Suite		Manufacturing & Supply Chain Suite											
		Advanced Process Control (APC)											
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop	Advanced Process Control (APC) Online	Batch Advanced Process Control (APC) Online	Advanced Process Control (APC) Performance Monitor	Advanced Process Control (APC) Web Server	Aspen Process Recipe (client)	Aspen Process Recipe & Aspen Process Sequencer						
Operating Systems (64-bit only)	4	4		4	4 0		Δ.						
Windows 11	✓					✓							
Windows 10 Enterprise & Professional (64-bit)	✓					✓							
Windows Server 2022 <sup>33, 45</sup>	✓	✓	✓	✓	✓	✓	✓						
Windows Server 2019 <sup>33, 45</sup>	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>						
Windows Server 2016 <sup>33, 45</sup>	✓	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓						
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)													
Office 2016 (32-bit)													
Office 2013 (32-bit)													
Database Servers													
Microsoft SQL Server 2019 (Enterprise/Standard Edition)							<b>√</b>						
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)						✓							
Microsoft SQL Server 2014 (Enterprise/Standard Edition)							✓						
Microsoft SQL Server 2014 (Express Edition)						<b>✓</b>							
SQL Server 2019 Local DB							✓						
SQL Server 2014 -2019 Analysis Services													
PostgreSQL 13.2													
Oracle Database 19.x.x 64-bit													
Database Clients													

Suite		Manufacturing & Supply Chain Suite											
		Advanced Process Control (APC)											
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop	Advanced Process Control (APC) Online	Batch Advanced Process Control (APC) Online	Advanced Process Control (APC) Performance Monitor	Advanced Process Control (APC) Web Server	Aspen Process Recipe (client)	Aspen Process Recipe & Aspen Process Sequencer						
Oracle Client 19.x 32-bit													
Oracle Client 19.x 64-bit													
Oracle Client 18.x 32-bit													
Runtimes													
.NET Framework 4.8	✓	<b>✓</b>	✓	✓	✓	✓	✓						
.NET 6.0.3													
Aspen AloT Cloud libraries													
ASP.NET Core 6.0.3													
64-bit Oracle Java 17 JDK LTS													
64-bit Oracle Java 17 JDK LTS													
64-bit Oracle Java 11 JDK LTS					√46								
64-bit Oracle Java 8 JDK LTS													
64-bit Oracle Java 8 JDK LTS													
32-bit AdoptOpenJDK Java 17 JRE LTS													
64-bit AdoptOpenJDK Java 17 JRE LTS													
32-bit AdoptOpenJDK Java 11 JRE LTS													
64-bit AdoptOpenJDK Java 11 JRE LTS			✓		✓								
64-bit AdoptOpenJDK Java 8 JRE LTS													
Python													
MSXML 6	✓	✓	✓	✓	✓	✓	✓						
Visual Studio 2022													
Visual Studio 2019	✓	✓	✓	✓	<b>√</b>	✓	✓						
Visual Studio 2017													
Visual Studio 2010 Tools for Office Runtime													
Microsoft Visual C++ Redistributable 2022													
Microsoft Visual C++ Redistributable 2019	✓	<b>√</b>	✓	✓	✓	✓	✓						
Microsoft Visual C++ Redistributable 2017	✓	<b>√</b>	✓	✓	✓	✓	✓						
Virtualization													
Microsoft Hyper-V (Server)	✓	✓	✓	✓	✓	✓	✓						
VMware ESXi Hypervisor Server 6.x (Server)	✓	<b>√</b>	✓	✓	✓	✓	✓						
VMWare vSphere Enterprise Plus													

Suite		Manufacturing & Supply Chain Suite									
	Advanced Process Control (APC)										
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop	Advanced Process Control (APC) Online	Batch Advanced Process Control (APC) Online	Advanced Process Control (APC) Performance Monitor	Advanced Process Control (APC) Web Server	Aspen Process Recipe (client)	Aspen Process Recipe & Aspen Process Sequencer				
Microsoft Terminal Services (Desktop)	✓					✓					
Citrix Virtual Apps and Desktops 7.1912 (Desktop)											
Web Browsers											
Microsoft Edge <sup>25</sup>	✓	✓	✓	✓	✓	✓	✓				
Google Chrome Evergreen Version 75+	✓	<b>√</b>	✓	✓	✓	✓	✓				
Firefox											
Chrome on iOS 14+ for iPad Support											
Safari on iOS 14+ for iPad Support											
Android 10+											
Security Components/Services											
Aspen Framework (AFW) 5	<b>✓</b>		<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>				
TLS 1.2											
Java App (Servers)											
Apache Tomcat 9.x											
Native Web Servers					√9						
Reporting Services					V						
Microsoft Report Viewer 2015											
Microsoft SQL Server 2014/2016/2017/2019/ <b>2020/2022</b> Reporting Services  Load Balancing											
F5 Load Balancing											
Integration Components											
Aspen Supply Chain Connect											
Informatica Powercenter 10.5.2  Cloud Support *											
Azure VM (Microsoft)	<b>√</b>										
AWS VM (Amazon)											
Azure VM - Linux											
Azure Virtual Desktop (AVD) 27	<b>√</b>										
AZURE VIRTUAL DESKTOP (AVD)  AWS RDS (SQL)											
Azure SQL  Deployment Tools											
Deployment Tools											
SCCM Supported Versions of Fortran											
FORTRAN 2021	<b>√</b>	<b>√</b>		<b>√</b>	<b>√</b>						

Suite		Manu	ıfacturir	ng & Sup	ply Cha	in Suite						
	Advanced Process Control (APC)											
V14 Platform Specifications that are supported	Advanced Process Control	Advanced Process Control	Batch Advanced Process Control (APC) Online	Advanced Process Control (APC) Performance	Advanced Process Control (APC) Web Server	Aspen Process Recipe (client)	Aspen Process Recipe & Aspen Process Sequencer					
Container Support												
Docker Engine-Enterprise 19.03.x												
Docker Compose 1.26.x												
Desktop Types - Minimum Recommended												
Type I:  Computer & processor: Intel Core-i5 family or faster  Memory (RAM in GB): 16  Hard Disk (GB): 120  Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor  Network (MS): 100Mbps	<b>√</b>					<b>✓</b>						
Type II:  Computer & processor: Intel Core-i5 family or faster  Memory (RAM in GB): 16  Hard Disk (GB): 250  Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor  Network (MB/s): 100Mbps												
Type III:  Computer & processor: 4CPU >= 2.8GHz (turbo max 3.2 preferred)  Memory (RAM in GB): 16  Hard Disk (GB): 100  Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or higher resolution monitor  Network (MB/s): 100Mbps												
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 in GB): 16 + for standalone deployment, 32 + for multi-user environment  Hard Disk (GB): 150 for standalone deployment, 300 for multi-user environment  Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or  higher resolution monitor  Network: 100 Mbps			<b>√</b>									
Type II:  Computer & processor: Intel Xeon Gold series type system (4 cores) or faster  Memory (RAM in GB): 16 +  Hard Disk (GB): 300 +  Monitor: Graphics hardware acceleration requires a DirectX10 graphics card and a 1440 x 900 or  higher resolution monitor  Network: 100 Mbps		√9			√9		<b>√</b>					
Type III:  Computer & processor: Intel Cascade Lake-based Xeon processor with 8 cores or more per processor Memory (RAM in GB): 32 or above gigabytes (GB) RAM Hard Disk (GB): 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: 100Mpbs (Gigabyte network recommended)				√9								
Type IV: (IloT Gateways) Computer & processor. ARM or Intel based CPU or more Memory (RAM in GB): 256Mb or more Hard Disk (GB): 100 GB 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: Minimum: 50, Recommended: 100 Mbps												

Suite	Manufacturing & Supply Chain Suite																
				Ad	dva	nce	d F	Prod	ess	Co	ont	rol (	(AF	PC)			
V14 Platform Specifications that are supported	Advanced Process Control	(APC) Desktop	Advanced Process	Control (APC) Online	Batch Advanced	Process Control	(APC) Online	Advanced Process	Performance	Monitor	Advanced Process	Control (APC) Web	Server	Aspen Process	Recipe (client)	Aspen Process	Process Sequencer
Type VI Computer & processor. Intel Xeon E class processor or equivalent with dual core min. Memory (RAM in GB): Minimum: 4 Hard Disk (GB): Minimum 50. High IOPS drive, SSD preferred Network: 100 Mbps																	
Type VII  Computer & processor. Intel Xeon E class processor or equivalent with dual core min.  Memory (RAM in GB): 8 +  Hard Disk (GB): 100 GB min. High IOPS drive, SSD preferred  Network: 100Mpbs																	
Type VIII  Computer & processor. Intel Xeon E class processor or equivalent with 8 cores or higher  Memory (RAM in GB): 12 or above gigabytes (GB) RAM  Hard Disk (GB): 2000 min. High IOPS drive, SSD preferred  Network: 200N/bps																	
Type IX Single model environment: Computer & processor: 4 vCPU >+ 2.8 GHz Memory (RAM in GB): 8+ Hard Disk (GB): 100																	
Network: 100Mbps  Type X  Single model environment:  Computer & processor: 8 vCPU >+ 3.2 GHz  Memory (RAM in GB): 16+																	
Hard Disk (GB): 100 Network: 100Mbps Type XI Multiple models within single environment (max models <= 10): Computer & processor: 4 vCPU > + 2.8 GHz (add 1.5vCPU per concurrent user) Memory (RAM in GB): 8+ (add 3GB per concurrent user)																	
Hard Disk (GB): 100 (add.5GB per concurrent user)  Network: 100Mbps  Type XII  Multiple models within single environment (max models <= 10):  Computer & processor. 8 vCPU > + 3.2 GHz (add 1.5vCPU per concurrent user)																	
Memory (RAM in GB): 16 or above gigabytes (GB) RAM. (add 4GB RAM per concurrent user) Hard Disk (GB): 100 GB min. (add .5GB per concurrent user) Network: 100Mpbs Type XIII Supports 20 concurrent users:																	
Computer & processor: 16 vCPU >+ 2.2 GHz) Memory (RAM in GB): 64 Hard Disk: 100 Network: 10 Mbps																	
Type X1V Supports 100 concurrent users: Computer & processor: 16 vCPU >+ 2.2 GHz) Memory (RAM in GB): 32 Hard Disk (GB): 100 Network: 5 Mbps																	
Network: 5 Mops Type XV Computer & processor: 16 vCPU >+ 2.2 GHz) Memory (RAM in GB): 32 Hard Disk (GB): 100Mbps																	

Notes

Suite	Manufacturing & Supply Chain Suite								
	Advanced Process Control (APC)								
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop Advanced Process Control (APC) Online Batch Advanced Process Control (APC) Online Advanced Process Control (APC) Performance Monitor Advanced Process Control (APC) Web Server Aspen Process Recipe & Aspen Process Recipe & Aspen Process								
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.	Advanced Process Control (APC) suite consists of the following products: Aspen DMCplus, Aspen DMC3, Aspen Watch Performance Monitor, Aspen PID Watch Performance Monitor, Aspen RTO Watch Performance Monitor, Batch APC, Aspen Inferential Qualities, and Aspen Process Recipe & Aspen Process Sequencer.								
AspenTech permits customer use of licensed aspenONE software in the cloud where: (i) the Platform Support specifications published by AspenTech for the relevant version of the software product include cloud support; (ii) only the customer has access to the licensed software hosted by the cloud service provider, and (iii) the user is accessing the software only from a Site specified in the applicable license agreement.									
Cloud deployment does not change any license restrictions, including the restrictions on which regions can access the software.									
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 V14 product.  If running standalone, 1280 x 800 is the minimum recommended resolution monitor for									
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 on the C drive.									
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									
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.									
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									
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									

Suite	Manufacturing & Supply Chain Suite									
	Advanced Process Control (APC)									
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop Advanced Process Control (APC) Online Batch Advanced Process Control (APC) Online Advanced Process Control (APC) Performance Advanced Process Control (APC) Performance Aspen Process Recipe & Aspen Process Sequencer									
11 CIM-IO Interfaces can be installed on 32-bit desktops										
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.										
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										
19 SLM supported in cloud (Azure VM/Amazon VM) for ENG products that are supported in										
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										
Server-grade systems are not required but still supported.										
Browser Support as it relates to Knowledge Delivery only										
ATOMS Web does not support Oracle										
Only the version of MS Edge that uses the Google Chrome engine is supported										
Maestro supports Windows Server 2019 version 1809+	]									
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, AVCA										
28 APEM does not support CDB-PDB database in Oracle 19. Weigh & Dispense Client 32-bit does not support Oracle										
29 SCCM support for APEx only										
APM Insights must be installed on the same server as AEI.	]									
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  20 OptiPlant requires a graphic card which supports OpenGL 4.1	1									
Includes support for Windows Server Datacenter	1									
34 Browser support for AFO Connect	1									
Type II is the minimum recommended when IP.21 is used with Aspen Enterprise IP.21	1									
36 Small SLM Server	1									
37 Medium SLM Server	1									
38 Large SLM Server	1									

Suite	Manufacturing & Supply Chain Suite
	Advanced Process Control (APC)
V14 Platform Specifications that are supported	Advanced Process Control (APC) Desktop Advanced Process Control (APC) Online Batch Advanced Process Control (APC) Online Advanced Process Control (APC) Performance Advanced Process Control (APC) Recipe (Client) Aspen Process Recipe & Aspen Process Recipe & Aspen Process Recipe & Aspen Process
These applications can run on a desktop, but it is recommended to run models on a server	
This Application Should be installed on a dedicated Web Server.	
41 Require db needs to be created in MS SQL using Mtell and then migrated to the target	

Suite	Manufacturing & Supply Chain Suite
	Advanced Process Control (APC)
	S
V14 Platform Specifications that are supported	Advanced Procein Control (APC) Desktop Advanced Procein (APC) Desktop Control (APC) Online Batch Advanced Proces Control (APC) Online Advanced Proces Control (APC) Manitor Advanced Proces Server Aspen Process Sequences Sequences Recipe & Aspen Process Sequences Control (APC) Washand Control (APC
These applications can run on a desktop, but it is recommended to run models on a server	
This Application Should be installed on a dedicated Web Server.  41 Require db needs to be created in MS SQL using Mtell and then migrated to the target	-
platform  42  "Desktop Experience" installation of Windows Server. Windows Server installers present the	-
ontion to install with or without "Deskton Experience" For GDOT "Deskton Experience" is	
required.  43 SQL is needed for S3D Layout, SQL versions 2014 and 2016 are supported by Hexagon  44 Resolution no higher than 1920x1080	1
Refer to the AspenTech Lifecycle Knowledge Base article to see a reference to the	1
supported Windows Server upgrade path: https://esupport.aspentech.com/S_ProductLifecyclePolicy  46 The selected product uses Java 11 JRE as Oracle do not have an option to download JRE,	-
The selected product uses Java 11 JRE as Oracle do not have an option to download JRE, please use Oracle JDK download  7 SQL Server 2014 does not support AT TIME ZONE functionality Due to this, Daylight	  -
Saving time will not be accounted for in the database views defined in Unified Scheduling	
Results database. 10/25/2022	•