V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) 64-bit [2]	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) 64-bit [7]	Aspen Multi-Case	Aspen OptiPlant [31] 32-bit	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit
Operating Systems (64-bit only)											
Windows 11 Enterprise & Professional (64-bit)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 10 Anniversary Enterprise & Professional (64-bit)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 8.1 Update 1 Enterprise & Professional (64-bit)		✓	✓	✓	✓	✓	✓		✓	✓	✓
Windows Server 2019		✓	✓	✓	✓	✓	✓		✓	✓	✓
Windows Server 2016		✓	✓	✓	✓	✓	✓		✓	✓	✓
Windows Server 2012 R2		✓	✓	✓	✓	✓	✓	✓33	✓	✓	✓
Ubuntu Server Edition 20.04 LTS											
Ubuntu Server Edition 18.04 LTS											
Ubuntu Server Edition 16.04 LTS											
Microsoft Office											
Office 365 (Desktop/Click-to-run) (32-bit/64-bit)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Office 2021 (64-bit)		✓	✓	✓	✓	✓	✓		✓	✓	✓
Office 2021 (32-bit)		✓	✓	✓	✓	✓	✓		✓	✓	✓
Office 2019 (64-bit)		✓	✓	✓	✓	✓	✓		✓	✓	✓
Office 2019 (32-bit)		✓	✓	✓	✓	✓	✓		✓	✓	✓
Office 2016 (64-bit)		✓	✓3	✓	✓	✓	✓		✓	✓	✓
Office 2016 (32-bit)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Office 2013 (32-bit)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Database Servers											
Microsoft SQL Server 2019 (Enterprise/Standard Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2019 (Express Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2017 (Enterprise/Standard Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2017 (Express Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2016 (Enterprise/Standard Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2016 (Express Edition)		✓	✓		✓	✓	✓			✓	

Suite: Engineering Suite

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) [2] 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) [7] 64-bit	Aspen Multi-Case	**Aspen OptiPlant [31] 32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit
Microsoft SQL Server 2014 (Enterprise/Standard Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2014 (Express Edition)		✓	✓[4]	✓	✓	✓	✓			✓	✓
Microsoft SQL Server 2012 (Enterprise/Standard Edition)		✓	✓		✓	✓	✓			✓	
Microsoft SQL Server 2012 (Express Edition)		✓	✓		✓	✓	✓			✓	
SQL Server 2014 Local DB		✓	✓	✓[5]	✓	✓	✓			✓	
SQL Server 2016 Local DB											
SQL Server 2012 -2019 Analysis Services											
ProgresSQL 13.2							✓				
Oracle Database 19.x.x 64-bit										✓	
Oracle Database 18.x.x 64-bit											
Oracle Database 12.2 64-bit											
Database Clients											
Oracle Client 19.x 32-bit											
Oracle Client 19.x 64-bit											
Oracle Client 18.x 32-bit											
Oracle Client 12.2 64-bit											
Oracle Client 12.2 32-bit											
Runtimes											
.NET Framework 4.8		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
.NET Framework 3.5								✓			
.NET Core 3.1.x							✓	✓			
ASP.NET Core 3.1.x											
64-bit Oracle Java 11 JRE LTS											
64-bit Oracle Java 11 JDK LTS											
64-bit Oracle Java 8 JRE LTS											
64-bit Oracle Java 8 JDK LTS						✓[7]					

V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) 64-bit [2]	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) 64-bit [7]	Aspen Multi-Case	Aspen OptiPlant [31] 32-bit	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit
32-bit AdoptOpenJDK Java 11 LTS											
64-bit AdoptOpenJDK Java 11 LTS											
64-bit AdoptOpenJDK Java 8 LTS						✓[7]					
MSXML 6		✓	✓	✓	✓	✓			✓	✓	✓
Visual Studio 2019											
Visual Studio 2017											
Visual Studio 2015											
Visual Studio 2013											
Visual Studio 2010 Tools for Office Runtime									✓		
Microsoft Visual C++ Redistributable 2019			✓	✓	✓			✓			
Microsoft Visual C++ Redistributable 2017			✓	✓	✓						
Microsoft Visual C++ Redistributable 2015			✓	✓	✓						
Microsoft Visual C++ Redistributable 2013								✓			
Virtualization											
Microsoft App-V 5.1											
Microsoft Hyper-V (Server)		✓	✓	✓	✓	✓	✓		✓	✓	✓
VMware ESXi Hypervisor Server 6.x (Server)		✓	✓	✓	✓	✓	✓		✓	✓	✓
VMWare vSphere Enterprise Plus											
Microsoft Terminal Services (Desktop)		✓	✓	✓	✓	✓	✓		✓		✓
Citrix XenApp 7.18 (Desktop)		✓	✓	✓	✓	✓	✓		✓		✓
Web Browsers											
Internet Explorer 11		✓									
Microsoft Edge [25]	✓	✓	✓[23]	✓[23]	✓[23]	✓[23]	✓				
Google Chrome Evergreen Version 75+	✓	✓	✓[23]	✓[23]	✓[23]	✓[23]	✓				
Firefox	✓										
Chrome on iOS 13+ for iPad Support											
Safari on iOS 13+ for iPad Support											

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) [2] 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) [7] 64-bit	Aspen Multi-Case	**Aspen OptiPlant [31] 32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit
Security Components/Services											
Aspen Framework (AFW) 5											
Java App (Servers)											
Apache Tomcat 9.0+											
Native Web Servers											
IIS 10										✓	
IIS 8.5										✓	
Reporting Services											
Microsoft Report Viewer 2015						✓					
Microsoft SQL Server 2012/2014/2016/2017/2019 Reporting Services											
Load Balancing											
F5 Load Balancing											
Integration Components											
Aspen Supply Chain Connect											
Informatica Powercenter 10.4											
Cloud Support *											
Azure VM - Microsoft		✓	✓	✓	✓	✓	✓				
Amazon VM (AWS)		✓	✓	✓	✓	✓	✓				
Azure VM - Linux											
Nutanix XiFrame		✓	✓	✓	✓	✓					
Virtual Apps Essentials		✓	✓	✓	✓	✓					
Windows Virtual Desktop (WVD Fall 2019 Release) [27]		✓	✓	✓	✓	✓	✓				
Deployment Tools											
SCCM		✓	✓	✓	✓	✓			✓		✓
Supported Versions of Fortran											
FORTRAN 2019			✓[6]								
Container Support											
Docker Engine-Enterprise 19.03.x											
Docker Compose 1.26.x											

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) [2] 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) [7] 64-bit	Aspen Multi-Case	**Aspen OptiPlant [31] 32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit
Desktop Types - Minimum Recommended											
Type I: Computer & processor: Intel Core-i5 family or faster Memory (RAM): **16** gigabytes (GB) RAM Hard Disk: **120** gigabytes (GB) available Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor Network: 100MB/Sec	✓	✓[22]	✓[22]	✓[22]	✓[22]	✓[22]	✓	✓ [31]	✓	✓	✓[22]
Type II: Computer & processor: Intel Core-i5 family or faster Memory (RAM): **16** gigabytes (GB) RAM Hard Disk: **250** gigabytes (GB) available Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor Network: 100MB/Sec											
Server Types - Minimum Recommended											
Type I: Computer & processor: Intel Core-i7 family or faster for standalone deployment Intel Xeon Gold series, **4** cores or more for multi-user environment Memory (RAM): **16** or above gigabytes (GB) RAM for standalone deployment, 32 or above gigabytes (GB) RAM for multi-user environment Hard Disk: **150** gigabytes (GB) available for standalone deployment, 300 gigabytes (GB) for multi-user environment Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor Network: 100MB/Sec		✓[38]	✓[38]	✓[38]	✓[38]	✓[38]		✓[38]			
Type II: Computer & processor: Intel Xeon Gold series type system (**4** cores) or faster Memory (RAM): **16** or above gigabytes (GB) RAM Hard Disk: **300** gigabytes (GB) or more available Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor Network: 100MB/Sec (Gigabyte network recommended)											
Type III: Computer & processor: Intel Cascade Lake-based Xeon processor with 8 cores or more per processor Memory (RAM): **32** or above gigabytes (GB) RAM Hard Disk: **500** gigabytes (GB) or more available Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor Network: 100MB/Sec (Gigabyte network recommended)		✓[1]								✓	✓[1]
Type IV: (IIoT Gateways) Computer & processor: ARM or Intel based CPU or more Memory (RAM): **256Mb** or more Hard Disk: **128Mb** or more											
Type V Windows Server 2019 v1809+ Memory (RAM in GB): Minimum: 16 Recommended: 32 Cores: Minimum: 4, Recommended: 8 Disk space (GB): Minimum: 64, Recommended: 100 Network (MB/s): Minimum: 50, Recommended: 100											

Notes

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) 2 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) 7 64-bit	Aspen Multi-Case	**Aspen OptiPlant 31 32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit

* In general, AspenTech aspenONE® software license agreements with customers permit use of the licensed software on Supported Computers at customer Sites. "Supported Computers" include computers with a manufacture, model and operating system for which AspenTech offers a supported version of the software, and that are controlled by the customer. "Sites" are customer facilities or locations specified in the license agreement.

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Cloud deployment does not change any license restrictions, including the restrictions on which regions can access the software.

aspenONE Engineering suite consists of the following products: Aspen Model Builder, Aspen Property System, Aspen Plus family, Aspen HYSYS family, Aspen Exchanger Design & Rating (EDR), Aspen Economic Evaluation (EE), Aspen Multi-Case, Aspen OptiPlant, Aspen Basic Engineering (ABE), aspenONE Web Server, and aspenONE Exchange.

When running software on a virtual machine, the machine should meet the same requirements.

AspenTech does not support the in-place upgrade of the Operating System (for example: upgrade Windows 7 to Windows 10) with AspenTech software already installed. Our recommendation is to uninstall Aspen Software before upgrading the OS and reinstall it after the upgrade.

Your Aspen SLM Server must be installed and running prior to installing any V12 product.

If running standalone, 1280 x 800 is the minimum recommended resolution monitor for servers.

For SLM server using Type 1 Desktop configuration, the minimum memory is 4GB with 20GB hard drive.

Microsoft Active Directory/Domain Services (Required for aspenONE Web Server)

A minimum of 10GB of free space is needed to install/upgrade products.

[1] This configuration is only practical for small scale models and deployments. For most applications, best deployment practice dictates the use of a separate and dedicated database server for acceptable performance

[2] EDR does not use any database servers. Deploys its own LocalDB database files.

[3] Aspen Batch Process Developer does not support the 64-bit version of Visio. Visio is used in ABPD to generate the block diagram and process flow diagram reports; it is an optional feature. The 64-bit versions of Word and Excel are fully supported by ABPD.

[4] When Aspen Utility model is driven by Aspen Online using Local System Account, then SQL Express 2014 is required.

[5] When Exchanger Design and Rating is driven by Aspen Online using Local System Account, then SQL Express 2014 is required

[6] Aspen Modeler family supports FORTRAN compiler version 2020

[7] Oracle or AdoptOpenJDK Java is needed if the 3rd party scheduling application Primavera is used with Economic Evaluation (EE). Primavera is owned by Oracle and its API uses Java.

[8] Must be in compatibility mode for Aspen Process Sequencer

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) [2] 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) [7] 64-bit	Aspen Multi-Case	**Aspen OptiPlant [31] 32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit

[9] See "Basic Deployment Recommendations" in Appendix C of the Aspen Manufacturing Suite Advanced Process Control Installation Guide.

[10] For new installations of APC Web Server, install IIS and JRE before installing APC Web Server

[11] CIM-IO Interfaces can be installed on 32-bit desktops

[12] This configuration is only practical for small scale models and deployments. For most applications, best deployment practice dictates the use of a separate and dedicated database server for acceptable

[13] Refer to KB 47648 For more information on configuring SCM products using Azure: https://esupport.aspentech.com/S_Article?id=000047648

[14] Only Web Download Excel Add-in requires Excel.

[15] Users need to install both the 32-bit and 64-bit Oracle Clients 19.x for building and running reports

[16] Non-English OS's are not supported

[17] If using IBM Maximo Adapter

[18] If using aspenONE Exchange on Windows Server 2012 R2, you must select the Desktop Experience option during Windows installation to enable Flash training videos.

[19] SLM supported in cloud (Azure VM/Amazon VM) for ENG products that are supported in the cloud

[20] If FIPS is enabled, aspenONE Exchange users must have the latest Windows Update patches installed on their machine.

[21] Office 365 - 32-bit support only

[22] Server-grade systems are not required but still supported.

[23] Browser Support as it relates to Knowledge Delivery only (for +A)

[24] ATOMS Web does not support Oracle

[25] Only the version of MS Edge that uses the Google Chrome engine is supported

[26] Maestro supports Windows Server 2019 version 1809+

[27] WVD Certification Notes –
1. Publishing WVD apps to users local machine start menu not supported
2. Interoperability with 3rd party products only supported with Office 365
3. Aspen Properties Enterprise Database (APED) via SQL Server not supported
4. The following products have not been certified for WVD: ABE, ABPD, AOL, AVCA

[28] APEM does not support CDB-PDB database in Oracle 12.2.
Weigh & Dispense Client 32-bit does not support Oracle

[29] SCCM support for APEx only

[30] APM Insights must be installed on the same server as AEI.

Suite	Engineering Suite										
V12.1 Platform Specifications that are supported	Aspen AI Model Builder	AES Property System 64-bit	Process Modeling (Aspen Plus) 64-bit	Exchanger Design & Rating (EDR) **2** 64-bit	Process Modeling (Aspen HYSYS) 64-bit	Economic Evaluation (EE) **7** 64-bit	Aspen Multi-Case	**Aspen OptiPlant** **31** **32-bit**	Basic Engineering Desktop Client 32-bit	Basic Engineering Server 64-bit	Aspen Online (AOL) 64-bit

31 OptiPlant requires a graphic card which supports OpenGL 2.1. Resolution 1920 x 1080 is recommended.

32 Type II is the minimum recommended when IP.21 is used with Enterprise InfoPlus.21 Historian.

33 Aspen OptiRouter is dependent on Hexagon S3D platform which supports Windows Server 2012 R2.

34 Required for web terminal, which is optional

35 Azure support is available with V12 CP1

36 APM Insights Quantification must be installed on the same server as Fidelis

37 APP-V is only supported with Process Explorer

38 When you have more than 8 simultaneous users, the recommendation is 2CPU's and 4GB RAM per user. Performance will vary based on product and usage profiles. This can be considered a starting point for large multi-user machines.

3/30/2022