Suite	Manufacturing & Supply Chain Suite										
	Manufacturing Execution Systems (MES)										
V11 Platform Specifications that are supported	Manufacturing Execution Systems (MES) Desktop Apps	Manufacturing Execution Systems (MES) Admin Tools	aspenONE Process Explorer Server 64bit	aspenONE Process Explorer Client	InfoPlus.21 (IP.21) Server	Interfaces 11	Plant Operations 32-bit (ATOMS/AORA)	Aspen Production Record Manager (APRM) Server	Aspen Production Execution Manager (APEM) Server	Weigh & Dispense Client 32-bit	Aspen Role Based Visualization 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 7 Enterprise & Professional SP1 (64-bit)	✓	✓		✓		✓	✓			✓	
Windows Server 2019 [22]			✓		✓						
Windows Server 2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Windows Server 2012 R2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Windows Server 2008 R2 SP1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ubuntu Server Edition 16.04 LTS											
Advantech Smart Swarm 2.2.2											
Advantech Smart Router Series coLinux											
Safari on iOS 11+ for iPad Support											
Microsoft Office											
Office 365 (Desktop/Click-to-run)	✓	✓					✓[21]			✓	
Office 2019 (64-bit)	✓	✓									
Office 2019 (32-bit)	✓	✓					✓			✓	
Office 2016 (64-bit)	✓	✓									

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Office 2016 (32-bit)	✓	✓					✓			✓	
Office 2013 SP1 (32-bit)	✓	✓					✓			✓	
Office 2010 SP2 (32-bit)	✓	✓					✓			✓	
Database Servers											
Microsoft SQL Server 2017 (Enterprise/Standard Edition)					✓	✓	✓	✓	✓	✓	
Microsoft SQL Server 2017 (Express Edition)											
Microsoft SQL Server 2016 SP1 (Enterprise/Standard Edition)					✓	✓	✓	✓	✓	✓	
Microsoft SQL Server 2016 SP1 (Express Edition)											
Microsoft SQL Server 2014 SP2 (Enterprise/Standard Edition)					✓	✓	✓	✓	✓	✓	
Microsoft SQL Server 2014 SP2 (Express Edition)											
Microsoft SQL Server 2012 SP3 (Enterprise/Standard Edition)					✓	✓	✓	✓	✓	✓	
Microsoft SQL Server 2012 SP3 (Express Edition)											
SQL Server Local DB											
SQL Server 2012 Analysis Services											
Oracle Database 12.2.x 64-bit					✓	✓	✓	✓	✓[28]		
Oracle Database 11.2.x 64-bit					✓	✓	✓	✓	✓[28]		
Database Clients											
Microsoft SQL Server 2017 (Express Edition)											
Microsoft SQL Server 2016 SP1 (Express Edition)											

V11 Platform Specifications that are supported	Manufacturing & Supply Chain Suite										
Suite	**Manufacturing Execution Systems (MES)**										
	Manufacturing Execution Systems (MES) Desktop Apps	Manufacturing Execution Systems (MES) Admin Tools	aspenONE Process Explorer Server 64bit	aspenONE Process Explorer Client	InfoPlus.21 (IP.21) Server	Interfaces 11	Plant Operations 32-bit (ATOMS/AORA)	Aspen Production Record Manager (APRM) Server	Aspen Production Execution Manager (APEM) Server	Weigh & Dispense Client 32-bit	Aspen Role Based Visualization 64-bit
Microsoft SQL Server 2014 SP2 (Express Edition)											
Microsoft SQL Server 2012 SP2 (Express Edition)											
Microsoft SQL Server 2008 R2 SP3 (Express Edition)											
Oracle Client 18.3 32-bit											
Oracle Client 18.3 64-bit											
Oracle Client 12.1.0.2 32-bit	✓	✓			✓	✓	✓	✓	✓		
Oracle Client 11.2.0.4 32-bit	✓	✓			✓	✓	✓	✓	✓		
Oracle Client 12.2.x 64-bit	✓	✓			✓	✓	✓	✓	✓		
Oracle Client 11.2.x 64-bit	✓	✓			✓	✓	✓	✓	✓		
Runtimes											
.NET Framework 4.7.1	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
.NET Framework 4.0											
.NET Framework 3.5											
32-bit Java 8 JRE update 151	✓									✓	
32-bit Java 8 JDK update 151											
64-bit Java 8 JRE update 151	✓		✓							✓	✓
64-bit Java 8 JDK update 151											
64-bit AdoptOpenJDK Java 8 u181			✓							✓	✓
32-bit AdoptOpenJDK Java 8 u181	✓									✓	
MSXML 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Visual Studio 2013, 2015, 2017	✓	✓			✓	✓	✓	✓	✓		✓
Microsoft Visual C++ Redistributable 2017	✓	✓			✓	✓	✓	✓	✓		✓

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Microsoft Visual C++ Redistributable 2015	✓	✓			✓	✓	✓	✓	✓		✓
Microsoft Visual C++ Redistributable 2013											
Visual Studio 2010 Tools for Office Runtime	✓	✓		✓							
Virtualization											
Microsoft App-V 5.1	✓[29]										
Microsoft Hyper-V (Server)	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
VMware ESX Server 6.x (Server)	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Microsoft Terminal Services (Desktop)	✓	✓			✓	✓		✓	✓	✓	
Citrix XenApp 7.14 (Desktop)	✓	✓	✓	✓	✓	✓		✓	✓	✓	
Web Browsers											
Internet Explorer 11				✓			✓	✓	✓	✓	✓
Microsoft Edge											
Google Chrome Evergreen Version 104+				✓					✓	✓	
Safari on iOS 11+ for iPad Support											
Security Components/Services											
Aspen Framework (AFW) 5	✓	✓	✓		✓		✓	✓	✓	✓	
Non-Domain Security Group			✓								✓
Microsoft Active Directory / Active Directory Domain Services			✓								✓
Java App (Servers)											

V11 Platform Specifications that are supported	Suite										
	Manufacturing & Supply Chain Suite										
	Manufacturing Execution Systems (MES)										
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Apache Tomcat 8.5+			✓						✓	✓	
Web Servers											
IIS 10			✓				✓		✓		✓
IIS 8.5			✓				✓		✓		✓
IIS 7.5			✓				✓		✓		✓
Reporting Services											
Microsoft Report Viewer 2010 SP1											
Microsoft SQL Server 2008 R2/2012/2014/2016/2017 Reporting Services											
Crystal Reports 8.5							✓				
Crystal Reports 11											
Malware Blocking Features											
DEP-Data Execution Prevention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Integration Components											
Aspen Supply Chain Connect											
Informatica Powercenter 10.2 HF1											
Cloud Support *											
Azure VM - Microsoft	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Amazon VM (AWS)	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Azure VM - Linux											

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V11 Platform Specifications that are supported	Manufacturing Execution Systems (MES) Desktop Apps	Manufacturing Execution Systems (MES) Admin Tools	aspenONE Process Explorer Server 64bit	aspenONE Process Explorer Client	InfoPlus.21 (IP.21) Server	Interfaces [11]	Plant Operations 32-bit (ATOMS/AORA)	Aspen Production Record Manager (APRM) Server	Aspen Production Execution Manager (APEM) Server	Weigh & Dispense Client 32-bit	Aspen Role Based Visualization 64-bit
Windows Virtual Desktop (WVD Fall 2019 Release) [27]											
Nutanix XiFrame											
Azure Virtual Apps Essentials											
Deployment Tools											
SCCM 2016 (version 1606)											
SCCM 2012 R2 SP1											
Built With											
FORTRAN 2017											
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 1280 x 1024 or higher resolution monitor Network: 100MB/Sec	✓	✓		✓			✓			✓	
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 1280 x 1024 or higher resolution monitor Network: 100MB/Sec											
Server Types - Minimum Recommended											

Suite	Manufacturing & Supply Chain Suite										
	Manufacturing Execution Systems (MES)										
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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, 16 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 1280 x 1024 or higher resolution monitor Network: 100MB/Sec						✓	✓	✓	✓		
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 1280 x 1024 or higher resolution monitor Network: 100MB/Sec (Gigabyte network recommended)											
Type III: Computer & processor:4 x Intel (**8** cores) or faster 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 1280 x 1024 or higher resolution monitor Network: 100MB/Sec (Gigabyte network recommended)			✓		✓						✓
Type IV: (IIoT Gateways) Computer & processor: ARM or Intel based CPU or more Memory (RAM): **256Mb** or more Hard Disk: **128Mb** or more											
Notes											

Suite	Manufacturing & Supply Chain Suite										
V11 Platform Specifications that are supported	**Manufacturing Execution Systems (MES)**										
	Manufacturing Execution Systems (MES) Desktop Apps	Manufacturing Execution Systems (MES) Admin Tools	aspenONE Process Explorer Server 64bit	aspenONE Process Explorer Client	InfoPlus.21 (IP.21) Server	Interfaces **11**	Plant Operations 32-bit (ATOMS/AORA)	Aspen Production Record Manager (APRM) Server	Aspen Production Execution Manager (APEM) Server	Weigh & Dispense Client 32-bit	Aspen Role Based Visualization 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. 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.	Manufacturing Execution Systems (MES) suite consists of the following products: InfoPlus.21 (IP.21), Process Explorer, aspenONE Process Explorer, Aspen Production Record Manager (APRM), Aspen Production Execution Manager (APEM), Role-Based Visualization (RBV), Aspen Operations Reconciliation and Accounting (AORA), and Aspen Tank and Operations Manager (ATOM).										
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 V11 product.											
If running standalone, 1280 x 800 is the minimum recommended resolution monitor for servers.											
For SLM server using the Type 1 Desktop configuration, the minimum memory is 4GB with 20GB hard drive.											
Microsoft Active Directory/Domain Services (Required for aspenONE Web Server)											
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											
2 EDR does not use any database servers. Deploys its own LocalDB database files.											

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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 2017 or 2019

7 Oracle 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 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:

14 Oracle Database 12.1.0.2 is supported for Collaborative Forecasting, not 12.2.x.

15 ASCC web applications and the Informatica client will work only with MS Office 32-bit. Informatica Server uses 64-bit Office only.

16 Non-English OS's are not supported

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17 If using IBM Maximo Adapter											
18 1 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 Requires the latest patches of the corresponding AspenTech software											
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 APP-V is only supported with Process Explorer											
30 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.											