

# ibi<sup>TM</sup> WebFOCUS<sup>®</sup> App Studio

## Installation and Configuration

Version 9.3.6 and later | November 2025

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# Introducing ibi WebFOCUS and ibi WebFOCUS App Studio

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

## About ibi WebFOCUS and ibi WebFOCUS 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. WebFOCUS App Studio provides intuitive graphical features that help with interface design, business logic, and data manipulation. Using WebFOCUS 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, and Db2.

# ibi WebFOCUS and ibi WebFOCUS App Studio

## Overview and Architecture

WebFOCUS 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, WebFOCUS App Studio architecture and functionality are based on the architecture of WebFOCUS.

## ibi WebFOCUS App Studio Components

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

- **WebFOCUS 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 process reports and access data. Instead, they connect to a WebFOCUS environment.
- **WebFOCUS Environment.** After installing WebFOCUS 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 WebFOCUS App Studio to access a WebFOCUS environment you installed separately. This step is performed from within WebFOCUS App Studio.

## ibi 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 WebFOCUS App Studio communicates with WebFOCUS, it does so through the web and/or application server as well.

Apache Tomcat™ is provided along with WebFOCUS 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 WebFOCUS 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.

- **ibi™ 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 WebFOCUS App Studio, the WebFOCUS® Client receives the request, processes it, and passes it to the ibi™ WebFOCUS® Reporting Server. The WebFOCUS Client connection is implemented through Java servlets. In addition, the WebFOCUS Client may include other WebFOCUS products and interfaces.
- **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.

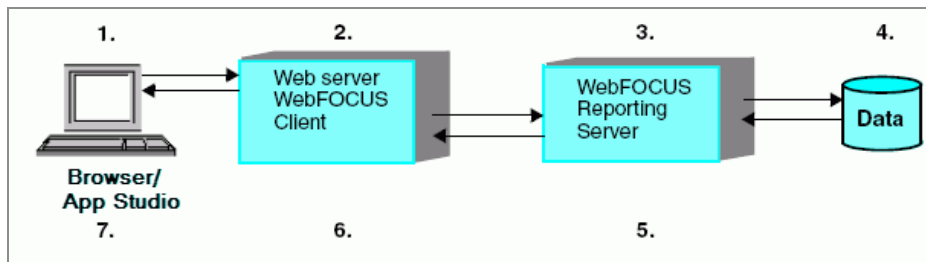
For more information on WebFOCUS components and configuration options, refer to the installation and configuration documentation for your platform.

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

## ibi WebFOCUS Processing

The following steps accompany the figure below and describe how WebFOCUS or WebFOCUS 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 WebFOCUS 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.



## ibi WebFOCUS App Studio Processing

WebFOCUS App Studio processes requests the same way that WebFOCUS does. WebFOCUS 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 WebFOCUS App Studio or located elsewhere in your enterprise.

You can configure WebFOCUS 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 WebFOCUS App Studio configurations and development environments, see the *ibi™ WebFOCUS® App Studio User's Manual*.

## ibi WebFOCUS App Studio Networked Installation

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

In a networked configuration, WebFOCUS App Studio is installed on a single shared machine, rather than each desktop. Developers then launch WebFOCUS 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 WebFOCUS App Studio includes only the GUI features and functions to develop, organize, and maintain applications and procedures. After installing the networked WebFOCUS App Studio option, you must set up a connection to a WebFOCUS environment somewhere on your network. WebFOCUS 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 [Appendix A. Configuring a Network Installation](#).

## Installation and Configuration Steps

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

Install WebFOCUS App Studio on the machine of each developer, then set up a connection from each WebFOCUS 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 WebFOCUS App Studio on one shared machine. Developers run WebFOCUS App Studio from their desktop by accessing the files installed on the shared machine over the network. You must set up a connection from WebFOCUS App Studio on the shared machine to a WebFOCUS environment. To access data, configure the WebFOCUS Reporting Server in the WebFOCUS environment.
- **Installation on a WebFOCUS Machine.** Install WebFOCUS App Studio after WebFOCUS is installed and configured. WebFOCUS App Studio connects to the WebFOCUS environment that is already installed.



# Installation and Configuration Steps

Perform the following steps to install and configure WebFOCUS App Studio:

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

# Installing ibi WebFOCUS App Studio

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

**!** **Important:** As of Release 9.0.0, the WebFOCUS system file configuration no longer includes the *ibi\_html* directory, located at *drive:\ibi\WebFOCUSrelease\WebFOCUS*, where *release* is the number of your installed release. If you store customized stylesheet files or other files in the *ibi\_html* directory, you must upload them from this directory to the WebFOCUS Repository before installing or upgrading to WebFOCUS Release 9.0.0 or higher. If you do not take this precaution, you will lose customized files stored in the *ibi\_html* directory.

We recommend that you copy customized stylesheet files into the same workspace as the reports that call them, or in a common workspace if the stylesheets support content in multiple workspaces. You must also revise the links to these customized stylesheet files in existing procedures to identify their new location. For more information, see the *Uploading Files* topic in the *WebFOCUS® User's Guide* technical content.

## System Requirements

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

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

## Hardware Requirements

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

- 2 GHz or faster dual core 64-bit (x64) processor.
- 8 GB of RAM recommended.

- 8 GB of free disk space.
- WebFOCUS App Studio horizontal resolution of 1500 pixels or higher is recommended.

## Software Requirements

Your Windows machine must meet the following software requirements:

- **Windows 11, Windows 10, Windows 2022, Windows 2019, and Windows 2016 Server editions.**
- **Adobe® Reader®.** Adobe Reader XI (11) and Adobe Reader X (10) are certified with WebFOCUS App Studio.
- **Adobe Flash® Player.** Adobe Flash Player 10 or higher is certified with WebFOCUS 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:** WebFOCUS 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, then you 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 might 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 WebFOCUS App Studio editions.

- **Oracle JDK 11.0.28.** The latest version of Oracle JDK is available at:  
<https://www.oracle.com/in/java/technologies/downloads/>

## Installing the Application

There are two ways to run the installation utility:

- **Graphical (GUI) Installation.** The default installation mode launches dialog boxes that prompt for parameters. You must use the GUI installation the first time you install WebFOCUS App Studio. This section describes the standard GUI installation of WebFOCUS 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 ibi WebFOCUS and ibi WebFOCUS App Studio on the Same Machine

When installing WebFOCUS and WebFOCUS 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 WebFOCUS App Studio.

## Running the Installation

Follow this procedure to install WebFOCUS App Studio.

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

## Install ibi WebFOCUS App Studio

**Important:** As of Release 9.0.0, the WebFOCUS system file configuration no longer includes the *ibi\_html* directory, located at *drive:\ibi\WebFOCUSrelease\WebFOCUS*, where *release* is the number of your installed release. If you store customized stylesheet files or other files in the *ibi\_html* directory, you must upload them from this directory to the WebFOCUS Repository before installing or upgrading to WebFOCUS Release 9.0.0 or higher.

You can download the WebFOCUS App Studio installation from the eDelivery website:

<https://edelivery.tibco.com/storefront/index.ep>

### Procedure

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

WebFOCUS 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. WebFOCUS App Studio configures to use the language you select during the installation process.

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

Supported upgrade paths are listed in the following table:

Upgrade from	Upgrade to	Supported
Release 8206 or 8207	Release 9.0.0	No
	Release 9.0.1	No
	Release 9.0.2	No
	Release 9.0.3	No
	Release 9.0.4	No
	Release 9.0.5	No
	Release 9.1.0	No
	Release 9.2.0	No
	Release 9.3.0	No

6. On the Software Registration dialog box, type the user name and company.

The Software Information dialog opens.

7. Click **Next**.

The Select Program Folder dialog box opens.

**Note:** If you want to have multiple WebFOCUS App Studio installations on your machine, you can change the Program Folder name by adding a suffix. Changing the default name also changes the folder name where WebFOCUS App Studio gets installed. For example, if the default folder name is WebFOCUS 93 App Studio, the

product gets installed in a directory with the name ...\\AppStudio93.

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

The Choose Destination Locations dialog 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 gets 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 opens.

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

An installation progress dialog opens.

When the installation has completed, the Install Complete dialog opens.

12. Click **Done** to complete the installation.

## Result

**Note:** Program groups are automatically created after the installation completes, with the available product shortcuts. These shortcuts are created in the Start menu, under the ibi app.

## ibi WebFOCUS App Studio Directory Structure

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

```
C:\\ibi
```

The following are some of the main subdirectories.

### **\AppStudio93\backup**

Upgrades backup the entire existing installation in the following folder:

..\AppStudio93\backup

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

..\AppStudio93\backup\_files\_09.22.2022.13.46\

### **\AppStudio93\bin**

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

### **\AppStudio93\config**

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

### **\AppStudio93\jdk**

Contains Java used by the installation program.

### **\AppStudio93\licenses**

Contains licenses for WebFOCUS App Studio and third-party software components.

### **\AppStudio93\logs**

Contains space for log files.

### **\AppStudio93\temp**

Contains space for local processing.

### **\AppStudio93\Uninstall**

Contains the product components for uninstalling WebFOCUS App Studio.

### **\AppStudio93\utilities**

Contains features and files for additional configurations.

## **Installation Log Files**

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



```
drive:\Users\user_id\AppDataStudio_Debug_date_time.log
```

```
drive:\Users\user_id\AppDataStudio_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 WebFOCUS App Studio installation. If you contact Customer Support with an installation problem, have these files available.

## Verifying the Application

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

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

## Silent ibi WebFOCUS App Studio Install and Uninstall

You can install and uninstall WebFOCUS 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.

# Install ibi WebFOCUS App Studio Using the Silent Installation

**!** **Important:** As of Release 9.0.0, the WebFOCUS system file configuration no longer includes the *ibi\_html* directory, located at *drive:\ibi\WebFOCUSrelease\WebFOCUS*, where *release* is the number of your installed release. If you store customized stylesheet files or other files in the *ibi\_html* directory, you must upload them from this directory to the WebFOCUS Repository before installing or upgrading to WebFOCUS Release 9.0.0 or higher.

**!** **Important:** As of Release 9.0.0, the WebFOCUS system file configuration no longer includes the *ibi\_html* directory, located at *drive:\ibi\WebFOCUSrelease\WebFOCUS*, where *release* is the number of your installed release. If you store customized stylesheet files or other files in the *ibi\_html* directory, you must upload them from this directory to the WebFOCUS Repository before installing or upgrading to WebFOCUS Release 9.0.0 or higher.

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

## Procedure

1. Open the command prompt.
2. Navigate to the directory where the WebFOCUS App Studio93 installation program (for example, *ibi\_wf-as\_release\_win\_x86\_64.exe*) resides and type the following command:

```
ibi_wf-as_release_win_x86_64.exe -r  
drive:\fullpath\filename.properties
```

This command runs in interactive mode and creates the *filename.properties* file, which you can use later in step 3 to run in silent mode. You can replace the *filename* in *filename.properties* with any name you wish.

**i** **Note: 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 must specify the full path to where the properties file will be created.
3. To install in silent mode, navigate to the directory where the WebFOCUS App Studio installation program (for example, `ibi_wf-as_release_win_x86_64.exe`) resides and type the following command:

```
ibi_wf-as_release_win_x86_64.exe -i silent -f  
drive:\fullpath\filename.properties
```

## Uninstall ibi WebFOCUS App Studio 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\AppStudio93\Uninstall>Uninstall.exe -i silent
```

# Configuring ibi WebFOCUS App Studio Help

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WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi™. 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:

- You can access the most current Online Help content through a Hosted Help model.
- 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).

## Deploying 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.

1. Navigate to the Docs site. For example:

```
https://docs.tibco.com/products/tibco-webfocus-app-studio-release_  
number
```

2. Under Online Help, click the Download icon to download the zip file for the Help.

## Requirements

The following are the requirements for WebFOCUS App Studio Online Help.

- Java 11
- A supported application server.

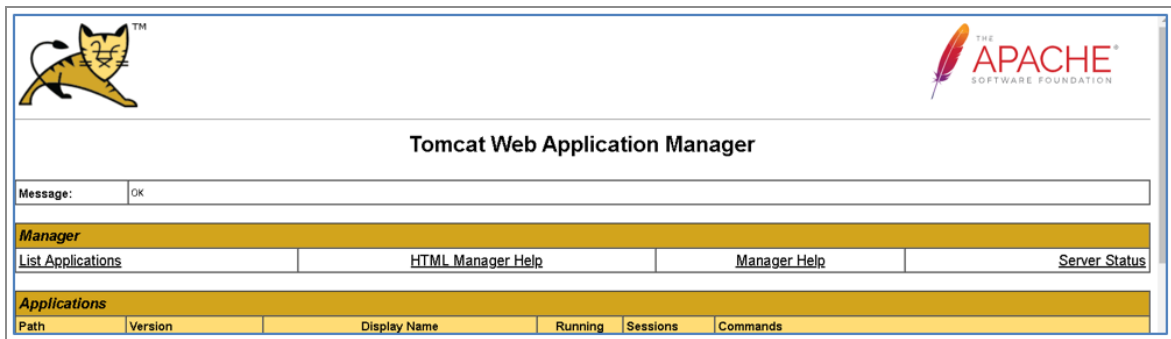
# Deploying the Online Help Web Application in Tomcat

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

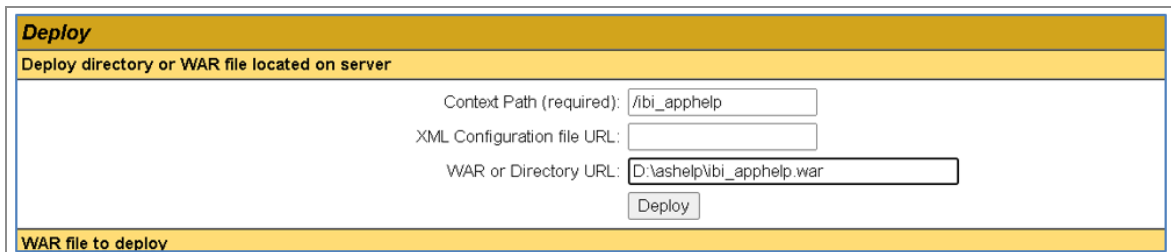
1. Navigate to the Tomcat Manager using the following URL:

```
http://servername:port/manager
```

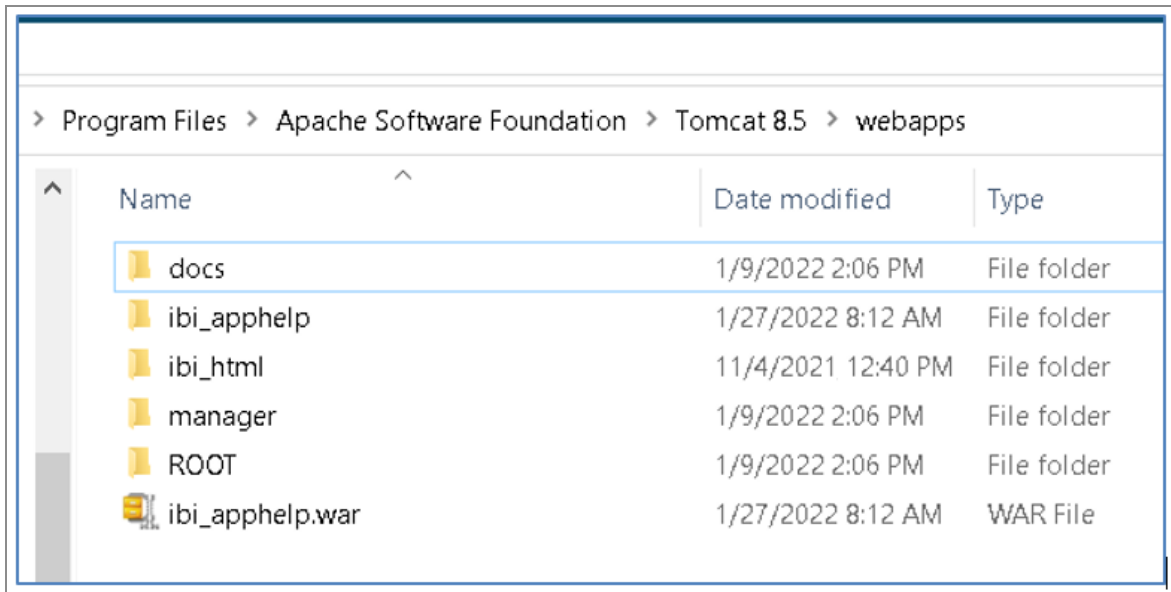
The following page displays, as shown in the following image.



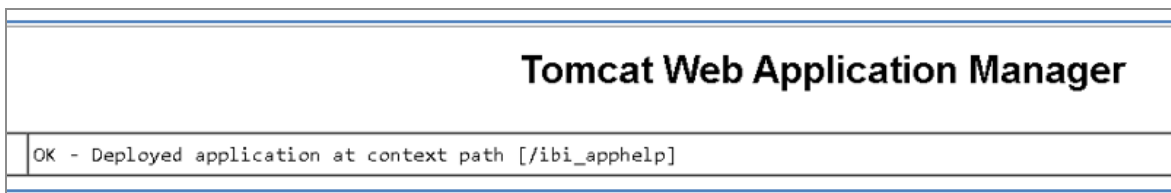
2. Navigate to the Deploy section of the Tomcat Manager page, specify **/ibi\_apphelp** for the Context Path, and specify the location of the WebFOCUS App Studio Web Application in the WAR or Directory URL input box, as shown in the following image.



The WebFOCUS App Studio Online Help application is deployed to the Tomcat webapps folder. For example:



After the WebFOCUS 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.

/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy
					Expire sessions with idle ≥ 30 minutes
/ibi_apphelp	None specified		true	0	Start Stop Reload Undeploy
					Expire sessions with idle ≥ 30 minutes

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

`http://servername:port/ibi_apphelp/index.jsp`, as shown in the following image.

The WebFOCUS App Studio Online Help is displayed. For example:



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

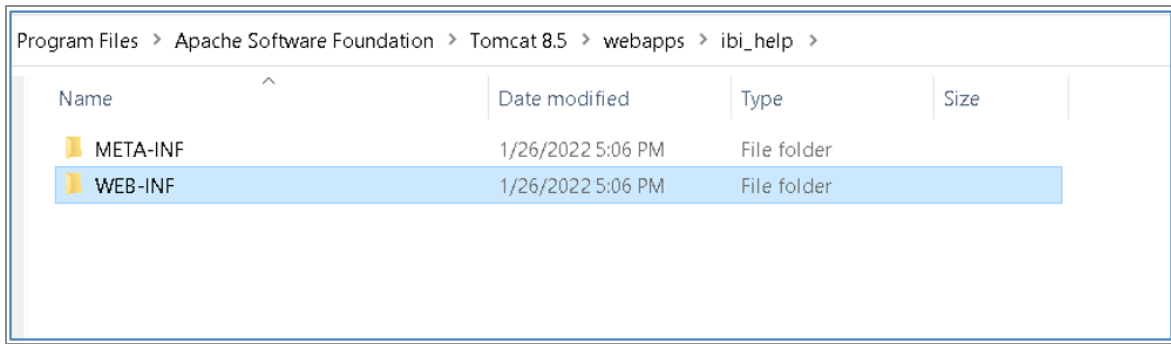
The following steps outline how to deploy the WebFOCUS App Studio Help using a context file in Tomcat.

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 WebFOCUS 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.




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

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

The WebFOCUS App Studio Online Help is displayed. For example:

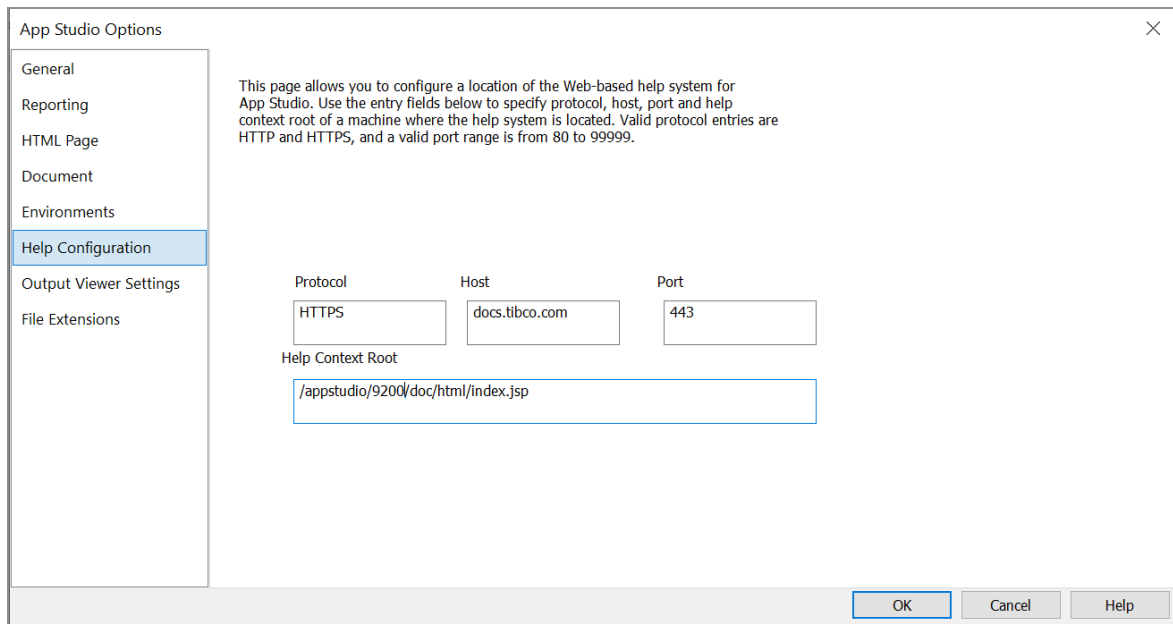


## Configuring ibi WebFOCUS App Studio to Point to the Help on the Remote Server

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

The WebFOCUS App Studio Help Configuration dialog box opens, as 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

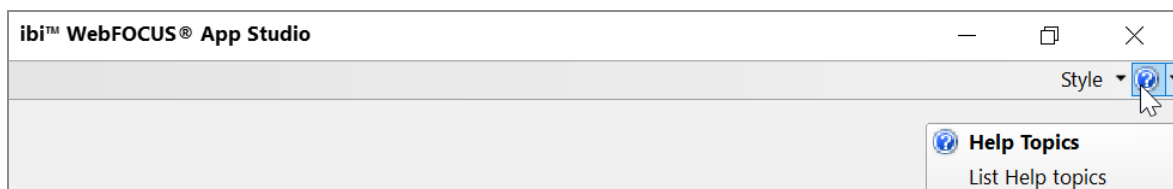
Host: Application Server name of where the WebFOCUS App Studio Online Help is deployed.

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

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

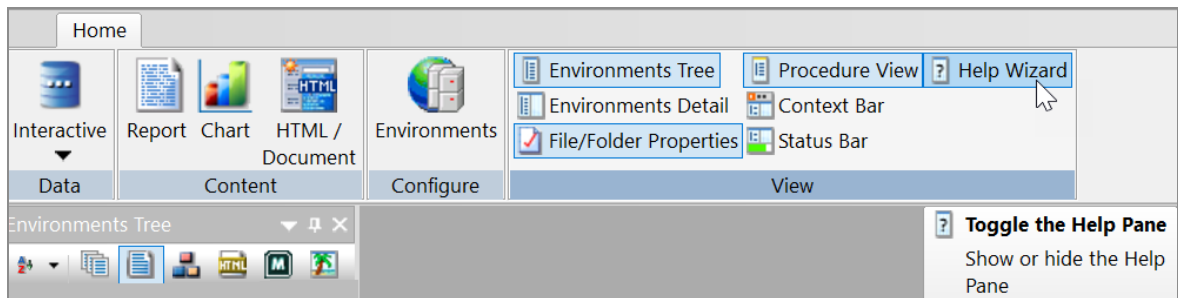
3. Verify that the WebFOCUS App Studio Online Help is accessible from help menus.

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



The help displays using the WebFOCUS 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.



The Help Wizard displays the WebFOCUS App Studio Online Help.

# Appendix A. Configuring a Network Installation

---

The following topics explain a network installation of WebFOCUS App Studio.

## Network Installation Steps

This section explains a network installation of WebFOCUS App Studio. In a network installation, WebFOCUS App Studio is installed on a single shared machine, rather than each developer desktop. Developers then launch WebFOCUS 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 WebFOCUS App Studio does not include full WebFOCUS Client connectivity. After installing WebFOCUS App Studio, you must configure it to access a WebFOCUS environment somewhere on your network. WebFOCUS App Studio then uses the web server configuration, application server configuration, WebFOCUS Client connectivity, and WebFOCUS Reporting Server of that WebFOCUS environment.

The WebFOCUS App Studio network installation involves the following steps:

1. [Ensuring Network Requirements Are Met.](#)
2. [Installing ibi WebFOCUS App Studio.](#)
3. [Configuring ibi WebFOCUS App Studio.](#)
4. [Setting Up Access to the Network Installation .](#)
5. [Installing ibi WebFOCUS App Studio Network Shortcuts.](#)
6. [Launching ibi WebFOCUS App Studio.](#)

# Ensuring Network Requirements Are Met

A network installation of WebFOCUS 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 *ibi™ WebFOCUS® and ReportCaster Installation and Configuration* manual for your platform.

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

- **WebFOCUS App Studio (Shared) Machine Requirements**

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

Since multiple users can access this machine over the network, you must use a machine that supports multiple connections and frequent network access.

- **WebFOCUS App Studio End User (Remote) Machine Requirements**

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

- **Windows 11, Windows 10, Windows 2022, Windows 2019, and Windows 2016 Server editions.**
- **Adobe Reader.** Adobe Reader XI (11) and Adobe Reader X (10) are certified with WebFOCUS 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 WebFOCUS App Studio.** Developers can use Chrome™, Firefox®, or Edge® 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 must contain the RegAsm.exe file.

WebFOCUS 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, then you 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 ibi WebFOCUS App Studio

Install WebFOCUS App Studio as explained in [Installing ibi WebFOCUS App Studio](#). Be aware that for a network installation, you do not have the option to install or configure Tomcat, or other supported configurations.

## Configuring ibi WebFOCUS App Studio

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

## Define ibi WebFOCUS Environment

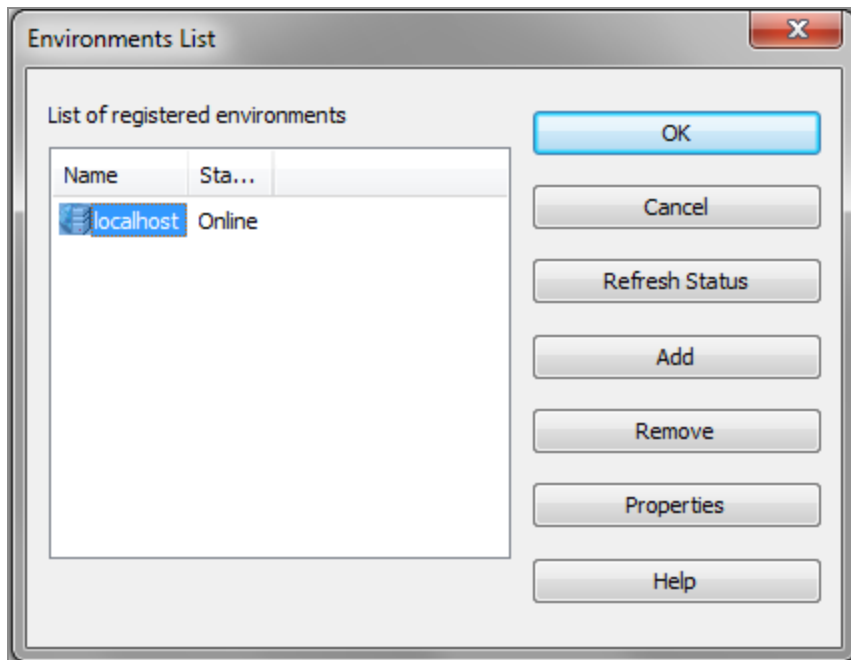
### Procedure

1. If WebFOCUS and WebFOCUS 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 **ibi** app.
4. Select the **WebFOCUS 93 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 lets you define connections to WebFOCUS environments.



The Environments List dialog shows all WebFOCUS environments that have been defined for WebFOCUS 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 must see when they launch WebFOCUS App Studio from remote machines. The name localhost could 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 WebFOCUS App Studio. When end users launch WebFOCUS App Studio, localhost resolves to the end user machine, and not the WebFOCUS App Studio machine.
10. Select **Allow Host Aliases** if you want 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 a

connection failure because of timeouts. The default connection timeout is 60 seconds.

12. Optionally, you can specify the Login Timeout to indicate how long WebFOCUS 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 WebFOCUS App Studio off the network, you must complete the following on the WebFOCUS App Studio machine:

1. [Set Up Network Shares](#).
2. [Copy the ibi WebFOCUS Enviroments File \(wfscm.xml\)](#).
3. [Configure the Network Settings](#).

## Set Up Network Shares

You must set up a network share before launching WebFOCUS App Studio from another machine. If this is not practical for security reasons, then turn the AppStudio93 directory into a network share.



**i 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 [Configure the Network Settings](#).

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

### Procedure

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 WebFOCUS App Studio temp folder to **Write** access. The WebFOCUS App Studio temp folder is

```
drive:\ibi\AppStuionn\temp
```

where:

#### **drive**

Is the directory in which WebFOCUS App Studio is installed.

#### **nn**

Is the WebFOCUS 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**.

## Copy the ibi WebFOCUS Enviroments File (wfscom.xml)

Copy the WebFOCUS environment settings (wfscom.xml) into the AppStudio93\bin directory so they are available to remote WebFOCUS 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.

**i 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\AppStudio93\bin
```

When running WebFOCUS App Studio off the network, a developer can use settings in this file or settings stored on the developer machine. The first time WebFOCUS 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 WebFOCUS 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 the wfscom.xml file is on the machine of a remote user, it is overwritten.
- If a remote user changes WebFOCUS environment settings while accessing WebFOCUS App Studio from the network, those changes are only saved to the end user machine. They are not available to other users. WebFOCUS App Studio

overwrites it when launches for the next time, unless the user chooses not to update the environments from the network as explained in [Customizing ibi WebFOCUS Environments](#).

- To change WebFOCUS environment settings for all users, you must change them on the shared WebFOCUS App Studio machine and not from a remote machine. Then, you must recopy the wfscm.xml file to the AppStudio93\bin directory so it is available when WebFOCUS App Studio is run from a remote machine.

## Configure the Network Settings

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

```
drive:\ibi\AppStudio93\bin\runfocshell.dat
```

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

### Procedure

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 [Define ibi WebFOCUS Environment](#).

4. Ensure that the correct host name, share name, and UNC directory path appears for accessing the AppStudio93 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\AppDataStudio93\bin\wfscom.xml  
SHLPATH: \\hostname\Ibi\AppDataStudio93\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 wfscom.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 user's /Application Data/Information Builders/ directory on the remote machine. The file name on the remote machine will always be wfscom.xml regardless of the file specified by the WFSCOM value.

5. Save and exit the file.

## Result

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 WebFOCUS App Studio is loaded on those machines.

# Installing ibi WebFOCUS App Studio Network Shortcuts

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

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

## Procedure

1. Open File Explorer.
2. In the Address bar, type the host name of the machine where WebFOCUS 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 WebFOCUS 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\AppStudio93\Utilities\Local_setup
```

4. Run the setup.exe application to install WebFOCUS 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**.

**Result**

**i 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 ibi WebFOCUS App Studio Settings on Remote Machines](#).

## Launching ibi WebFOCUS App Studio

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

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

**i Note:** WebFOCUS 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; then you 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>.

## Network ibi WebFOCUS App Studio Settings on Remote Machines

The first time you launch WebFOCUS App Studio on a remote machine, the wfsc.com.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\wfsc.com.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 WebFOCUS App Studio on a remote machine, registry settings are created in the following path:

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

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

In addition, DLL and OCX files listed in the `\\hostname\ibi\AppStudio93\bin\runfocshell.dat` file are loaded.

## Customizing ibi WebFOCUS Environments

There are two ways to handle WebFOCUS environment settings when running WebFOCUS 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 WebFOCUS App Studio, the `wfscom.xml` file on the network installation is copied to the developer machine from the following location.

```
\\hostname\ibi\AppStudio93\bin\wfscom.xml
```

where:

### **hostname**

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

This means all developers who launch WebFOCUS 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 appear the next time they launch WebFOCUS 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 WebFOCUS App Studio, the wfscm.xml file is copied from the network to the developer machine. However, after WebFOCUS 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 the wfscm.xml file or not.

On the machine of a developer, after WebFOCUS 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 WebFOCUS App Studio not to copy over the wfscm.xml file when launched from the network.

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

By default, the following lines appear:

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

With these lines, the wfscm.xml file 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, the wfscm.xml file 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 the wfscm.xml file 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, the wfscm.xml file 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 the wfscm.xml file if you make a major change in the environment settings.

If you never want the wfscm.xml file 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, the wfscm.xml file is never copied and developers do not have the option to change this.

## Limiting Access to ibi WebFOCUS App Studio

There are several ways to limit access to WebFOCUS App Studio.

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

```
drive:\ibi\AppStudio93\bin\devstdpw.dat
```

By default, this file contains an asterisk (\*) indicating that any user ID can run WebFOCUS App Studio. If you wish to restrict which user IDs can run WebFOCUS App Studio, remove the asterisk (\*). Then, specify each user ID that is allowed to run WebFOCUS 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 ibi WebFOCUS App Studio Traces From a Client Machine in ibi WebFOCUS App Studio Network Edition

For the network version of WebFOCUS App Studio, the trace utility can be used to trace requests from a client machine. To accomplish this, copy the WebFOCUS App Studio Communications Layer Trace utility, *drive:\AppStudio93\bin\wfscomtrace.exe*, and the the client machine. Run this utility prior to performing the task that *drive:\AppStudio93\bin\wfscomtrace.exe*, and the

*drive:\AppStudio93\bin\locshell.dat* file from the network machine to any location on

the client machine. Run this utility prior to performing the task that *drive:\AppStudio93\bin\wfscomtrace.exe*, and the

*drive:\AppStudio93\bin\locshell.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 ibi. From the trace utility, enable traces. Save the trace file when done, turn traces off, and close the Communications Layer Trace utility.

# Appendix B. Troubleshooting ibi WebFOCUS App Studio

---

The following topics explain how to troubleshoot WebFOCUS App Studio.

## Troubleshooting Tips

Review the following tips when troubleshooting WebFOCUS App Studio.

### Startup Failures

If you encounter issues during the launch of the WebFOCUS App Studio product, click the **Start** button on the taskbar, and in the list of installed applications, expand the **ibi** app. Select the **WebFOCUS 93 App Studio** folder, double-click the **WebFOCUS App Studio Utilities** folder, and run the product with the WebFOCUS App Studio (Safe Mode) executable.

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

The name of the WebFOCUS 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 ibi WebFOCUS App Studio

If you close WebFOCUS 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 WebFOCUS App Studio if no AppStudio.exe processes appear.

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

Developers can use Chrome™, Firefox®, or Edge® 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 installed on most machines. If your machine does not have this .NET version, it will be installed during the WebFOCUS App Studio installation process and the module needed to support multiple browsers will get registered.

If the registration of the module fails, the developer is not 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\AppStudio93\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\AppStudio93\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 WebFOCUS App Studio installation location.
- The commands in the documentation are shown in two separate lines, but they should be issued as one command.

## Updating the Selenium Software and Driver Executables

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

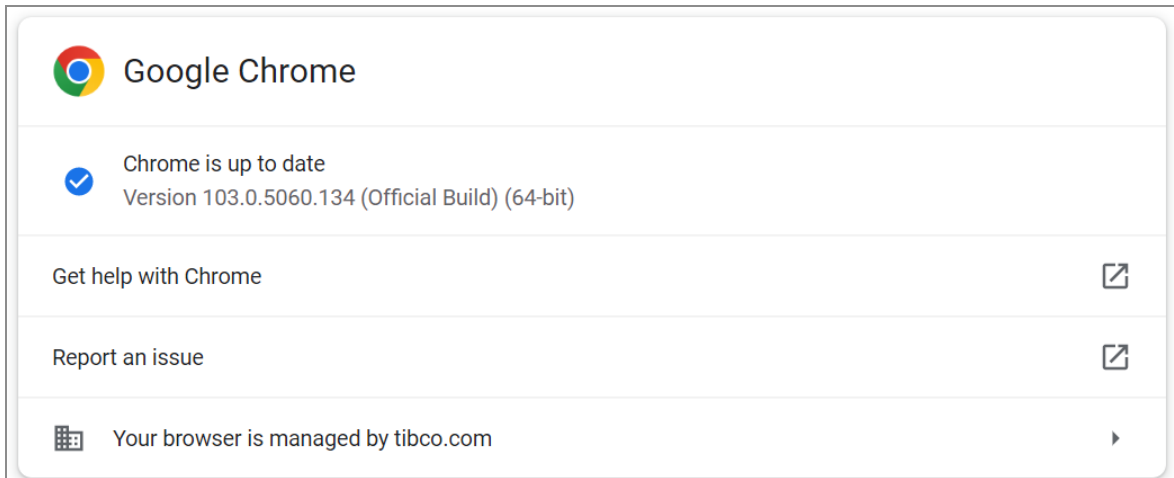
**Procedure**

1. Check the version of the browser on your machine.
2. Download the version of the driver corresponding to the version of the browser on your machine.

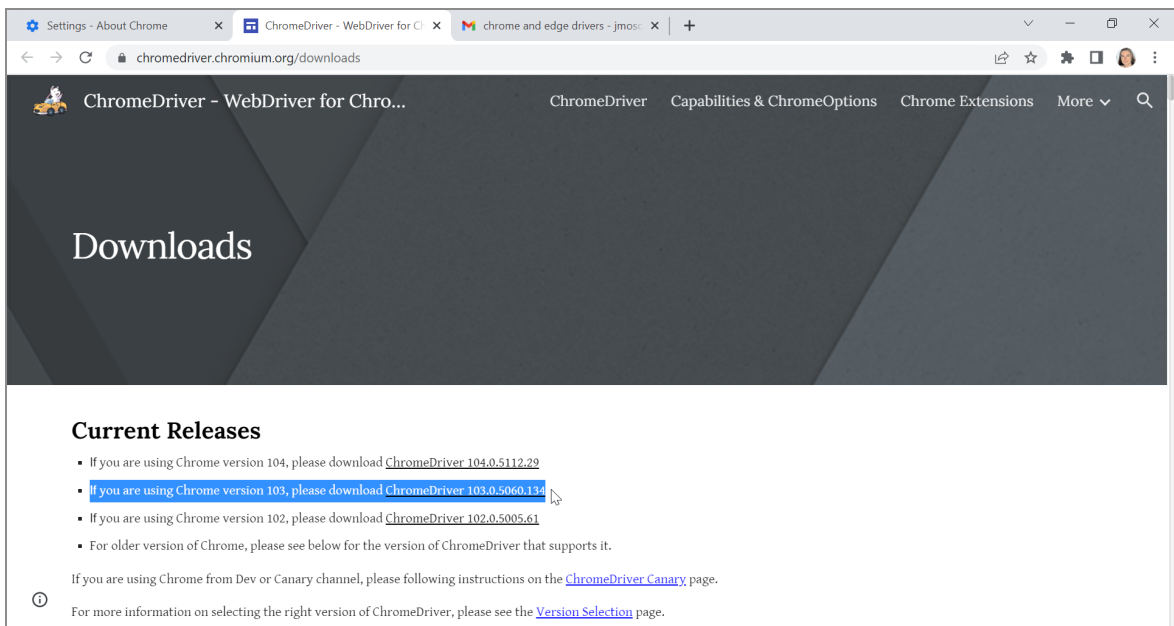
**For Google Chrome**

Go to <https://chromedriver.chromium.org/downloads> and from the *Help About, Google Chrome* option, check the version of Google Chrome you have on your machine and download the corresponding driver.

An example of the About Google Chrome dialog box is shown in the following image.



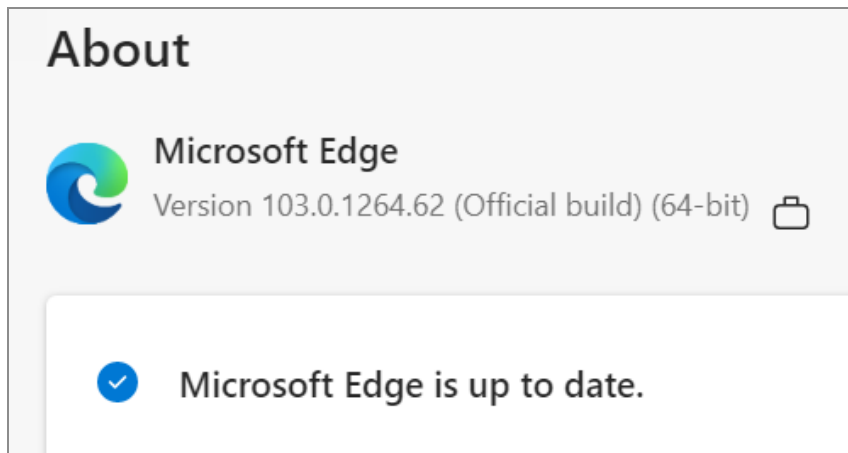
An example of the Google Chrome Downloads dialog box is shown in the following image.



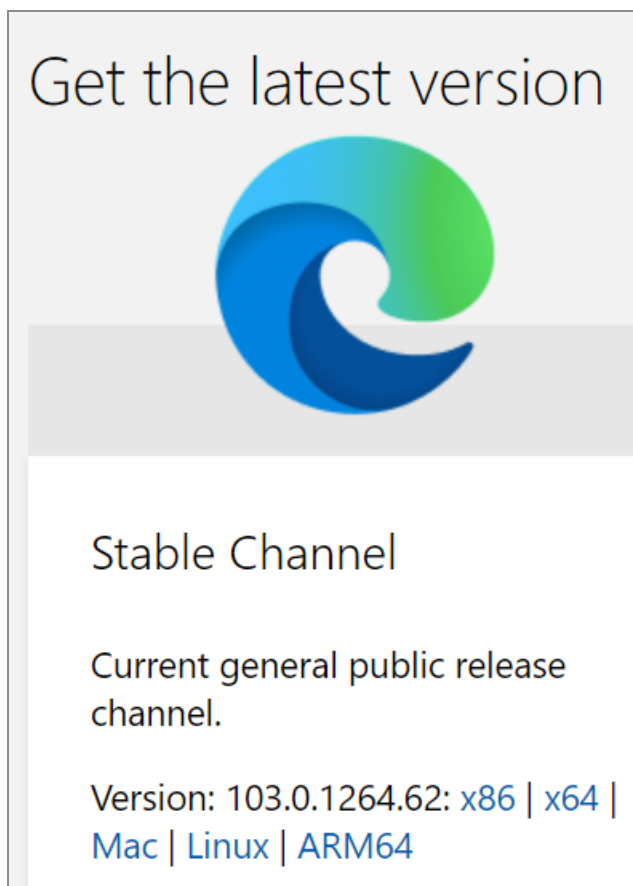
## For Microsoft Edge

For Microsoft Edge, if your version of App Studio supports it, go to <https://developer.microsoft.com/en-us/microsoft-edge/tools/webdriver/> and from the *Help and feedback, About Microsoft Edge* option, check the version of Microsoft Edge you have on your machine and download the corresponding driver.

An example of the About Microsoft Edge dialog box is shown in the following image.



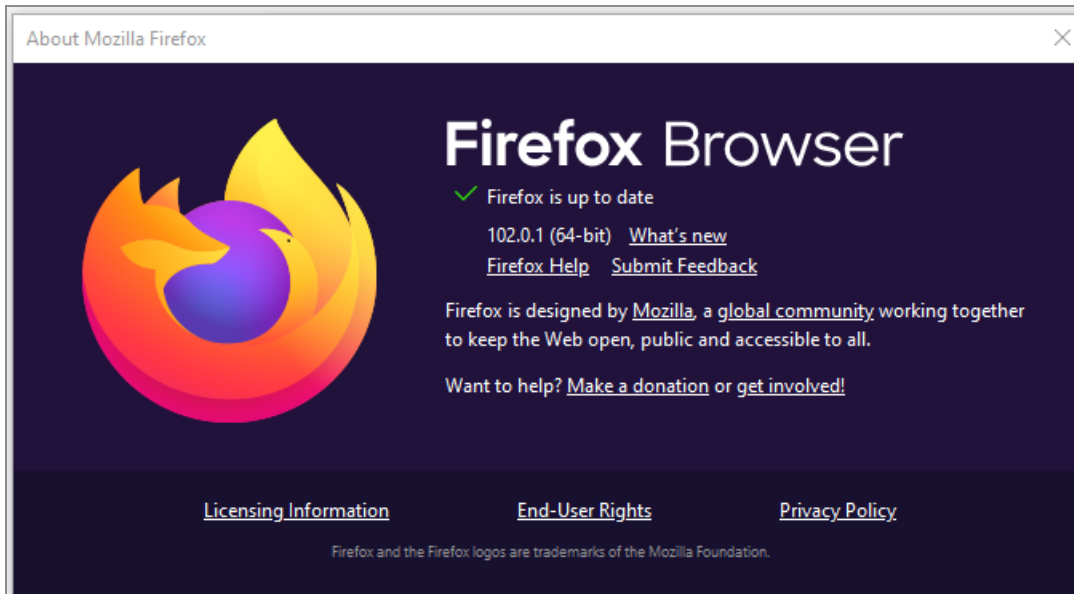
An example of the Microsoft Edge Get the latest version dialog box is shown in the following image.



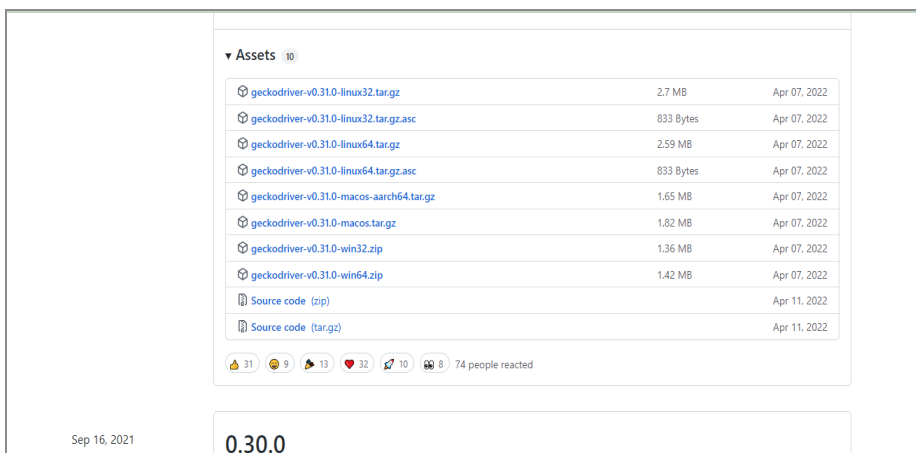
**For Mozilla Firefox**

Go to <https://github.com/mozilla/geckodriver/releases> and from the *Help, About Firefox* option, check the version of Mozilla Firefox you have on your machine and download the corresponding driver.

An example of the About Firefox Browser dialog box is shown in the following image.



An example of the Mozilla Firefox Assets dialog box is shown in the following image.



### 3. Extract the downloaded zip file.

Depending on your browser, the downloaded zip file will contain one of the following files:

- For Google Chrome, the chromedriver.exe file.



- For Microsoft Edge, the msedgedriver.exe file.
  - For Mozilla Firefox, the geckodriver.exe file.
4. Close App Studio and copy the .exe file into a bin directory of an App Studio installation (for example, C:\ibi\AppStudio93\bin).

## ibi WebFOCUS App Studio Trace Utility

The WebFOCUS App Studio trace utility (Communication Layer Trace) generates trace files for tasks performed by the WebFOCUS App Studio development environment communication layer. It captures information for tasks performed by WebFOCUS 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 WebFOCUS 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.

## Use the Communication Layer Trace

### Procedure

1. Click the **Start** button on the taskbar.
2. In the list of installed applications, expand the **ibi** app.
3. Select the **WebFOCUS 93 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 specific level.

# ibi Documentation and Support Services

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For information about this product, you can read the documentation, contact Support, and join Community.

## How to Access ibi Documentation

Documentation for ibi products is available on the [Product Documentation website](#), mainly in HTML and PDF formats.

The [Product Documentation website](#) is updated frequently and is more current than any other documentation included with the product.

## Product-Specific Documentation

The documentation for this product is available on the [ibi™ WebFOCUS® App Studio Documentation](#) page.

## How to Contact Support for ibi Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our [product Support website](#).
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the [product Support website](#). If you do not have a username, you can request one by clicking **Register** on the website.
- To submit ideas, suggestions, or feedback for TIBCO products, visit our [product Support website](#).

## How to Join ibi Community

ibi Community is the official channel for ibi customers, partners, and employee subject matter experts to share and access their collective experience. ibi Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions,

adapters, solution accelerators, and tools that extend and enable customers to gain full value from ibi products. For a free registration, go to [ibi Community](#).

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