LSEG WORKSPACE SYSTEM TEST GUIDE



Version history

| Document version | Summary of Changes |
|------------------|----------------------------------------------------------------------------|
| 124.03 | Global release version |
| 124.02 | Updated links to the LSEG Workspace documentation site and other documents |
| 124.01 | Tests added to the Office section for Workspace Add-in requirements |
| 123.01 | Initial version of the LSEG Workspace System Test Guide |

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About this document

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In this guide

A System Test is a suite of tests that verifies whether your hardware, software, and network environments are suitable to run LSEG Workspace and its associated applications.

The set of tests performed depends on when you run them; before installation, during installation, or once the product is installed.

For information about the Financial Community Network (FCN) and Delivery Direct, see the repository for the Customer Connectivity DNS Migration Guide and Finance Community Network (FCN) document:

https://my.refinitiv.com/content/mytr/en/policies/private-network-overview.html

Intended readership

This document is targeted at the following:

- Anyone who is considering installing Workspace can run System Test to make sure that their computer meets the necessary minimum requirements.
- Any Workspace user can run System Test at any time to verify that Workspace is running correctly.

Contact information

To:

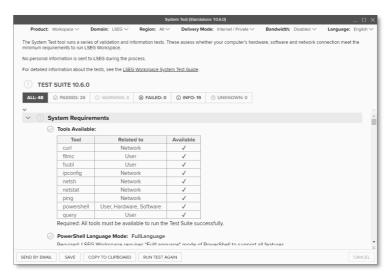
- Receive further assistance, contact Support.
- Provide feedback on this document or other Workspace technical content, contact DocFeedback@lseg.com.

Running system and network testing

To check whether your system meets the minimum requirements, run one of the following:

- Standalone System Test, illustrated opposite, or
- Embedded System Test
- Web System Test

Running the standalone System Test



The System Test (Standalone) product is updated more frequently than the embedded version. As such, it is highly recommended that you use this method to assess system compatibility, before installing Workspace for the first time.

- 1. Go to the Workspace download page that is accessible in your enterprise. See Download locations, below.
- 2. Click the **Download for Windows** button.
 - ① To toggle the operating system, click the **macOS** hyperlink.
- 3. Open the downloaded executable to run System Test (Standalone).

Running the embedded System Test

From the command line

- 1. Open a command prompt and navigate to the Workspace executable location.
- 2. Run the following command:

RefinitivWorkspace.exe -- systemtest

From in-product

- 1. Run Workspace.
- 2. Select the **Help** menu > **System Test**



Running the Web System Test

- 1. Go to the Workspace download page that is accessible in your enterprise. See Download locations, below.
- 2. Click the Open in Web button.

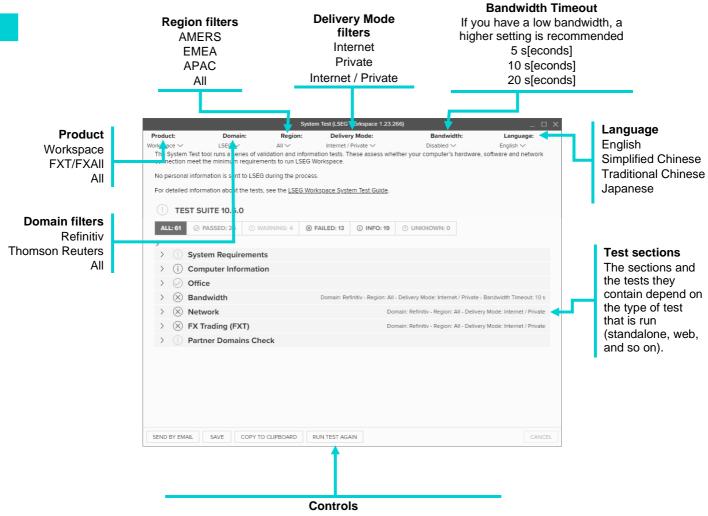
Web System Test opens in the same tab and runs immediately.

Download locations

For both Windows and macOS, you can download Workspace and the standalone version of System Test from the following locations:

- https://workspace.refinitiv.com/Apps/ProductSystemTest/
- https://workspace.extranet.refinitiv.biz/Apps/ProductSystemTest/

System Test user interface



Send by email creates an email in your default email app, containing the test results in plain text and attaches the results as HTML and XML files.

Save allows you to save the results to your network in HTML, XML, or text format.

Copy to clipboard copies the results in plain text format. Run test again reruns the test, including any changes you make to filter selections.

Cancel ends the currently running test.

Pre-requisites

System Test requires the following operating system tools to produce the full set of results.

Windows tools

| Tool | Туре | Summary | System Test use |
|------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| chcp | Турс | Used to change the active console code page to UTF-8. | Changes the default console code page to UTF-8. |
| cmd | | Used to run other commands, such as curl. | |
| curl | Network | Used to get or send data including files using URL syntax. | Tests IP address accessibility. |
| findstr | | Used to search for a specific text string in files. | Retrieves a specific text string in a file. |
| fltmc | User | Used to load and unload mini-filter drivers, which monitor or track file system data, attach, or detach mini-filter drivers from volumes, and enumerate mini-filter drivers, instances, and volumes. | Retrieves the installed mini-filter drivers. |
| fsutil | User | Lists hard links for a file or creates a hard link (a directory entry for a file). | Checks admin rights. |
| ipconfig | Network | Determines the IP address of your computer, together with other information, such as the address of its default gateway. | |
| netsh | Network | Allows you to display or modify the network configuration of a computer that is currently running. | Retrieves the proxy settings. |
| netstat | Network | Displays incoming and outgoing TCP network connections, routing tables, and several network interface and network protocol statistics. | Retrieves the routing table. |
| ping | Network | Used to troubleshoot connectivity, reachability, and name resolution. | Tests IP address accessibility. |
| powershell | Hardware, Software | A task-based command-line shell and scripting language, used to automate tasks in the Windows ecosystem, including active directory and exchange. | Retrieves screen resolutions. |
| query | User | Displays information about processes, sessions, and Remote Desktop Session Host servers. | |
| reg | Hardware, Software | Used to perform operations on registry subkey information and values in registry entries. | Reads registry entries. |
| taskkill | | Used to end the RefinitivWorkspace.exe process. | |
| tasklist | | Often used in conjunction with taskkill, this identifies whether RefinitivWorkspace.exe and Microsoft Office applications are running. | |
| where | Software | Displays the location of files that match a search pattern. | Retrieves the location of tools files. |
| whoami | User | Used to display user, group, and privilege information for the user who is currently logged into the local system. If used without parameters, it displays the current domain and username. | Retrieves the security identifier of the current user. |

macOS tools

| Tool | Туре | Summary | System Test use |
|------|----------|------------------------------------------------------------------------------------------------------------------|-----------------|
| cat | Software | Allows the creation of single or multiple files, view contents of files, concatenate files, and redirect output. | |

| Tool | Туре | Summary | System Test use |
|-----------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| defaults | | | Used to retrieve the language settings on the machine. |
| df | Hardware | Displays disk usage information based on file system. | Retrieves the amount of available disk space. |
| diskutil | Hardware | A native Apple command-line utility used to retrieve detailed disk information, such as disk partitioning. | Retrieves disk and partitioning information. |
| echo | Software | Used to output the strings it is passed as arguments. | |
| exec() | | This command can be used to run a script file on a local computer. It can also be used perform tasks in a backup or restore process. | |
| grep | Software | Used to search text and strings in files. | |
| hostname | | | Used to retrieve the machine ID. |
| ioreg | Hardware | Displays the I/O Kit registry. | |
| ifconfig | Hardware, Software | Used to configure network interface parameters. | Retrieves network information. |
| ipconfig | Software | Manages the IP configuration state. | |
| locale | | | Used to retrieve the system language. |
| netstat | Network | Displays incoming and outgoing TCP network connections, routing tables, and several network interface and network protocol statistics. | Retrieves the routing table. |
| route | Network | Used to retrieve network routing table information, such as the default gateway. | Retrieves information on the default gateway and network interfaces. |
| scutil | Network | Used to manage system configuration parameters: scutil-nwi Retrieves network information scutil-dns Retrieves DNS information scutil-proxy Retrieves system proxy settings | Retrieves network, DNS, and system proxy information. |
| sw_vers | Software | Displays the macOS version. | Retrieves the macOS version. |
| sysctl | Software | Allows kernel variables to be queried and set. | Retrieves system information. |
| system_profiler | Hardware, software | Used to retrieve system hardware and software configuration information. | Retrieves memory system information. |
| vm_stat | | | Used to retrieve machine virtual memory statistics. |
| who | User | Displays who is currently logged into a machine. | |
| whoami | User | Used to display user, group, and privilege information for the user who is currently logged into the local system. If used without parameters, it displays the current domain and username. | Retrieves the security identifier of the current user. |

Test sections and results

Test result icons

When you run a System Test, Workspace displays the test results with relevant messages and a status. The result displays the test status as an icon.

The tables that follow summarise the meaning of the network test and system test result icons.

Network tests

For the standalone and embedded versions of System Test, checks are performed using the following command:

```
curl -v -I -L -s -connect-timeout 5 -m 5
https://login.ciam.refinitiv.biz/.well-known/openid-configuration
```

For the Web version of System Test, the browser uses the Fetch method to check network accessibility.

| Result | Icon | Description |
|------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Success | Ø | The host IP address is discoverable and was contacted successfully. |
| Unable to connect | • | The host IP address is discoverable but is not responding or is returning an error, which is usually a security or credential issue. This can be expected occasionally, as some servers may require a login token. However, in this case, the System Test is disconnected. |
| Failed to resolve IP address | | The host IP address is not discoverable. This may be caused by any of the following: |
| | 8 | An authorization issue, due to a security tool blocking access. The server, IP address, or domain is currently not accessible. |
| | | The server, IP address, or domain has been removed. |

System tests

| Result | Icon | Description |
|----------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| None / Unknown | 9 | No test status has been found. |
| Passed | Ø | Test matches the required conditions. No further action is required. |
| Failed | 8 | Test does not match the required conditions. Further action needs to be taken to address the issue. |
| Warning | 0 | Test results may not be critical. If Workspace displays a warning message while running the prerequisite tests, you can continue with the installation process. While running the diagnostics tests, this status may restrict some features, but will not prevent you from using the product. |
| Information | 0 | No validation is required for the test, and it is only for information. No further action is required. |

System Requirements

Web version

For the Web-based System Test, the System Requirements tests are limited to the following:

| Test | Description | Туре |
|-----------------|------------------------------------------------------------------------------------------------------|------------|
| Browser version | Displays your browser name and version. It also indicates whether you are using a supported product. | Validation |

Embedded and standalone versions

For the embedded and standalone System Tests, this section checks for the pre-requisite operating system tools, described in the Pre-requisites section. It also returns the information described in the table below regarding your operating system.

These initial tests ensure that all software prerequisites¹ (such as operating system version, third-party software, and so on), and all hardware prerequisites (such as the CPU speed, RAM size, and so on), meet the minimum requirements to install Workspace:

| Test | Description | Туре |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PowerShell Language Mode | Verifies whether the FullLanguage mode of PowerShell is available. This is the default language mode and is a requirement for Workspace to support all features. | Validation - Required: FullLanguage |
| Operating System | Verifies if the operating system version installed on your workstation is compatible with Workspace. | Information - Windows release number See Windows 10 in the list of Microsoft Windows versions. - Mac release number See macOS 10.13 onwards in macOS version history. |
| OS Architecture | Checks whether the operating system is 32- or 64-bit. | Validation - Required: 64-bit |
| OS Version | Checks whether the operating system version is supported. | Validation - Supported versions are specified in the Workspace System Requirements document. |
| OS Service Pack | If relevant, the service pack number of your operating system. | Information |
| Operating System Language | Displays the interface language of your system. | Information |
| CPU Description | Displays a description of your system. | Information |
| CPU Type | Provides information regarding the type of CPU you use. | Information |
| CPU Speed | Checks whether the minimum CPU speed (in GHz) of your computer supports Workspace. | Information |
| Number of CPU Cores | The CPU number of cores (= logical cores = physical cores x threads) | Validation - Required: 2 cores |

Currently, some of the values returned by System Test are not in line with the system requirements for Workspace. For further information, refer to the Workspace System Requirements document.

| Test | Description | Туре |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Installed Memory | This test verifies if you have enough memory installed on your computer for optimal performance. Installed memory is also known as physical memory or random access memory (RAM). | Validation – Required: 8GB |
| Primary Screen Resolution | This test is run to verify whether the resolution on your primary screen meets the minimum requirements to support Workspace. | Validation – Required: 1280 x 1024 |
| Color Depth ² | Verifies if the value of the color depth that you have on your computer supports Workspace. | Validation - Required: 24-bit |
| Free Disk Space | Displays the drive that has the most available free space. It provides information on whether enough free disk space is available for installation of Workspace. | Validation - Required: 1 GB |
| Disk Write Permissions | Verifies that you have access rights to the required folders. | Validation |
| Registry Access Rights | Verifies that you have access rights to the required registry. | Validation |

Computer Information

These tests provide information about the machine on which System Test is run. These details can help your support team identify and rectify issues.

| Test | Description | Туре |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Computer Name | Displays the name of the computer. | Information |
| Computer Domain | Displays the name of the computer domain. | Information |
| User Account Name | Displays the username used in the current login session. You can see the login information. | Information |
| Admin Rights | Displays whether you have admin rights on the computer | Information |
| User Time Zone | Displays the time zone that is set on your system. | Information |
| Local Time | The Local Time test displays the local time that is set on your system. | Information |
| User Locale | Displays the language code from your Regional and Language Options. For example, en-US represents English (United States) or en-GB represents English (United Kingdom). | Information |
| Thin Client Run Mode | Verifies if the current session is running remotely or locally. | Information |
| Screens | This test collects information on the number of screens. | Information |
| Screen Details | Displays: - Model Name - Screen Resolution - Primary Screen | Information |
| Video Adapters | Displays the model, RAM, and manufacturer of the video adapter on your computer. | Information - Required: 128 MB |

Office

| Test | Description | Туре |
|--------------------------|-------------------------------------------------|-------------|
| Microsoft Office | Displays the installed Microsoft Office variant | Information |
| Microsoft Office version | Verifies the version of Microsoft Office. | Validation |

 $^{^{2}\,\,}$ Uses the RstPlugPrerequisites.d11 plug-in and Win32 APIs to determine the color depth

| Test | Description | Туре |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| | | Required: Version 15 or higher |
| Microsoft Office language | The Microsoft Office Language test displays the language that you have set for Microsoft Office. | Information |
| Microsoft Office installed through Windows Store | Verifies the installation type of Microsoft Office. If the variant was installed through Microsoft Store, it is unsupported by Workspace. | Validation – Required: false |
| Microsoft Edge WebView2 Runtime installed | Verifies whether Microsoft Edge WebView2 Runtime is installed. This is required for certain Workspace Add-In functions ³ to be available in the ribbon. | Validation – Required: True |
| Don't allow any web addins to start | Verifies whether Group and/or Microsoft 365 Trust Center policies are set to deny the use of Web add-ins. The Don't allow any web add-ins to start checkbox must be unchecked for certain Workspace Add-In functions ³ to be available in the ribbon. | Validation – Required: False |
| Microsoft Office Version for Productivity Tools | Verifies the version of Microsoft Office. This is required for certain Workspace Add-In functions ³ to be available in the ribbon. | Validation - Required: Version 16.0.15601 or higher |

Bandwidth

| Test | Description | Туре |
|--------------------------------|------------------------------------------------------------|--------------------------------------------------------------|
| Content Delivery Network (CDN) | Checks connectivity with the main and regional CDN servers | Validation - Minimum recommended download speed: 175 kbit/s |
| Reverse Proxy | | Validation - Minimum recommended download speed: 175 kbit/s |

Network

Network tests are used to test connectivity, including:

- Missing connection
- Speed of connection
- Connection to services
- Connection to real-time data
- Connection to time series data

| Test | Description | Туре |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Certificates | Checks whether the trusted Commodo root certificate is installed. | Validation |
| Check for publisher's certificate revocation | Activating this setting may cause installation to fail because LSEG certificates cannot be updated on a private network without direct Internet access. | Validation - Required: false |

³ Items that are affected include Deals BI, Linking, Hotkeys, Traces, Auto Color, Define Palette, Comp List, Annotations, and Logos. For further information, see the Workspace Add-In Installation Guides on the Workspace documentation site.

| Test | Description | Туре |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Check for server certificate revocation | Activating this setting may cause the installation to fail because LSEG certificates cannot be updated on a private network without direct Internet access. | Validation – Required: false |
| Product page | Tests connectivity to the product page of Workspace. | Validation |
| Content Delivery Network | Tests connectivity to content delivery network. | Validation |
| Login – Authentication | Checks login authentication. | Validation |
| Login – Heartbeat | Checks login heartbeat. | Validation |
| Customer Identity and Access Management (CIAM) | Checks the accessibility to new authentication services. | Information |
| Support | Checks connectivity to Support. | Validation |
| API/s | Checks connectivity to API/s. | Validation |
| Messenger | Checks connectivity to Messenger. | Validation |
| Apps | Checks connectivity to Apps. | Validation |
| Views | Checks connectivity to Views. | Validation |
| Real-time | Checks the availability of real-time data, the type of network you are using for real-time data delivery (Private or Internet), your deployment model, and whether your IDN permissions are synchronized. | Validation |
| Datastream | Checks connectivity to Datastream. | Validation |

FX Trading (FXT/FxAII)

| Test | Description | Type |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|
| Single Sign On (SSO) | Checks connectivity to SSO servers | Validation |
| Dealing/Trading session | Checks connectivity to trading servers | Validation |
| FXall Apps (example Treasury Center) | Checks connectivity to regional servers hosting FXall apps | Validation |
| Aggregator access to Order Book, Pricestream, Refinitiv FX Matching | | Validation |
| Trade blotter | | Validation |
| Credit admin | | Validation |
| Connectivity test | | Validation |
| FB | Checks connectivity to the Feed Blender service. | Validation |
| POMS | Checks connectivity to the Portfolio Order Management System, which is an automated FX trade order management and execution system. | Validation |
| QT | Checks connectivity to the QuickTrade service. | Validation |
| TC | Checks connectivity to the Trading Code service. | Validation |
| Options | Checks connectivity to the Trading Code Options service. | Validation |

Partner Domains Check

| Test | Description | Туре |
|---------------------------------|------------------------------------------------------------------------------------------------------------------|------------|
| Frequently used Partner Domains | Checks DNSs that are permitted and commonly used by Workspace customers. This includes news and search services. | Validation |