

# System i Workspace AnyWhere

Frequently Asked Questions

### Copyright © 2023 Infor

### **Important Notices**

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement, the terms of which separate agreement shall govern your use of this material and all supplemental related materials ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above. Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Without limitation, U.S. export control laws and other applicable export and import laws govern your use of this material and you will neither export or re-export, directly or indirectly, this material nor any related materials or supplemental information in violation of such laws, or use such materials for any purpose prohibited by such laws.

### **Trademark Acknowledgements**

The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or related affiliates and subsidiaries. All rights reserved. All other company, product, trade or service names referenced may be registered trademarks or trademarks of their respective owners.

#### **Publication Information**

Release: Infor System i Workspace AnyWhere

Publication date: December 4, 2023

# Contents

About this guide	5
Intended audience	5
Related documents	5
Contacting Infor	6
Chapter 1 Frequently Asked Questions	7
Introduction	7
Pre-Requisites/Installation	8
General	8
Microsoft Windows Server	12
IBM i	15
SSL	16
General	16
Microsoft Windows Server	17
IBM i	17
Security	18
Client	19
General Usage	21
5250 AnyWhere Emulator	24
Designer	
Extensions	32
Product Enhancements	

Contents

## About this guide

A collection of frequently asked questions regarding upgrades and information about System i Workspace AnyWhere, with answers and links to further reading.

**Caution:** The System i Workspace AnyWhere screen shots within this guide were obtained with the *Infor Design UI Version* option set to **Classic**. If the System Administrator has changed the *Infor Design UI Version* option to **New**, the appearance of the product may differ to the screen shots within this guide, but the documented functionality of System i Workspace AnyWhere will be the same.

## Intended audience

This guide is intended for System Administrators who are looking to upgrade to System i Workspace AnyWhere from an existing System i Workspace release, or those customers who have recently upgraded, but have questions regarding the differences between System i Workspace AnyWhere and their existing System i Workspace release.

# **Related documents**

You can find the documents in the product documentation section of the Infor Support Portal, as described in Contacting Infor on page 6.

System i Workspace AnyWhere - Product Guide

System I Workspace AnyWhere - Release Summary

System i Workspace AnyWhere - Installation & Admin Guide

The latest versions of all these guides can be found on Knowledge Base article 1963350 on the Infor Support Portal.

# Contacting Infor

If you have questions about Infor products, go to Infor Concierge at <u>https://concierge.infor.com/</u> and create a support incident.

The latest documentation is available from <u>docs.infor.com</u> or from the Infor Support Portal. To access documentation on the Infor Support Portal, select **Search > Browse Documentation**. We recommend that you check this portal periodically for updated documentation.

If you have comments about Infor documentation, contact <u>documentation@infor.com</u>.

## Chapter 1 Frequently Asked Questions

## Introduction

This guide has been created to aid customers who have existing System i Workspace deployments that they wish to upgrade to System i Workspace AnyWhere, but have concerns or questions about the upgrade process and functionality of the new version, or those customers who have recently upgraded, but have questions regarding the differences between System i Workspace AnyWhere and their existing System i Workspace release.

**Caution:** This document, by its very nature, is liable to change over time as Infor receives more feedback and support inquiries about System i Workspace AnyWhere. We recommend that you subscribe to Knowledge Base article 1963350 on Infor Xtreme, where any updates to this document will be published.

The frequently asked questions have been categorized into sub-sections below.

In the example questions, the term "we" has been used as a common term to describe you, or your company/enterprise.

## Pre-Requisites/Installation

## General

1 What Server Operating Systems does System i Workspace AnyWhere support?

System i Workspace AnyWhere supports deployment to Microsoft Windows Server 2016, 2019 or 2022 and IBM i OS/400 V7R3, V7R4 and 7.5 systems.

2 What Client Operating Systems does System i Workspace AnyWhere support?

System i Workspace AnyWhere supports Microsoft Windows 11 and 10, and Apple Mac OS (Monterrey or later).

3 Which versions of System Manager is System i Workspace AnyWhere compatible with?

System i Workspace AnyWhere only works with version 3.x of Infor's IBM i System Manager, which should always be at the latest PTF level. System Manager 3.x should be at a minimum of PTF AM/AG-0143 to support System i Workspace AnyWhere.

4 What Web Browsers does System i Workspace AnyWhere support?

System i Workspace AnyWhere supports Microsoft Edge (Chromium version) and Google Chrome on Microsoft Windows 11 or 10, and Apple Safari and Google Chrome on Apple Mac OS.

Caution: Infor recommends that the latest fixes/updates are applied to your web browser.

5 Where can we download System i Workspace AnyWhere from?

System i Workspace AnyWhere can be downloaded from the Infor Xtreme Product Download Center. Log on to Infor Xtreme and select *Downloads -> Products* from the menu. In the Infor Product Download Center interface, select *Product Search* and enter "anywhere" into the search field and click *Search*. If you are entitled to download System i Workspace AnyWhere, then it will be listed in the Product Search Results. Click on the product link to access the download files.

6 Where do we download the System i Workspace AnyWhere compatible version of the iViewer from?

The iViewer is now fully incorporated into System i Workspace AnyWhere, so a separate iViewer installation and maintenance is no longer required.

### 7 Does System i Workspace AnyWhere still support Single Sign-On (SSO)?

Yes, for both Microsoft Windows and IBM i deployments, and it still utilizes Microsoft's Active Directory and IBM's Enterprise Identity Management (EIM), in conjunction with KERBEROS/SPNEGO technologies. The SSO setup process has been improved, and the latest version of IBM EIM used. See the *Enabling Kerberos SSO* section in *Chapter 14* of the System i Workspace AnyWhere Installation & Admin Guide for more details.

When running inside InforOS, an additional SSO option is available that utilizes the SAML technology within Microsoft's ADFS. The implementation is specific to each Infor IBM ERP. For System21 customers, see the System i Workspace AnyWhere - InforOS Integration Guide for System21 for more details.

8 Why have you withdrawn support for Microsoft Internet Explorer 11, the System i Emulator and Update Manager in January 2022?

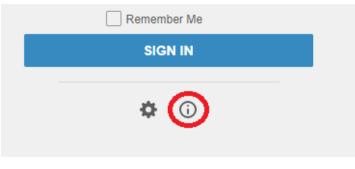
Microsoft announced the "End-Of-Life" of Internet Explorer 11 in June 2022, but as all the functionality of the now deprecated System i Emulator, and its Designer, has now been replaced within the 5250 AnyWhere Emulator, we believe the support of two Emulators within System i Workspace AnyWhere is no longer necessary, and that removing the deployment and maintenance of the System i Emulator on every Client PC will simplify the administration of System i Workspace AnyWhere for IT and Systems Administrators.

Also, other strategic Infor products and standards, such as InforOS (On-Premise and Multi-Tenant Cloud) that System i Workspace AnyWhere has to run inside, and the Infor Design System (the UI toolkit System i Workspace AnyWhere is based on), have already withdrawn Internet Explorer 11 support, which then restricts future development and compliance of System i Workspace AnyWhere with these other Infor products.

9 How do I identify which version of System i Workspace AnyWhere is installed?

There are two ways to identify the current System i Workspace AnyWhere you are using.

The simplest is to navigate to the Sign In form and click the *About System i Workspace AnyWhere* icon (the lower-case "i" at the bottom of the screen, beneath the *Sign In* button; e.g.



This will open a dialog box; e.g.

infor	>
System i Workspace AnyWhere	
SiW AnyWhere FP7 Build 200331 GA (Silver) FP20 Build 230630	•
Copyright © 2023 Infor. All rights reserved. The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or its affiliates and subsidiaries. All other trademarks listed herein are the property of their respective owners <u>www.infor.com</u> .	
Operating System: Windows	
Platform: Win32	-

The first line of the dialog box contains the information about the System i Workspace AnyWhere version; e.g.

SiW AnyWhere FP7 Build 200331 GA (Silver) FP20 Build 230630

The section of the version text above that is highlighted in green describes the initial installation version of System i Workspace AnyWhere.

The section of the version text above that is highlighted in blue describes the most recent Feature/Fix Pack version that has been applied on top of the initial System i Workspace AnyWhere installation.

From this example information, we know that the System i Workspace AnyWhere installation media used for the base installation was released in 31/03/2020 at the Feature Pack 7 level, and that Feature Pack 20, released on the 30/06/2023, has been applied to it.

**Caution:** The latest *System i Workspace AnyWhere - Feature Pack Release Summary* (which can be found on Knowledge Base article 1963350 on the Infor Support Portal) contains detail of the changes made at each Feature Pack release for you to assess the impact of these changes on your Enterprise.

For more detail or an alternative way to access the version string above, navigate to the System i Workspace AnyWhere Administration page (admin.html). The version text from the About dialog is also displayed at the top of the *Version Information* page that is opened by default. If you click the *Install History* option, a dialog will open showing the initial installation plus all the Feature/Fix Packs applied to the server; e.g.

Install History
SiW AnyWhere FP7 Build 200331 GA (Silver) 2020-05-13-10:07:09.149983500 Installed SiW AnyWhere FP13_HighImpact_Patch2 Build 211215 2021-12-20-13.00.39 Installed SiW AnyWhere FP14 Build 211231 2022-01-07-11.05.41 Installed SiW AnyWhere FP20 Build 230630 2023-10-10-15.49.42 Installed
Close

A time-stamp recording the date each installation was performed is written next to each entry.

**Caution:** For an Apache Tomcat installation, any updates made using the System i Workspace AnyWhere Tomcat Installer will be shown within this dialog.

**Caution:** System i Workspace AnyWhere Feature/Fix Packs are Cumulative, so the latest update includes all the features and fixes from previous releases, so it is acceptable to jump over several releases to get the latest version, as shown in the example above.

**Caution:** The latest System i Workspace AnyWhere Feature Pack can be found on Knowledge Base article 1963350 on the Infor Support Portal.

## Microsoft Windows Server

1 Can we install System i Workspace AnyWhere onto Microsoft Windows Server 2012 (or older version)?

No. For a Microsoft Windows deployment of System i Workspace AnyWhere, only Microsoft Windows Server 2016, 2019 or 2022 is supported.

2 Can we install System i Workspace AnyWhere onto the same Microsoft Windows Server 2016 or 2019 as my existing System i Workspace deployment and run them side-by-side?

No. System i Workspace AnyWhere uses a newer version of the Java runtime that has not been certified with previous System i Workspace versions, and only one JAVA\_HOME environment variable may be defined on the server.

**3** Can we install System i Workspace AnyWhere as an upgrade over the top of an existing System i Workspace installation?

No. The names and sub-directory structures of the different versions of System i Workspace prohibit this. If you are re-using the same Microsoft Windows Server, you should always uninstall the older version of the product, before applying System i Workspace AnyWhere.

4 Can we re-use the same Database Key (and its associated configuration file) as a previous version of System i Workspace when re-installing System i Workspace AnyWhere onto the same server?

Yes, but with extreme caution. After installation, you will need to check the URLs within the Workspace Administration UI screens (paying special attention changing the protocol from HTTP to HTTPS), as well as adding in the 5250 AnyWhere server URL and Port for each System i Workspace Profile.

In practice, for most customers, Infor recommends that you use a different Database Key so that the installer correctly populates the Workspace Configuration with the correct data automatically, and then re-apply any extra profiles, environments, companies etc. manually after the installation is complete.

# 5 Can we load balance System i Workspace AnyWhere across multiple Microsoft Windows Servers?

Yes. A load-balancing solution has been certified for System i Workspace AnyWhere. See the System i Workspace AnyWhere - Load Balancing Guide for more details.

# 6 Is Amazon Corretto the only JDK supported by System i Workspace AnyWhere on Microsoft Windows Servers?

Yes. Due to licensing changes made by Oracle<sup>™</sup> at the start of 2019, customers who use their long-term support Java products, and want to stay up to date with security and other fixes, may now incur additional costs. So that Infor customers can avoid any of these additional costs, Infor are switching applicable Java-based products from Oracle Java to Amazon Corretto Java. System i Workspace AnyWhere for Microsoft Windows Server/Tomcat 9 is included in this process and will now only support Amazon Corretto Java versions 11 or 17.

A new Silver Copy (Build 220331) of the full System i Workspace AnyWhere for Microsoft Windows Server/Tomcat 9 installation ISO which supports Amazon Corretto Java 17 (along with all fixes up to, and including, FP15) has been added to the Download Center.

For customers with existing System i Workspace AnyWhere for Microsoft Windows Server/Tomcat 9 installations (at FP3 or earlier/later), using Oracle Java, the System i Workspace AnyWhere - Installation & Admin Guide has been updated to explain how to switch from Oracle Java to Amazon Corretto Java 11 or 17 (see the section Upgrading the Java version in Chapter 13).

7 Can we use a different Java JDK from the one documented in the System i Workspace AnyWhere - Installation & Admin Guide?

This will depend on the version of the Java JDK...

- No, if the version of the Java JDK that you have installed is an earlier major version (i.e., Amazon™ Corretto JDK 8 x86 or x64) or from a different Java JDK provider, such as Oracle™ or IBM.
- Yes, if the version of the Java JDK that you have installed is from the same provider and has the same major version (i.e., Amazon<sup>™</sup> JDK 11/17 x64) but has a newer minor version (e.g., Amazon<sup>™</sup> JDK 11.0.5 x64).
- No, if the version of the Java JDK that you have installed is an unsupported major version, though you should also check with Infor Xtreme support, as they can provide details as to whether there are plans to certify your major version of the Java JDK with System i Workspace AnyWhere (and the estimated certification date).
- 8 Can we change the FQDN of the System i Workspace AnyWhere server during the installation?

Yes, the ability to change the FQDN of the System i Workspace AnyWhere server has been added into the installer's *Tomcat Properties* section. If using a CA-signed SSL certificate, the FQDN will be validated against the Common Name within the certificate.

9 Does the Microsoft Windows Server, containing System i Workspace AnyWhere, and the IBM i server, containing the Infor IBM i ERP, need to be in the same location?

Infor recommends, for on-premise deployments, that they are both located in a central data center on the same physical network for the best performance and stability. We do not recommend using any network bridging software, or similar facility, to join together the network running the IBM i with the one used by the Microsoft Windows Server.

The System i Workspace AnyWhere server performs constant data access to the IBM i, for example, to read information to display in the widgets My Spool Files, My Jobs and My Messages displayed on the Si Home tab for each client, along with many other processes that send data to/from the IBM i. By separating the location of the System i Workspace AnyWhere server from that of the IBM i, there is a risk of introducing latency and data loss, should the network between them be unreliable.

For customers using the 5250 AnyWhere Emulator, as well as the risk of latency, there is also a risk of session loss for all clients. The 5250 AnyWhere Emulator server creates a socket to communicate with the IBM i TELNET device for each session your clients utilize. These sockets are stateful. Any network disruption, even for the briefest period, between the Microsoft Windows Server and the IBM i will close the socket and force all sessions from that server to be disconnected, and they will not be recoverable. The network connection between the System i Workspace AnyWhere server and the IBM i needs to be robust and constant, with no interruption, which is why having both on the same physical network is the recommended deployment model.

## 10 Can the version of Tomcat used by System i Workspace AnyWhere be upgraded?

Yes. Infor provides a Tomcat Upgrade installation program that will upgrade an older release of Tomcat to the latest supported release.

See the *Upgrading the Tomcat version* section in Chapter 13 of the System i Workspace AnyWhere Installation & Admin Guide for more details.

## IBM i

1 Can we install System i Workspace AnyWhere onto the same IBM i server that is running an older version of IBM WebSphere Application Server (WAS), and with an existing, previous release, of System i Workspace installed?

Yes. IBM allows both WAS 8.5.x and WAS 9.0.x to be installed and used side-by-side, as long as the latest updates to their associated WAS and IBM HTTP Server are also applied for your OS/400 release.

System i Workspace AnyWhere can be installed into WAS 9.0.x and utilizes a separate HTTP server instance to the existing System i Workspace one. To allow the two System i Workspace versions to exist side-by-side, during the creation and configuration of the HTTP Server for System i Workspace AnyWhere, you need to make sure you do not re-use the same port number as the existing HTTP server used by the existing System i Workspace release, and also ensure that you use a different DB Key, so that any System i Workspace AnyWhere configuration files remain separate to those of the previous version.

2 Why does System i Workspace AnyWhere require the full WebSphere Application Server (WAS) for IBM i 9.0.x release and not the Express version used by previous System i Workspace versions? Can we use WAS Express 8.5.x instead?

IBM no longer provide an Express version of WAS at version 9.x. System i Workspace AnyWhere needs WAS 9.0.x or later as it is the only IBM i WAS version that supports the WebSocket and Servlet 3.1 functionality that the product utilizes. IBM's WAS Express 8.5.x cannot be used.

## SSL

## General

1 What is SSL?

When the term SSL is used in connection with System i Workspace AnyWhere, it refers to the secure encryption of HTTP data between the Client PC and the Web Server using a Certificate, either from a Trusted Root Certification Authority or Self-Signed.

SSL is also the name of the older protocol used in web browser HTTP encryption, though in most modern web browsers the newer, more secure, TLS (Transport Layer Security) protocols are actually used, usually TLS version 1.2 or 1.3.

### 2 What is a Trusted Root Certification Authority?

A Trusted Root Certification Authority is a globally verified/certified company whose Root Certificate is distributed widely in many operating systems and products. Examples are companies like Verisign and Comodo. When you buy a certificate from one of these companies, it is signed using their Root Certificate (which may have multiple intermediate layers), which means that you do not need to import the certificate onto every Client PC that uses System i Workspace AnyWhere.

Some customers may also generate their own company-wide Trusted Root Certification Authority, and automatically distribute and install this on PCs within their own network, which again means that if the certificate used by System i Workspace AnyWhere is signed using this Trusted Root Certification Authority, there should be no need to import the certificate onto every Client PC.

### 3 What is a Self-Signed certificate?

Using a Self-Signed certificate is the "quick and easy" way to get System i Workspace AnyWhere up and running, by creating a certificate that is not signed by a Trusted Root Certification Authority. This means that it incurs no cost but will be treated as "Not Secure" by all Web Browsers. A Self-Signed certificate must be installed manually on every PC within your enterprise.

Self-Signed certificates should generally only be used in very small deployments that use a private network, or for product testing. They should not be used in production environments, especially where clients access System i Workspace AnyWhere over a public network.

4 Can we turn off/remove SSL from System i Workspace AnyWhere?

Yes, but this configuration is not recommended or supported by Infor in the standard product, especially if System i Workspace AnyWhere is deployed onto a public facing server/network. If you wish to do this, please consult Infor Xtreme Support or your Infor Sales representative to engage Infor Consulting Services to perform this change.

## Microsoft Windows Server

1 Can we use an SSL certificate that has a "wildcard" for the Common and Subject Alternate names (e.g. \*.mydomain.com) so that we can use the same certificate over multiple System i Workspace AnyWhere deployments?

Yes. Certificates that contain a "wildcard" within the common and subject alternate names will now validate correctly within the System i Workspace AnyWhere installer.

2 Can we use an SSL certificate that is signed by our own company-wide Certificate Authority?

Yes, but the Key-store file that you provide during the installation must contain both the machine specific certificate as well as your companies' Certificate Authority certificate, or the verification of the machine specific certificate will fail during the installation. You will also need to ensure the Certificate Authority is deployed to all Client PCs that use System i Workspace AnyWhere.

## IBM i

1 Where can we find more information about the IBM Digital Certificate Manager (DCM)?

IBM provides their own FAQ site (<u>http://www-</u> <u>01.ibm.com/support/docview.wss?uid=nas8N1010356</u>) which has a number of DCM related common questions and solutions, with links to their full DCM product documentation.

## Security

1 Why won't websites added to My Favourites open within System i Workspace AnyWhere?

Due to changes that were introduced during security hardening enhancements based on recommendations from Infor's Security Office and released as a PTF for System i Workspace v2015, users are now only allowed to open URLs inside System i Workspace AnyWhere that have been approved and "white-listed" by the System Administrator.

This feature is documented within the *Configure user accessible URLs* section in *Chapter 14* of the System i Workspace AnyWhere Installation & Admin Guide.

### 2 Why does a white-listed website or Order Capture/Net-Link/WebTop tasks show as a blank/empty module tab within System i Workspace AnyWhere?

This usually occurs when the site/interface is using the HTTP protocol. By default, most web browsers do not support unsecure content (using HTTP protocol) running inside secure content (using HTTPS protocol, i.e., System i Workspace AnyWhere).

Depending on the web browser, you may get a popup message warning, an icon may appear on the address bar, or you are required to go into the web browsers configuration and adjust settings to add the unsecure HTTP site as "safe".

Consult your web browser's help for more information on enabling and allowing mixed content.

**Caution:** We only recommend that you enable mixed content for specific/named web sites, and not as a global setting, which could compromise the security of your System i Workspace AnyWhere deployment.

This issue may also occur if the white-listed website has set one or more HTTP headers that prevent it from being opened within an IFRAME element by the web browser (all tasks and URLs opened inside System i Workspace AnyWhere are contained within an IFRAME element). You will need to discuss the removal of these HTTP headers with the website owner to allow access within System i Workspace AnyWhere.

**3** Why can't I white-list multiple servers in the same domain using a wild-card (e.g., \*.mydomain.com)?

The Infor Security Office has set down strict security rules that products within Infor must adhere to, and this is one of them. If wild cards were supported, it would be possible for an outside agency to create a fake sub-domain on top of your main domain, and to trick a user into using it within System i Workspace AnyWhere to run malicious scripts or other code.

Examples of this feature are documented within the *Configure user accessible URLs* section in *Chapter 14* of the System i Workspace AnyWhere Installation & Admin Guide.

4 Why are users seeing this message regarding a CSRF Attack:



The current System i Workspace AnyWhere web session may have been timed out or disconnected by the Web Server. Alternatively, a CSRF Attack could have been performed on your System i Workspace AnyWhere session.

To continue, shutdown your web browser, re-open, and log back into System i Workspace AnyWhere. If you experience this message again, please contact your Systems Administrator.

System i Workspace AnyWhere is now protected against all Cross-site request forgery (also known as CSRF) POST requests which protects users against attackers who induce users to perform actions that they do not intend to perform.

**Caution:** It is important that all incidents of CSRF attacks are reported and investigated in case an attacker has tried to circumvent the existing security policies, this message indicates that an attack has been prevented.

However, this message may be shown by mistake (also known as a False Positive), the most common false positive is when a user's web session has been timed out or disconnected by the Web Server.

See the *Protecting against CSRF attacks* section in Chapter 14 of the System i Workspace AnyWhere Installation & Admin Guide for more details.

## Client

1 Can we use System i Workspace AnyWhere on an iPad/tablet/mobile device?

No. Due to the minimum display resolution and two-button mouse requirements, System i Workspace AnyWhere is not suitable or supported for tablet or mobile devices.

2 Can the same desktop PC for accessing System i Workspace AnyWhere as well as older System i Workspace versions?

Yes. System i Workspace AnyWhere utilizes the new 5250 AnyWhere Emulator, and no additional software is required.

3 What ports are used to connect the Client to the System i Workspace AnyWhere server?

For an out-of-the-box System i Workspace AnyWhere deployment, only port 443 (for HTTPS) is used, unless you manually changed it during the installation process.

### 4 Does System i Workspace AnyWhere support Linux Desktop clients?

Linux Desktop is not part of Infor's standard supported Client platforms for System i Workspace AnyWhere. However, as Google Chrome supports Linux Desktop, and provides a common execution platform for all System i Workspace AnyWhere's functionality, we believe that System i Workspace AnyWhere should generally operate as expected on a Linux Desktop when using Google Chrome.

If you wish to use Linux as your Client platform, we suggest that you first contact your Infor Sales/Product representative to discuss any support implications or agreements.

If you experience issues running on Linux, Infor suggests that you also reproduced the issue using the same browser (with the same fix pack/updates applied) on one of the supported Client platforms, before logging on Infor Xtreme.

5 Why doesn't System i Workspace AnyWhere support web browser X (e.g., Mozilla FireFox, Opera etc.)?

The web browser software supported by System i Workspace AnyWhere matches those listed in Infor's "Tech Stack", which is a common platform of technologies and products that all Infor products conform to.

The currently supported browsers are Google Chrome and Microsoft Edge (Chromium version).

However, System i Workspace AnyWhere has been written using standard modern web technologies and techniques so you may find that it will work in other web browsers, but should any issues arrive, they must be reproduced within one of the standard supported web browsers before they will be accepted by Infor Xtreme Support.

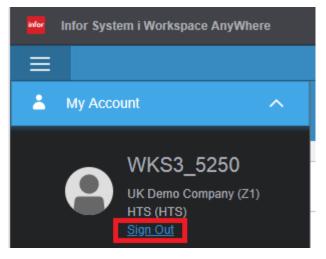
## General Usage

1 How do users sign out of System i Workspace AnyWhere?

The *Sign Out* option is located within the Application Menu, which can be opened by clicking the "hamburger" menu icon within the Module Tab strip, e.g., highlighted in red below...

infor System i W	orkspace AnyWhere			
		System i Home		
Infor System21 3	3.0 - UK Demo Company (Z1)	۹		*
	My Tasks		ô ···	Â

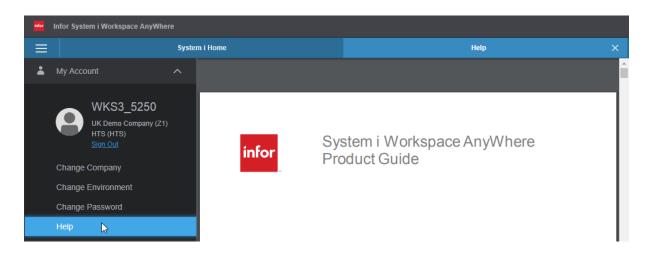
This Application Menu can be opened at any time. Select the *Sign Out* link within the *My Account* section to exit System i Workspace AnyWhere...



Alternatively, hold down CTRL + ALT + Q in the System i Home tab to initiate the Sign Out process (except on Apple MacOS where this key combination initiates the screen saver).

2 Where is the Product/Getting Started Guide? The existing Getting Started link in My Favourites no longer works.

A link to the latest version of the Product Guide has been added to the Application Menu. Open the Application Menu and select the *Help* option within the *My Account* section to display the Product Guide as a PDF within a new Module Tab...



Any existing *Getting Started* link within *My Favourites* can be deleted, unless it is required for reference to an older System i Workspace version that is still used for production work.

### 3 Can we use multiple monitors/displays with System i Workspace AnyWhere?

System i Workspace AnyWhere is a web-browser based product so, like any other webpage, such as Infor OS, any support for multiple displays is provided by the Operating System and web-browser and there are no specific multiple display features.

The main UI page, after a successful login will try to maximize to the primary display device, though it can be moved to a secondary screen, or stretched across multiple displays.

You can run multiple instances of System i Workspace AnyWhere within the same Client PC, as long as they are opened in a unique process (either a different web browser or a "New Session" that creates a new individual instance of the browser process). However, if using Emulator tasks, each web browser instance will consume a System Manager license.

Since System i Workspace AnyWhere FP3, a new Popup Window feature has been added for 5250 AnyWhere Emulator and URL tasks, which will allow the task to be opened in a separate popup window that is external to the main UI page and can be moved to a different display.

See the *External Popup Windows* section in Chapter 13 of the System i Workspace AnyWhere Installation & Admin Guide for more details.

#### 4 How do we know how many sessions are signed on/active?

Within System i Workspace AnyWhere Administration (admin.html), expand the *Diagnostics* section, expand the *Sessions* sub-section and select the *Active Sessions* option. This will open a user interface that contains a table listing all active sessions across all Profiles.

See the *Active Sessions Diagnostic* section within Chapter 10 of the System i Workspace AnyWhere Installation & Admin Guide for more information on using this user interface.

### 5 Will an active System i Workspace AnyWhere user session "time-out" if left idle?

Under normal circumstances, no.

In a default System i Workspace AnyWhere installation, the Web Session inactivity time-out is defined within the Web Server configuration, and is usually 30 minutes.

In a normal Web Session, this means that if the Web Server does not receive any type of response from the client Web Browser within 30 minutes, the unique Web Session that was assigned to it will be deleted from the Web Server memory, any resources it used cleared, and the Client Session will become invalid.

However, in System i Workspace AnyWhere, after a successful Sign In by the user, a hidden "Keep alive" page is created. This page is written to refresh itself on the Web Server every 1/3 of the Web Server time out value, which would be every 10 minutes in a default installation. This page ensures that even if the user is away from their PC or doing other things, their System i Workspace AnyWhere Web Session will not expire due to inactivity.

You can see this hidden "Keep alive" page in action by going into *Workspace Settings* in the Si Home module tab, and checking the *Show hidden tabs* option. Clicking on the module tab heading will show the current client session refresh status and time-out values that are in use.

However, should the network become unavailable due to some abnormal circumstance (e.g. network cable removed, VPN/WiFi shutdown, PC lid closed, Windows put into Sleep or Power Saving mode, etc.), which will prevent the "Keep alive" page updates from being sent, then the original Web Server functionality will kick in and the Web Session will expire if no update is received after 30 minutes, which will require the user to close their Web Browser and re-login to System i Workspace AnyWhere as a new Web Session.

The active Web Sessions can be viewed as noted in the previous question/answer.

**Caution:** If you are using the 5250 AnyWhere Emulator, this "Keep Alive" setting should not be confused with expiry (and recovery) of the WebSocket and IBM i TELNET connections used in the communication of the 5250 AnyWhere Emulator client with the System i Workspace AnyWhere Web Server and with the System i Workspace AnyWhere Web Server and with the System i Workspace AnyWhere Web Server and the IBM i. See the 5250 AnyWhere Emulator section below for more details on this topic.

**Caution:** System i Workspace AnyWhere allows the hosting of other Infor and non-Infor Webbased products within itself, such as IDF/NetLink, WebTop, Order Capture etc., which, as they run within different Web Servers to System i Workspace AnyWhere, will have their own time-out and keep alive settings. Consult the relevant product documentation for further information on preventing time-outs within these products.

## 5250 AnyWhere Emulator

### 1 What is the 5250 AnyWhere Emulator?

The 5250 AnyWhere Emulator is a new and advanced implementation of the IBM 5494 Remote Control Unit standard that allows any IBM i Telnet 5250 screen to be displayed within any HTML5-compliant web browser without additional client-side software requirements.

The 5250 AnyWhere Emulator combines the usability of Infor's Design System user interface with the performance and familiarity of IBM i "green screen" applications to provide an all-new user experience for Infor customers who use the IBM i platform.

The 5250 AnyWhere Emulator is used whenever a user launches an IBM i ERP task or command within System i Workspace AnyWhere.

Since System i Workspace AnyWhere Feature Pack 12, IBM i ERP task screens can be designed within the 5250 AnyWhere Emulator using its own Designer feature, which replaces the one previously provided within the now deprecated System i Emulator.

# 2 Do we need to install additional software onto our Client PCs to support the 5250 AnyWhere Emulator?

No. The 5250 AnyWhere Emulator has been re-written from scratch using only web technologies and requires no plug-ins or extensions to your web browser. The connection from the client, for each 5250 AnyWhere session, is made using a HTML5 WebSocket, to the System i Workspace AnyWhere server, over the WSS protocol via standard HTTPS from the web browser (see <a href="https://en.wikipedia.org/wiki/WebSocket">https://en.wikipedia.org/wiki/WebSocket</a> for more details).

### 3 How do we select multiple fields to copy in the 5250 AnyWhere Emulator?

In the 5250 AnyWhere Emulator, to select multiple fields within the display, the user holds the left or right mouse button down and drags a "rubber band" rectangle around inside the display, and, when the mouse button is released, the selected fields are highlighted with a semi-transparent blue background. The Context Menu can then be used to perform Copy actions or to clear the selection. If the right mouse button is used to select the fields, then the Context Menu is opened when the mouse button is released.

For more details, see the *Selecting, copying and pasting text* section in Chapter 2 of the System i Workspace AnyWhere Product Guide.

4 After changing to the Dark Theme, text that usually appears white in our 5250 green-screen application, is shown in black, and is difficult to read?

If a user changes their System i Workspace AnyWhere Theme after they have already changed their 5250 AnyWhere Emulator Preferences, then they may need to go back to the 5250 AnyWhere Emulator Preferences dialog and Reset them, to ensure the correct Theme color palette is applied, or the individual color used for White text can be adjusted within the Colour tab.

For more details, see the *Preferences* section in Chapter 2 of the System i Workspace AnyWhere Product Guide.

### 5 Does the 5250 AnyWhere Emulator support 132x27 Telnet 5250 displays?

Yes. When connecting to the IBM i, the 5250 AnyWhere Emulator will inform the OS/400 Operating System that it supports the 132x27 display, and any screens that use this will be rendered within 5250 AnyWhere Emulator using a 132x27 character grid layout.

### 6 How do we add a new Locale to the 5250 AnyWhere Emulator?

This feature is not supported unless PTF (fix pack) 1 or later is applied. See chapter 11, Localization, for a complete guide to adding a new Locale for the 5250 AnyWhere Emulator.

### 7 Does the 5250 AnyWhere Emulator support the TELNETS protocol (SSL for Telnet)?

No. TELNETS (or SSL for Telnet) is useful for securing data when the Client PC is connecting directly to the IBM i.

In the 5250 AnyWhere Emulator, all Telnet connections are established between the 5250 AnyWhere Emulator Server (running on Microsoft Windows Server 2016 or IBM i) and the IBM i server running your Infor IBM i applications. Infor recommends that these connections should be running over a private network, ideally in the same data center for optimum performance.

The connections between the web browser on the Client PC running System i Workspace AnyWhere, and the 5250 AnyWhere Emulator Server (running on Microsoft Windows Server 2016 or IBM i), which may run over either a private or public network, utilize the WebSocket protocol, which itself supports SSL encrypted communication that it inherits from the SSL setup for System i Workspace AnyWhere.

Therefore, all user transaction data from the 5250 AnyWhere Emulator that is potentially running over a public network is encrypted by default.

### 8 How do we know how many 5250 AnyWhere Emulator sessions are open/active?

Within System i Workspace AnyWhere Administration (admin.html), expand the 5250 AnyWhere Emulator section and select the View Server Sessions option. This will open a user interface that contains a table listing all active sessions within the 5250 AnyWhere Server associated with the selected Profile.

See the *View Server Sessions* section within Chapter 12 of the System i Workspace AnyWhere Installation & Admin Guide for more information on using this user interface.

9 Can we still export table data from the 5250 AnyWhere Emulator to Microsoft Excel?

Yes, though there is a slight difference in the process compared to the deprecated System i Emulator, as it is not possible to access Microsoft Excel APIs directly from a web browser. Therefore, in the 5250 AnyWhere Emulator, we use the Infor Design System tables' inbuilt Excel export facility which saves the data as an Excel compatible CSV file within your "Downloads" folder. This can then be opened in Microsoft Excel, or indeed any spreadsheet application that understands the CSV format. Export of table data to the Windows Clipboard, or to an XML or Text file is also supported.

**10** When we run a 5250 AnyWhere Emulator session, it does not create a WorkspaceCache folder or download any support or design files?

The 5250 AnyWhere Emulator does not require any client-side cache of files for operation. Any configuration, screen design, translation or other support files required by the 5250 AnyWhere Emulator are located on the System i Workspace AnyWhere server.

11 Why don't the Program Buttons we added using Designer appear in the 5250 AnyWhere Emulator?

The 5250 AnyWhere Emulator is written using standard web browser technologies, which do not allow the user to launch client-side executables due to the security risk of doing so, therefore these types of buttons are omitted from the display and are deprecated.

For more details, see *Appendix A* of the System i Workspace AnyWhere – 5250 AnyWhere Emulator Designer Guide.

**12** Why do some field labels appear in white-on-gray when using the default Theme with the 5250 AnyWhere Emulator?

Due to color scheme changes within the Infor Design System, text that has been defined in Designer as having a "Table Column Header" attribute will appear white in the default Theme, as the assumption is that it will normally appear over a darker background (i.e., in a table heading, where the background in black). Therefore, we suggest that if you have used this attribute within your screen designs, you should change it to either a "Field Header" or "Use Default" attribute type (see the System i Workspace AnyWhere – 5250 AnyWhere Emulator Designer Guide for more details).

13 When an IBM i screen contains multiple windowed areas (that do not overlap) only one window is displayed within the 5250 AnyWhere Emulator, how do we resolve this issue?

The 5250 AnyWhere Emulator utilizes Infor Design System components to display windowed areas within a modal popup window. The Infor Design System's modal popup windows do not allow you to have multiple popup window instances open at the same time, therefore, this is one of the few instances where the IBM i RPG program must be changed to combine the windowed area into a single window.

For a temporary workaround, you can un-check the 5250 AnyWhere *Preferences -> Advanced - > Enable Popup Window Recognition* option which will show the windows using text/reverse image characters.

14 We have written a bespoke program that uses one or more of the 5250 UI controls, why do they not appear in the 5250 AnyWhere Emulator?

The 5250 AnyWhere Emulator does not support "Write To Display" 5250 UI controls, such as check boxes and lists, as more advanced versions of these features can be added using Designer, and displayed using the Infor Design System controls.

**15** After leaving a PC unattended for a few hours, the 5250 AnyWhere Emulator sessions stop responding when an action key is pressed and appear to freeze. What can we do about this?

This is most commonly caused when the PC goes into "power saving" mode when left for a set time, which then disables the network card, VPN or other connectivity software and causes the 5250 AnyWhere Emulator sessions to become disconnected. Some Infor customers also employ network tooling to reduce network load by filtering out what may be considered non-essential data packets, which can block the low-level packets used by the WebSocket protocol to send "Keep Alive" and "Close" messages between the Web Browser and Web Server (the 5250 AnyWhere Emulator employs its own "Keep Alive" system to attempt to mitigate this).

The 5250 AnyWhere Emulator uses the W3C HTML WebSocket protocol to make connections between the 5250 AnyWhere Emulator Sessions in the Web Browser and the System i Workspace AnyWhere Server. These Client to Server WebSockets can be closed by either the Web Browser or the System i Workspace AnyWhere Web Server if it detects no activity for a period of time (usually around 30 – 60 minutes).

Firstly, in this scenario, the 5250 AnyWhere Emulator Sessions are not lost. To recover them, the user should Sign Out of System i Workspace AnyWhere and completely close the Web Browser. They should then re-open the Web Browser and connect to the same Workspace Profile using the same Environment and IBM i User Profile. Any disconnected 5250 AnyWhere Emulator Sessions that are still active on the IBM i will be automatically recovered.

To support user-controlled recovery of the sessions, System i Workspace AnyWhere supports an Acknowledgement processing system that adds additional checking between the Web Browser and Web Server that can aid in 5250 AnyWhere Emulator session recovery. See the *Communication Issues* section *Client to Server* sub-section in the *Troubleshooting Techniques* chapter of the System i Workspace AnyWhere Installation & Admin Guide for more information on enabling this feature.

16 Users close their PC at end of day without logging out of System i Workspace AnyWhere. Any 5250 AnyWhere Emulator sessions they had open are not recovered the next day but the IBM i TELNET session jobs are still active. Why is this?

When a WebSocket (which is the messaging protocol used between the 5250 AnyWhere Emulator session and the System i Workspace AnyWhere Web Server) is closed gracefully, it sends a message to the Web Server to let it know the connection has been closed. If the WebSocket is forcibly closed, such as by a PC shutdown or unexpected network connection termination, the Web Server may not get the close message and will not know the WebSocket is terminated on the Client (what is referred to as a "half-open" state).

To resolve this scenario, System i Workspace AnyWhere contains Session Validation functionality that can be ran manually by an Administrator, or automatically on a daily timer. This will validate the connection of all 5250 AnyWhere Sessions, and update the connection status of any sessions that are no longer contactable so they can be recovered on next user Sign On to System i Workspace AnyWhere.

See the Session Validation section in the Emulator administration and configuration section of the System i Workspace AnyWhere Installation & Admin Guide for more information on this feature.

17 After setting the Infor Design UI Version to **New** in Workspace Configuration -> Look & Feel, the alignment of icons within our 5250 AnyWhere Emulator screen designs is incorrect. How do we correct this?

This will relate to the font being used. The **Classic** *Infor Design UI Version* used **Arial** as the default font. The **New** *Infor Design UI Version* uses **Source Sans Pro**.

Firstly, if you are using Screen Design Templates from Infor, or you have created your own, you need to sign in to System i Workspace AnyWhere, run any Infor IBM i ERP application screen within the 5250 AnyWhere Emulator, open *Designer* and access the *Define Global Rules* option from the *Global* menu. In the list of Global Rules, you should see a Rule that has a Rule Action for *Set Font* that has a value of **Arial**. Delete this Rule Action, Apply the changes and exit Designer. This will usually resolve the issue.

**Caution:** If you have multiple System i Workspace AnyWhere Profiles, you will need to repeat these steps for each Profile.

If problems still occur, open the *Workspace Administration -> 5250 AnyWhere Emulator -> Manage Emulator Preferences* interface. Select the Profile. Change the *Emulator font name* field to blank (i.e. no user font defined) and then set the *Copy these preferences* to **Select All** (e.g. applied to all user profiles) to *Action to be applied* field to **Merge all Changes with existing Preferences** and then click *Confirm*.

**Caution:** Before changing the 5250 AnyWhere Emulator Preferences, we would recommend that all users sign out of System i Workspace AnyWhere.

**Caution:** If you have multiple System i Workspace AnyWhere Profiles that use different Database Connections across multiple IBM i servers, you will need to repeat these steps for each Profile that uses the unique Database Connection.

## Designer

1 Can we reuse our bespoke Screen Design data from a previous System i Workspace version with System i Workspace AnyWhere?

Yes. The best way to do this is to add a *Workspace Server Link* from your System i Workspace v2013 or v2015 server to your new System i Workspace AnyWhere server, and copy individual, or all, screens across.

There are some pre-requisites to support this feature...

- For System i Workspace v2013, PTF 30, or later, is required
- For System i Workspace v2015, PTF 11, or later, is required
- For System i Workspace AnyWhere, FP1, or later, is required and see the Allow Design Data Management section in Chapter 12 on how to authorize your System i Workspace v2013 or v2015 server

**Caution:** If you have an older version of System i Workspace from which you wish to re-use Screen Design data, please consult Infor Xtreme Support for advice.

2 Does the 5250 AnyWhere Emulator support the same screen design data as the now deprecated System i Emulator?

Yes, it will, though there are a couple of System i Emulator Designer features that the 5250 AnyWhere Emulator does not support, but also new features that it provides that are not implemented within the System i Emulator.

For more details, see *Appendix A* of the System i Workspace AnyWhere – 5250 AnyWhere Emulator Designer Guide.

3 Can we edit screen designs in the 5250 AnyWhere Emulator Designer that were originally created/maintained within the now deprecated System i Emulator Designer?

Yes. The 5250 AnyWhere Emulator Designer is intended to be used by customers to take over from the use of the now deprecated System i Emulator Designer for all their screen designs, though there are a couple of System i Emulator Designer features that the 5250 AnyWhere Emulator Designer does not support, but also new features that it provides that were not implemented within the System i Emulator.

For more details, see *Appendix A* of the System i Workspace AnyWhere – 5250 AnyWhere Emulator Designer Guide.

4 Tables within the 5250 AnyWhere Emulator are missing columns/fields, or fields appear in the wrong column. How do we correct this?

This issue usually occurs when the table definition in Designer is missing a column of data (which may be because the table was not fully populated when originally designed) or the start of the column is greater than the start position of the fields (e.g., the field starts at position 15 but the column starts at position 17).

If this is a bespoke/custom screen design of your own, you can simply use Designer to correct the problem.

If this screen design is part of the Screen Design Templates (SDT) provided by Infor, then you should first check that you have the latest SDT pack applied for you Infor ERP version, and if your SDT version is up to date, log the issue on Infor Xtreme so that it can be corrected.

5 The design we created for a specific bespoke popup window is not applied at runtime within the 5250 AnyWhere Emulator?

This issue usually occurs when the original popup design in Designer was created for a "specific screen" rather than "all screens". This relates to the Magic Number (internal unique screen identifier) used to identify the popup design, and in the 5250 AnyWhere Emulator, only the "all screens" method is used.

The easiest way to correct this is to use the *Manage Design Data* interface in the System i Workspace AnyWhere Administration to delete the old design, then re-design the popup using the 5250 AnyWhere Emulator Designer.

For more information, see the *Designing a Popup Window* section in Chapter 4 of the System i Workspace AnyWhere – 5250 AnyWhere Emulator Designer Guide.

# Extensions

1 Can an extension written for an earlier release of System i Workspace be used with System i Workspace AnyWhere?

Yes, though it depends which version of System i Workspace the extension was written for, and the web development standards used. See *Chapter 6* of the System i Workspace AnyWhere Extensions Guide for more information on upgrading Extensions to the latest standards.

2 Will an Event-driven extension we have written for the now deprecated System i Emulator in a previous release work with the 5250 AnyWhere Emulator?

Yes, by default, the 5250 AnyWhere Emulator supports the same 5250-extension.js file and methods to drive Event-driven extensions, and the 5250 AnyWhere Emulator supplies a "fake" obj5250 object that can be used to call extension methods to alter the display as described in *Chapter 3* of the System i Workspace AnyWhere Extensions Guide. This way, code written for the older System i Emulator should work without modification in the 5250 AnyWhere Emulator, though some re-work of an existing extension may be required as there are a few methods, such as SetFieldFormat and SetFieldFormatByIndex, which are provided by the "fake" obj5250 object but perform no action as there is no matching function in the 5250 AnyWhere Emulator.

Extension authors, who are uplifting extensions written for the now deprecated System i Emulator to the 5250 AnyWhere Emulator, should also note that the m\_objEmulInternal object is not available within the 5250 AnyWhere Emulator page.

See *Chapter* 7 of the System i Workspace AnyWhere Extensions Guide for more information on replacing this object and other considerations in uplifting extensions.

3 Will a Screen Replacement extension we have written for the now deprecated System i Emulator in a previous release work with the 5250 AnyWhere Emulator?

Yes, as of System i Workspace AnyWhere Fix Pack/PTF 1, the Screen Replacement functionality is supported as described in the *Chapter 8* of the System i Workspace AnyWhere Extensions Guide, and the provided Screen Replacement examples (in the static\customScreens folder of your System i Workspace AnyWhere deployment) is applicable to the 5250 AnyWhere Emulator.

# **Product Enhancements**

## 1 How do we request an enhancement to System i Workspace AnyWhere?

Please use the Enhancement Request System (ERS) within Infor Xtreme to raise your enhancement idea for System i Workspace AnyWhere, which is accessed via the *Resources* > *Enhancement Request System* menu option, making sure to select the Product Line as *System* 21, the Product as S21 - System i Workspace and the Release as AnyWhere (or if this is not available, make sure to specify in the description that the ERS is for System i Workspace AnyWhere).

Enhancement Requests are continually reviewed by the Infor Product Management and Development teams. All accepted requests go into roadmap for a future version/release.

You can also review any existing ERS entries for System i Workspace AnyWhere or earlier releases and endorse them which will help Infor to prioritize enhancements.