPENum.INF or “MEP E.INF”^{*} is an extension INF template and is distributed to the OEM through the “resell” process.
- The MEP E.INF, through the “resell” process, provides a means for the OEM to “opt-in” its system(s) with Microsoft for MEP enablement in Windows[®]11 Sun Valley2.
- The IPU driver package does not include the MEP E.INF. The MEP E.INF is built separately and distributed separately through the “resell” process.
- Resell of MEP E.INF is applicable to Windows[®]11 SV2 OEM systems.

^{*}Notes:

- For convenience, “MEP E.INF” or “MEP E.INF template” or “E.INF” is used interchangeably and as a short form name for AMDMEPENum.INF in this document and is synonymous with AMDMEPENum.INF.
- The “resell” of the MEP E.INF is just one condition for the OEM to “opt-in” for MEP enablement with Microsoft. The OEM is encouraged to contact Microsoft for other “opt-in” requirements including camera hardware requirements. This should be available on the Microsoft Collaborate site which Microsoft shares with its OEM partners exclusively, under NDA. AMD does not own this communication.
- MEP: Microsoft Effect Pack is also known as Windows Studio Effects and is a set of camera effects or features including Background Blur, Eye Contact, Automatic Framing and Voice Focus (Deep Noise Suppression). AMD support for Voice Focus (Deep Noise Suppression) is not provided in Phoenix. AMD is considering adding support for Voice Focus in its next generation APU that supports AI audio effects.
- IPU: Inference Processing Unit on Phoenix provides lower power, higher performance AI acceleration that is required by MEP.
- “Phoenix” is the codename for the AMD Ryzen™ Series of APU.



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

Ownership of MEP E.INF

The OEM assumes ownership of the MEP E.INF template after it is resold from AMD and the OEM is expected to manage the MEP E.INF. Microsoft designed this for the OEM adoption of MEP within the WU ecosystem.

Ownership and management of the MEP E.INF by the OEM includes*:

1. Customizing the MEP E.INF with the addition of the Manufacturer Name, Subsystem ID(s) and Extension ID for the OEM’s planned MEP -enabled system(s) - either in-preload or in-field; and
2. Signing the MEP E.INF driver through the DUA process.

For **in-field** adoption of MEP (i.e.: post Phoenix platform launch or ship), the MEP E.INF is serviced through WU as an automatic or required update. This means that the MEP E.INF will install on the target system in-field without the need for end user input and will automatically install the IPU driver for MEP via WU.

*Notes:

- See Pages 4-5 for Customizing the MEP E.INF Template
- DUA: Driver Update Acceptable is a process whereby a hardware submission can be updated through the Windows Hardware Dev Center.
- “Phoenix” is the codename for the AMD Ryzen™ Series of APU.



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

Ownership of MEP E.INF – Customizing the MEP E.INF Template

“Resell” is a process in which AMD shares its Microsoft WHQL -certified driver or driver component with its customers. This process allows the customer to edit the driver component and expedite Microsoft certification without re-running WHQL certification tests. The customer must be a registered for the “resell” process. AMD shares the WHQL certified driver or driver component with the customer through the Windows Hardware Dashboard. The “resell” process follows Microsoft’s Driver Update Acceptable (DUA) process*.

As a registered recipient of the resell process and HW Partner, the OEM can edit the MEP E.INF template with its own ExtensionId, ManufacturerName and Subsystem ID to create its own MEP extension INF for compatibility signing in the DUA process*.

The OEM is encouraged to consult Microsoft for details on populating the AMDMEPEnum.INF or MEP E.INF template with its customizations. Visit Microsoft’s Collaborate site for MEP “opt-in”, extension INFs and the “resell” process.

*DUA: Driver Update Acceptable is a process whereby a hardware submission can be updated through the Windows Hardware Dev Center.

“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

Ownership of MEP E.INF – Customizing the MEP E.INF Template

The MEP Extension INF template contains some fields which should be replaced by the OEM. These include the following:

1. Instances of ‘SUBSYS_xxxxxxx’ should be replaced with the appropriate OEM subsystem ID.
2. The ExtensionId should be replaced with the OEM’s own GUID.
3. The ManufacturerName should be replaced with the OEM name.
4. Replace all occurrence of “AMD” within quotes with the OEM name.

In the following example, the OEM can customize or replace the highlighted entries of the MEP E.INF template with its own ExtensionId, ManufacturerName, Subsystem ID, and occurrences of “AMD” within string quotes (i.e., “AMD...”) with its own OEM name.

```
[Version]
Signature="$Windows NT$"
Class = Extension
ClassGuid = {e2f84ce7-8efa-411c-aa69-97454ca4cb57}
Provider=%ManufacturerName%
ExtensionId = {95BE7487-B7E6-470A-9CE5-C8631D3AD899}
CatalogFile=AmdMepEnum.cat
DriverVer = 03/10/2023,1.0.0.1
PnPLockDown=1

[SourceDisksNames]
1 = %DiskName%

[Manufacturer]
%ManufacturerName%=Standard,NTamd64

[Standard.NTamd64]
%AMDMEPEnum_VEN_1022_DEV_1502_SUBSYS_15021022.DeviceDesc%=VEN_1022_DEV_1502_SUBSYS_15021022_,
PCI\VEN_1022&DEV_1502&SUBSYS_15021022

;*****
[VEN_1022_DEV_1502_SUBSYS_15021022_.NT]
[VEN_1022_DEV_1502_SUBSYS_15021022_.NT.Components]
AddComponent = VEN_1022_DEV_1502_SUBSYS_15021022_component,,VEN_1022_DEV_1502_SUBSYS_15021022_ComponentInstall

[VEN_1022_DEV_1502_SUBSYS_15021022_ComponentInstall]
ComponentIds=MEP_VEN_1022_DEV_1502

;*****
; Strings section
;*****

[Strings]
ManufacturerName = "AMD"
DiskName = "AMD MEP Enumerator Installation"
AMDMEPEnum_VEN_1022_DEV_1502_SUBSYS_15021022.DeviceDesc = "AMD MEP Enumerator"
```



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

Building the IPU Driver

An IPU driver (kipudrv.sys, kipudrv.inf) installation will be required only if the customer program plans to enable any camera effects or AI applications on its platform that utilize Phoenix’s IPU block.

Examples:

If the customer program plans to enable MEP in Windows® 11 SV2, then it will require the IPU driver package. The OEM will need to “opt-in” for MEP enablement on its system with Microsoft through the “resell” process of MEP E.INF or AMDMEPEnum.INF.

If the customer program plans to enable its own AI/camera effects solution on a Phoenix platform that has an IPU block, then it will require the IPU driver package. AMD offers customers an OOB API through the CVML SDK to develop their own AI/camera effects solution.

If the customer program does not plan to utilize the IPU block of Phoenix, then the IPU driver will not be required.

If the Phoenix SKU* on the customer program does not have an IPU block, then the IPU driver will not be applicable and will not be required.

*SKU: Stock Keeping Unit. Refer to the Phoenix customer sampling interlock for a list of Phoenix SKUs. “Phoenix” is the codename for the AMD Ryzen™ Series of APU.



“RESELL” OF MEP EXTENSION INF (AMDMEPENUM.INF)

Building the IPU Driver

The IPU driver (kipudrv.sys, kipudrv.inf) is a separate build process, separate package, and separate driver submission. The IPU driver is not part of the graphics driver, and it is built within and accompanies the same major branch version as the graphics driver.

AMD recommends that the IPU driver be installed with the same major base version of the graphics driver that was validated on the Phoenix system. e.g.: IPU driver v10.0105.0005.38 and graphics driver 22.40.01.25 (from major 22.40 base) and are included in SW stack 1.0.1a for Windows®10 and Windows®11. For the latest recommended SW stack for MEP support in Windows®11 Sun Valley2 and IPU driver build requests, please consult your PL/CPM, AE*.

BIOS Requirement for IPU Enablement

Ensure that *gEfiAmdAgesaPkgTokenSpaceGuid.PcdCfgNbiIpuEnable* is set to **TRUE** in BIOS/ AGESA/PI for Phoenix.

*Notes:

Please refer to the Phoenix AGESA/PI specifications or Phoenix advisories or customer interlocks for required BIOS settings for IPU enablement.

PL: Project Lead; CPM: Customer Program Manager; AE: Application Engineer

“Phoenix” is the codename for the AMD Ryzen™ Series of APU.

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