

FACTSET WORKSTATION: INSTALLATION GUIDE



Contents

Introduction 3

Support 3

Download Website 3

PC Software Requirements / Compatibility 4

Technical Requirements..... 4

Connectivity Requirements 5

 CRL & OCSP 5

 Conduit 6

Manual Connectivity Tests 6

Folder and File Access Requirements 6

Installing FactSet..... 7

FactSet Folder Recommendations 8

Upgrade FactSet 9

Multiusers Environments (Citrix / Terminal Services / Hotdesk) 10

 Multiusers Environment Configuration 10

 Publishing FactSet and Excel Add-ins within a Citrix XenApp/Virtual Apps Environment 10

 Office Integration for Non FactSet users in a Multiusers Environment (Citrix, Terminal Server, hotdesk)..... 11

Packaging / Repackaging..... 12

 Installation Options 12

 Unattended or Silent Installations 12

 FactSet Transform File 13

 Public Properties 14

Acknowledgments 15

Introduction

The FactSet Installation Guide is aimed at individuals wishing to install or upgrade the FactSet Workstation, and IT professionals looking to package and deploy the FactSet Workstation in desktop or server environments. FactSet provides a single MSI installer which installs the FactSet Workstation as well as the FactSet Microsoft Office Add-ins.

For more information about FactSet and our products, please see <https://www.factset.com/about>.

Support

If you have any questions on how to install, package, or deploy FactSet, please contact Technology Solutions Engineering.

Email: techsupport@factset.com

If you have questions or require assistance using the FactSet application, please contact the FactSet Support Desk.

Email: support@factset.com

For a list of regional and country specific contact phone numbers, please visit:

<https://www.factset.com/support-numbers>

Download Website

The FactSet download website contains the latest FactSet technical documentation, FactSet Workstation installation files, and app store links. <https://www.factset.com/download>

FactSet General Release installer. [FactSet General Release](#)

FactSet iOS and Android app stores. [Google Play](#) [Apple App Store](#)

The FactSet Technology Overview details FactSet's software suite, networking configuration, security, and desktop deployment fundamentals. [FactSet Technology Overview](#)

The FactSet Allow List provides FactSet folders, processes, and connectivity requirements that need to be added to any allow list for optimal performance. [FactSet Allow List](#)

The Framework Lifecycle Policy describes updating FactSet with OnlineComponents, Early Adopter vs General Release versions, and upgrade recommendations. [Framework Lifecycle Policy](#)

The FactSet App-V Sequencing Guide provides sequencing instructions for IT professionals. [FactSet App-V Sequencing Guide](#)

The FactSet OnlineComponents Cache Folder documentation includes instructions on how to significantly reduce bandwidth requirements and the time taken to apply FactSet updates. [FactSet OnlineComponents Cache Folder](#)

The FactSet Web & Workstation: Authentication Security Zones documentation includes instructions on how to use Security Zones within Control Center to restrict the locations (IP addresses) that can connect to FactSet Workstation and FactSet web products. [FactSet Web & Workstation: Authentication Security Zones](#)

PC Software Requirements / Compatibility

The FactSet Compatibility Table can be downloaded from the FactSet download site.
https://download.factset.com/documents/workstation/FactSet_Compatibility_Table.pdf

The following compatibilities are listed in the FactSet Compatibility Table:

- Windows Desktop OS
- Windows Server OS
- Citrix XenApp/Virtual Apps Server
- Microsoft Office
- Adobe Acrobat/Reader
- Microsoft .NET Framework

Technical Requirements

FactSet recommends the setup listed below for best performance, however FactSet supports all Windows OS and Office products supported by Microsoft.

Hardware / Software	Recommendation
CPU	Dual-Core + processor or 2 vCPU*
Memory	16GB +
HDD	5GB free space
Operating System	Windows 10 64-bit Windows Server 2016 10 64-bit
Office	2016 / Microsoft 365 (Semi-Annual)
Adobe Reader	DC

*RISC (e.g. ARM64) based processors are not supported by the FactSet Workstation

Connectivity Requirements

FactSet uses two separate connections, RT (Real Time) and HS (HTTP Services). RT connection uses proprietary TCP 6672 and utilizes HTTPS over port TCP 443. Both connections must be established successfully for FactSet to function correctly.

To ensure the best performance, the following IPs, subnets, and domains must be whitelisted on all appropriate network equipment (web proxies, HTTPS inspection devices, firewalls, etc). All traffic is outbound initiated.

FactSet RT (Real Time) – TCP 6672

Subnet	Subnet Mask	Port
164.55.224.0	255.255.224.0	6672

HTTPS (TCP 443)

URL
https://*.factset.com

CRL & OCSP

Security certificates are used to secure both the integrity of the installed files and to encrypt FactSet's HTTPS traffic. Windows periodically confirms the authenticity of all certificates by completing CRL (Certificate Revocation List) and OCSP (Online Certificate Status Protocol) checks. If these requests are denied or delayed it will result in unnecessary delay while using FactSet. For this reason, we recommend the following URLs are also whitelisted.

Note that DigiCert recommends using wildcards for their CRL and OCSP URLs. Please note that these URLs are outside of FactSet's control and as such can and will change without notice.

Please contact techsupport@factset.com for further information.

URLs
http://crl3.digicert.com
http://crl4.digicert.com
http://ocsp.digicert.com
http://*.thawte.com
http://ctldl.windowsupdate.com

Conduit

For clients unable to open FactSet's proprietary ports, FactSet has developed a technology called Conduit which enables all FactSet traffic to be routed using HTTPS only. Conduit tunnels the RT (TCP 6672) connection using port TCP 443. To ensure appropriate performance, any client wishing to use Conduit must ensure that HTTPS traffic destined for FactSet domains (listed above) is not modified or delayed in any way. In addition, it is vital to ensure that web proxies are resourced appropriately for the additional FactSet traffic. Using Conduit requires a server-side change to ensure users receive the correct settings.

Please contact techsupport@factset.com for assistance.

Manual Connectivity Tests

Connection Test	Test	String(s)	Successful Result
Port 6672	Command prompt	telnet 164.55.245.1 6672	Smiley face in the command prompt
HTTPS Dispatcher	Browser	https://dispatcher.factset.com/RT/ConnTest.htm	You can connect to this dispatcher
Conduit	Browser	https://conduit-regionalized.factset.com/StatusCheck.aspx	SUCCESS

Folder and File Access Requirements

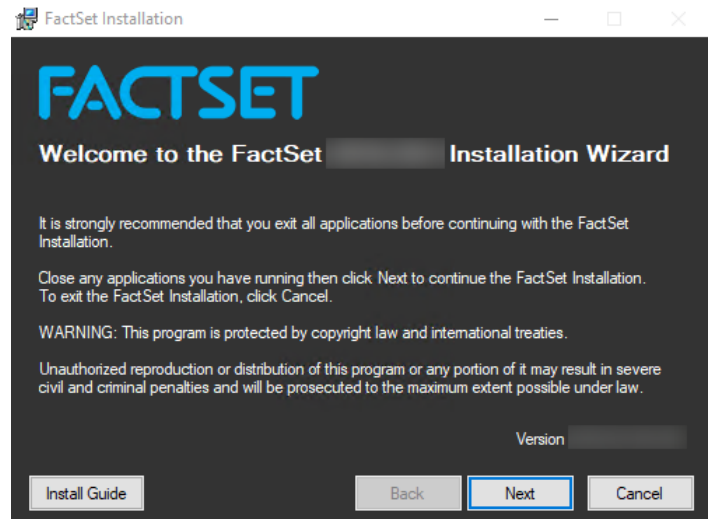
FactSet recommends that the FactSet folders and files are added to the allow list on all endpoint security protection and user virtualization solutions for optimal performance and to avoid FactSet folders, processes, or traffic from being hook injected, decrypted, scanned, denied, quarantined, or deleted. Please see the FactSet Allow List (<https://support.factset.com/allowlist>) for more information.

Installing FactSet

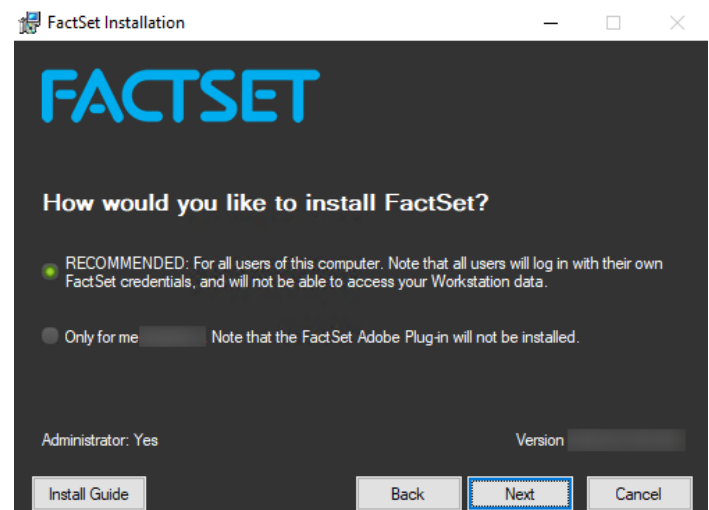
The FactSet Workstation and Microsoft Office Add-ins are contained in a single MSI installer which typically takes a few minutes to install.

Before installing FactSet, all Microsoft Office and Adobe Reader/Acrobat applications must be closed. If any of these applications are running during the install, the user will be notified to close processes before the installation will continue.

1. At the welcome screen, click Next to continue. The setup will determine if the computer meets the system requirements. Click on the Install Guide button to view the latest digital version of this guide.



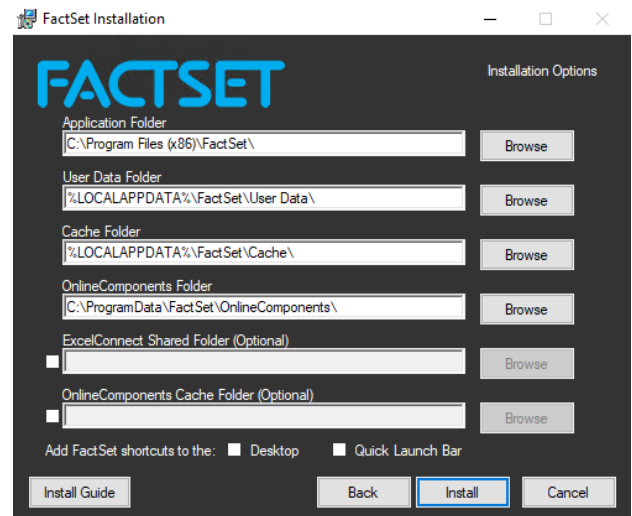
2. FactSet can be installed in either a per-user or per-machine context. A per-user install does not require administrator rights and installs FactSet for the currently logged on user only.



Important Note

To ensure all users that access a machine can use FactSet, it is recommended that an administrator account is used to perform a per-machine installation of the FactSet Workstation. Unattended or silent installs of FactSet require the ALLUSERS Public Property be set to ensure FactSet is installed in a per-machine context. See the [Packaging / Repackaging](#) section for more information.

- Choose the location of the FactSet folders or use the default recommended locations. See FactSet's Folder Recommendations table below for more details.
- Once the installation has finished you can check the "Launch FactSet" box if you wish to launch FactSet immediately after clicking Finish.



FactSet Folder Recommendations

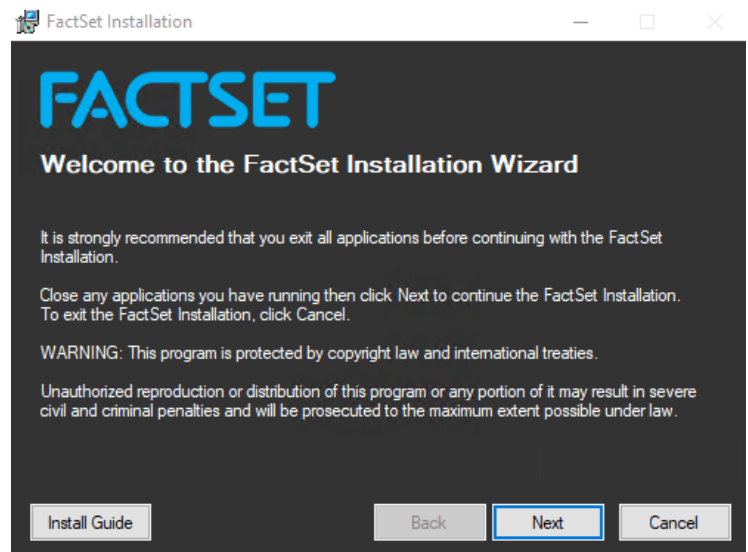
FactSet Folder	Name	Recommendation
Application Folder	ProgramDir	Contains FactSet's installed application files. The Application Folder should reside on a local fixed drive.
User Data Folder	FactSetDir	Individual user credentials and configuration files. In a Multiuser Environment this location should reside within the users' mapped network drive
Cache Folder	CacheDir	Temporary files used by the Workstation and Office Add-ins for in session caching. There is no requirement for this location to be persistent. FactSet recommend a local non-roaming profile location in all client environments including non-persistent virtualized environments.
OnlineComponents Folder	OCDir	<p>OnlineComponents are automatically downloaded overlay files that allow a client to move to any release within a FactSet Framework without needing to install a new version of the FactSet Workstation. OnlineComponents are shared files that should be stored in a common local drive location.</p> <p>In a Multiuser Environment, this location should remain on a local persistent drive. If a persistent local location is not available, please contact techsupport@factset.com.</p> <p>Please see Framework Lifecycle Policy and OnlineComponents for more information.</p>
ExcelConnect / QuickReport Shared Folder	EC1SharedDir	This optional setting should only be configured for FactSet Quick Report users who share portfolios and aggregates.
OnlineComponents Cache Folder	OCNetworkDir	<p>The OnlineComponents Cache folder is a shared network drive location. Each OnlineComponents release is written to this location by the first user to complete the OnlineComponents download. Subsequent users download the OnlineComponents from this location instead of over the Internet; significantly reducing bandwidth usage and the time taken to receive the latest updates.</p> <p>Please see FactSet OnlineComponents Cache Folder for more information.</p>

It is recommended that the FactSet application directories listed above are whitelisted within any antivirus, security, or user virtualization software.

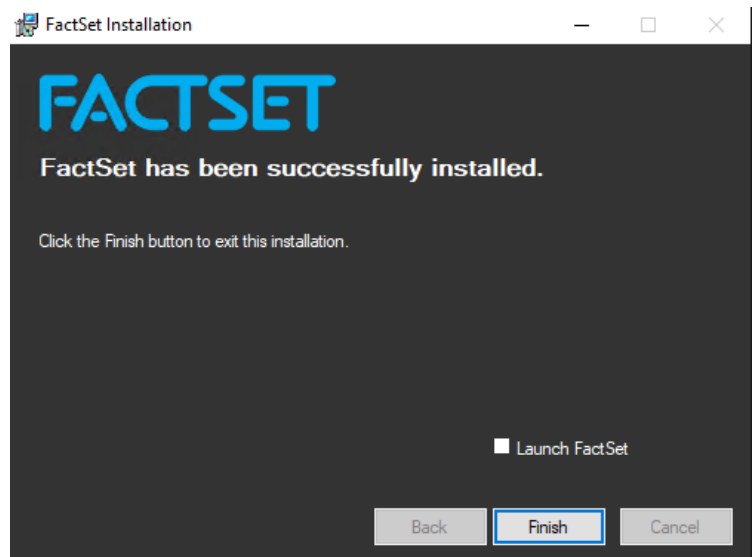
Upgrade FactSet

FactSet recommends upgrading the base installation every 12 months. Before upgrading, all FactSet, Microsoft Office and Adobe Reader/Acrobat processes must be closed. If any of these applications are running during the upgrade, the user will be notified so that the applications and processes can be exited.

1. At the welcome screen, click Next to continue. The setup will determine if the computer meets system requirements. Click on the Install Guide button to view the latest version of this guide.



2. Once the installation has finished, check the "Launch FactSet" box if you wish to launch FactSet immediately after clicking Finish.



Multiuser Environments (Citrix / Terminal Services / Hotdesk)

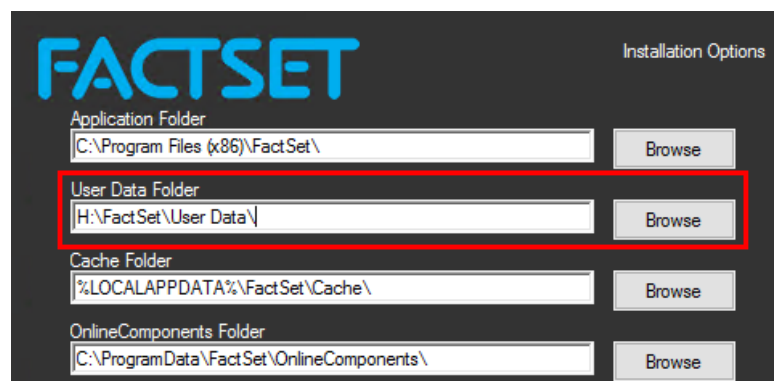
The FactSet Workstation can be deployed to most end user desktop environments. FactSet fully supports the use of Citrix and Terminal Services in physical, virtual, persistent, and non-persistent environments with FactSet installed locally or streamed using Microsoft's App-V.

The FactSet version should be consistent across all servers in multiuser environments and across desktop environments that are used in parallel. Microsoft Office must always be installed locally in the same environment that is running FactSet.

FactSet's Technology Solutions Engineering team is available to discuss your set up and offer advice on the best way to appropriately configure and size your environment. Please email techsupport@factset.com and one of our engineers will be happy to arrange a call to discuss your set up.

Multiuser Environment Configuration

In all multiuser environments, only the user data folder location requires a non-default location. The user data folder stores personal configuration files and must point to a user specific persistent network drive or UNC location, accessible from the multiuser platform. All other FactSet folders configurable at installation should be left with their default settings.



Publishing FactSet and Excel Add-ins within a Citrix XenApp/Virtual Apps Environment

The FactSet Workstation and FactSet's Excel integration are published in Citrix using the following executables:

- FactSet Workstation - "C:\Program Files (x86)\FactSet\FDSWorkstation_x64.exe".
- FactSet Excel Add-ins - "C:\Program Files (x86)\FactSet\fdswFixExcel.exe" (assuming a 64-bit OS).

To use FactSet's Office Integration features within a Citrix XenApp/Virtual Apps, Terminal Server, or other multiuser environment, Microsoft Office must be installed on the same Windows machine prior to installing the FactSet Application.

The FactSet Excel Add-in shortcut (fdswFixExcel.exe) is designed to ensure the correct FactSet Add-ins are loaded within Excel. When the FactSet Excel Add-ins shortcut is launched, it will first check the FactSet Add-ins that will be loaded and will then launch the default version of Excel on the machine.

If there are multiple versions of Excel on the server, to control which version is launched, the full path to the Excel.exe needs to be passed as a parameter of fdswFixExcel.exe, e.g. publish Excel 2013 32-bit on Windows 64-bit using:

- "C:\Program Files (x86)\FactSet\fdswFixExcel.exe" "C:\Program Files (x86)\Microsoft Office\OFFICE15\EXCEL.EXE"

Office Integration for Non FactSet users in a Multiuser Environment (Citrix, Terminal Server, hotdesk)

To ensure non-FactSet users in a multiuser environment (Citrix, Terminal Server, hotdesk) do not load the FactSet Excel XLL and Automation add-ins, please install FactSet using the DISABLE_EXCEL_ACTIVE_SETUP=1 [Public Property](#).

To ensure non-FactSet users in a multiuser environment (Citrix, Terminal Server, hotdesk) do not load the FactSet COM Add-ins, please follow these instructions.

1. Create a FactSet group in Active Directory and add all the FactSet users to that group.
2. Remove the "Users" group from the below registry keys.
3. Add the FactSet group with Read access to the below keys.

Windows 64-bit with Office 32-bit:

- [HKLM\SOFTWARE\Wow6432Node\Microsoft\Office\Excel\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Wow6432Node\Microsoft\Office\Outlook\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Wow6432Node\Microsoft\Office\PowerPoint\Addins\FactSet.OfficeAddi1]
- [HKLM\SOFTWARE\Wow6432Node\Microsoft\Office\Word\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Wow6432Node\Microsoft\Office\OneNote\Addins\FactSet.OneNote.OneNoteAddin]

Windows 64-bit with Office 64-bit:

- [HKLM\SOFTWARE\Microsoft\Office\Excel\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Microsoft\Office\Outlook\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Microsoft\Office\PowerPoint\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Microsoft\Office\Word\Addins\FactSet.OfficeAddin.1]
- [HKLM\SOFTWARE\Microsoft\Office\OneNote\Addins\FactSet.OneNote.OneNoteAddin]

Packaging / Repackaging

FactSet software is available in .MSI format for ease of deployment. The recommended method for packaging of FactSet is to create a transform file (.MST) containing any required customizations.

Installation Options

Msiexec.exe is the Windows install engine for the installation, maintenance, and removal of applications on Microsoft Windows systems.

Msiexec.exe can be executed in a variety of ways:

- Script or Batch file: This is often desirable for clients who deploy software via logon script or Microsoft System Center Configuration Manager or similar deployment tools.
- Command line: This method usually applies in environments where IT staff manually runs the FactSet installation on users' machines.

Here are some common examples using msiexec.exe.

- msiexec.exe /i FactSet_Workstation.msi
- msiexec.exe /i FactSet_Workstation.msi /qn
- msiexec.exe /i FactSet_Workstation.msi /qn TRANSFORMS="FactSet_Transform.mst"

Unattended or Silent Installations

Unattended or silent installations of FactSet, using SCCM or similar deployment tools, must include the ALLUSERS=1 Public Property to ensure FactSet is installed in a per-machine context.

- msiexec /i "FactSet_Workstation.msi" /qb ALLUSERS=1

[Public Properties](#) can be defined in a variety of ways:

- Transform file: FactSet recommends the use of a transform file (.MST) which can be created using an MSI editor. For instructions on how to create a transform file, please see the following section.
- Command line properties: Defines the Public Properties on the command line.
- Modify the MSI directly: We do not recommend modifying the provided MSI as this may complicate any future support troubleshooting.

The [Public Properties](#) section contains the most commonly used Public Properties for the FactSet installation.

FactSet Transform File

This section contains generic instructions on how to create a transform file (.MST) that defines a new path for the FactSet user data folder (public property = FACTSET_FACTSETDIR).

1. Within your chosen MSI editor, create a transform file.
2. Navigate to the Property table within the MSI.
3. Add a new row within the Property table called FACTSET_FACTSETDIR.
4. Configure the value of the FACTSET_FACTSETDIR property to the full file path for the user data folder.
5. Ensure the transform containing the above change is saved.

An example of the syntax used to install FactSet using the generated transform file would be:

```
msiexec.exe /i FactSet_Workstation.msi /qn TRANSFORMS="<path to the transform file .mst>"  
/i = installs or configures a product  
/qn = Quiet mode with no User Interaction
```

Public Properties

Public Property Name	Description
ALLUSERS=1	Specifies installer to perform a per-machine context installation for all Windows accounts. When not defined, the installer will perform a per-user context installation for just the Windows account executing the installation.
FACTSET_CLOSE_PROCESSES=1	Specifies installer to end all processes which will prevent the install from running. This may cause Microsoft Office applications to close without saving.
FACTSET_CACHEDIR="<path>"	Specifies the FactSet Cache folder location.
FACTSET_EC1SHAREDDIR="<path>"	Specifies the optional FactSet QuickReport Client Data location.
FACTSET_FACTSETDIR="<path>"	Specifies the FactSet User Data folder location.
FACTSET_OCDIR="<path>"	Specifies the FactSet OnlineComponents Overlays location.
FACTSET_OCNETWORKDIR="<path>"	Specifies the FactSet OnlineComponents Cache location.
FACTSET_PROGRAMDIR="<path>"	Specifies the FactSet application folder location.
DESKTOP_SHORTCUT=yes	Allows the FactSet desktop shortcut to be created.
DISABLE_OFFICE_INTEGRATION=1	Prevents Office Integration Components from being installed. Users will not have the ability to enable any FactSet Office Add-ins.
DISABLE_EXCEL_INTEGRATION=1	Prevents the FactSet Add-in from loading in Excel automatically at install.* Users who require the FactSet Add-in will still have the ability to load it.
DISABLE_ONENOTE_INTEGRATION=1	Prevents the FactSet Add-in from loading in OneNote automatically at install.* Users who require the FactSet Add-in will still have the ability to load it.
DISABLE_OUTLOOK_INTEGRATION=1	Prevents the FactSet Add-in from loading in Outlook automatically at install.* Users who require the FactSet Add-in will still have the ability to load it.
DISABLE_POWERPOINT_INTEGRATION=1	Prevents the FactSet Add-in from loading in PowerPoint automatically at install.* Users who require the FactSet Add-in will still have the ability to load it.
DISABLE_WORD_INTEGRATION=1	Prevents the FactSet Add-in from loading in Word automatically at install.* Users who require the FactSet Add-in will still have the ability to load it.
DISABLE_EXCEL_ACTIVE_SETUP=1	Prevents Active Setup from creating the Excel XLL and Automation add-ins for all Windows accounts under the registry subkey HKEY_CURRENT_USER\Software\Microsoft\Office*.0\Excel\Options
DISABLE_ADOBE_PLUGIN=1	Prevents Adobe Plugin from being installed.
DISABLE_REGISTER_TRUSTED_CERT=1	Prevents Trusted Certificates from being installed.
DISABLE_FDSTP2_TRUSTED_ZONE=1	Prevents FDSTP2:// from being added to Trusted Sites.
DISABLE_SET_FACTSETDIR_PERM=1	Prevents installer from modifying permissions on the FactSet User Data folder.

*Office Add-ins will still appear enabled via the Office Options - COM Add-ins menu.

If you have any questions about the use of these Public Properties, please contact Technology Solutions Engineering techsupport@factset.com.

Acknowledgments

- This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org>).
- This product includes cryptographic software written by Eric Young (ey@cryptsoft.com).
- This product includes software written by Tim Hudson (tjh@cryptsoft.com).