

## Software Compatibility

### Databases

	Oracle 11g R2	Oracle 12c R1	Oracle 12c R2	Oracle 18*	Oracle 19	MSSQL 2008 R2 SP3	MSSQL 2012 SP4	MSSQL 2014 SP2	MSSQL 2014 SP3	MSSQL 2016 SP1	MSSQL 2016 SP2	MSSQL 2016 SP3	MSSQL 2017	MSSQL 2019
18.0.x	X	X	X			X	X	X		X			X	
19.0.x	X	X	X			X	X	X		X			X	
19.1.x			X	X			X	X		X			X	X
20.0.x			X	X	X			X		X			X	X
20.1.x			X	X	X			X		X			X	X
21.0.x				X	X			X		X			X	X
21.1.x					X				X		X	X	X	X

#### Database Tier Network Protocol Support

All network protocols supported by Oracle SQL (.NET and/or MSSQL).

#### Database Tier Operating System Support

Any OS supported by Oracle or MS SQL Server.

#### Oracle Authentication Protocol

For Application versions older than 21.0.x, Protocols above version 11 is not supported. Add SQLNET.ALLOWED\_LOGON\_VERSION\_SERVER = 11 to all server sqlnet.ora files.

\*Oracle 18 is at End of Life by Oracle by July 2021 and will no longer be supported by AssetWorks past this date, for any reason.

## Application Servers

	Application Servers					
	32-bit Windows 2008	64-bit Windows 2008 R2	64-bit Windows 2012 / 2012 R2	64-bit Windows 2016	64-bit Windows 2019	64-bit Windows 2022
<b>18.0.x</b>	X	X	X	X		
<b>19.0.x</b>			X	X		
<b>19.1.x</b>			X	X	X	
<b>20.0.x</b>			X	X	X	
<b>20.1.x</b>			X	X	X	
<b>21.0.x</b>			X	X	X	
<b>21.1.x</b>				X	X	X*

\*Certification will not occur until a release within the year 2022.

	HTTP Servers		
	Microsoft IIS 8	Microsoft IIS 8.5	Microsoft IIS 10
<b>18.0.x</b>	X	X	X
<b>19.0.x</b>		X	X
<b>19.1.x</b>		X	X
<b>20.0.x</b>		X	X
<b>20.1.x</b>		X	X
<b>21.0.x</b>		X	X
<b>21.1.x</b>			X

**Application Tier Network Protocol Support**  
All network protocols supported by Oracle SQL \*Net and/or MSSQL

# Operating Systems & Browsers

## Operating Systems

### Supported for use of Graphical User Interface (GUI)

	64-bit Windows 8.1	64-bit Windows 10
<b>18.0.x</b>	X	X
<b>19.0.x</b>	X	X
<b>19.1.x</b>	X	X
<b>20.0.x</b>	X	X
<b>20.1.x</b>	X	X
<b>21.0.x</b>		X
<b>21.1.x</b>		X
<b>Graphical User Interface Network Protocol Support</b> All network protocols supporting TCP/IP		

## Browser Versions

### Supported for use of Web Modules on both Desktop and Tablet Operating Systems

	IE 11	Edge Chromium	Chrome
<b>18.0.x</b>	X		X
<b>19.0.x</b>	X		X
<b>19.1.x</b>	X	X	X
<b>20.0.x</b>	X	X	X
<b>20.1.x</b>	X*	X	X
<b>21.0.x</b>		X	X
<b>21.1.x</b>		X	X

**Primary certifications performed in Windows-based desktop operating system environments.**

Other supported operating systems or platforms may have specific limitations per-device based on hardware or software.

Internet Explorer compatibility mode is not supported.

Firefox has known compatibility issues and is not recommended.

\*Mapping is not supported if using IE11.

# Security

## TLS Protocols

The latest TLS protocols are recommended to ensure safety of data. Verify that secure software runs using TLS 1.2.

## Single Sign-On Methods\*

	Integrated Windows Authentication	Central Authentication Service (CAS)	CA Site Minder / OpenID	Active Directory Federation Services (ADFS)	Shibboleth	Azure Active Directory (Azure AD)	LDAP Authentication	Security Assertion Markup Language (SAML) 2.0
<b>18.0.x</b>	X	X	X	X	X	X		
<b>19.0.x</b>	X	X	X	X	X	X	X	
<b>19.1.x</b>	X	X	X	X	X	X	X	
<b>20.0.x</b>	X	X	X	X	X	X	X	
<b>20.1.x</b>	X	X	X	X	X	X	X	
<b>21.0.x</b>	X	X	X	X	X	X	X	
<b>21.1.x</b>	X	X	X	X	X	X	X	X

\* AssetWorks certification is done against standard configurations as documented in the Configurator Guide. AssetWorks does not certify customer-specific configurations. Customers are responsible for all configuration and testing of their authentication methods

## Python

Support for custom Python scripting is moving to end of support in version 22.0. For any on-premise customer utilizing a python script with their Graphical User Interface (GUI) installation(s) – this would be something such as a 2024.py script - for custom validation, this method will at that time no longer be supported. This does not apply to hosted customers, as that feature is not supported within the AssetWorks' hosted environment.



For more information on installing the 32- or 64-bit application, refer to the Application Installation – Installing and Enabling Access.



For more information, please see the Hot Sheet.

## Reporting Servers

	Crystal Reports 2013 SP9	Crystal Reports 2016 SP7	Crystal Reports 2020* SP1
<b>18.0.x</b>	x		
<b>19.0.x</b>	x		
<b>19.1.x</b>	x		
<b>20.0.x</b>		x	
<b>20.1.x</b>		x	
<b>21.0.x</b>		x	
<b>21.1.x</b>			x
<ul style="list-style-type: none"> <li>To use the Reporting modules (both external and traditional reporting) version 18 and forward, you must upgrade the Crystal Reports Runtime components to match the Crystal Reports server.</li> <li><b>Important:</b> Two versions of Crystal cannot be installed side by side. Therefore, the Enterprise Asset Management software cannot be run on the same server box (or VM) concurrently with any other versions of this application.</li> </ul>			
* Crystal Reports 2020 is now 64-bit only.			

# Hardware Requirements

## Server Specifications

The following tables highlight the server hardware specifications for a standard small, medium or large operation.

The size of your operation is based on the number of concurrent users, number of active assets, and other variables specific to your organization. The sizes defined below are based on active assets. For a specific sizing evaluation, contact a company representative familiar with your configuration.

<b>Hardware Requirements – Small Operation</b>					
<b>For operations which are Fleet only or less than 1000 active assets</b>					
	CPU	Cores	RAM	Storage Space	Network Card
Application/Web, Reporting, Integration Server	2.4GHz	Quad	8GB	100GB	1Gbps
<p>*The Application/Web, Reporting and, in some cases, the Integration Server are often combined onto one machine for smaller operations.</p> <p>For Organizations utilizing Advanced Indexing, use at a minimum the configuration recommended for Medium Operations. This configuration is not recommended.</p>					
Database Server	2.4GHz	Quad	8GB	100GB	1Gbps

## Hardware Requirements – Medium Operation

For operations utilizing Mapping or more than 10 active integrations

	CPU	Cores	RAM	Storage Space	Network Card
Application/Web Server	2.4GHz	Quad	64GB	120GB*	1Gbps
<p>*Users may need additional storage space for the Application/Web Server depending on the size and amount of files that will be uploaded.</p> <p>For any organization using Advanced Indexing, a minimum of 32GB of RAM is required on the server, which is assumed to be the Application/Web Server for the purpose of this guide. If not utilizing this feature, or in a Test environment, 16-32GB may meet organizational needs.</p>					
Reporting Server	2.4GHz	Quad	8GB	50GB	1Gbps
Integration Server	2.4GHz	Quad	16GB	100GB	1Gbps
Database Server	2.4GHz	6	32GB	250GB	1Gbps

## Hardware Requirements – Large Operation

For operations that:

- Have over 100,000 assets and utilize Mapping
- Have more than 100 active Locations
- Have a larger fleet with an asset count of 200 or more
- Have more than 20 active MAXQueue integrations

	CPU	Cores	RAM	Storage Space	Network Card
Application/Web Server*	2.4GHz	Quad	64GB	250GB**	1Gbps
Reporting Server	2.4GHz	Quad	16GB	100GB	1Gbps
Integration Server	2.4GHz	Quad	32GB	150GB	1Gbps
Database Server	2.4GHz	8	32GB	500GB	1Gbps

\*Minimum of two servers with an installation of app and web on each. For any organization using Advanced Indexing, a minimum of 32GB of RAM is required on the server, which is assumed to be the Application/Web Server for the purpose of this guide.

If your organization has over 10,000 assets, please consult prior to purchase of hardware for recommendations based upon your expected usage.

\*\*Users may need additional storage space for the Application/Web Server depending on the size and amount of files that will be uploaded.

Utilization of a load-balancer appliance is recommended for operations of this size.

## Hardware

### Workstation Recommendations

- Microsoft Windows Workstation (Laptop or Desktop) with supported Operating System and compatible/supported browser.
- Minimum Monitor Resolution 1024 x 768
- 1000+ Mbps Ethernet NIC

### Laser Wedge Scanners

- DataLogic Gryphon
- QuickScan I QM2400
- USB

### Label Printers

- Intermec printers supporting the IPL programming language.
- All Zebra printers supporting the ZPL and EPL programming languages




## Mapping and GIS Requirements

The following tables reflect supported providers for 18.0 and forward. Please note that prior to 18.0 Esri was the only tile provider supported and recommended for both web and mobile applications.

These services are not owned or maintained by AssetWorks, as such we cannot guarantee their performance or availability.

### Tile Services

Map Tile Provider	Supported in Web	Mobile Connected	Mobile Disconnected	Licensing Requirements
<b>Bing</b>	x			Requires a Bing Maps Enterprise License (provides access to the required Bing Maps Enterprise Key)  To obtain a license see Microsoft's Licensing Options page at: <a href="https://www.microsoft.com/en-us/maps/licensing">https://www.microsoft.com/en-us/maps/licensing</a>  For complete terms see: <a href="https://www.microsoft.com/en-us/maps/product/terms">https://www.microsoft.com/en-us/maps/product/terms</a>
<b>Esri</b>	x	x	x	ArcGIS Server – Standard or Advanced Edition ( <b>not</b> Basic).  Version 10.5 or above.  To obtain see: <a href="https://enterprise.arcgis.com/en/">https://enterprise.arcgis.com/en/</a>
<b>Mapbox</b>	x	x	x	Requires Service Key and Client ID.
<b>OpenStreet Map (OSM)</b>  Test only. Not for use in production	x	x	x	Use of this free service must adhere to the provider's title policy which does <b>not</b> allow the usage of their service in a production environment.
 The use of tile services that does not adhere to the provider's service usage policy is not supported. Organizations that use map services are expected to research and obtain any necessary licenses and to comply with all restrictions and limitations imposed by those services.				

## Geocoding Services

Geocoding Provider	Supported in Web	Mobile Connected	Mobile Disconnected	Licensing Requirements
Esri	x	x	x	ArcGIS Server – Standard or Advanced Edition ( <b>not</b> Basic). Version 10.5 or above. To obtain see: <a href="https://enterprise.arcgis.com/en/">https://enterprise.arcgis.com/en/</a>

## End of Customer Support Notices

End of Support Date	Software Version
All products versions prior to 16.0.x are no longer supported.	
Sept. 1, 2019	FASuite 16.0.x
Dec. 31, 2020	FASuite 17.0.x, All MobileFocus Pocket PC Handheld Versions
Dec. 31, 2021	FASuite 18.0.x
June 30, 2022	FASuite 19.0.x
Dec. 31, 2022	FASuite 19.1.x
June 30, 2023	FASuite 20.0.x
September 30, 2023	FASuite 20.1.x
April 30, 2024	FASuite 21.0.x
October 31, 2024	FASuite 21.1.x
Product	No Longer Supported in Version:
Windows 2000 Server Oracle 8.1.5+ Oracle 9.x MSSQL 2000	FASuite 6.3 and greater
Crystal Reports XI	FASuite 6.4 and greater
Internet Explorer 6 MobileFocus 5.4	FASuite 12.0 and greater
Windows XP Windows Server 2003 Oracle 10g R2 MSSQL 2005 Internet Explorer 7 Crystal Reports 2008 800x600 GUI Resolution	FASuite 15.0 and greater
Internet Explorer 8 Windows Vista Windows 7	FASuite 16.0 and greater
Internet Explorer 9	FASuite 17.0 and greater

Internet Explorer 10	
Crystal Reports 2013 SP4 Oracle 11g R1	FASuite 18.0 and greater
Oracle 11g R2, 12C R1 MSSQL 2008 R2 SP3	FASuite 19.1 and greater
Internet Explorer 11	FASuite 21.0 and greater
Crystal Reports 2016 All SPs	FASuite 21.1 and greater
Support for Python Scripting	FASuite 22.0 and greater
Classic Purchasing (CENTRALLY or BY LOCATION) is now a legacy feature*	FASuite 22.0 and greater – A code will be required to continue use of certain legacy features

\*It is recommended to migrate away from legacy features, as support for these features will cease in a future version. Contact Customer Care for further information about migration options.