

# TIBCO WebFOCUS®

## App Studio Installation and Configuration

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# Introducing WebFOCUS and WebFOCUS App Studio

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The following topics provide an overview of WebFOCUS and WebFOCUS App Studio.

**In this chapter:**

- [About WebFOCUS and App Studio](#)
  - [WebFOCUS and App Studio Overview and Architecture](#)
  - [App Studio Installation and Configuration Steps](#)
- 

## About WebFOCUS and App Studio

WebFOCUS is a complete web-ready data access and reporting system that connects users to data. WebFOCUS accesses and processes information located in any format on any platform and presents that information to users through a web browser or through formats, such as PDF, HTML, and Excel®.

WebFOCUS App Studio is a Windows-based development environment for creating WebFOCUS applications. App Studio provides intuitive graphical features that help with interface design, business logic, and data manipulation. Using App Studio, developers can build powerful webpage interfaces that allow users to create and view reports.

WebFOCUS data access, network communications, and server operations are provided through WebFOCUS technology. WebFOCUS technology accesses data without concern for the complexities and incompatibilities of different operating systems, databases, file systems, file formats, and networks. You can access both local and remote data on over 35 platforms from more than 65 database formats, including FOCUS, Microsoft® SQL Server, Sybase, Oracle, Informix, Ingres, and Db2.

## WebFOCUS and App Studio Overview and Architecture

App Studio is used to develop and manage WebFOCUS applications. It is normally assumed, but not required, that WebFOCUS is installed, or will be installed, somewhere in your enterprise. In addition, App Studio architecture and functionality are based on the architecture of WebFOCUS.

## App Studio Components

There are two pieces involved when developing or administering with App Studio.

- ❑ **App Studio.** This is the set of graphical development and code generation features that organize and create WebFOCUS applications.

The graphical and code generation features do not actually process reports and access data. Instead, they connect to a WebFOCUS environment.

- ❑ **WebFOCUS Environment.** After installing App Studio, you can choose to connect to a WebFOCUS Environment installed elsewhere in your enterprise or use one installed locally.

**Note:** For all other editions, including installations of the Network editions, you configure App Studio to access a WebFOCUS environment you installed separately. This step is performed from within App Studio.

## WebFOCUS Environments and Components

In a WebFOCUS environment, WebFOCUS connects a web server and/or application server to your data. End users then access WebFOCUS applications through a web browser. Your enterprise may have multiple WebFOCUS environments, each containing the following components:

- ❑ **Third-Party Web and/or Application Server.** Users access WebFOCUS by making requests to a web and/or application server. WebFOCUS functionality can be implemented using Java servlet calls. When App Studio communicates with WebFOCUS, it does so through the web and/or application server as well.

Apache Tomcat™ is provided along with App Studio and WebFOCUS for Windows, so no separate web or application server is required to get started. Apache Tomcat is a servlet container that App Studio can use as a web server and application server.

**Note:** Web servers handle traditional web content, such as static HTML and GIF files. Application servers generally handle Java and other processes, but many application servers can also handle the traditional web content. If your application server can handle traditional web content, then a web server is not required. The term application server is used to refer to either an application server or servlet container in WebFOCUS documentation. A servlet container generally handles a subset of what an application server can handle.

- ❑ **WebFOCUS Client.** This resides on the web server and/or application server. When a user makes a request to the web server from a webpage or App Studio, the WebFOCUS Client receives the request, processes it, and passes it to the WebFOCUS Reporting Server. The WebFOCUS Client connection is implemented through Java servlets. In addition, the WebFOCUS Client may include other WebFOCUS products and interfaces, such as Managed Reporting.
- ❑ **WebFOCUS Reporting Server.** The WebFOCUS Reporting Server provides data access, data processing, and report generation functionality. WebFOCUS Reporting Servers reside on machines that can access your data. There can be multiple WebFOCUS Reporting Servers in a WebFOCUS environment.

WebFOCUS employs a distributed architecture. This means that the WebFOCUS Client and its WebFOCUS Reporting Servers can either be on the same machine and operating system, or distributed across multiple machines running different operating systems.

For more information on WebFOCUS components and configuration options, refer to the installation and configuration documentation for your platform.

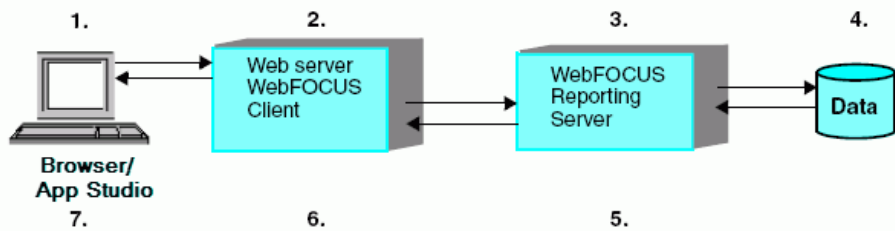
**Note:** To ensure proper communication, WebFOCUS components should be the same release number as each other and App Studio.

## WebFOCUS Processing

The following steps accompany the figure below and describe how WebFOCUS or App Studio processes requests:

1. A user makes a request and passes parameters by calling the WebFOCUS servlet through links and forms on a webpage or through App Studio.
2. The request and parameters come to the WebFOCUS Client through the web and/or application servers, and the WebFOCUS Client processes the parameters to create a request for the WebFOCUS Reporting Server.
3. The WebFOCUS Reporting Server receives the request, processes it, and accesses any needed data.
4. Data is retrieved from data sources to process the request.
5. The WebFOCUS Reporting Server processes the user request using the retrieved data.
6. The response is returned to the WebFOCUS Client.

7. The response is returned to the user.



## App Studio Processing

App Studio processes requests the same way that WebFOCUS does. App Studio makes calls to a web and/or application server that is configured to accept a WebFOCUS servlet request. The servlet then connects to the WebFOCUS Reporting Server to process the request.

The web and/or application server can be located on the same machine as App Studio or located elsewhere in your enterprise.

You can configure App Studio to connect to WebFOCUS environments elsewhere on your network. After you are connected, you can create and edit files on the remote machines and perform application development through the Data Servers area, or use the area to perform development and administration.

For more information about App Studio configurations and development environments, see the *WebFOCUS App Studio User's Manual*.

## App Studio Networked Installation

Normally, App Studio is installed on the desktop of each developer. However, a networked App Studio installation option is available as well.

In a networked configuration, App Studio is installed on a single shared machine, rather than each desktop. Developers then launch App Studio on their desktops by executing files that have been installed on the shared machine. This simplifies administration, installation, and upgrading and it allows all developers to use a common, preconfigured environment.

A network installation of App Studio includes only the GUI features and functions to develop, organize, and maintain applications and procedures. After installing the networked App Studio option, you must set up a connection to a WebFOCUS environment somewhere on your network. App Studio then uses the web server configuration, application server configuration, WebFOCUS Client connectivity, and WebFOCUS Reporting Server of that WebFOCUS environment.



Network installations are discussed in [Configuring a Network Installation](#) on page 29.

## App Studio Installation and Configuration Steps

The steps to install and configure App Studio vary depending on how you plan to develop applications.

Install App Studio on the machine of each developer, then set up a connection from each App Studio machine to a WebFOCUS environment installed somewhere on your network. To access data, configure the WebFOCUS Reporting Server in the WebFOCUS environment.

- ❑ **Network Installation.** Install App Studio on one shared machine. Developers will run App Studio from their desktop by accessing the files installed on the shared machine over the network. You must set up a connection from App Studio on the shared machine to a WebFOCUS environment. To access data, configure the WebFOCUS Reporting Server in the WebFOCUS environment. A special license code is needed for a network installation.
- ❑ **Installation on a WebFOCUS Machine.** Install App Studio after WebFOCUS is installed and configured. App Studio connects to the WebFOCUS environment that is already installed.

## Installation and Configuration Steps

Perform the following steps to install and configure App Studio:

1. Ensure all requirements are met (see [Installing App Studio](#) on page 11).
2. Run the App Studio installation (see [Installing App Studio](#) on page 11).
3. Launch App Studio.
4. Set up connections to WebFOCUS environments that you will use for your development.
5. For network installations, configure access from developer desktops to the shared machine where you installed App Studio (see [Configuring a Network Installation](#) on page 29).



# Chapter 2

## Installing App Studio

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The following topics explain how to run the App Studio installation program.

### In this chapter:

- [App Studio Requirements](#)
  - [Installing App Studio](#)
  - [Verifying App Studio](#)
  - [Silent App Studio Install and Uninstall](#)
- 

### App Studio Requirements

You must be an administrator to the Windows machine to run the installation.

Review the following requirements to ensure your machine supports App Studio.

### Hardware Requirements

App Studio is a 64-bit application. Verify that your Windows machine meets the App Studio hardware requirements:

- 2 GHz or faster dual core 64-bit (x64) processor.
- 8 GB of RAM recommended.
- 8 GB of free disk space.
- Screen resolution of 1366x768 is recommended.

### Software Requirements

Your Windows machine must meet the following App Studio software requirements:

- Windows 10, Windows 2019, Windows 2016, 2012, 2012 R2, 2008, or 2008 R2 Server editions.**
- Microsoft Internet Explorer®.** Internet Explorer 11 is certified for App Studio.
- Adobe® Reader®.** Adobe Reader XI (11) and Adobe Reader X (10) are certified with App Studio.

- ❑ **Adobe Flash® Player.** Adobe Flash Player 10 or higher is certified with App Studio. Required for the Active PDF report output format.

For more information on Adobe Flash Player and to verify the state of support on 64-bit browsers, check the Adobe website:

<http://www.adobe.com>

**Note:** App Studio is built using Visual Studio and requires the Visual C++ Redistributable Package for Visual Studio 2012. The Visual C++ Redistributable Packages install run-time components of Visual C++ libraries that are required to run applications developed using Visual Studio 2012 on a computer that does not have Visual Studio 2012 installed. Most machines have the required libraries. However, when running the product, if your system does not have the required updates to allow this application to run, you will receive the following message:

`The program can't start because mfc110.dll is missing from your computer. Try reinstalling the program to fix this problem.`

or

`This application has failed to start because the application configuration is incorrect. Reinstalling the application may fix the problem.`

To correct this issue, download and install the latest update Visual C++ Redistributable for Visual Studio 2012 x64 version from <https://www.microsoft.com>.

### Provided Third-Party Component

The following third-party component is provided with App Studio editions.

- ❑ **Oracle JRE 18.0\_241.** The latest version of Oracle JRE is available at:

<https://www.oracle.com/java/technologies/javase-jre8-downloads.html>

### Installing App Studio

There are two ways to run the installation utility:

- ❑ **Graphical (GUI) Installation.** The default installation mode launches dialog boxes that prompt for parameters. You should use the GUI installation the first time you install App Studio. This section describes the standard GUI installation of App Studio.
- ❑ **Silent Installation.** In a silent installation, you launch the installation and specify a text file. The text file contains the installation parameters, so no GUI dialog boxes are launched.

## Installing App Studio and WebFOCUS on the Same Machine

When installing WebFOCUS and App Studio on the same machine, do the following:

1. Ensure that your machine meets the WebFOCUS requirements.
2. Completely install and configure WebFOCUS.
3. Install App Studio.

## Running the Installation

Follow this procedure to install App Studio.

**Note:** You must be an administrator to the Windows machine to run the installation.

### **Procedure:** How to Install App Studio

The App Studio installation can be obtained through an Internet download.

1. Run the downloaded installation file.
2. Select the language for the installation.

App Studio provides support for English, French, and Brazilian Portuguese during the installation process of the product.

The languages presented during the installation process depend on the system locale of your machine. When the locale is set to English, French, or Brazilian Portuguese, then English, French, and Brazilian Portuguese are available from the Language drop-down list. For all other cases, only English is available. App Studio will be configured to use the language you select during the installation process.

You can update the language App Studio uses post-installation, using the Language selection drop-down list on the General tab of the App Studio Options dialog box.

3. Click *OK*.

The Welcome dialog box opens.

4. Click *Next*.

The License Agreement dialog box opens.

5. Select *I accept the terms of the License Agreement* and then click *Next*.

If you already have a version of App Studio installed on your machine, the Install Type dialog box opens. Select one of the following:

- To update your existing installation to a new service pack level, select *Update* and the existing instance you want to update.

If you select *Update*, the Pre-Installation Summary dialog box opens. Click *Next* and continue to step 11.

- To install all available features of WebFOCUS, select *Full Install*.

If you select *Full Install*, the Software Registration dialog box opens. Click *Next* and continue to step 6.

6. On the Software Registration dialog box, type the user name and company when prompted and click *Next*.

The Software Information dialog box opens, displaying software requirements and configuration options for App Studio.

7. Review the requirements and then click *Next*.

The Select Program Folder dialog box opens.

**Note:** If you want to have multiple App Studio installations on your machine, you can change the Program Folder name by adding a suffix. Changing the default name will also change the folder name where App Studio will be installed. For example, if the default folder name is WebFOCUS 82 App Studio, the product will be installed in a directory with the name ... \AppStudio82.

8. Accept the default program folder, or specify a new one, and click *Next*.

The Choose Destination Locations dialog box opens.

9. Specify the following locations, or accept the default values:

- a. **Product Installation Directory.** This directory contains the software executable files. The new software will be placed in this directory.

Accept the default value or click *Browse* to select a different directory.

- b. **Application Directory.** This directory contains the sample applications that come with the product.

Accept the default value or click *Browse* to select a different directory.

- c. **Disk.** If there is more than one disk or shared folder to which the software can be installed, select the one on which you want to install.

10. Click *Next*.

The Pre-Installation Summary dialog box opens.

11. Review the summary of tasks that will be performed during the installation and click *Install* to begin the installation.

An installation progress dialog box opens.

Once the installation has completed, the Install Complete dialog box opens.

12. Click *Done* to complete the installation.

**Note:** Program groups are automatically created after the installation completes, with the available product shortcuts. These shortcuts are created in the Start menu, under All Apps for Windows 10, in the Information Builders app.

## App Studio Directory Structure

After installation, the App Studio directory structure is created. The default location is:

`C:\ibi`

The following are some of the main subdirectories. The actual directories may vary based on your license:

`\AppStudio82\backup_files`

Upgrades backup the entire existing installation in the following folder:

`..\AppStudio82\backup_files`

If multiple upgrades are performed, the latest existing backup is renamed, with the current date/time stamp appended to the folder name, for example:

`..\AppStudio82\backup_files_09.22.2020.13.46\`

`\AppStudio82\bin`

Contains the graphical front-end components for creating WebFOCUS applications.

`\AppStudio82\config`

Contains the `install.cfg` file that holds information about the installation.

`\AppStudio82\jre`

Contains Java used by the installation program.

`\AppStudio82\logs`

Contains space for log files.

`\AppStudio82\temp`

Contains space for local processing.

`\AppStudio82\Uninstall`

Contains the product components for uninstalling App Studio.

`\AppStudio82\Utilities`

Contains features and files for additional configurations.

## Installation Log Files

App Studio creates log files in the following location for Windows:

*drive:\Users\user\_id\AppData\Debug\_date\_time.log*

*drive:\Users\user\_id\WebFOCUS\_82\_App\_Studio\_Install\_date\_time.log*

where:

*user\_id*

Is your Windows user ID.

*date\_time*

Is the date and time the log file was created.

These log files provide information about the App Studio installation. If you contact Customer Support Services with an installation problem, have these files available.

## Verifying App Studio

App Studio connects to a WebFOCUS environment in order to create and process requests.

- If App Studio is installed on the same machine as WebFOCUS, App Studio uses the already installed WebFOCUS environment. In some environments, you might need to specify the web server port or change default connection settings in the WebFOCUS Environment Properties dialog box.
- For a network installation, proceed to [Configuring a Network Installation](#) on page 29 to set up a connection to a WebFOCUS environment and configure shared access.

## Silent App Studio Install and Uninstall

You can install and uninstall App Studio in silent mode if you prefer to automate the process and remove prompts. In a silent installation, dialog boxes do not appear to prompt you for parameters. Instead, you place the parameters in a text file that you specify when launching the silent installation. The silent uninstall does not use a parameters file.

### **Procedure:** How to Install App Studio Release 8.2.x Using the Silent Installation

To install in silent mode, you must create a file containing your installation parameters.

1. Open the command prompt.



2. Navigate to the directory where the App Studio 8.2.x installation program (for example, AppStudio8207.exe) resides and type the following command:

```
AppStudio8207.exe -r drive:\fullpath\filename.properties
```

**Note:** Always generate the properties file before performing the silent installation to ensure that the properties are correct.

- The properties file has the extension .properties.
  - You need to specify the full path to where the properties file will be created.
3. To install in silent mode, navigate to the directory where the App Studio installation program (for example, AppStudio8207.exe) resides and type the following command:

```
AppStudio8207.exe -i silent -f drive:\fullpath\filename.properties
```

### ***Procedure:* How to Uninstall App Studio Release 8.2.x Using the Silent Installation**

To uninstall in silent mode, open the Command Window, with the option *Run as administrator*, and run the uninstall executable file while adding the option *-i silent*.

For example:

```
C:\ibi\AppStudio82\Uninstall>Uninstall.exe -i silent
```



## Configuring WebFOCUS App Studio Help

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As of Release 8207.25, WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software.

Benefits include:

- Hosted Help model that enables you to access the most current Online Help content at any time.
- Upgraded delivery model that reduces the size of the product software package, and simplifies installation and configuration.
- Online Help access using a secure connection to the ibi server hosting the Online Help system (HTTPS).

**In this chapter:**

- [Deploying App Studio Online Help On-Premise](#)
  - [Verifying the App Studio Online Help Download File](#)
  - [Deploying the App Studio Online Help Web Application in Tomcat](#)
  - [Deploying the App Studio Online Help Web Application Using a Context File in Tomcat](#)
  - [Configuring App Studio to Point to the App Studio Help on the Remote Server](#)
- 

### Deploying App Studio Online Help On-Premise

If you are restricted to using Hosted Help, the following procedure describes how to install Online Help on your own internal application server.

For Releases 8207.25 and 8207.26, you have the option to obtain App Studio Online Help from the Software Downloads Facility. App Studio Online Help will be posted within the same product software folder for each release and platform. This enables you to readily correlate the posted Help with each specific gen of the product.

For Release 8207.27.0, you can obtain the Online Help from the following locations:

- ❑ [ibi\\_apphelp8207.zip](#)
- ❑ [ibi\\_apphelp8207.zip.sha512](#)

### Requirements

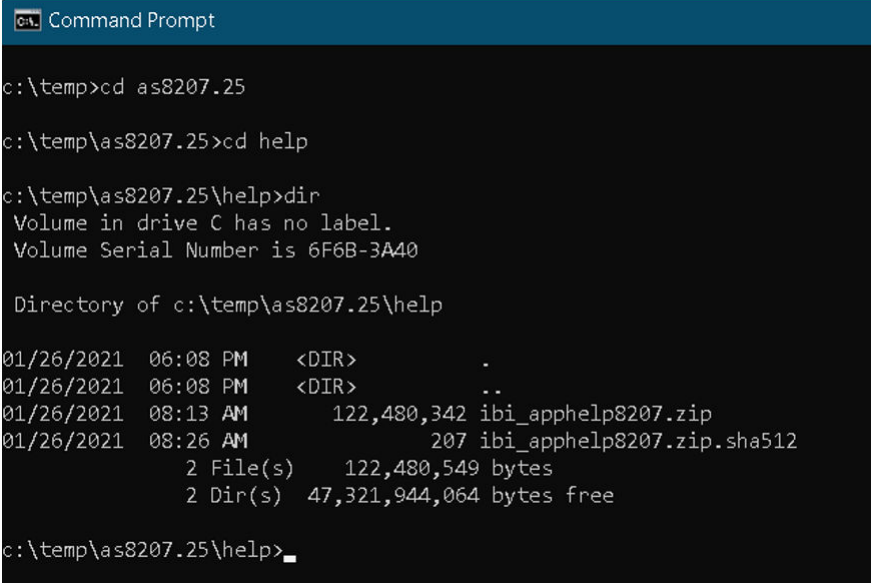
The following are the requirements for App Studio Online Help.

- ❑ Java 8
- ❑ A supported application server.

### Verifying the App Studio Online Help Download File

Once the App Studio Online Help has been downloaded, you can verify the Online Help .zip file using the SHA-512 hash file provided. The following is an example using the certutil command.

1. From the Windows Start menu, run the `cmd` command and navigate to the directory where the `ibi_apphelp8207.zip` and `ibi_apphelp8207.zip.sha512` files are located, as shown in the following image.



```
Command Prompt

c:\temp>cd as8207.25

c:\temp\as8207.25>cd help

c:\temp\as8207.25\help>dir
Volume in drive C has no label.
Volume Serial Number is 6F6B-3A40

Directory of c:\temp\as8207.25\help

01/26/2021  06:08 PM    <DIR>          .
01/26/2021  06:08 PM    <DIR>          ..
01/26/2021  08:13 AM             122,480,342 ibi_apphelp8207.zip
01/26/2021  08:26 AM              207 ibi_apphelp8207.zip.sha512
                2 File(s)    122,480,549 bytes
                2 Dir(s)  47,321,944,064 bytes free

c:\temp\as8207.25\help>
```

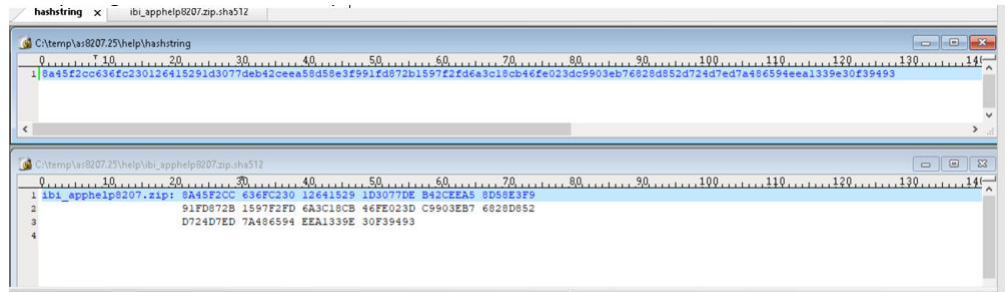
2. Run the following command in the same directory where the `ibi_apphelp8207.zip` and `ibi_apphelp8207.zip.sha512` files are located.

```
certutil -hashfile ibi_apphelp8207.zip SHA512
```

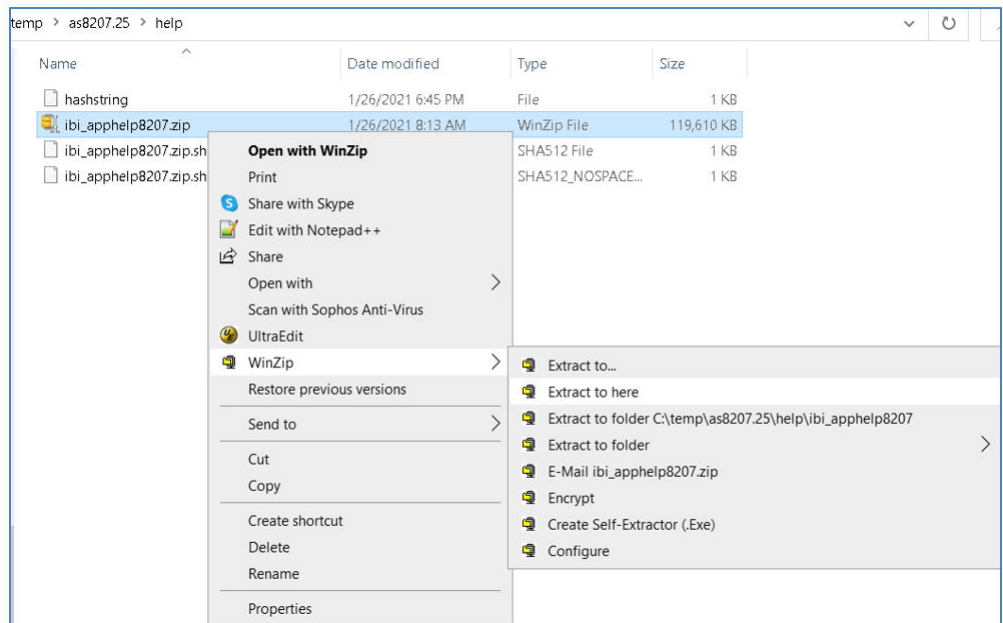
**Note:** For Linux, open a bash command shell, cd to the directory where ibi\_apphelp8207.zip is located, and run:

```
sha512sum ibi_apphelp8207.zip
```

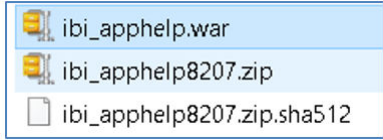
3. Compare the output to the hash string in ibi\_apphelp8207.zip.sha512 to validate the downloaded ibi\_apphelp8207.zip file. For example:
  - a. Copy and paste the output of the certutil command to an editor and open the provided ibi\_apphelp8207.zip.sha512 in the same editor.
  - b. Compare the strings in both files to ensure they contain the same characters (uppercase characters and spacing do not need to match).



- c. Once the ibi\_apphelp8207.zip file has been validated, proceed with Step 4.
4. Extract the App Studio Online Help web app, ibi\_apphelp.war, from the ibi\_apphelp8207.zip file, as shown in the following image.



The `ibi_apphelp.war` is now available to be deployed, as shown in the following image.



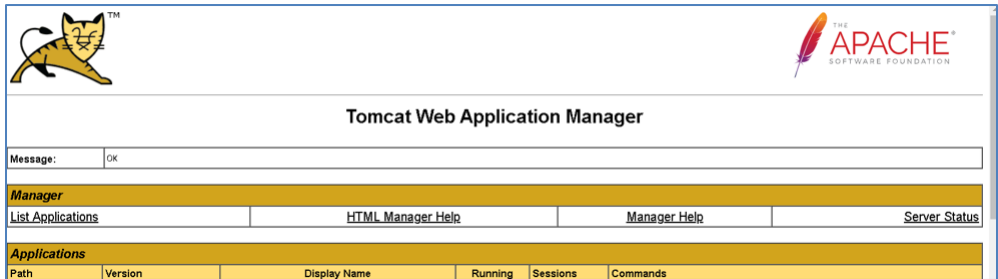
## Deploying the App Studio Online Help Web Application in Tomcat

The following steps outline how to deploy the App Studio Help using the Tomcat Manager.

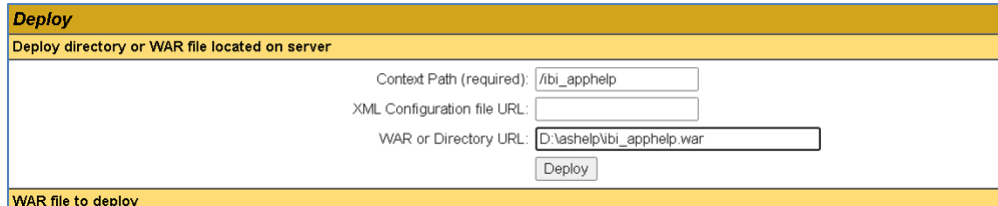
1. Navigate to the Tomcat Manager using the following URL:

<http://<servername>:<port>/manager>

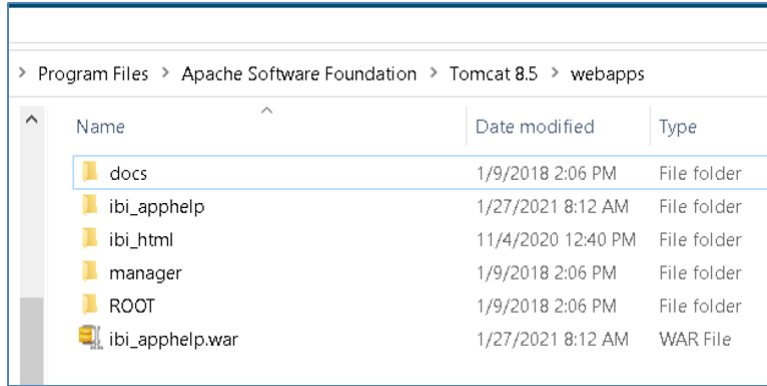
The following page displays, as shown in the following image.



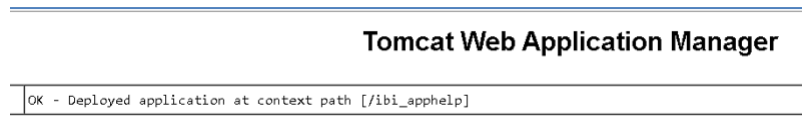
2. Navigate to the Deploy section of the Tomcat Manager page, specify `/ibi_apphelp` for the Context Path, and specify the location of the App Studio Web Application in the WAR or Directory URL input box, as shown in the following image.



The App Studio Online Help application is deployed to the Tomcat webapps folder, as shown in the following image.



Once the App Studio Online Help web application is successfully deployed on Tomcat, the following message displays.



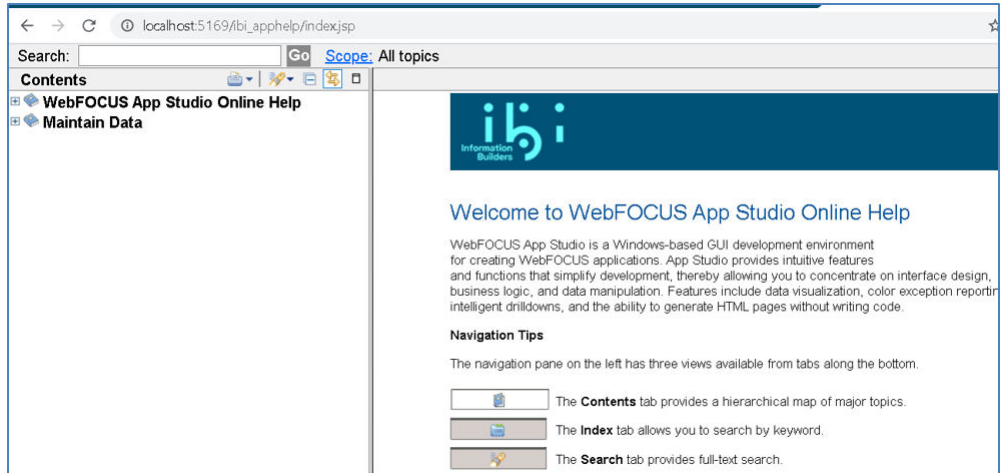
Additionally, the status on the Tomcat Manager console is **true** for /ibi\_apphelp, as shown in the following image.

Context Path	Deployment Status	Application Name	Start	Stop	Reload	Undeploy	Expire sessions with idle > 30 minutes
/docs	None specified	Tomcat Documentation	true	0			
/ibi_apphelp	None specified		true	0			

- From a browser, specify the following URL to confirm that App Studio Online Help is available:

[http://<servername>:<port>/ibi\\_apphelp/index.jsp](http://<servername>:<port>/ibi_apphelp/index.jsp)

The App Studio Online Help displays, as shown in the following image.



## Deploying the App Studio Online Help Web Application Using a Context File in Tomcat

The following steps outline how to deploy the App Studio Help using a context file in Tomcat.

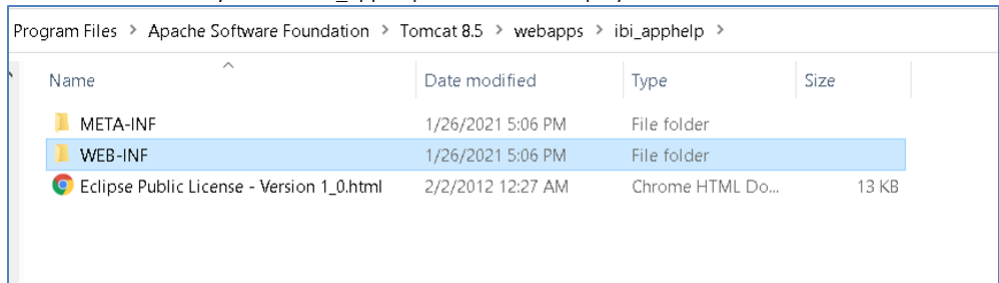
1. Stop Tomcat to create an `ibi_apphelp.xml` context file in the Tomcat conf directory. For example, `C:\Program Files\Apache Software Foundation\Tomcat 8.5\conf\Catalina\localhost\ibi_apphelp.xml`.
2. Edit the `ibi_apphelp.xml` file in the Tomcat conf directory and add the following required syntax and parameters, where `docBase` is the path to the App Studio Online Help web application and `path` is `/ibi_apphelp`. For example:

```
<?xml version='1.0' encoding='utf-8'?>
<Context docBase="D:\ashelp\ibi_apphelp.war" path="/ibi_apphelp">
</Context>
```

In this example, the `ibi_apphelp.war` file is located in the `D:\ashelp\` directory.



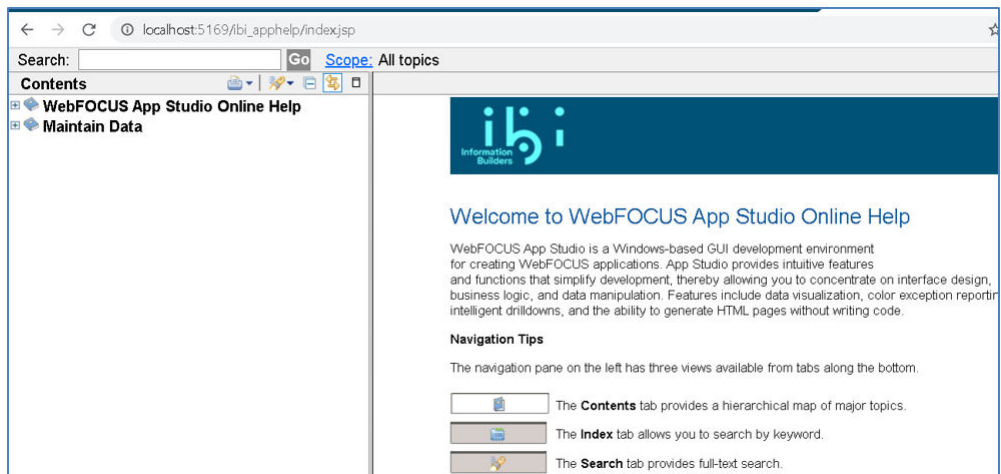
3. Start Tomcat and verify that the `ibi_apphelp` war has been deployed in Tomcat, as shown in the following image.




4. From a browser, specify the following URL to confirm that App Studio Online Help is available:

`http://<servername>:<port>/ibi_apphelp/index.jsp`

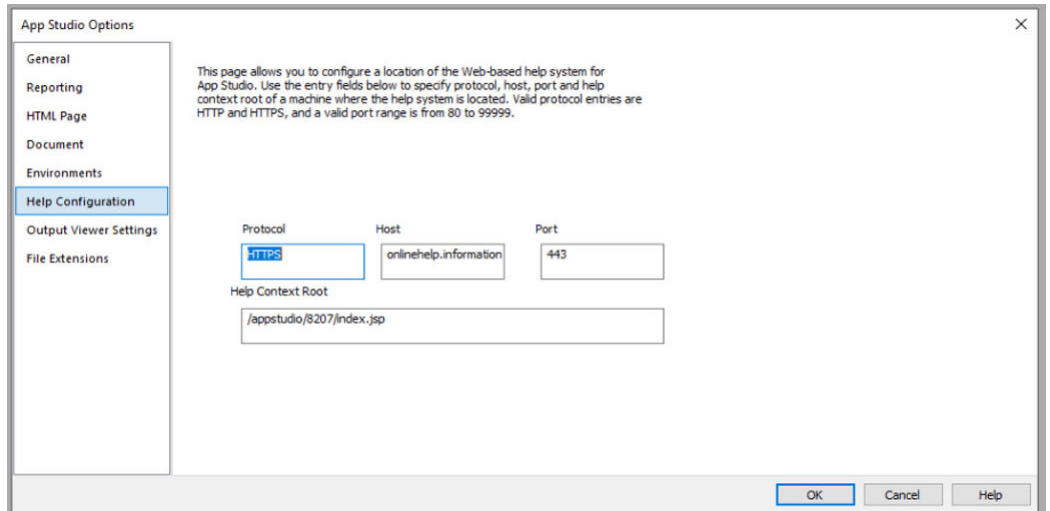
The App Studio Online Help displays, as shown in the following image.



## Configuring App Studio to Point to the App Studio Help on the Remote Server

1. Start App Studio. Click the AS Application menu icon , select *Options*, and then click *Help Configuration*.

The App Studio Help Configuration options are shown in the following image.



2. Specify the Protocol, Host, Port, and Help Context Root with information from your On-Premises Online Help deployment.

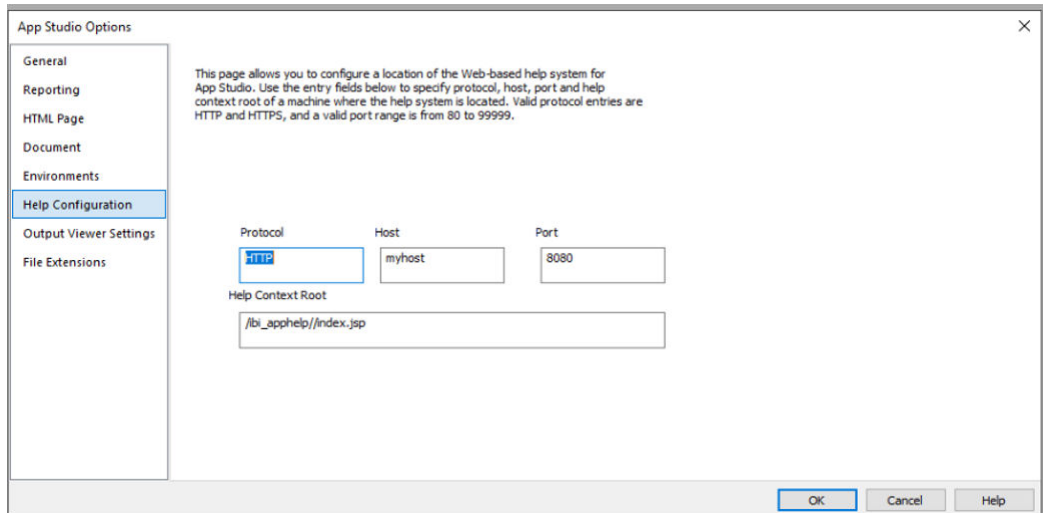
Protocol: HTTP or HTTPS

Host: Application Server name of where the App Studio Online Help is deployed.

Port: Port number where the App Studio Online Help is deployed.

Help Context Root: Specify /ibi\_apphelp/index.jsp.

For example, when using the sample URL, `http://myhost:8080/ibi_apphelp`, set the following values, as shown in the following image.



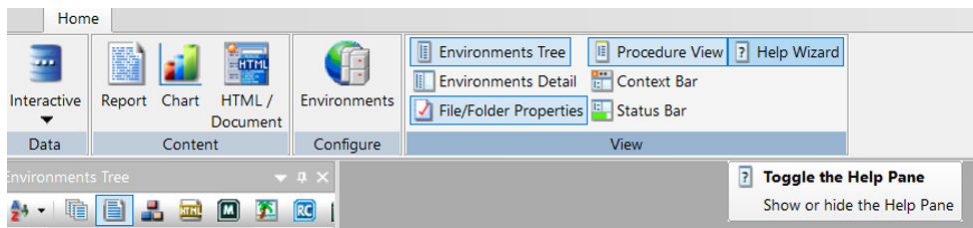
3. Verify that the App Studio Online Help is accessible from App Studio help menus.

Click the question mark ? next to the Style menu on the App Studio toolbar, as shown in the following image.



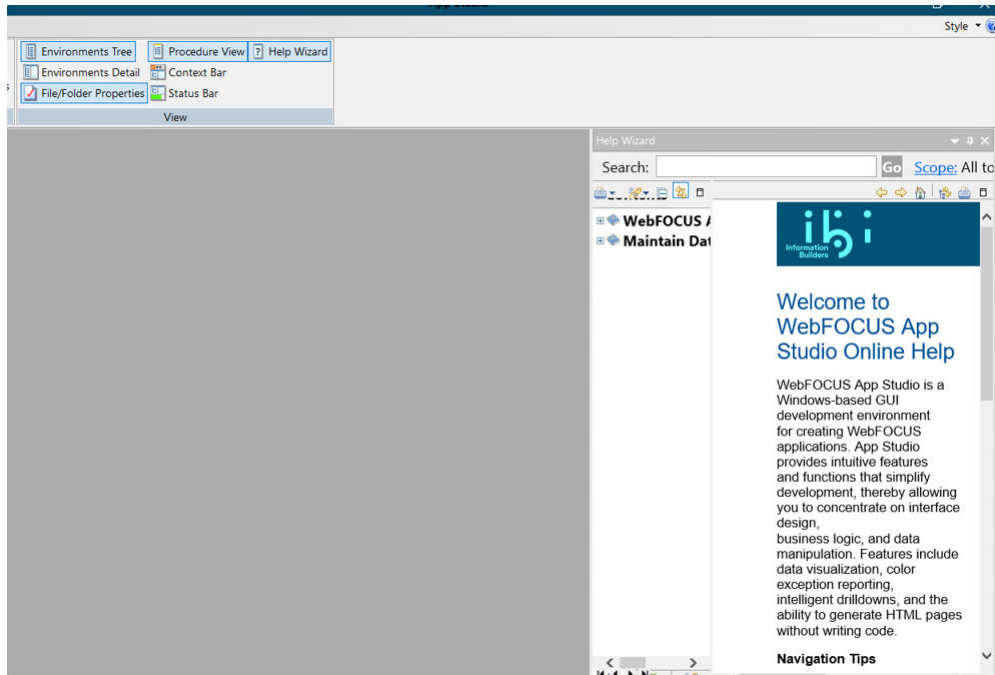
The help displays using the App Studio Online Help URL.

4. On the Home tab, in the View group, click the *Help Wizard* option to enable the Help panel, as shown in the following image.



## Configuring App Studio to Point to the App Studio Help on the Remote Server

The Help Wizard displays the App Studio Online Help, as shown in the following image.



## Configuring a Network Installation

---

The following topics explain a network installation of App Studio.

You must install App Studio with the correct license to use a network installation.

**In this appendix:**

- ❑ [Network Installation Steps](#)
- 

### Network Installation Steps

This section explains a network installation of WebFOCUS App Studio. In a network installation, App Studio is installed on a single shared machine, rather than each developer desktop. Developers then launch App Studio on their desktops by executing files that have been installed on the shared machine. This simplifies administration, installation, and upgrading, and allows all developers to use a common preconfigured environment.

A network installation of App Studio does not include full WebFOCUS Client connectivity. After installing App Studio, you must configure it to access a WebFOCUS environment somewhere on your network. App Studio then uses the web server configuration, application server configuration, WebFOCUS Client connectivity, and WebFOCUS Reporting Server of that WebFOCUS environment.

An App Studio network installation involves the following steps:

1. [Ensuring Requirements Are Met](#) on page 30.
2. [Installing App Studio](#) on page 31.
3. [Configuring App Studio](#) on page 31.
4. [Setting Up Access to the Network Installation](#) on page 33.
5. [Installing App Studio Network Shortcuts](#) on page 36.
6. [Launching App Studio](#) on page 37.

## Ensuring Requirements Are Met

A network installation of App Studio can consist of three types of machines. Each machine has its own requirements.

### **WebFOCUS Machine Requirements**

WebFOCUS requirements and installation steps are provided in the *WebFOCUS and ReportCaster Installation and Configuration* manual for your platform.

**Note:** The release of WebFOCUS must be the same release number as App Studio.

### **App Studio (Shared) Machine Requirements**

App Studio can be installed on the same machine as WebFOCUS or on a separate machine. The requirements for a network installation of App Studio are the same as those of a non-networked installation. For more information on requirements, see [Installing App Studio](#) on page 11.

**Note:** You must provide a license for a network edition.

Since this machine will be accessed by multiple users over the network, you should use a machine that supports multiple connections and frequent network access.

### **App Studio End User (Remote) Machine Requirements**

Machines from which you run App Studio off the network should meet the following requirements:

**Windows 10, Windows 2019, 2016, 2012, 2012 R2, 2008, or 2008 R2 Server editions.**

**Microsoft Internet Explorer.** Internet Explorer 11 is certified for App Studio.

**Adobe Reader.** Adobe Reader XI (11) and Adobe Reader X (10) are certified with App Studio.

**Administrator Rights.** Administrator rights are required during the initial launch of the network version from the client machine to set up required registry entries in the local machine area.

**Enabling Multiple Browser Support in App Studio.** Developers can use Chrome™, Firefox®, Edge®, Internet Explorer®, or the internal viewer when running reports. To use Chrome, Firefox, or Edge, the product requires components that are delivered with the .NET Framework version 4.0. This version of .NET is preinstalled on most machines. If your machine does not have this .NET version it can be installed by downloading the latest Microsoft .NET Framework 4.x Developer Pack from <https://www.microsoft.com/en-us/download/details.aspx?id=42637>

To verify that the required .NET Framework is installed on the Client machine, confirm that the following directory exists:

```
%SystemRoot%\Microsoft.NET\Framework64\v4.0.30319\
```

where:

`%SystemRoot%`

Is the location of the Windows folder on your machine (for example, C:\Windows).

**Note:** This directory should contain the RegAsm.exe file.

**Note:** App Studio is built using Visual Studio and requires the Visual C++ Redistributable Package for Visual Studio 2012. The Visual C++ Redistributable Packages install run-time components of Visual C++ libraries that are required to run applications developed using Visual Studio 2012 on a computer that does not have Visual Studio 2012 installed. Most machines have the required libraries. However, when running the product, if your system does not have the required updates to allow this application to run, you will receive the following message:

```
The program can't start because mfc110.dll is missing from your computer.
Try reinstalling the program to fix this problem.
```

or

```
This application has failed to start because the application configuration
is incorrect. Reinstalling the application may fix the problem.
```

To correct this issue, download and install the latest update Visual C++ Redistributable for Visual Studio 2012 x64 version from <https://www.microsoft.com>.

## Installing App Studio

Install App Studio as explained in *Installing App Studio* on page 11. Be aware that when providing a network installation license, you will not have the option to install or configure Tomcat, or other supported configurations.

You must install using the proper license code for a network installation.

## Configuring App Studio

To configure a network installation of App Studio, you must set up access to instances of WebFOCUS that are installed on your network. You do this by defining WebFOCUS environments.

### **Procedure:** How to Define a WebFOCUS Environment

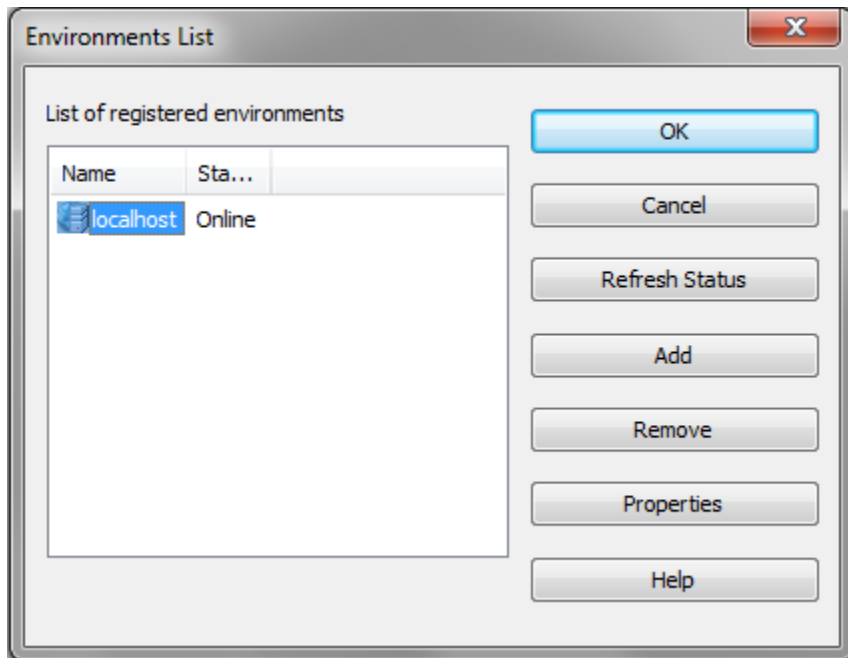
1. If WebFOCUS and App Studio are on the same machine, start the WebFOCUS Reporting Server and ensure that the web and/or application servers are started.

2. Click the Start button on the taskbar.
3. In the list of installed applications, expand the *Information Builders* app.
4. Select the *WebFOCUS 82 App Studio* folder.

This opens a new File Explorer window, with all of the product shortcuts.

5. Launch *WebFOCUS App Studio*.
6. On the *Home* tab, in the *Utilities* group, click *Environments* to open the Environments List dialog box, as shown in the following image.

The Environments List dialog box lets you define connections to WebFOCUS environments.



The Environments List dialog box shows all WebFOCUS environments that have been defined for App Studio. If you have previously defined a WebFOCUS environment, it will be shown here. Otherwise, only the localhost environment displays.

7. Click the *localhost* environment and then click *Properties* to edit the default settings.

The WebFOCUS Environment Properties window opens.

8. Change the Description field to a name end users should see when they launch App Studio from remote machines. The name localhost will be misleading, since they are on their local machines.



9. Change the Host Name and Port to access the web server where WebFOCUS is configured. Do not use localhost for the Host Name, even if WebFOCUS is installed on the same machine as App Studio. When end users launch App Studio, localhost will resolve to the end users machine, and not the App Studio machine.
10. Select *Allow Host Aliases* if you need to configure multiple WebFOCUS instances that have been installed on the same host machine.
11. Optionally, you can specify the connection timeout, in seconds. You can specify a connection timeout between 120 seconds and 240 seconds if you are experiencing connection failure because of timeouts. The default connection timeout is 60 seconds.
12. Optionally, you can specify the Login Timeout to indicate how long App Studio should wait for the login credentials to be validated. The default time is 15 seconds. You can set this to a higher value, if necessary. You can configure this setting for each environment.
13. Click through the panes of the WebFOCUS Environment Properties dialog box to change any default options that are customized in your environment.
14. Click *OK* when you have set up the default environment.

If you wish to define additional WebFOCUS environments, click *Add* on the Environments List.
15. Click *OK* on the Environments List when you have defined all your environments.
16. If prompted, sign in to the WebFOCUS Reporting Server.
17. Ensure that your WebFOCUS environments are accessible through the Environments Tree panel.
18. Stop and start the product again to ensure that you can reconnect to the environment and to confirm operability.

## Setting Up Access to the Network Installation

For developers to run App Studio off the network, you must complete the following on the App Studio machine:

1. [How to Set Up Network Shares](#) on page 34.
2. [How to Copy the WebFOCUS Environments File \(wfscm.xml\)](#) on page 34.
3. [How to Configure the Network Settings](#) on page 35.

### **Procedure: How to Set Up Network Shares**

You must set up a network share before launching App Studio from another machine. If this is not practical for security reasons, then turn the AppStudio82 directory into a network share.

**Note:** If the share name is different from *ibi*, ensure that the new share name is used in the `runfocshell.dat` configuration file, as described in [How to Configure the Network Settings](#) on page 35.

To turn the *ibi* directory into a network share:

1. In Windows, open *File Explorer*.
2. Navigate to and right-click the *ibi* directory.
3. Choose *Properties*.
4. Select the *Sharing* tab.
5. Click *Advanced Sharing*.
6. Select *Share this folder* and type a Share name.
7. Click *Permissions* and assign permissions for the *ibi* share directory to *Read & Execute* and set permissions for the App Studio temp folder to *Write* access. The App Studio temp folder is

```
drive:\ibi\AppStudionn\temp
```

where:

```
drive
```

Is the directory in which App Studio is installed.

```
nn
```

Is the App Studio release number.

8. Grant access to the share locations for users accessing the network installation. You can add users individually or you can add users to a group. A group is easier to maintain, and you can grant the required privileges to the group.
9. Click *OK*.

### **Procedure: How to Copy the WebFOCUS Environments File (wfscom.xml)**

Copy the WebFOCUS environment settings (`wfscom.xml`) into the `AppStudio82\bin` directory so they are available to remote App Studio users.

When you define WebFOCUS environments, settings are stored in the following location for Windows:

`drive:\Users\user_id\AppData\Roaming\Information Builders\wfscom.xml`

where:

`user_id`

Is your Windows user ID.

**Note:** This file and directory may not be visible by default. To see this directory, open *File Explorer*, click *Tools*, select *Folder Options*, and then select the *View* tab. Select *Show hidden files and folders* and click *OK*.

For remote machines to access the wfscom.xml file, you must copy it to a shared directory. The default location to use is:

`drive:\ibi\AppStudio82\bin`

When running App Studio off the network, a developer can use settings in this file or settings stored on the developer machine. The first time App Studio is run off the network, the settings in this file are used. When settings in this file are used, this wfscom.xml file is placed in the end user /Application Data/Information Builders/ directory on the remote machine each time App Studio is run off the network. If all developers use the settings in this file, they always see the same WebFOCUS environments.

**Caution:**

- ❑ If a previous copy of wfscom.xml is on the machine of a remote user, it is overwritten.
- ❑ If a remote user changes WebFOCUS environment settings while accessing App Studio from the network, those changes are only saved to the end user machine. They will not be available to other users. They will also be overwritten the next time App Studio is launched, unless the user chooses not to update the environments from the network as explained in [Customizing WebFOCUS Environments](#) on page 39.
- ❑ To change WebFOCUS environment settings for all users, you must change them on the shared App Studio machine and not from a remote machine. Then, you must recopy the wfscom.xml file to the AppStudio82\bin directory so it is available when App Studio is run from a remote machine.

**Procedure: How to Configure the Network Settings**

Settings for when App Studio is launched off the network are in the following file:

`drive:\ibi\AppStudio82\bin\runfocshell.dat`

You must edit this file before launching App Studio from another machine.

1. Open the runfocshell.dat file in a text editor, such as Notepad.
2. Find the following line:

```
REGSTRING>LastUsedServer=Name to be supplied by Administrator
```

3. Change this line to specify the name of the default WebFOCUS environment. For example:

```
REGSTRING>LastUsedServer=WFEnvironment
```

You should have set up this environment, as explained in [How to Define a WebFOCUS Environment](#) on page 31.

4. Ensure that the correct host name, share name, and UNC directory path appears for accessing the AppStudio82 directory. The host name is set by the installation, but you should confirm it and ensure the share name is correct. Several lines contain this. For example:

```
WFSCOM: \\hostname\Ibi\AppStudio82\bin\wfscm.xml  
SHLSPATH: \\hostname\Ibi\AppStudio82\bin
```

If the host name is incorrect or you changed the share name, update all lines where the host name appears.

Be aware that the WFSCOM value specifies where remote machines look for the wfscm.xml file. You can change the name and location of this file if needed, but the file name must end in.xml. The file specified is copied to a remote users /Application Data/ Information Builders/ directory on the remote machine. The file name on the remote machine will always be wfscm.xml regardless of the file specified by the WFSCOM value.

5. Save and exit the file.

Most of the settings in this file are created by the installation and should not be edited unless directed by Customer Support.

**Caution:** The DLL and OCX files listed in runfocshell.dat are loaded on remote machines when App Studio is loaded on those machines.

## Installing App Studio Network Shortcuts

An installation program is provided to create shortcuts to launch App Studio. Since no disk space is needed on the remote machine, this is referred to as a Zero-Footprint WebFOCUS App Studio deployment.

**Procedure: How to Install App Studio Network Shortcuts**

To install shortcuts, perform the following on machines from which you wish to run App Studio off the network:

1. Open File Explorer.
2. In the Address bar, type the host name of the machine where App Studio is installed using the Universal Naming Convention (UNC). This has the form:

`\\hostname`

where:

`hostname`

Is the host name or IP address of the machine where App Studio is installed.

You should see a list of shared directories including the ibi shared directory you created.

3. Navigate the shared directory to:

`\\hostname\ibi\AppStudio82\Utilities\Local_setup`

4. Run the setup.exe application to install App Studio shortcuts.  
The installation wizard launches and a Welcome window opens.
5. Click *Next* at the Welcome window.  
You are prompted to create shortcuts.
6. Select which shortcuts to create and click *Next*.  
Shortcuts are created.
7. Click *Finish*.

**Note:** To remove the shortcuts from the remote machine, use the Control Panel. The shortcuts appear as Zero-Footprint WebFOCUS App Studio. Be aware that this does not remove the registry settings or files described in [Network App Studio Settings on Remote Machines](#) on page 38.

**Launching App Studio**

After installing the App Studio shortcuts, you can start App Studio from the Start menu by selecting *Zero-Footprint WebFOCUS App Studio*.

If you receive other errors, review the steps in [Network App Studio Settings on Remote Machines](#) on page 38 and ensure that WFSCOM is defined correctly in runfocshell.dat.

**Note:** App Studio is built using Visual Studio and requires the Visual C++ Redistributable Package for Visual Studio 2012. The Visual C++ Redistributable Packages install run-time components of Visual C++ libraries that are required to run applications developed using Visual Studio 2012 on a computer that does not have Visual Studio 2012 installed. Most machines have the required libraries. However, when running the network version from the Client machine, if your system does not have the required updates to allow this application to run, you will receive the following message:

```
The program can't start because mfc110.dll is missing from your computer.  
Try reinstalling the program to fix this problem.
```

or

```
This application has failed to start because the application configuration  
is incorrect. Reinstalling the application may fix the problem.
```

To correct this issue, download and install the latest update Visual C++ Redistributable for Visual Studio 2012 x64 version from <https://www.microsoft.com>.

### **Reference:** Network App Studio Settings on Remote Machines

The first time you launch App Studio on a remote machine, the wfscom.xml file is copied from the shared networked machine to the remote machine. The file is normally placed in the following location for Windows:

```
drive:\Users\user_id\AppData\Roaming\Information Builders\wfscom.xml
```

where:

```
user_id
```

Is your Windows user ID.

Other files are also created in this directory. This directory may not be visible, by default. To see this directory, open File Explorer, select the *View* tab, and then select *Hidden items*.

When you launch App Studio on a remote machine, registry settings are created under:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Information Builders
```

```
HKEY_CURRENT_USER\SOFTWARE\Information Builders
```

In addition, DLL and OCX files listed in the `\\hostname\ibi\AppData82\bin\runfocshell.dat` file are loaded.

## Customizing WebFOCUS Environments

There are two ways to handle WebFOCUS environment settings when running App Studio off the network. Developers can use the common settings on the network or use settings specific to the developer machine.

- Option 1:** Use the common WebFOCUS environment settings on the network (default).

With this option, whenever a developer launches App Studio, the wfscm.xml file on the network installation is copied to the developer machine from the following location.

```
\\hostname\ibi\AppStudio82\bin\wfscm.xml
```

where:

*hostname*

Is the host name or IP address of the machine where App Studio is installed.

This means all developers who launch App Studio from this network location use the same environment settings. It also means that any WebFOCUS environment settings that developers change on their machines will not appear the next time they launch App Studio.

- Option 2:** Use customized WebFOCUS environment settings on the local machine of a developer.

With this option, the first time a developer launches App Studio, the wfscm.xml file is copied from the network to the developer machine. However, after App Studio is started on the developer machine, you can allow the developer to prevent the wfscm.xml file from being copied over in the future. By default, developers have the option to choose whether to copy over wfscm.xml or not.

On the machine of a developer, after App Studio has started:

1. Click the *Application* button.
2. On the Application menu, click *Options*.
3. On the General tab, under Other Settings, clear *Remote Update Server Environment from Network*.

This creates a registry setting on that machine that tells App Studio not to copy over wfscm.xml when App Studio is launched from the network.

You can control whether the *Remote Update Server Environment from Network* appears and whether `wfscom.xml` is automatically copied by editing the `runfocshell.dat` file. This file was introduced in [How to Configure the Network Settings](#) on page 35. The `runfocshell.dat` file specifies registry entries that get created on developer machines. The registry entries are created each time a developer launches App Studio off the network and will overwrite any previous entries.

By default, the following lines appear:

```
REGISTRY:HKEY_CURRENT_USER\SOFTWARE\Information Builders\AppStudio  
REGDWORD:IsRemote=1
```

With these lines, `wfscom.xml` is copied and developers can choose whether or not to continue copying the file in the future.

You can choose not to show the option by changing the lines to:

```
REGISTRY:HKEY_CURRENT_USER\SOFTWARE\Information Builders\AppStudio  
REGDWORD:IsRemote=0
```

With these lines, `wfscom.xml` is always copied and developers do not have the option to change this behavior.

You can add the following line if you want to force the copying of `wfscom.xml` regardless of what a developer has chosen in the past:

```
REGISTRY:HKEY_CURRENT_USER\SOFTWARE\Information Builders\AppStudio  
REGDWORD:IsRemote=0 REGDWORD:BypassWFSUpdate=0
```

With these lines, `wfscom.xml` is always copied, even if a developer has chosen not to copy it in the past. This is a good way to force all developers to use a new version of `wfscom.xml` if you make a major change in the environment settings.

If you never want `wfscom.xml` to be copied from the network, use the following line:

```
REGISTRY:HKEY_CURRENT_USER\SOFTWARE\Information Builders\AppStudio  
REGDWORD:IsRemote=0 REGDWORD:BypassWFSUpdate=1
```

With these lines, `wfscom.xml` is never copied and developers do not have the option to change this.



## Limiting Access to App Studio

There are several ways to limit access to App Studio.

- ❑ You can restrict access to the file system of the App Studio machine by setting NTFS permissions on the shared directory.
- ❑ You can specify which user IDs can run App Studio by editing the following file on the App Studio machine:

`drive:\ibi\AppStudio82\bin\devstdpw.dat`

By default, this file contains an asterisk (\*) indicating that any user ID can run App Studio. If you wish to restrict which user IDs can run App Studio, remove the asterisk (\*). Then specify each user ID that is allowed to run App Studio. Each user ID should be entered on a single line (one line per user ID). These are the user IDs used to sign in to Windows. This file is case sensitive. Do not enter the domain as part of your user ID.

## Creating App Studio Traces From a Client Machine in App Studio Network Edition

For the network version of App Studio, the App Studio trace utility can be used to trace requests from a client machine. To accomplish this, copy the App Studio Communications Layer Trace utility, `drive:\AppStudio82\bin\wfscomtrace.exe`, and the `drive:\AppStudio82\bin\focshell.dat` file from the network machine to any location on the client machine. Run this utility prior to performing the task that is having issues and needs to be analyzed by Information Builders. From the trace utility, enable traces. Save the trace file when done, turn traces off, and close the Communications Layer Trace utility.



## Troubleshooting App Studio

---

The following topics explain how to troubleshoot App Studio.

**In this appendix:**

- ❑ [Troubleshooting Tips](#)
  - ❑ [App Studio Trace Utility](#)
- 

### Troubleshooting Tips

Review the following tips when troubleshooting App Studio.

#### Startup Failures

If you encounter issues during the launch of the App Studio product, click the Start button on the taskbar, and in the list of installed applications, expand the *Information Builders* app. Select the *WebFOCUS 82 App Studio* folder, double-click the *WebFOCUS App Studio Utilities* folder, and run the product with the *WebFOCUS App Studio (Safe Mode)* executable.

If App Studio terminates unexpectedly, the product generates a log file and captures information that you can submit to the Information Builders Customer Support team for analyses. When this situation occurs, a message displays, with the location where the log file is created.

The name of the App Studio fault log file is `AppStudioFault.log`. The file is saved in the My Documents folder.

The My Documents folder is used as a unified location for storing personal data and, by default, is configured to point to the local machine on folder `C:\Users\user_ID\Documents\`. You can configure this location to point to a different folder, another drive, or another computer on your network. For some organizations, the My Documents folder location may be set by using a group policy, in which case its properties cannot be changed.

#### Starting App Studio

If you close App Studio and then cannot restart it, you may need to manually stop the underlying `AppStudio.exe` process. To do this:

1. Press `Ctrl + Alt + Delete` and choose *Task Manager*.
2. Click the *Processes* tab.

3. Find and select an *AppStudio.exe* Image Name if it appears.

**Note:** You can click the Image Name column to sort by name.

4. Click *End Process*.

You should be able to restart App Studio if no AppStudio.exe processes appear.

## Manual Registration to Enable Multiple Browser Support in App Studio

Developers can use Chrome™, Firefox®, Edge®, Internet Explorer®, or the internal viewer when running reports. To use Chrome or Firefox, the product requires registration of the IBIWebBrowserDrivers\_dotnet\_35.dll .NET module that is included with the product.

To register this file, .NET version 4.0 is required. This version of .NET is preinstalled on most machines. If your machine does not have this .NET version, it will be installed during the App Studio installation process and the module needed to support multiple browsers will get registered.

If the registration of the module fails, the developer will not be able to switch browsers. To address this issue, the developer must register the required module manually. To do this, open a Command Window, with the option Run as administrator, and run the following commands:

```
%SystemRoot%\Microsoft.NET\Framework64\v4.0.30319\RegAsm  
C:\ibi\AppStudio82\bin\ibiwebbrowserdrivers_dotnet_35.dll /u
```

A message should display that the file unregistered successfully.

Then run:

```
%SystemRoot%\Microsoft.NET\Framework64\v4.0.30319\RegAsm  
C:\ibi\AppStudio82\bin\ibiwebbrowserdrivers_dotnet_35.dll
```

A message should display that the file registered successfully.

where:

```
%SystemRoot%
```

Is the location of the Windows folder on your machine. This includes the drive and path. It is usually the C drive. For example, C:\Windows.

### Note:

- Adjust the above commands based on location of the App Studio installation location.
- The commands in the documentation are shown in two separate lines, but they should be issued as one command.

## Manual Steps to Update Selenium Support

Selenium is a suite of tools specifically for automating web browsers. Selenium support is included with App Studio, however, if a customer installs a new browser version it may not work with App Studio. In this case, the Selenium support modules can be updated manually which may resolve the issue.

1. Go to the <http://seleniumhq.org/download> website.
2. Under the *Selenium Client & WebDriver Language Bindings* section look for the C# line and click the *Download* link to get the ZIP file.
3. Unzip the file on the desktop machine.
4. Backup the *WebDriver.dll* and *WebDriver.Support.dll* files in the *AppStudioxx\bin* folder.
5. From the unzipped file location, go into the *net40* folder and copy the *WebDriver.dll* and *WebDriver.Support.dll* files into the *AppStudioxx\bin* folder.
6. Restart App Studio and test the installed browser version.

If there is still a problem, open a support case.

**Note:** If the user is using Microsoft Edge, they may need to get an updated driver from Microsoft which is usually available on the Microsoft website.

## App Studio Trace Utility

The App Studio trace utility (Communication Layer Trace) generates trace files for tasks performed by the App Studio development environment communication layer. It captures information for tasks performed by App Studio when a request is submitted or retrieved by the product.

You can use this utility to help troubleshoot issues, such as communication failures, connection problems, and transfer of files.

To generate traces for issues you might encounter at startup, you should start the trace utility prior to launching App Studio.

To generate traces for a failure to connect to a Data Server or to determine why applications are not listed, you should start and enable the trace at the point prior to performing the task that fails.

### **Procedure:** How to Use the Communication Layer Trace

1. Click the Start button on the taskbar.
2. In the list of installed applications, expand the *Information Builders* app.
3. Select the *WebFOCUS 82 App Studio* folder.

This opens a new File Explorer window, with all of the product shortcuts.

4. Double-click the *WebFOCUS App Studio Utilities* folder and select *Communication Layer Trace* to launch the Communication Layer Trace.

The Communication Layer Trace tool opens.

5. Click the *On* radio button to enable tracing.
6. The Trace File field indicates the location and name of the trace file:

*drive:\Users\user\_id\AppData\Roaming\Information Builders\wfscom.trc*

where:

*user\_id*

Is your Windows user ID.

**Note:** The Application Data directory may not be visible, by default. To see this directory, open File Explorer, select the *View* tab, and then select *Hidden items*.

7. Click *View Trace* to view the created trace. Once the file is open in the editor, the file can be saved in a different location, if desired.
8. In the Trace Levels area, keep the default *All levels* to capture all required information or specify a specify level.

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