**Information Builders**

# WebFOCUS

WebFOCUS Release Guide

Release 8.2 Version 01 and Higher

July 23, 2019

# Contents

**Chapter 1**

# WebFOCUS Release Information

This topic describes relevant release information for WebFOCUS Release 8.2 Version 01 and higher.

**In this chapter:**

## Functionality

The following is a functionality support limitation in WebFOCUS Release 8.2 Version 01 and higher:

❏  Accessibility - support limited to HTML and PDF formats. For additional information, see *Accessibility Compliance* on page 12.

The following functionality is supported as of WebFOCUS Release 8.2 Version 01M (May 2017):

❏  App Studio Source Control

❏ Magnify

❏ Open Portal Services

Please also review the *WebFOCUS 8.2 WebFOCUS and App Studio Consolidated Features* statement that provides information on the WebFOCUS Release 8.2 product components, interfaces, and tools that are discontinued or functionally stabilized due to the availability of new or enhanced product components or confirmed usage decline.

## Browser Information

The following topics describe information for the available web and mobile browsers for WebFOCUS Release 8.2 Version 01 and higher.

## Web Browsers

❏ Information Builders evaluates the browser vendor's support policy and certifies new browser versions. See Microsoft's website for information on Internet Explorer including the *Support for older versions of Internet Explorer ended* statement. Information Builders recommends following the usage requirements of the browser vendor to insure your browser is secure and supports the web standards that power today's web-based capabilities.

❏ For information on certain conditions that can force Internet Explorer to display pages in a document mode different from the one specified in the webpage see *Internet Explorer Browser Document Compatibility*.

❏ For information on the expected behavior of Internet Explorer (32-bit) on a Windows x64 machine, see the Microsoft TechNet article *Run IE 32bit on Windows 10 X64*.

❏ See the following information published by Mozilla for information on Firefox browser version support:

*https://wiki.mozilla.org/Enterprise/Firefox/ExtendedSupport:Proposal*

❏ See *8.2.x Notes* on page 9 for additional browser, Java Virtual Machine (JVM) and Adobe Reader support information.

| Release | Google Chrome™ | Mozilla Firefox® | Microsoft Edge™ | Internet Explorer® |
|---|---|---|---|---|
| Release 8.2.01M (March 2018) | Version 64* | Quantum 57* | Version 41 | Version 11 |
| Release 8.2.01M (August 2017) | Version 60* | Version 54 | Version 38 | |
| Release 8.2.01M (May 2017) | Version 57 | Version 52 | | |
| Release 8.2.01 | Version 53 | Version 49** | | |

❏ *App Studio 8.2.01M (March 2018) requires Chrome™ 64 and Firefox Quantum 57 due to Selenium web driver integration. Later versions of Chrome and Firefox Quantum will return an error.

❏ *Chrome 62 is not supported due to issues that impact WebFOCUS functionality that are confirmed fixed by Chrome 63.

❏ **Firefox 49 is certified for WebFOCUS. App Studio requires Firefox 47.0.1 or earlier due to integration with the Selenium web driver which is used to provide multi-browser support. For additional information on Selenium web driver, see the *SeleniumHQ* web site and search for Firefox 48.

## 8.2.x Notes

❏ Simple HTML WebFOCUS reports can be viewed on any browser.

❏ Chart/Graph request notes:

    ❏ *Browser-generated graphs* refer to graphs that are rendered inside the browser using HTML5 (and JavaScript). Browser-generated graphs are utilized in both standard HTML5 output ("FORMAT JSCHART"), and in Information Builders Active Technologies ("FORMAT AHTML").

    ❏ *Server-generated graphs* refer to traditional Information Builders graph requests that are generated on the Reporting Server and then embedded as a bitmap or vector image in a document or webpage. This includes the following output formats:

        ❏ Bitmap: PNG, GIF, JPG

❏ Vector: PDF (but not active PDF), SVG

❏ Support for presenting images and graphs in HTML, DHTML, and DHTML compound reports is provided using an image embedding facility based on the client browser. Output generated by IE browsers or in scenarios where the browser is unknown (such as when distributed by ReportCaster) supports image inclusion through the creation of a web archive file (.mht). For all other browsers, images are base64 encoded within the generated .htm file.

❏ Drill-down links do not work when using an embedded PDF viewer available in some browser versions. Refer to the browser's configuration information on how to change the Application Options settings for the relevant content types so that the browser will automatically use Adobe Reader.

❏ Adobe Reader support:

   ❏ Acrobat Reader DC is certified

   ❏ Adobe XI is supported

   ❏ Adobe X is supported

   ❏ Adobe Acrobat Reader Version 9 is supported

❏ Mac users: Firefox browser is supported on the Macintosh operating system. Firefox browser functionality is consistent with Safari web browsers.

   **Note:** This only applies to WebFOCUS Release 8.2 Version 01 Mac users.

For information regarding earlier releases, see the *Technical Support* page.

## Mobile Browser Information

If you are planning to use WebFOCUS products on mobile devices, please note the following regarding mobile browser support. If you will be using WebFOCUS products on the Windows operating system, see the Web Browser support information.

**Note:** Browsers released after the production date of a WebFOCUS version are subject to certification.

WebFOCUS Developer Tools (for example, InfoAssist+, Portal Designer, and so on) are not supported on mobile devices.

The following devices were used in testing WebFOCUS Release 8.2.01M (March 2018):

❏ iOS 11.0 iPad and iPhone (Latest iOS 11 iPad and iPhone is supported)

❏ iOS 10.2.1 iPad and iPhone (Latest iOS 10 iPad and iPhone is supported)

❏ iOS 9.3 iPad and iPhone

❏ AirWatch 5.9 with iOS 10

❏ Android 7.0 tablet

❏ Android 6.0 tablet and phone

❏ Mobile Faves version 3.2.1.5

The following devices were used in testing WebFOCUS Release 8.2 Version 01M (August 2017) and earlier 8.2 Version 01 releases:

❏ iOS 10.2.1 iPad and iPhone (Latest iOS 10 iPad and iPhone is supported)

❏ iOS 9.3 iPad and iPhone

❏ iOS 9.2 iPad

   **Note:** This only applies to WebFOCUS Release 8.2 Version 01.

❏ AirWatch 5.9 with iOS 10

❏ Android 7.0 tablet

❏ Android 6.0 tablet and phone

❏ Android 5.1 tablet and phone

❏ Mobile Faves version 3.2.1.

Usage Considerations:

❏ ReportCaster interfaces are supported on tablets.

❏ HTML reporting Table of Contents (BYTOC) feature is not supported.

❏ Viewing PDF, Excel, and PowerPoint documents may require a 3rd party helper app.

❏ On iOS devices, disconnected active content requires a helper app to run its JavaScript. WebFOCUS Mobile Faves can be used for this, as can other HTML helper apps.

   **Note:** This only applies to WebFOCUS Release 8.2 Version 01.

❏ To open In-Document Analytics content, JavaScript needs to be enabled in your web browser. On mobile devices, please use the Mobile Faves app. If not installed, download it from the App Store for iOS devices or from the Google Play Store for Android devices.

See the *WebFOCUS Release Notes* for detailed information on known issues and documentation updates.

See *WebFOCUS 8.2.01 and Higher Release Considerations* on page 27 for detailed information on expected functionality changes and configurations required for some product features.

For information regarding earlier releases, see the *Technical Support* page.

## Accessibility Compliance

For information on the Information Builders software products to which Section 508 accessibility standards are applicable, see the following:

❏ *Technical Memo 4505*: WebFOCUS HTML Report Accessibility Support

❏ *Technical Memo 4704*: WebFOCUS PDF Report Accessibility Support

Keyboard navigation is supported with Jaws on a Windows $^®$ operating system. For Jaws browser requirement information, see the *Freedom Scientific* web site.

❏ Release 8.2 Version 01M supports Jaws Version 18 and 17.

❏ Release 8.2 Version 01 supports Jaws Version 18, 17 and 16.

❏ Internet Explorer browser Version IE 11.

❏ Chrome and Firefox browsers are supported with HTML and PDF accessible reports. See *Web Browsers* on page 8 release information for the versions certified.

## WebFOCUS Client Supported Operating Systems

The following table describes the WebFOCUS client supported operating systems.

| Vendor (Processor /Architecture) | Operating System Version |
|---|---|
| Microsoft Windows 64-bit | Windows Server 2016, 2012 R2, 2012 |
| | Windows Server 2008 R2 Service Pack 1 |
| | Windows 10, 8.1, and 7 *(limited to development environments only)* |
| IBM i | V7R1 |

| Vendor (Processor /Architecture) | Operating System Version |
|---|---|
| IBM (pSeries 64) | AIX 7.1 |
| IBM (zSeries) | Enterprise Linux Kernel-3.0.101-glibc-2.11 and up |
| Oracle (Sparc 64-bit) | Oracle Solaris 11 |
| | Oracle Solaris 10 |
| Oracle (x86) | Oracle Solaris 11 |
| | Oracle Solaris 10 |
| Red Hat (x86_64) | Enterprise Linux 6.1 / Kernel 2.6.32 -glibc-2.6 and up |
| | Enterprise Linux Kernel-3.10.0-glibc-2.17 and up |
| Red Hat (IBM Power Systems) | Enterprise Linux 6.1 / Kernel 2.6.32 -glibc-2.6 and up |
| Hewlett Packard (Itanium IA64) | HP-UX 11i (11.31) |

For information regarding earlier releases, see the *Technical Support* page.

## WebFOCUS Support Statement for Java 2 Platform, Standard Edition (J2SE)

This topic contains information regarding WebFOCUS release support for the different Oracle JDK versions that WebFOCUS and ReportCaster web applications are deployed on. It is also important to verify the Java version requirements of the web application server version before installing or upgrading Java software.

The following chart notes the status of WebFOCUS certification of Oracle J2SE releases. However, please note:

❏ Maintenance updates of Oracle J2SE within the same version level are supported.

❏ Using earlier versions of WebFOCUS with later JDK versions is supported. However, the solution to some problems might require an upgrade to a later WebFOCUS or JDK service pack.

❏ Support for later J2SE major releases requires certification and is not supported unless specified in the following chart.

❏ In the chart below, when reference is made to the following terms:

❏ *Certified* - means the specified release(s) of Java have been tested within the specified WebFOCUS Release QA (Quality Assurance) certification process.

❏ *Supported* - means the specified release(s) of Java have not been tested within the WebFOCUS Release QA (Quality Assurance) certification process but is expected to work based on the reliability of earlier minor release updates. Limited testing in specific WebFOCUS Product areas may have been performed.

Please report any problems you experience with a certified or supported version of Java to Customer Support Services for evaluation.

For information regarding earlier releases, see the *Technical Support* page.

## WebFOCUS Application Server Minimum JVM Version Requirement

As of WebFOCUS Release 8.2, the minimum JVM version requirement for the application server that WebFOCUS and ReportCaster web applications are deployed on is JVM Version 7. See *WebFOCUS 8.2 Java, Servlet, and Install Requirements* for additional information.

| J2SE Release | Certification Status |
|---|---|
| 8u161 | *Certified* with WebFOCUS Release 8.2.01M (March 2018) |
| 8u121 | *Certified* with WebFOCUS Release 8.2.01M (August 2017) |
| 8u102 | *Certified* with WebFOCUS Release 8.2.01M and 8.2.01 |
| 7u80 | *Certified* with WebFOCUS Release 8.2.01M and 8.2.01 |

For information regarding earlier releases, see the *Technical Support* page.

## Supported RDBMS and Drivers

Supported relational databases for the WebFOCUS repository:

| Vendor (RDBMS) | Version | JDBC Driver |
|---|---|---|
| Apache Software Foundation (Derby) | 10.9.1.0 | derbyclient.jar |
| Microsoft® (MS SQL Server®) | 2016 | sqljdbc4.jar |
| | 2014 | sqljdbc4.jar |
| | 2012 | sqljdbc4.jar |
| | 2008 | sqljdbc4.jar |
| IBM® (Db2) | 10.5 | db2jcc4.jar |
| | 9.7 FP4 | db2jcc4.jar |
| | 9.5 FP9 | db2jcc4.jar |
| Oracle® (Database) | 12c | ojdbc7.jar |
| | | ojdbc6.jar |
| | 11gR2 | ojdbc6.jar |
| | 11g | ojdbc6.jar |
| | 10.2 | ojdbc6.jar |
| Oracle® (MySql) | 5.7.9 | mysql-connector-java-5.1.18-bin.jar |
| | 5.5.x | mysql-connector-java-5.1.18-bin.jar |
| | 5.1.x | mysql-connector-java-5.1.18-bin.jar |
| Postgresql | 9.3.4 | postgresql-9.2-1002.jdbc4.jar |

For information regarding earlier releases, see the *Technical Support* page.

## Supported Web and App Servers

Supported Web and Applications Servers:

| Vendor<br>Web Server & Application Server | Version |
|---|---|
| Apache Software Foundation (Apache Tomcat®) | 8.5.x (latest version) |
| | 8.0.x (latest software) |
| | 7.0.x (later software) |
| Apache Software Foundation (Apache HTTP) | 2.4 |
| | 2.2 |
| IBM® HTTP Server | 8.5.5 |
| IBM® WebSphere® | 8.5.5.x |
| Microsoft® (IIS) | 8.5 |
| | 8.0 |
| | 7.5 |
| | 7.0 |
| Oracle® WebLogic | 12c (12.2.2.1, 12.1.3.0.0, 12.1.1.0.6) |
| Red Hat® (JBoss) | Enterprise Application Platform 6.2.4 |

For information regarding earlier releases, see the *Technical Support* page.

## WebFOCUS SOAP Web Services Minimum Axis Version Requirement

As of WebFOCUS Release 8.2, the minimum Axis version requirement for WebFOCUS SOAP Web Services is Axis 2.

## Localization (NLV) and NLS Limitations

Information Builders provides National Language Support and Localized Version support for WebFOCUS and App Studio in select languages. Requests for additional languages may be submitted by contacting Customer Support Services and opening a New Feature Request.

For information regarding earlier releases, see the *Technical Support* page.

## National Language Support (NLS)

National Language Support (NLS) involves reading and interpreting data stored in code pages that represent the character sets of various international languages. Information Builders' proprietary NLS application programming interface (API) code-page architecture transcodes data between application client and server components and manages all sorting, case conversion, and formatting for dates, currency, and numbers.

## Localized Version Support (NLV)

A localized version is a software product in which the user interface (for example, menus and utilities) appears in a particular language. Information Builders localized versions are positional. Each button or menu choice is always in the same relative position in the product - only the text of the labels changes. Therefore, it is easy for anyone who is familiar with an Information Builders' product in one language to support that product in another language.

Localized versions have complete National Language Support (NLS) capability. You can access data for any supported language, with all national characters processed, displayed, and printed correctly.

## WebFOCUS and Reporting Server

WebFOCUS Release 8.2 Version 01 and of the Reporting Server Release 82 support the following code pages for data processing:

### ASCII Platforms

| | |
|---|---|
| 137 - U.S. English/Western Europe (Latin 1) | 923 - Latin 9 (ISO 8859-15) |
| 437 - U.S. English | 942 - Japanese (shift-JIS) |
| 813 - Greek (ISO 8859-7) | 946 - Simplified Chinese |
| 850 - Western Europe | 949 - Korean |
| 852 - Central Europe | 1089 - Arabic (ISO 8859-6) |
| 857 - Turkish | 1250 - Central Europe (Latin 2) |
| 860 - Portuguese | 1251 - Cyrillic (Windows) |

| | |
|---|---|
| 862 - Hebrew | 1252 - Windows (Latin 1) |
| 863 - French Canadian | 1253 - Greek (Windows) |
| 865 - Nordic | 1254 - Turkish (Windows) |
| 866 - Cyrillic II | 1255 - Hebrew (Windows) |
| 869 - Greek | 1256 - Arabic (windows) |
| 912 - Central Europe (ISO 8859-2) | 1257 - Baltic (Windows) |
| 915 - Cyrillic (ISO 8859-5) | 10942 - Japanese (EUC) |
| 916 - Hebrew (ISO 8859-8) | 10948 - Traditional Chinese |
| 920 - Turkish (ISO 8859-9) | 65001 - Unicode (UTF-8) |
| 921 - Baltic (ISO 8859-13) | |

**EBCDIC Platforms (IBM z/OS and IBM i)**

| | |
|---|---|
| 37 - IBM EBCDIC United States | 500 - IBM EBCDIC International European |
| 273 - IBM EBCDIC Germany F.R./ Austria | 870 - IBM EBCDIC Multilingual (Latin 2, Eastern Europe) |
| 277 - IBM EBCDIC Denmark, Norway | 871 - IBM EBCDIC Iceland |
| 278 - IBM EBCDIC Finland, Sweden | 875 - IBM EBCDIC Greece |
| 280 - IBM EBCDIC Italy | 1025 - IBM EBCDIC Cyrillic, Multilingual |
| 284 - IBM EBCDIC Spain/Latin America | 1026 - IBM EBCDIC Turkish |
| 285 - IBM EBCDIC United Kingdom | 1047 - IBM EBCDIC Open Systems (Latin 1) |
| 297 - IBM EBCDIC France | 1112 - IBM EBCDIC Baltic Multilanguage |
| 424 - IBM EBCDIC Israel (Hebrew) | 65002 - Unicode (UTF-EBCDIC) |

The WebFOCUS Reporting Server Console, DataMigrator and the Data Management console support the following languages.

(* Localized versions)

❏ AMENGLISH

❏ ARABIC

❏ B-PORTUGUESE

❏ CROATIAN

❏ CZECH

❏ DANISH

❏ DUTCH

❏ ENGLISH

❏ ESTONIAN

❏ FINNISH

❏ FRENCH*

❏ GERMAN*

❏ GREEK

❏ HEBREW

❏ HUNGARIAN

❏ ITALIAN

❏ JAPANESE*

❏ KOREAN

❏ LATVIAN

❏ LITHUANIAN

❏ NORWEGIAN

❏ POLISH

❏ PORTUGUESE

❏  ROMANIAN

❏  RUSSIAN

❏  S-CHINESE*

❏  SLOVAK

❏  SPANISH*

❏  SWEDISH

❏  T-CHINESE*

❏  THAI

❏  TURKISH

❏  UKENGLISH

## WebFOCUS Client and ReportCaster

The following localized versions are available for the WebFOCUS Client and ReportCaster.

Translation and certification of the following languages is done by Information Builders:

**GROUP 1 (Full Translation)**

❏  Brazilian Portuguese

❏  Chinese (Traditional and Simplified)

❏  English

❏  French (Canadian and Standard)

❏  German

❏  Italian

❏  Japanese

❏  Spanish

**GROUP 2 (Partial Translation)**

Limited areas have been translated and tested by Information Builders Agents and Partners. Strings that translation has not been provided for will display in English.

❏ Russian

**GROUP 3 (Evaluating)**

Limited areas have been translated and tested by Information Builders Agents and Partners for demonstration purposes. Strings that translation has not been provided for will display in English. Contact Information Builders for instructions to enable.

❏ Korean

## App Studio

The following localized versions are available for App Studio.

❏ English

❏ French

❏ Japanese

## WebFOCUS Open Portal Services - Supported Portals

WebFOCUS Open Portal Services supports SharePoint 2013.

## Release, Gen Maintenance, HotFix Availability Information WebFOCUS Client and App Studio

Release, packaging, and maintenance release information for WebFOCUS Client and App Studio 8.2 Version 01 can be used in conjunction with the release information obtained from the installed WebFOCUS products to determine the installed release, Feature/Service Pack, Maintenance, or HotFix level of WebFOCUS. The Reporting Server 82 release and generation level information certified with the WebFOCUS Client and App Studio is also included in the table below.

Information Builders delivers WebFOCUS Client and App Studio fixes for specific customer issues and to improve product stability via Maintenance Releases. Each Maintenance Release is a single, cumulative package that can be applied as a full installation or as a service pack when upgrading.

Each Maintenance Release goes through our standard quality assurance validation process and targeted product area testing related to the fixes completed. Periodically, Information Builders replaces a Feature/Service Pack Release on the download site at My Downloads with a Maintenance Release that has been fully-certified. These releases are designated as Prod.

Other Gens of Maintenance Releases are made available on demand only. These Gens are Information Builders' mechanism for providing rapid turnaround fixes for customer-reported problems. They are production quality gens, but they are only certified on customer-reported platforms. They must be requested for a customer by opening a case via InfoResponse Online. Alternatively, if you are a North American customer, you may call 1-800-736-6130 from 8:00 to 20:00 Eastern Time Monday to Friday. If you are an international customer, contact your local office.

Information Builders publishes the "Description of Problems Fixed" in a given cumulative Maintenance Release. This information is in the table below, and available from the WebFOCUS Information Center. It is recommended that customers review this information in detail in order to determine the product areas impacted and the potential scope of testing that would be prudent to implement.

| Release | WebFOCUS Client/ ReportCaster | App Studio | Reporting Server |
|---|---|---|---|
| 8201M (March 2018) *Fixes* | wf032318a Gen 240 | as032818a (English, French, Japanese) | 82M Gen 1127 *Fixes* |
| 8201M (August 2017) *Fixes* | wf082417a Gen 193 | as082417a (English and French) | 82M Gen 1102 |
| 8201M (May 2017) *Fixes* | wf050517a Gen 164 | as050517a (English and French) | 82 Gen 1086 |
| 8201 *Fixes* | wf102016b Gen 138 | as102016a (English) | 82 Gen 1060 |

For information regarding earlier releases, see the *Technical Support* page.

## WebFOCUS Reporting and Microsoft Office Support

This topic provides details on the support of WebFOCUS reporting formats that generate output in Microsoft® Office products. It also provides usage considerations for hyperlinks that execute dynamic drill-down requests to procedures protected by WebFOCUS security.

## WebFOCUS Reporting Formats and Microsoft Product Association

The following table shows the WebFOCUS formats that create Microsoft Excel and PowerPoint reports, the Microsoft Office application associations, and the Windows operating system version availability.

| WebFOCUS Formats | Microsoft Office Products | Windows Operating System |
|---|---|---|
| XLSX | Microsoft Office 2016<br>Microsoft Office 2016, 2013, 2010, 2007<br>Microsoft Excel Viewer 2007 | Windows 10<br><br>Windows 8<br><br>Windows 7 |
| PPTX | Microsoft Office 2016<br>Microsoft Office 2016, 2013, 2010, 2007<br>Microsoft PowerPoint Viewer 2010 | Windows 10<br><br>Windows 8<br><br>Windows 7 |
| EXL2K<br>(Functionally stabilized) | Microsoft Office 2003, 2000 | Windows XP<br>Windows 2000 |
| PPT<br>(Functionally stabilized) | Microsoft Office 2003, 2000 | Windows XP<br>Windows 2000 |

For additional information on Microsoft Office releases compatible with Windows operating systems, see *Get Windows 10 App*, which has a customized compatibility report for each PC, and provides a unified compatibility view of a PC, its onboard devices, and applications.

## WebFOCUS EXL2K and PPT Formats and Microsoft Office Suite Support

Due to file type and content security policy changes implemented by Microsoft, the WebFOCUS EXL2K and PPT formats are not supported with Microsoft Office 2013 and higher. The WebFOCUS XLSX and PPTX formats fully support the Microsoft Excel® XLSX and Microsoft PowerPoint® PPTX file types and content security policies of Office 2013 and higher.

## Microsoft Office 2003 Support

See *Get Windows 10*, which has a customized compatibility report for each PC, and provides a unified compatibility view of a PC, its onboard devices, and applications. In WebFOCUS products, although you will still be able to start and work in Microsoft Office 2003 applications, Microsoft recommends that you upgrade to a later version of Office in order to continue to receive support and updates. If your organization uses Office 2003 with the Windows® XP operating system, see *Support for Windows XP ended* for information on the end of support for Microsoft Office 2003 and Windows XP SP3.

For information on opening, editing, and saving documents, workbooks, and presentations that were created in the later versions of Microsoft Excel and PowerPoint, see *Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats*.

## WebFOCUS EXL2K and PPT Formats and Microsoft Office Viewer Products Support

Microsoft Excel Viewer and PowerPoint Viewer are read-only products. They permit only the display and printing of Microsoft Excel and PowerPoint data. The WebFOCUS EXL2K and PPT reports are not supported in any release of the Microsoft Excel Viewer and the Microsoft PowerPoint Viewer. The WebFOCUS XLSX and PPTX formatted reports are supported and can be viewed with the Microsoft Excel Viewer and Microsoft PowerPoint Viewer, respectively.

Microsoft has released statements that older releases of the Microsoft Excel and PowerPoint Viewer are no longer supported. For information on the supported versions of Microsoft Office Viewer products, see *Supported versions of the Office viewers*. The Microsoft Office Viewer is available from the *Microsoft Download Center*.

## Usage Consideration When Using Hyperlinks to Run WebFOCUS Reports

Selecting a hyperlink in a WebFOCUS report, to execute a drill-down request to run a procedure on a secured WebFOCUS web environment, requires the security context or any session-related cookies to be inherited. Microsoft Office products do not natively inherit the security context or any session-related cookies created by a web-based application.

The following options are available to configure your web environment so that hyperlinks in WebFOCUS reports will be functional within Microsoft Office products.

❑ Configure WebFOCUS authentication to allow anonymous access. For more information, see the *WebFOCUS Security and Administration* manual.

❑ Use SSO with IIS/Tomcat Integrated Windows Authentication. Renegotiation occurs automatically and the Excel and PowerPoint reports display correctly.

❑ As of WebFOCUS Release 8, the Remember Me feature can be enabled on the Sign-in page. If the end user uses the Remember Me feature, a persistent cookie is used. For more information on how Microsoft Office products handle session-related information, see *Error message when clicking hyperlink in Office: "Cannot locate the Internet server or proxy server*.

## WebFOCUS DOC Format

The WebFOCUS standard for styled and printable documents is the Acrobat® PDF format. The WebFOCUS PDF format creates Acrobat PDF documents. The WebFOCUS DOC format produces a character-based file, not a Microsoft Word document.

## Recommended Reading

*WebFOCUS EXL07/XLSX Format Supported Features Release Roadmap*

*WebFOCUS PPTX Format Supported Features Release Roadmap*

*Microsoft Windows Support Statement for WebFOCUS*

*Saving Report Output in Excel XLSX Format* topic in the *Creating Reports for WebFOCUS Language* manual, available from the *WebFOCUS 8 Technical Library*.

*Saving and Reusing Your Report Output* topic in the *Creating Reports for WebFOCUS Language* manual, available from the *WebFOCUS 8 Technical Library*.

## Additional Resources

The following Technical Support pages contain additional resources that you can reference, but are not specific to your release.

❑ *Advisories*

❑ *Compatibility Notices*

❑ *Release Availability*

❑ *Support Notices*

❑ *Supported Operating Systems for the WebFOCUS Client*

❑ *WebFOCUS 8.2 Java, Servlet, and Install Requirements*

❑ *WebFOCUS 8.2 WebFOCUS and App Studio Consolidated Features*

❑ *WebFOCUS EXL07/XLSX Format Supported Features Release Roadmap*

❏ *WebFOCUS Release 8 Chart Formats Statement*

❏ *WebFOCUS Server Support Statement for JVM*

**Chapter**

# 2

# WebFOCUS 8.2.01 and Higher Release Considerations

These topics provide release considerations and product changes for WebFOCUS Release 8.2.01 and higher.

**In this chapter:**

## Active Technologies

The following are release considerations and product changes for Active Technologies (WebFOCUS Reporting Server Release 82).

### Support for a Floating-Point Value on a WHERE Filter

You can now use a floating-point single-precision (F) value or a floating-point double-precision (D) value on a WHERE filter for an active report. However, we recommend that you convert a floating-point single-precision or floating-point double-precision value to packed decimal (P) for better precision. A WHERE filter using a floating-point value can, in some cases, produce an imprecise result due to rounding differences unique to each database engine.

## Menu Update

The Enable Transitions option on a column drop-down menu for a tabular active report on an active dashboard has been removed.

## Coordinated Fields and NOPRINT

When a coordinated field is added to an active dashboard, it is added as a NOPRINT field. The coordinated field name is not displayed as part of the default chart title, and the coordinated field value that is selected on the dashboard is not concatenated to the X-axis labels.

## Title for Coordinated Field Drop-Down List

When you run an active dashboard with a coordinated field, Active Technologies labels the drop-down list for the field with its title when available, instead of its name. Active Technologies derives the title from the following sources.

1. If the Master File contains a TITLE attribute for the field, Active Technologies uses the title specified on the TITLE attribute in the Master File. An example is TITLE = 'Product ID'.

2. If the Master File does not contain a TITLE attribute for the field, Active Technologies uses the name specified on the FIELDNAME or FIELD attribute in the Master File. An example is FIELD=PCD.

For more information on Master Files, see the *Describing Data With WebFOCUS Language* manual.

# App Studio

The following are release considerations and product changes for App Studio.

## Installation and Configuration

The following are release considerations and product changes for App Studio installation and configuration.

### Installation

❑ If you are upgrading from App Studio Release 8.2.01 to Release 8.2.01M using the following editions, the upgrade will fail due to a missing configuration file (install.cfg):

  ❑ Report Developer local or network installation

  ❑ Managed Reporting Developer local or network installation

  You will receive the following message:

```
Select path is not valid for an update. Please see install logs for
details.
```

The installation log describes the cause of this failure.

To address this issue, open the Windows File Explorer. locate the instance of the installation you plan on upgrading (for example, C:\ibi\AppStudio82\), and create a new subfolder called config (for example, C:\ibi\AppStudio82\config). In this folder, create an install.cfg file with the following entries:

```
INSTOPT_Version=8.2
INSTOPT_Service_Pack=01
```

❑ During installation, some App Studio components must be registered into your Windows registry. The system now displays a descriptive error message when you attempt to start App Studio, if this registration was not successful. The message specifies whether a specific class is not registered or if a specific module is not found in the registry. Your administrator can run thisfoci.bat to properly configure the registry.

### Configuration

❑ As of Release 8.2 Version 01M, App Studio requires Firefox 49.1 or higher. App Studio uses Selenium WebDriver 3.0 and the corresponding stand-alone driver executables for Firefox, Chrome, and Microsoft Edge in order to support multiple browsers. For additional information on Selenium WebDriver, see the SeleniumHQ website at *http://www.seleniumhq.org/*.

❑ App Studio always uses Microsoft Internet Explorer for all the tools available on the WebFOCUS Administration menu, as well as for the Upload Data functionality. This is true even if you have selected another browser as the default.

❑ Internet Explorer 11 is the default browser for displaying content from App Studio on Windows 10. This is due to the fact that every time Edge opens, a command window is opened as well, thereby cluttering a user's desktop with extraneous windows. Edge is still an option in the Options dialog box and is also available in the Utility canvas of the HTML page. You may also still select Edge to view or preview HTML output.

## Environments

The following are release considerations and product changes for App Studio environments.

❑ You cannot perform any actions on a Domain when the Security Center for that Domain is open.

❑ The Projects development node is hidden, by default. To show the Projects node in the Environments Tree panel, from the App Studio Options dialog box, select *Show Projects area* on the Environments tab.

❏ When you click *Show all content files* in the App Studio Environments tree, all content types are displayed, but Master Files are not. This is by design. To view Master Files, click *Show only Master files*.

❏ In the Save As dialog box, when creating a file of any type in App Studio, you can only save the file in the folder in which it was created. Previously, the Save As dialog box allowed you to navigate and save the file to a different folder.

Now, the Save As dialog box is restricted to the folder you first specified. For example, if you created an HTML file in the Public folder, the Save As dialog box appears, as shown in the following image.
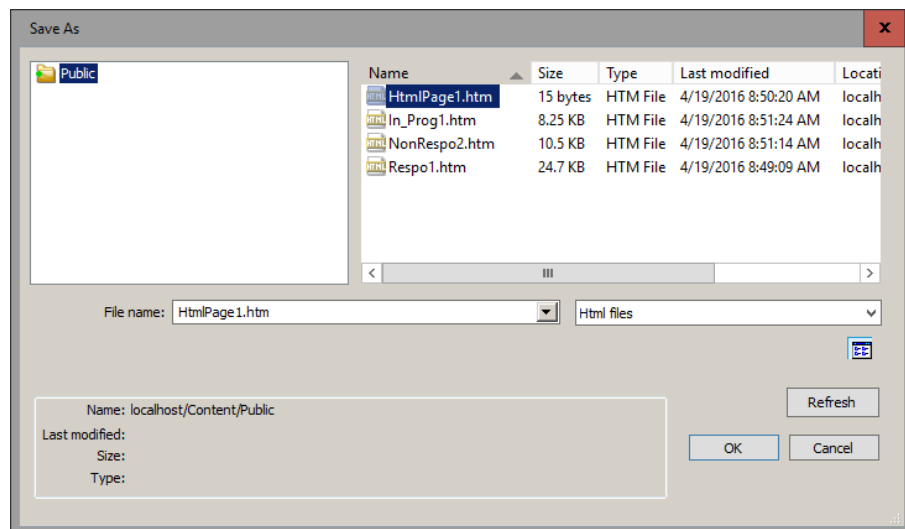


To relocate a file after you first save it, you can still use the Cut, Copy, and Paste options in both the Environment Details panel and the Environments Tree panel.

❏ A refresh button has been added to all the file selection dialog boxes, such as Open File, Save As, and Select a Data Source, as shown in the following image.

This button enables you to refresh the contents of the available files list prior to making a selection.
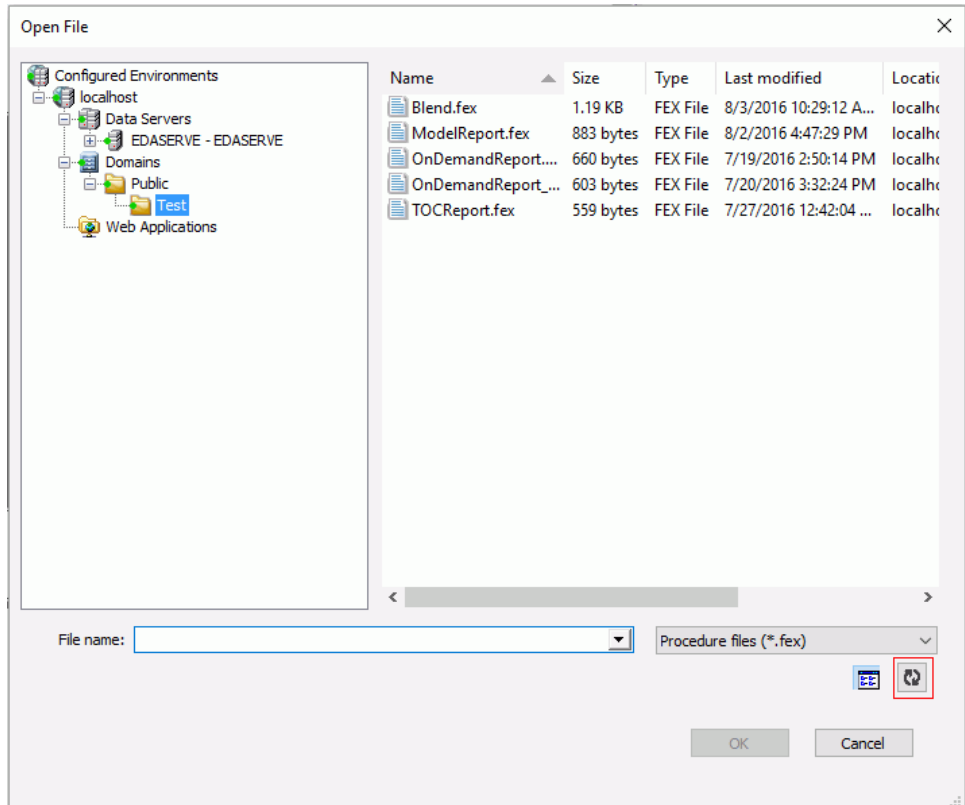


❑ Engine has replaced SQL Engine in the New shortcut menu, which is available in the Procedure View panel when you right-click the procedure folder or component for which you want to create the Engine statement.

❑ The *Use short Last Modified date format* option has been removed from the Options dialog box. This is now handled in the Windows control panel.

❑ The Last Modified date for files and folders appears in numerous places in App Studio. Previously, you could control the date format by using the App Studio Options. Now, the date format has been removed from the App Studio Options. Instead, App Studio panels and dialog boxes use the date format (AM/PM or 24-hour) that you specify in your Windows settings.

❑ All the file selection dialog boxes, such as Open File, Save As, and Select a Data Source, now open with the cursor in the File name field, so that the user can start typing as soon as the dialog box is displayed.

❑ Previously, if you had a document open in App Studio, you were able to select an invalid option that would result in an error message. For example, if you had an open report in your localhost environment, you could navigate to the Environments List and choose to remove the environment. However, Remove is not a valid option when a report is open, so an error message would display.

Now, invalid options are automatically disabled when documents are open in App Studio. If you have an open report in your localhost environment, you can navigate to the Environments List dialog box. The invalid Remove and Properties buttons are grayed out, as shown in the following image.
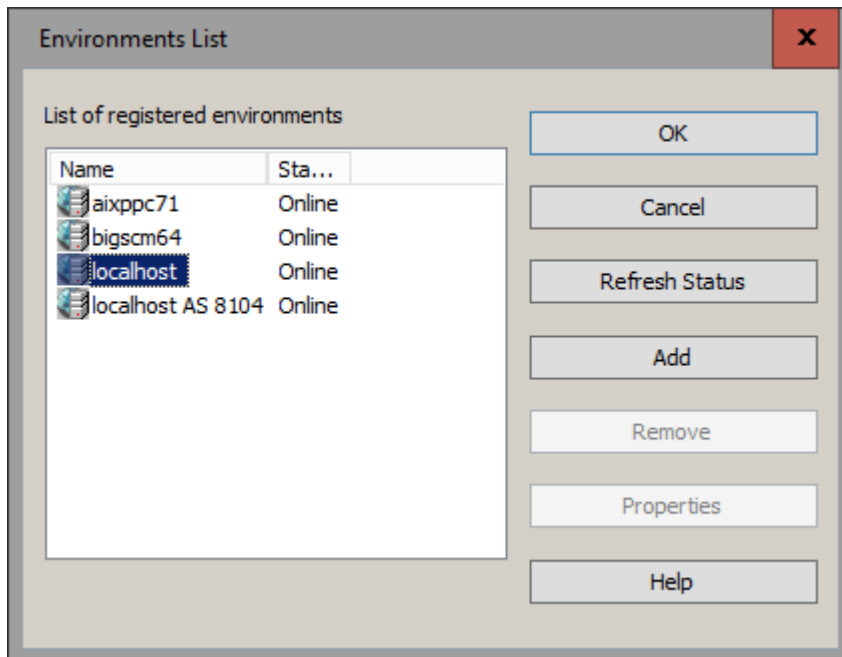


❑ The Select Data Source dialog box and the Open File dialog box both require you to select a folder in the Environments Tree panel. When you select a folder under the Domains node, these dialog boxes no longer include the following radio button options, which were available in the previous release:

❑ Show All Files in Associated Paths

❏ Show Files in Selected Path Only

When you select a folder under the Projects node, the Select Data Source and Open File dialog boxes still retain these two radio button options.

## Messages

The following are release considerations and product changes for App Studio messages.

❏ Running a report, chart, HTML, or document using Internet Explorer no longer produces the pending screen "Waiting for response...".

❏ When you click the User's Manual link on the App Studio Welcome screen, the following error message may appear: "A system shutdown has already been scheduled." This occurs only when Internet Explorer is in the process of closing on your machine. Fully exiting Internet Explorer can take up to 10 seconds. This error does not appear if Internet Explorer is currently open on your machine or has been fully exited when you click *User's Manual*.

## HTML Page Migration

The following HTML pages created in Developer Studio are not candidates for App Studio migration:

❏ HTML pages created in releases earlier than Release 7.6 Version 9.

❏ Release 7.6 Version 9 and higher pages that were reverse engineered.

❏ Release 7.6 Version 9 and higher pages that were heavily modified outside of the tool.

## HTML Canvas

The following are release considerations and product changes for the App Studio HTML canvas.

❏ As of Release 8.1.05M, there was a change in behavior for the Send Display Value feature.

The original behavior was as follows:

❏ Send Display values were only sent to &VARIABLE_TEXT.

❏ When you wanted a display value in the report, you had to use &VARIABLE_TEXT, and then select the *Send Display Value* check box in the Settings panel.

As of Release 8.2.01M, the change in behavior is as follows:

❏ If you do not use &VARIABLE_TEXT in the report, then the Send Display Value check box, when selected, sends the Display value to &VARIABLE.

❏ If the report has both &VARIABLE and &VARIABLE_TEXT, then selecting or not selecting the Send Display Value check box has no impact. &VARIABLE will have the Actual value and &VARIABLE_TEXT will have the Display value.

❏ In Release 8.2.01M, the internal JavaScript files required by the HTML canvas need to be loaded in a predefined order. Due to this behavior, any global JavaScript code in the Embedded JavaScript tab may not work as expected. To remedy this, the global JavaScript code must be placed within the onInitialUpdate function, in the Embedded JavaScript tab.

❏ As of Release 8.2.01M, when you type an invalid character for a file name or path in an edit control, either in the tree edit control or the Open and Save dialog box edit controls, the edit control gives an audible beep. In the case of platform case sensitivity, the edit control changes the case of the character to reflect the platform case sensitivity usage, with those platforms that are case insensitive being changed to lowercase.

Prior to Release 8.2.01M, when you type an invalid character for a file name or path in an edit control, either in the tree edit control or the Open and Save dialog box edit controls, you are notified that an input error occurred and you need to retry the entire event after closing the dialog box.

❏ If you open a Developer Studio HTML file in App Studio and close the file without changes, you are prompted to save the file in order to allow the user to convert this to an App Studio file. You can do a Save As to keep a copy of the Developer Studio file, in addition to converting this to an App Studio file.

❏ If you make changes to the HTML page settings in the App Studio Options dialog box (Grid Settings, Preview Settings), you need to press F5 to refresh an HTML page that is currently open in order to see the changes.

❏ An HTML page created in Developer Studio will not work with a Responsive Autoprompt. To correct this, the page must be converted to an App Studio page, by opening and saving the page in App Studio.

❏ The Alt+drag option used to designate a parent/child relationship between objects in the HTML canvas is no longer available. It has been replaced by the new Drag and Drop command on the Positioning tab. Alternatively, you can use the new Toggle Drag and Drop command from the HTML canvas shortcut menu.

❏ When running an HTML page, the loading screen has been changed to use a spinning wheel graphic instead of text, as shown in the following image.



❏ The Font dialog box used for selecting the font size of text in an HTML page has been removed.

Previously, in an HTML page, a Font dialog box was displayed to specify the font for the selected text. This was the case whether you clicked the ellipsis button next to Font in the Properties panel, or when you right-clicked highlighted text, pointed to *Style*, and clicked *Font* from the shortcut menu.

Now, in both cases the Style Composer dialog box is displayed with Font selected automatically, as shown in the following image. Also, in the Size section, when you enter a specific font size, the unit defaults to px (pixels).
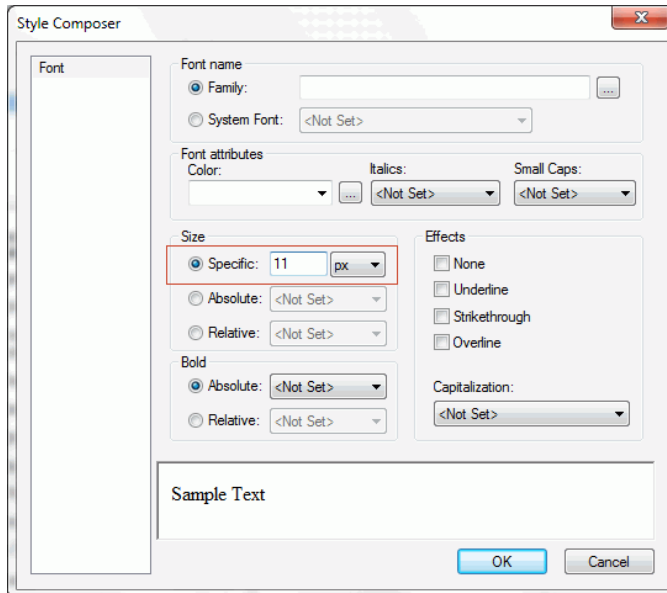


❏ Previously, when a new parameter was added to the Parameters tab on an HTML page, it was difficult for the user to associate the parameter to a report and ensure that it was included when the report ran.

Now, the Apply To field has been added to the Settings panel so that a new parameter can easily be linked to a procedure, as shown in the following image.



❑ Previously, only the Function name could be specified for a JavaScript call in the Tasks & Animations panel.

Now, the JavaScript call functionality allows a user to include parameters in the Function Name field in the Tasks & Animations panel. The parameter(s) must be included in parentheses and, if there are more than one, they must be separated by a comma. For example:

```
IbComposer_triggerExecution(taskName,index);
```

❑ The Files Utility group has been removed from the HTML canvas Utilities tab. Instead of Import, the Reference existing procedure functionality provides better reusability.
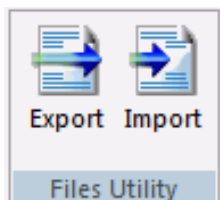
❏ HTML canvas files in App Studio are not designed to be edited in an outside editor and they may fail to run if they are edited manually.

Previously, the warning message was:

```
This file has been manually modified. There is no guarantee
that the tool will be able to open this file in a usable state. Do
you want to continue?
```

Now, the warning message lets you decide how to open the file:

```
This file has been manually modified. There is no guarantee
that the canvas will be able to open this file in a usable state.
Click "Yes" to open the HTML Canvas, or "No" to open the Windows
associated app.
```

❏ You can now see all previously-created class names in the Style rule hierarchy window of the Add Style Element dialog box. You invoke this dialog box from the Embedded JavaScript and Embedded CSS tabs of an HTML page in App Studio. Prior to this upgrade, previously-created class names were not displayed.

❏ On the HTML canvas, you can add a Save Selection button to a page. At run time, the user can select given parameters and save them in a snapshot by clicking the *Save Selection* button. This creates a static HTML page in the same folder as the source page. As of Release 8.2 Version 01, the static Save Selection pages are no longer editable in the HTML canvas or in the text editor.

❏ The styling options for borders of HTML objects in App Studio can be accessed from two places:

  ❏ The Properties panel

  ❏ The Border Style Properties window

Previously, the verbiage for the available border style values differed slightly between these two places. Now, the verbiage has been unified.

❏ In the Relationships group, on the Positioning tab of the HTML canvas, the following commands have been deprecated and will be removed in a future release of App Studio: *Top Left*, *Top Right*, *Bottom Right*, *Bottom Left*. The *Show* command is now enabled by default.

❏ You can now change an entry in the Control Type column in the New Parameters dialog box by right-clicking in the field and selecting *New control* or *Existing control*.

# Report Development

The following are release considerations and product changes for App Studio report development.

❏ The Report canvas displays a dialog box if there is a StyleSheet error, and allows you to launch the Text Editor on a tool failure.

❏ In App Studio Release 8.1 Version 05M, if you are not registered on the Reporting Server and try to access the Report canvas, you receive an *unauthorized access* error message. This error message is included in the Reporting Server edaprint.log file. The message is suppressed by App Studio and you gain access to the Report canvas.

In App Studio Release 8.2 Version 01, that behavior has changed. If you are not registered on the Reporting Server, and try to access the Report canvas, the following error message displays, as shown in the following image.
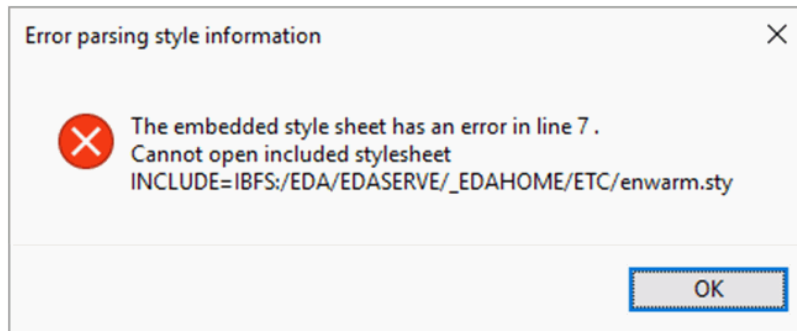


If you click *OK* to continue, the following App Studio dialog box opens.
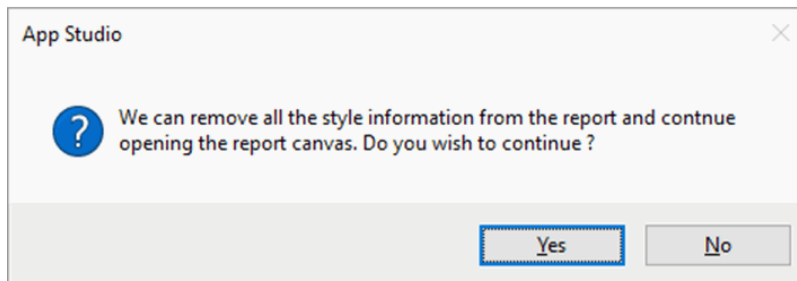


If you click *Yes* to continue, the Report canvas opens, but no styling is applied.

**Possible Workarounds**

The following are possible workarounds:

❏ For the Reporting Server Basic User role, add the Read privilege to the home\etc directory for the Basic User, using the following steps:

1. In the Access Control page, right-click the *Basic User* role and select *Directory/File Privileges*.

2. Once the directories and privileges display, right-click the *srv82\home* directory and select *Show All Directories/Files*.

3. When the home\etc and other directories are listed, click the *Read* privilege and save the changes, as shown in the following image.



❏ Place the style sheets in a different Reporting Server subfolder and allow Read access to that directory for Basic users.

❏ Register WebFOCUS groups to the Reporting Server, Server Administrator group (this is not recommended for App Studio developers).

**Note:** The Server Administrator group is the only group that has sufficient default privileges to read from the home\etc directory.

**Note:** For more information on Server Access Control, see the *Server Administration* manual.

❏ In Release 8.1 Version 05M, if you right-click a Master File and click *Create Report* or *Create Chart*, or point to *New* and click *Report* or *Chart* from a folder, the user is presented with an Open File dialog box to select the Master File again. In Release 8.2 Version 01, if you right-click a Master File, and create a new report or chart, the Report canvas or Chart canvas opens, respectively, without this additional step.

❑ App Studio no longer delays the creation of new content when the system first retrieves Master Files from a Reporting Server. If the data set is exceptionally large, it may take a few minutes for the retrieval to complete. Previously, there was a block placed during the retrieval period that prevented the creation of new content, including:

❑ Running the Report Wizard

❑ Running the Chart Wizard

❑ Running the HTML/Document Wizard

❑ Creating a Join or Define

Now, the block has been removed and new content can be created immediately.

Additionally, there is new system behavior that occurs during the retrieval period. All Open File dialog boxes are now restricted to Show Files in Selected Path Only. The option to Show All Files in Associated Paths is unavailable, as shown in the following image.
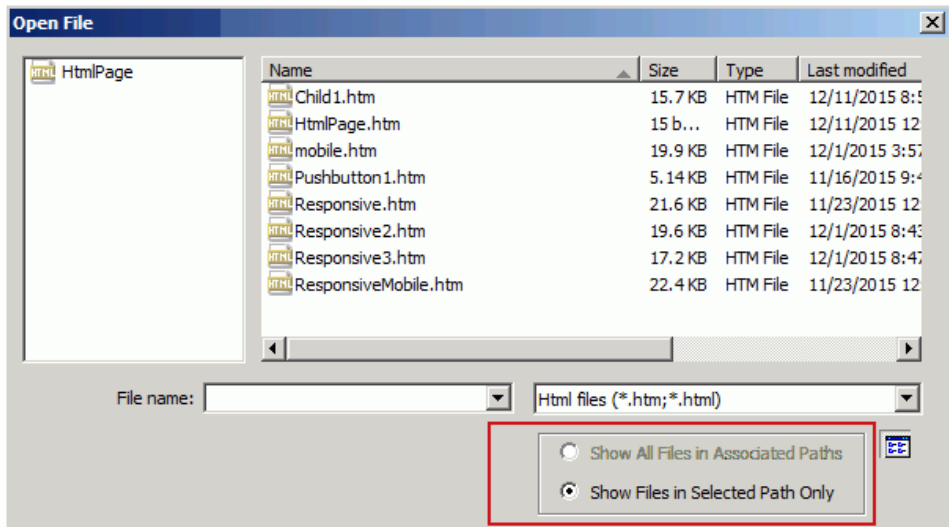


When the retrieval period is completed (which is typically less than one minute), the option to Show All Files in Associated Paths becomes available again.

❑ On the active reports Options tab, the Chart Engine group and its corresponding options have been removed. App Studio has been enhanced to use a single chart engine, so the previous options are now invalid.

❑ The active dashboard option has been removed from the File type list on the HTML/ Document Wizard.

❏ The LOTUS, WK1, and SYLK output formats are no longer supported in App Studio. They have been removed from the Unstyled formats selection on the Output Format menu, located in the Output Types group on the Format tab of the Report canvas. These format types are extremely old, and the products that read them no longer exist.

❏ As you add objects to the canvas with the Autosize Children option turned on, the existing objects will temporarily move out of the way so that you can draw the new objects. Afterward, the existing objects will return to the correct positioning.

❏ The contents of the File name field on the Open File dialog box have been simplified to display only the name of the selected file. The path, server, and machine components have been removed. The basic configuration of this dialog box is available from the App Studio icon and the Quick Access toolbar. This mode includes the configured environments list, the file list, the File name drop-down list, the file type drop-down list, plus the *Details*, *Refresh*, *OK*, and *Cancel* buttons, as shown in the following image.
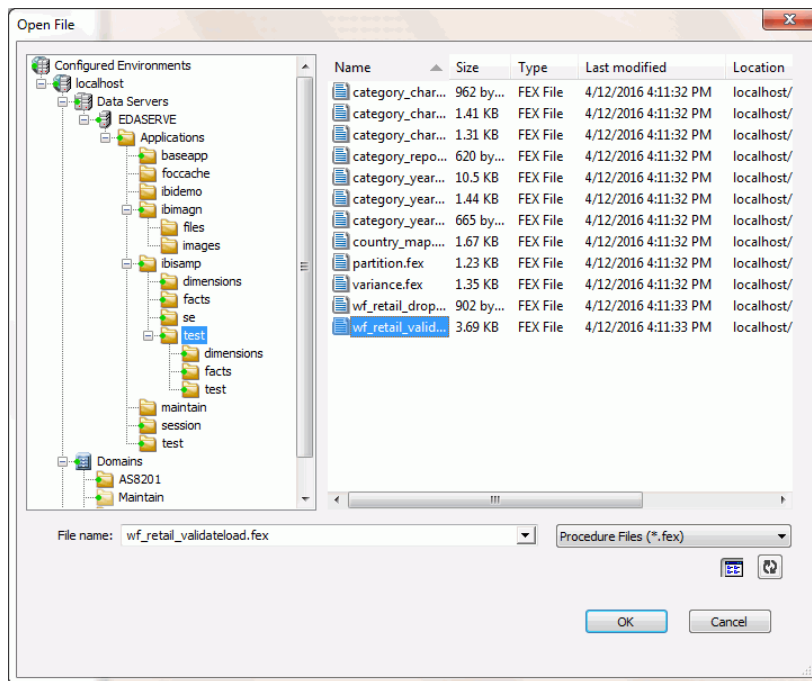
When using the Wizard to create a new Report or Chart, the caption is renamed to Select Data Source. A Use Qualified Path check box is included along with the Finish, Cancel, and Help buttons, as shown in the following image.
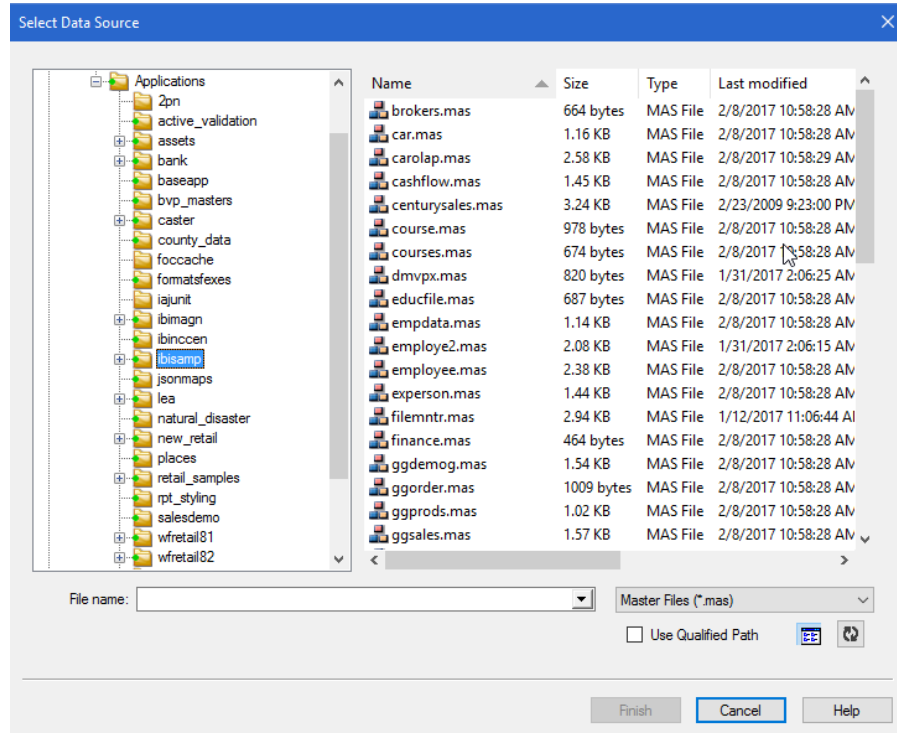


**Note:** The Back button is included only when the Wizard is launched from the Ribbon.

❑ Previously in App Studio, all links and drilldowns were underlined. Now you have the option of using links and drilldowns without the underline.

You can suppress underlines using the new No Underline button in the Style group, as shown in the following image. The No Underline button appears as an underlined letter U with a red slash through it.



❑ Previously, you had to save all the components in a procedure before it could be run.

Now, you can run a procedure directly from the Procedure View panel using the *Run complete procedure* option from the shortcut menu without saving it.

**Note:** If you select *Run complete procedure* when the procedure is in an invalid state, you will get an error message asking if you would like to run the procedure with the last good content.

❏ Previously, a chart always loaded into the BI Portal as an iFrame.

Now, this can be changed in the Properties panel, under the Miscellaneous section, by setting the Load in iFrame property to *No*, as shown in the following image. This loads the chart as a div, which allows any drop-down content to display correctly.

| Miscellaneous | |
|---|---|
| Autosize settings | |
| Enable | No |
| Name | chart1 |
| Display container as | Always |
| Enable responsive | No |
| Margin width | |
| Margin height | |
| Sizing and Scrolling | No |
| Load in iFrame object | **No** |
| Alignment | |
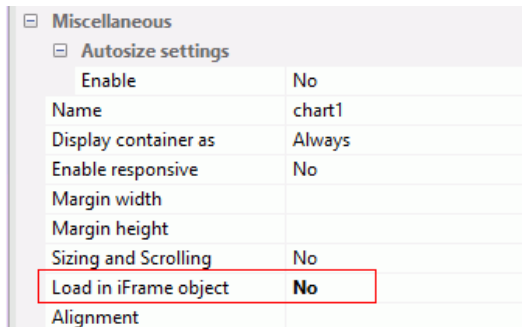
**Note:** This is only necessary if charts or reports with drop-down controls are being loaded to a BI Portal.

❏ The Expression Builder enables you to create report filters quickly by selecting fields, relations, operators, and values from lists. Filters are saved under the Reports Variables folder in the Object Inspector pane of the Report canvas.

Previously, the field name you selected for the filter was used as the prompt text for the variable. Now, the field title attribute, defined in the Master File, is used by default as the prompt text for the variable. If no field title attribute is defined, the field name is used.

The following image shows both the name and the title for the Product,Category field.
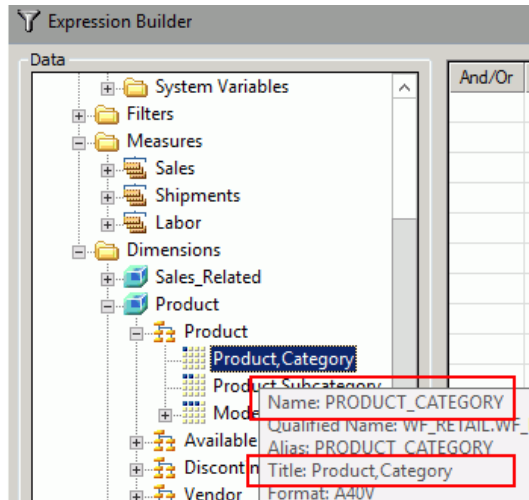


❑ On the Report canvas, on the Images tab, in the Options group, the Show Images in Report View option has been renamed Show Images in Design View. Also, the Report view tab at the bottom of the Report canvas, has been renamed Design.

❑ Active Flex is no longer supported as an output format in App Studio and has been removed from the Format tab.

## Business Views Plus (BV+)

The following are known issues when saving a generic Cube Master File with the BV_NAMESPACE=OFF attribute in the App Studio Metadata canvas:

❑ A level field must be in a level-based hierarchy in order for the field to be displayed in the Object Inspector. The workaround is to move the field to a level-based hierarchy folder.

❑ Filters and measures for the wf_retail data source are shown in a different order in the Dimension Tree and Metadata canvas.

## Business Intelligence Portal

The following are release considerations and product changes for the Business Intelligence Portal:

❑ Accessibility support is not available for the Business Intelligence Portal.

❏ If you are using WebFOCUS Release 8.2 Version 01 with the Oracle WebLogic Application Server, you must upgrade to version 12.1.1.0.6.

❏ The About WebFOCUS dialog box replaces the Build Version field with two new fields, Package Name and Release ID. By identifying the name of the individual package that is currently installed, in addition to the number of the current release, it is possible to identify the current installation in more detail than was possible in the Build Version field.

❏ As of Release 8.2 Version 01M, the title of the My Content folder cannot be changed, by design. This option was incorrectly available in earlier 8.2.x releases.

❏ As of Release 8.2 Version 01M, when displayed in the Resources tree in Mode Normal, the title assigned to a My Content folder imported through the Change Management process is no longer the name of the user that is signed in to WebFOCUS. The title now correctly appears as, My Content.

❏ As of Release 8.2 Version 01, users can no longer edit the text inside a Text Panel at run time. In prior releases, this text could be modified at run time, but the changes could not be saved, causing confusion. Users can copy this text to their clipboard, if desired.

## Managed Reporting

The following are release considerations and product changes for WebFOCUS Managed Reporting:

❏ As of WebFOCUS Release 8.2, parameter-based simple filters are required to have a specified default value or a value entered by the user. If this validation improvement impacts your existing reports that use the Autoprompt facility, contact Customer Support for assistance.

## WebFOCUS Charts and Graphs

The following are release considerations and product changes for WebFOCUS charts and graphs.

### HTML5 Upgrade

The following are release considerations and product changes for HTML5:

❏ Map requests are now required to use strict JSON syntax. This means that all property and object names and all string values must be enclosed in double quotation marks.

❏ If a chart request does not contain code to place the legend in a specific position, the chart engine chooses a default position. In older versions of WebFOCUS, the default position was *under the chart frame*. However, in WebFOCUS 8.2.x, the default position is *on the right side of the chart frame*. This allows many more legend entries to be viewed.

The chart legend position may switch from the bottom to the right when opening a request in an 8.2.x version of InfoAssist+ that was created in earlier versions of WebFOCUS. To place the legend back under the chart, right-click the chart legend, point to *Legend Position*, and click *Bottom*.

❏ The SET CURRSYMB command, which specifies a currency symbol to be displayed with currency values whose format specifications include the M or N display options, is now supported for all output formats, except AHTML, APDF, and AFLEX.

❏ The following JSON properties have been deprecated and replaced in Release 8.1:

❏ xaxisNumeric and xaxisOrdinal have been replaced with xaxis.

❏ zaxisOrdinal has been replaced with zaxis.

❏ fillMode has been replaced with fillEffect,

❏ pieProperties:feelerLine has been replaced with dataLabels:feelerLine.

❏ yaxis:colorScale has been replaced with colorScale.

The following JSON properties have been deprecated and replaced in Release 8.2 Version 01:

❏ The data text labels properties have been changed from chart-wide properties to series-specific properties.

❏ The showDataValues property has been deprecated.

❏ The displayMode and callback properties have been replaced by the content property.

## WebFOCUS Graph API Upgrade

The following is an upgrade consideration and product change for the Graph API:

❏ The API call setTextFormatPattern(getDataText(), "*formatstring*") no longer works to format ToolTips. Instead use setTextFormatPattern(getSeries(0), "*formatstring*").

## WebFOCUS Embedded Business Intelligence

Embedded Business Intelligence (BI) provides the capability of incorporating WebFOCUS content and functionality (features) into an external application. WebFOCUS RESTful Web Services and Open Portal Services are two key approaches and techniques that can be used to embed BI into an external application. In previous WebFOCUS releases, the following standalone documentation titles were published for these areas:

❏ *WebFOCUS RESTful Web Services Developer's Guide*

❏ *WebFOCUS Open Portal Services Administration Guide*

As of WebFOCUS Release 8.2 Version 01M and higher, the new *WebFOCUS Embedded Business Intelligence User's Guide* is now available, which introduces WebFOCUS embedded BI, and also incorporates the WebFOCUS RESTful Web Services and WebFOCUS Open Portal Services documentation.

As a result, the *WebFOCUS RESTful Web Services Developer's Guide* and *WebFOCUS Open Portal Services Administration Guide* are no longer published as standalone documentation titles. You must refer to the corresponding sections in the new *WebFOCUS Embedded Business Intelligence User's Guide* for this information.

## InfoAssist+

The following are release considerations and product changes for InfoAssist+.

### General Enhancements

The following are general release considerations:

❏ In order to avoid issues with Esri Choropleth maps in Release 8.2 Version 01M, it is recommended that you upgrade to Release 8.2 Version 02.

❏ In Report mode, the Auto Drill option has been moved from the Navigation group into its own group on the Format tab. This change allows you to use Auto Drill at the same time as other features in the Navigation group, such as On-demand Paging, Freeze, and Table of Contents options. The Auto Drill option is on the right side of the Format tab.

❏ To support the easy transformation of alpha (text) fields containing numeric values for use within a WebFOCUS report, the assignment of text values to numeric formatted fields will no longer return an error. This means that when working with values in the Define, Compute, or Filter dialog boxes in InfoAssist+, you can assign an alpha (text) value to a field with a numeric format without error or validation.

When working with Defines and Computes, any alpha (text) value will be transformed into a zero in the numeric field. The following message displays:

(FOC1130) FORMAT CONVERSION ERROR FIELD/KEY

This is a warning, rather than an error.

## Enhancements to Charting

The following are release considerations related to charting:

❑ In Chart mode, the *Embed Header and Footer in the chart* option is enabled, by default. This setting (EMBEDHEADING) automatically includes the Header and Footer, if specified, in the chart. You can access this option in the Header & Footer dialog box by clicking **Text options for chart.** You can change this default value, as needed.

❑ When working with measure and dimension fields in a chart, measure fields are not automatically moved to the vertical axis when the horizontal axis contains a dimension field. In these cases, the measure field will replace the existing dimension field in the horizontal axis.

❑ When working with charts that use the new bucket syntax, the 1x4 and 2x2 views are disabled in the Query Panel group on the View tab. If you switch from a chart without the new bucket syntax or a report to a chart with the new bucket syntax, the default Query view is Tree.

## Installation

The following are release considerations for installation:

**Anti-Virus and Malware Protection Applications During an Installation, Upgrade, or Uninstall**

For new installations, upgrades, and uninstalls, it is recommended to turn off any anti-virus and anti-malware protection programs you have for the duration of the installation, upgrade, or uninstall process, as these applications may block, interfere, or slow down the installation, upgrade, or uninstall process, and in turn, possibly cause a failure.

Restart your protection programs when the installation, upgrade, or uninstall completes. If you chose to leave protection programs active and an error occurred, the protection logs should be checked and the installation, upgrade, or uninstall repeated after protection deactivation. As there are many protection vendors, we cannot be specific as to what to expect in logs or during a failure, aside from the error likely being a *file in use* error.

If you are using Malwarebytes Anti-Ransomware, and during upgrade installations of the WebFOCUS Reporting Server, WebFOCUS Business User Edition, or App Studio, you receive a *File Error* similar to the following image, this is an indication that files are locked by the Malwarebytes software.
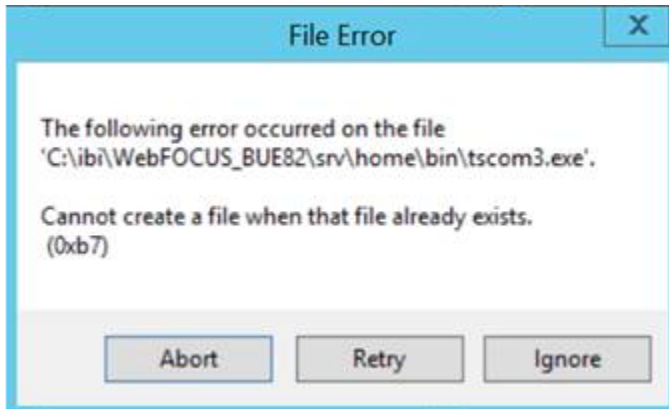


To proceed, open the Windows Services application and stop the Malware service, *MB3Service*, as shown in the following image.
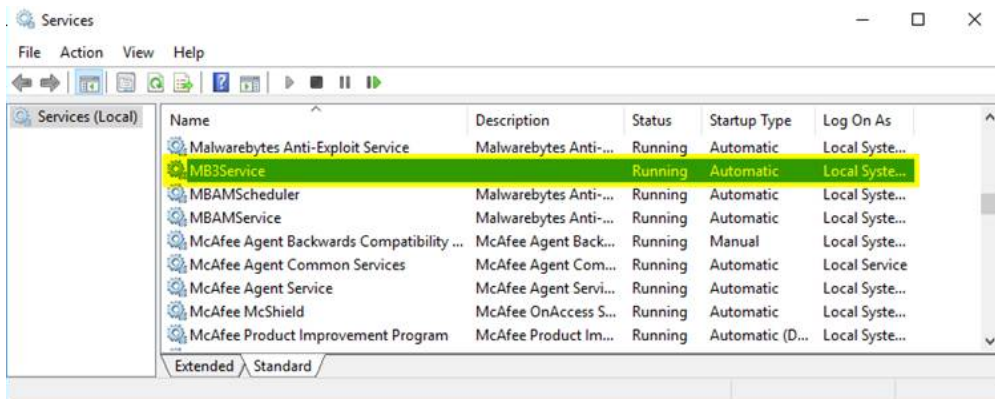


Return to the installation program and click *Retry* on the File Error dialog box.

### Upgrade Installation

As new versions of files are included in packaging, the upgrade installation needs to remove the old versions of files from ..\WebFOCUS82\webapps\webfocus\WEB-INF\lib\ to ensure that there are no duplicates.

The upgrade of Release 8.2.01 to Release 8.2.01M results in duplicate POI files as a new version of these files was introduced. The following files need to be removed after performing an upgrade:

❏ ..\ibi\WebFOCUS82\webapps\webfocus\WEB-INF\lib\poi-3.14-20160307.jar

❏ ..\ibi\WebFOCUS82\webapps\webfocus\WEB-INF\lib\poi-excelant-3.14-20160307.jar

❏ ..\ibi\WebFOCUS82\webapps\webfocus\WEB-INF\lib\poi-ooxml-3.14-20160307.jar

❏ ..\ibi\WebFOCUS82\webapps\webfocus\WEB-INF\lib\poi-ooxml-schemas-3.14-20160307.jar

❏ ..\ibi\WebFOCUS82\webapps\webfocus\WEB-INF\lib\poi-scratchpad-3.14-20160307.jar

## Magnify Search

The following is a release consideration and product change for Magnify Search.

### Lock Files Remain in Lucene Version 4

In WebFOCUS Release 8.2 Version 01M, where Lucene version 4 is implemented for the index, there is a change in the behavior of how lock files are handled. In Lucene version 4, the lock file is still present, even after the index is closed. In previous versions of Lucene, the lock file was deleted automatically after the index was closed.

## ReportCaster

The following are release considerations and product changes for ReportCaster:

❏ The Google Library Search has been desupported. The Magnify replacement is not yet available.

❏ The Address Book member type for Distribution Lists has been changed from character to string to prevent Axis SOAP exceptions. A ReportCaster API application that creates a Distribution List may be affected by this change and may need to be changed or recompiled.

❏ In past releases, the WebFOCUS Client Universal Profile was executed by ReportCaster when a WebFOCUS Repository procedure was run, but not when a WebFOCUS Reporting Server procedure was run.

As of Release 8.2 Version 01M, the Universal Profile now works with both procedures.

❏ As of Release 8.2 Version 01M, FLEX, VISDIS, and VISDISAE report output formats are no longer supported. If you are editing a task that uses one of these formats within a schedule, you can change the output format in the dialog box that opens.

> ❏ If you click *OK*, and the output format of the report is set to FLEX, the task output is saved as AHTML.

> ❏ If you click *OK*, and the output format of the report is set to VISDIS or VISDISAE, the task output is saved as HTML.

> ❏ if you click *Exit*, the output format will not be changed, and any changes that you made to the task will not be saved.

## WebFOCUS Infrastructure and Security

The following are release considerations and product changes for WebFOCUS security:

❏ As of WebFOCUS Release 8.2 Version 01M, links to Technical Content resources, including the WebFOCUS Release 8.2 Version 01 Application and Enterprise Editions Information Center, have been updated to secure URLs, beginning with https. Earlier links to these sites will be automatically redirected to the new https sites. You may be prompted with a message, depending on the browser you use and the security you have configured on your machine.

❏ In WebFOCUS Release 8.2 Version 01M, the Synchronize User Information check box, found on the External page of the Security tab in the Administration Console, includes two new options that are activated when this check box is selected.

These options enable administrators to identify the authentication provider or the authorization provider as the source of information for automatic updates made to the Description and EMail Address fields whenever a user signs in.

❏ In WebFOCUS Release 8.2, Name variables assigned to a server application directory must use lowercase characters exclusively. Therefore, when creating a model domain for a custom resource template, the value assigned to the Name field must be typed only in lowercase characters. For example, the value %%name%% is permitted, but the value %%NAME%% or %%Name%% should not be used. Similarly, any updates to the name variable in the scenario.xml file, stored in the custom resource template folder, must use lowercase characters exclusively.

Name values assigned to domains and groups can use uppercase, lowercase, and mixed-case letters. However, name values created for application folders on the Reporting Server must use lowercase letters exclusively. If you export a template with a Name field that contains mixed case characters, the application directory name is converted to lowercase characters, and an unexpected additional variable is produced. To prevent this outcome, ensure that all values assigned to the Name field of a custom resource template use lowercase letters exclusively.

❏ In WebFOCUS Release 8.2, display entries in the License Information dialog box, found in the Administration Console by clicking *License* from the menu bar and then clicking *WebFOCUS client*, were changed to accommodate changes to the license key implementation. These changes affect the User Licenses section of the dialog box, and the Product Component Section.

**User License Types**

In WebFOCUS Release 8.2, the user type groups listed in this section have been changed as follows:

❏ **Total Users (TU).** Identifies the total number of users in the repository. This total includes users created during and after product installation.

❏ **Portal Users (PU).** Continues to identify the number of users with portal access privileges. Because users with InfoAssist+ privileges must also be granted portal privileges, the number of portal users will never be less than the number of InfoAssist users. In the 8.2.01 Enterprise Edition and Application Edition, this category also includes the number of users who maintain ReportCaster-only privileges or Library-only privileges.

❏ **InfoAssist+ Users (IA).** Identifies the number of users with InfoAssist privileges. This count includes users with InfoAssist or InfoAssist+ privileges because an InfoAssist+ license includes the InfoAssist and Data Visualization product components.

**Product Components List Updates**

In WebFOCUS Release 8.2, changes to entries in the Product Components list reflect changes in component names and configuration that took place in Release 8.2, including the following changes:

❏ Legacy Dashboard is discontinued as of Release 8.2. Instead, InfoAssist Basic supports customers upgrading to Release 8.2 with an existing Legacy Dashboard license and a WF Portal license.

❏ InfoAssist+ combines InfoAssist and Data Discovery. The former products, InfoAssist and InfoAssist Basic, continue to be available in Release 8.2. However, these products appear in the product component list only if they are included in the license key.

❏ Personal InfoAssist is discontinued as of Release 8.2.

❏ WebServices replaces WebServices Enablement as of Release 8.2.

❏ In WebFOCUS Release 8.2, the user type groups listed in the License Analysis Dialog Box have been changed as follows:

❏ Total Users (TU)

❏ Portal Users (PU)

❏ InfoAssist+ Users (IA)

For detailed definitions of these user types, see the previous note.

❏ In WebFOCUS Release 8.2 Version 01M, templates that specify WebFOCUS Client message information and user interfaces, such as the Deferred Reporting interface, were removed from the single file, ENtemplates.xml, and separated into individual files. These files are located in the prod directory, found in *drive*:\ibi\WebFOCUS82\client\wfc\etc\prod. To create a customized version of a standard template, customers can take a copy of a standard template file from the prod directory, place the copy in the custom directory, found in *drive*:\ibi\WebFOCUS82\client\wfc\etc\custom, and adjust the standard template to their requirements. When invoking a template, the WebFOCUS Client first checks the custom directory and uses the customized template file if it is located there. If no customized template file is present, the Client uses the standard template file in the prod directory.

❏ The maximum number of characters in the WF Repository Summary field on the Properties dialog box has been increased from 512 to 2048 characters.

❏ In Release 8.2, the new Log Files page replaces the Traces folder and the individual log file pages that appeared under it. Therefore, entries for all log files now appear on the Log Files page. In the Administration Console, the new Log Files page appears on the new Diagnostics tab under the Diagnostic folder. The list of log files on that page now identifies the name of the log file, the name of the logger, the URL that contributes events to the log file, and the log level, that is, the level of detail captured in records of events. Administrators can adjust the log level for any log file except the audit log file to capture the level of detail required for troubleshooting support.

The Zip All button that appeared in WebFOCUS 8.1 on the All Clients, Client Coordinator, MR Deferred Ticket Cleanup Utility, and WFServlet pages now appears on the Log File page. This button captures copies of all log files and the system event records they contain in a zip file format. When you click this button, the log files capture records of events from the start of the current day until the time the zip file is created.

❏ The License Information dialog box limits its display of product components to those made available in Release 8.2. Therefore, the product component display for license keys configured from an earlier version of WebFOCUS 8 no longer includes entries for Legacy Dashboard and Personal InfoAssist. InfoAssist Basic is included only if the license key includes Legacy Tools.

❏ As of Release 8.2, the Client License Key Expiration Warning display period was reduced from 30 to 14 days prior to expiration date. By default, a warning message for the client license key expiration date begins to appear fourteen (14) days before the actual expiration date. The warning message displays the expiration date and the number of days remaining until that date. It appears only to administrators during sign on, and it is written to the event.log file located in the logs directory of the WebFOCUS Client installation.

❏ In WebFOCUS Release 8.2 Version 01M, the following deprecated settings no longer appear on the Configuration tab, Client Settings page of the Administration Console:

❏ Expire Reports

❏ Cache_Control

❏ Automatic Signon

The Expire Reports, Cache_Control, and Automatic Signon settings were hidden because there is no need to update the default values assigned to them.

❏ **Web Services Traces Relocated.** In WebFOCUS Release 8.2, the Web Services page, previously found in the Diagnostics Section of the Configuration Tab, under the Traces folder, has been discontinued. To view traces of URL calls that used to appear on that page, open the Session Monitor or Session Viewer instead. Traces captured during your selected session are available in those locations for your review.

❏ The tcnative-1.dll for Tomcat is disabled due to reported problems with ipv6 support.

❏ In Kerberos authentication, Kerberos appends the Windows domain of the user to the user ID passed to WebFOCUS, in the format *user ID@domain.com*. WebFOCUS Release 8.0 leaves the domain information intact when completing the sign-in process. By default, WebFOCUS Release 8.2 strips the domain from the value, leaving just the user ID. The user ID is then used to complete the sign-in process. For more information, see the *Authentication and Authorization* chapter in the *WebFOCUS Security and Administration* manual.

❏ In WebFOCUS Release 8.2, Roles in the Security Center dialog box have been updated as follows:

   ❏ **DomainDeveloper.** Added the Portal Page Designer privilege (opPageDesigner) to the Advanced Reporting folder and the Create Portal (opCreatePortal) privilege to the Application Development folder. The Create Portal privilege applies only to new portals that are created under a domain in Release 8.2. The DomainDeveloper role does not support the privilege to create portals in earlier releases.

   ❏ **DomainGroupAdmin.** Moved the Create Portal privilege (opCreatePortal) from the Group Administration folder to the Application Development folder, and cleared that privilege to remove the privilege to create portals from the role of the Group Administrator.

   These changes move the privilege to create portals within a domain from the Group Administrators to the Developers, and add the privilege to design portal pages within a domain to Developers. You may need to adjust role assignments after the upgrade to ensure that all users within a domain continue to maintain their full range of privileges.

❏ In new installations of WebFOCUS Release 8.2 Version 01, the Developers group does not appear in the top level of the Groups hierarchy. Instead, Developer groups are created as sub-groups of individual domains. The top-level Developers group was removed from the Groups hierarchy to help administrators avoid assigning users to a Developers group that does not maintain a range of privileges that adequately supports their activities in the new release.

❑ In WebFOCUS Release 8.2 Version 01M, the X-Frame-Options Header check box, located in the Filters page of the Administration Console Configuration tab, was renamed Allow Embedding and moved to the Cross-Origin Settings dialog box. To continue to allow WebFOCUS content to be embedded in other applications, customers who previously cleared the *X-Frame-Options Header* check box must now select the new *Allow Embedding* check box. They can also optionally specify the URLs of one or more allowed web hosts in the new Allowed Origins field under the Allow Embedding check box, for improved security. To locate the new Cross-Origin Settings dialog box, open the Administration Console, and click the *Security* tab. Under the Security Zones folder, click the *Authentication* node for the Security Zone that supports embedded applications. To open the dialog box, click the *Cross-Origin Settings* link located in the Actions section of the Authentication page.

❑ In WebFOCUS Release 8.2 Version 01M, the New User dialog box contains the new Create button. This button allows administrators to create multiple new users without closing the New User dialog box.

❑ In WebFOCUS Release 8.2, the following changes were made to the Available Privileges list in the New Role dialog box, located in the Security Center Roles tab.

The following privileges were added:

❑ **Distribute to File System (opDistributeFileSystem).** Added to the Scheduling and Distribution section.

❑ **Manage ReportCaster Library Report Deletion (opRCExpLibraryDelete).** Added to the Administration section.

❑ **Manage ReportCaster Log Purge (opRCPurgeJobLogs).** Added to the Administration section.

❑ **Manage ReportCaster Watch List Subscription (opRCUnsubscribe).** Added to the Administration section.

The following privileges were renamed:

❑ **Development Traces (opDevTraces).** Renamed to Session Traces and placed in alphabetical order in the Application Development section.

❑ **Edit Group Names (opRenameGroup).** Renamed to Group Rename and placed in alphabetical order in the Group Administration section.

The following privileges were relocated:

❑ **Create Portal (opCreatePortal).** Moved from the Group Administration section to the Application Development section.

Privileges in the Administration section were reorganized in alphabetical order, causing the following privileges to be relocated within that section:

❏ **System Tracing (opWFAdminTraces)**

❏ **Toggle Repository View (opToggleTree)**

The following privilege now appears conditionally:

❏ **Run Procedures with OLAP (opOlap).** Appears in the Basic Reporting Section only if the Enable OLAP check box, located on the Other page of the Administration Console Configuration tab, has been selected.

❏ When using the Google Chrome™ browser, the Close command on the Administration Console Menu bar does not close the Client Verification page, if that page opens in a window with multiple tabs after the WebFOCUS Client installation is complete. To close this page, click the *Close* button on the browser tab that displays it. This issue occurs only when the Client Verification page opens after an installation. It does not occur when you open the Client Verification page by clicking the Client Verification node in the Administration Console Diagnostics tab.

❏ WebFOCUS Release 8.2 Version 01M includes a new URL to run report requests:

`http://`*host*`:`*port*`/ibi_apps/run/ibfs/WFC/Repository/`*Domain*`/`*ReportName*

where:

*host*`:`*port*
    is the server name and port of the local installation of WebFOCUS.

*Domain*
    is the name of the domain folder that contains the report.

*ReportName*
    is the name of the report itself.

This new URL does not replace the previously-developed URL to run reports:

`http://`*host*`:`*port*`/ibi_apps/rs/ibfs/WFC/Repository/`*Domain*`/`*ReportName*

The syntax in the new URL was updated to address bugs in single sign-on requests that were failing with the AuthenticationCredentialsNotFound exception. All application requests using the older syntax should be updated to use the new URL.

❑ The Custom Request Validation (IBI_REQUEST_VALIDATION) setting was removed from the Filters page of the Administration Console Configuration tab in WebFOCUS Release 8.2 Version 01M. For more information about this setting, please contact the Customer Support Team.

## WebFOCUS Language

The following are release considerations and product changes for the WebFOCUS reporting language.

### Change to Default Processing of Joins to Flat Files

The default value for the ENGINE INT CACHE SET command has changed from OFF to ON.

In fixed format or delimited sequential files, any field can be a cross-referenced field. However, both the host and cross-referenced file must be retrieved in ascending order on the named (key) fields, if the command ENGINE INT CACHE SET OFF is in effect. In this situation, if the data is not in the same sort order, errors are displayed and a many-to-many join is not supported.

However, if ENGINE INT CACHE SET ON is in effect, the files do not have to be in ascending order and a many-to-many join is supported. ON is now the default value. Therefore, the number of rows returned from a join may be different than in the prior release.

You can revert to the behavior from prior releases by including ENGINE INT CACHE SET OFF in edasprof.

A delimited file used as the cross-referenced file in the join must consist of only one segment. If the join is based on multiple fields, a fixed format sequential file must consist of a single segment. If the cross-referenced fixed format sequential file contains only one segment, the host file must have a segment declaration.

### Expression Handling: Rounding With Internally Used Packed Fields

Continuous improvement to our expression handler, providing more efficient and more accurate results, may expose some rounding differences when using packed fields. Enhancements have improved the accuracy of the calculations when working with packed numbers. Rounding of a packed field is done at the time of storage, thus changing the actual number. This is different from precision-based fields which round when they are displayed, ensuring that the original number is retained. Therefore, there may be slight rounding differences with packed numbers apparent in this release, but they are an improvement over previous releases.

## Raised Limit for RECAP Phrases in Non-FML TABLE Requests

The limit of non-FML RECAP phrases is now 64 ON sortfield RECAP phrases per sort field. In prior releases, seven RECAP phrases were supported for each sort field plus one ON TABLE RECAP phrase.

## Conversion of Alphanumeric Strings to Numbers

The latest version of WebFOCUS has been improved to handle the conversion of alphanumeric strings to numbers automatically on assignment in an expression. For example, if the character string '12345' is assigned to an integer field, you will no longer get a FOC282 conversion error.

```
(FOC282) RESULT OF EXPRESSION IS NOT COMPATIBLE WITH THE FORMAT OF FIELD: %1
The left-hand side of the expression has a different format from
that yielded by the right-hand side of the expressions.  Alpha
fields may have the wrong length or a format may be needed after
the fieldname.
```

The string will be converted to an integer as specified in the format of the receiving field. If the character string is not purely numeric, for example, '$12345', the conversion will fail and the value 0 will be assigned. Since this is now a runtime error, rather than a parsing error as in the case of the FOC282, the new FOC1130 error message can be seen in the browser view source.

```
(FOC1130) FORMAT CONVERSION ERROR FIELD/KEY %1%2%3%4
An error occurred attempting to convert the
specified field from its ACTUAL to USAGE
format. Either the ACTUAL format is described
incorrectly or the data may be invalid. Check the MFD.
```

In the past, a FOC282 error would be generated and the request would be aborted. The new behavior allows the request to run and is consistent with our longstanding user function behavior, which returns 0 in the case of failure in the user function. If your output now includes an entire column or row of zeroes, it would be wise to verify the output, as it may be indicative of FOC1130 runtime errors.

One area to be aware of is the use of column notation in a request that includes COMPUTEs or NOPRINTed fields that will change the numbering of the columns. SET CNOTATION=ALL/ PRINTONLY/EXPLICIT should be used in these cases to make sure that the column numbers you are requesting are the correct corresponding columns in the internal matrix.

## Change to Use of Prefix in JOIN AS Commands

In a series of JOIN commands without tag names, when the same file is used multiple times, the join name is used as a prefix for duplicate field names. One example of this type of JOIN sequence is a recursive join.

In prior releases, if you prefixed a field with a join name within a JOIN command, the JOIN was added to the table of joins whether the need for the prefixed name could be established or not. If the prefixed name could be resolved at run time, the request would run without error. In the current release, unresolved prefixed names in a JOIN command generate an error message and terminate processing as soon as the JOIN command is issued.

The following request produces three data sources:

❏ File ALLEMP contains employee IDs and Manager IDs.

❏ File HOLDEMP contains employee IDs and employee names.

❏ File HOLDZIP contains employee IDs and zip codes.

The following request creates these data sources.

```
DEFINE FILE EMPLOYEE
ZIP/A20=GETTOK(ADDRESS_LN3,20,-1,' ',20,'A20');
END
TABLE FILE EMPLOYEE
PRINT LAST_NAME
   COMPUTE MANAGER_ID/A9=IF MANAGER_ID NE ' ' AND
      DEPARTMENT EQ LAST DEPARTMENT THEN MANAGER_ID ELSE EMP_ID;
BY DEPARTMENT
ON TABLE HOLD AS ALLEMP
END
TABLE FILE EMPLOYEE
PRINT SEG.EMP_ID
BY EMP_ID
ON TABLE HOLD AS HOLDEMP FORMAT FOCUS INDEX EMP_ID
END
TABLE FILE EMPLOYEE
SUM   ZIP
BY EMP_ID
ON TABLE HOLD AS HOLDZIP FORMAT FOCUS INDEX EMP_ID
```

JOIN commands will be used to generate the following structure using these files.

```
           ┌─────────────────┐
           │     EMP_ID      │
           │   MANAGER_ID    │
           └─────────────────┘
```
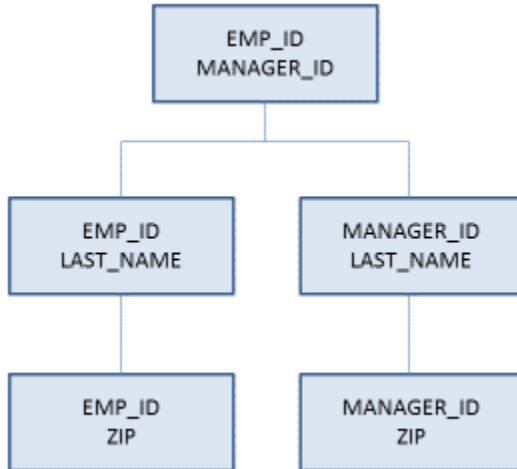


The following request generates the JOIN structure and issues a TABLE request against it.

```
JOIN EMP_ID IN ALLEMP TO EMP_ID IN HOLDEMP AS J1
JOIN J1EMP_ID  IN ALLEMP TO EMP_ID IN HOLDZIP AS J3
JOIN MANAGER_ID IN ALLEMP TO EMP_ID IN HOLDEMP AS J2
JOIN J2EMP_ID IN ALLEMP  TO EMP_ID IN HOLDZIP AS J4
TABLE FILE ALLEMP
PRINT EMP_ID MANAGER_ID
   LAST_NAME J2LAST_NAME
   J3ZIP  J4ZIP
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

Running the request in the current release generates the following message.

```
(FOC370) THE FIELDNAME USED IN JOIN CANNOT BE FOUND IN THE FILE: J1EMP_ID
BYPASSING TO END OF COMMAND
```

In prior releases, this request would run without error. However, since the need for the prefixed field name J1EMP_ID in JOIN J3 was not established by the time that JOIN command was issued, in the current release the error is produced and the request is terminated.

Now, reverse the second and third JOIN commands.

```
JOIN CLEAR *
JOIN EMP_ID IN ALLEMP TO EMP_ID IN HOLDEMP AS J1
JOIN MANAGER_ID IN ALLEMP TO EMP_ID IN HOLDEMP AS J2
JOIN J1EMP_ID  IN ALLEMP TO EMP_ID IN HOLDZIP AS J3
JOIN J2EMP_ID IN ALLEMP TO EMP_ID IN HOLDZIP AS J4
TABLE FILE ALLEMP
PRINT EMP_ID MANAGER_ID
   LAST_NAME J2LAST_NAME
   J3ZIP  J4ZIP
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The prefixed field name J1EMP_ID is now needed to establish whether the EMP_ID field referenced in JOIN J3 refers to the EMP_ID field from JOIN J1 or from JOIN J2. Similarly, a prefixed EMP_ID field is needed in JOIN J4. The output is shown in the following image.

| EMP ID | MANAGER ID | LAST NAME | J2LAST NAME | J3ZIP | J4ZIP |
|--------|-----------|-----------|-------------|-------|-------|
| 112847612 | 112847612 | SMITH | SMITH | 10001 | 10001 |
| 117593129 | 112847612 | JONES | SMITH | 07073 | 10001 |
| 219984371 | 112847612 | MCCOY | SMITH | 10001 | 10001 |
| 326179357 | 112847612 | BLACKWOOD | SMITH | 11210 | 10001 |
| 543729165 | 112847612 | GREENSPAN | SMITH | 07300 | 10001 |
| 818692173 | 112847612 | CROSS | SMITH | 11354 | 10001 |
| 071382660 | 071382660 | STEVENS | STEVENS | 10001 | 10001 |
| 119265415 | 071382660 | SMITH | STEVENS | 10039 | 10001 |
| 119329144 | 071382660 | BANNING | STEVENS | 11520 | 10001 |
| 123764317 | 071382660 | IRVING | STEVENS | 10001 | 10001 |
| 126724188 | 071382660 | ROMANS | STEVENS | 11520 | 10001 |
| 451123478 | 071382660 | MCKNIGHT | STEVENS | 07068 | 10001 |

## Report With Data Visualization Bar Graphs

The new HTML approach to generating data visualization bar graphs may cause a change in the display. The new approach, as also used by AHTML, defines the colored bar graphs with HTML tags, rather than images.

As a result:

❑ Printing is not supported.

❑ The zero indicator bar is now present in all reports. Previously, it was only present when negative values were represented.

❏ The height of the bar has become slightly larger.

As a workaround, to revert back to legacy functionality, issue the following SET command:

```
SET HTMLDATABARS = {ON|OFF}
```

where:

ON
    Produces the new HTML-based data visualization bar graphs. This is the default value.

OFF
    Produces the legacy image-based data visualization bar graphs.

## Upgrading HTML Pages for Modern Browsers

To meet the latest HTML5 and browser standards, the following enhancements have been implemented to generated HTML tags:

❏ Standard tags are the default behavior.

  ❏ On the Reporting Server, the default setting for HTMLCSS is ON.

  ❏ For procedures created by WebFOCUS tools, the default setting for HTMLCSS is ON.

❏ Added a document type designation to identify which browser mode will operate best.

  ❏ The HTML5 DOCTYPE has been inserted for the highest level of functionality.

  ❏ In certain features, HTML4 mode supports the legacy interactive functionality.

❏ The default for embedding images into HTML pages has been changed to embed a 64-bit encoded image, rather than generating a web archive.

## Converting WebFOCUS StyleSheet Syntax to CSS Tags

HTMLCSS is an attribute identifying that the report will be styled using an internal WebFOCUS StyleSheet.

❏ With HTMLCSS ON, report styling defined in the WebFOCUS internal StyleSheet is inserted into the HTML page using standard HTML tags. Styling is further affected by settings from external sources, such as external CSS or browser defaults.

❏ With HTMLCSS OFF, enhanced styling defaults to settings from external sources, such as external CSS or browser defaults.

The following table identifies the WebFOCUS styling attributes that are not supported with HTMLCSS OFF. For these attributes, the defaults are set by the browser or any external CSS in place. With HTMLCSS ON, the WebFOCUS styling will be applied, causing changes in how the report presents.

| Attribute | HTMLCSS ON | HTMLCSS OFF |
|---|---|---|
| FONT | Defined font face | Browser default |
| FONT SIZE | Defined font size | Browser default |
| WRAP | As defined in the procedure | Browser default |
| SQUEEZE | As defined in the procedure | Always removes trailing spaces |
| WIDTH | As defined in the procedure | Browser default |
| BORDERS | Displays borders | Displays grids only |
| GRID | Displays grids | No styling |
| MARGIN | Defined margins | Browser default |
| POSITION=*n* | In headings and footings, position designated values or text designated units from left margin | Concatenates all elements without trailing spaces |

The following are usage notes for HTMLCSS ON:

❏ Changes in FONT face and SIZE caused by respecting the internal StyleSheet will cause reports to grow in width and height, based on the defined font attributes.

❏ When GRID and COLOR (font color) are used together, the defined color is applied to both the font and the internal grid lines of the cell.

❏ JUSTIFY = CENTER is supported at the report level with HTMLCSS ON.

❏ The vertical alignment of data within a row that contains multiple lines will shift from the browser default to aligning to the top of the cell.

❏ With HTMLCSS OFF, images are positioned at the start of a cell and the text flows around them. With HTMLCSS ON, the image and the text can be positioned by StyleSheet syntax and spaces inserted within the report.

❏ In heading and footing text, field values can be concatenated with all internal spaces removed. With HTMLCSS OFF, a text string is trimmed with no trailing space so "Category<CATEGORY" will present as "CategoryCOFFEE". With HTMLCSS ON, a trailing space is retained when the text string is trimmed, so the text string will present as "Category COFFEE".

❏ With HTMLCSS OFF, the color of the hyperlink is set by the browser. With HTMLCSS ON, the hyperlink color can be set within the style sheet. With HTMLCSS ON:

❏ Hyperlink color will take precedence over font color. Prior to Release 8.2 Version 01, when a font color was set for the whole report or a specific area, hyperlinks presented in the report color, rather than hyperlink blue.

❏ In Release 8.2 Version 01, support for customizing a hyperlink color (HYPERLINK-COLOR) is available. For more information, see the *Creating Reports With WebFOCUS Language* manual.

❏ Positioning of peer graphs may shift within the report.

## Document Type Designation to Identify Browser Mode

DOCTYPE is a declaration placed at the top of each HTML page to provide browsers with information on what type of document to expect.

The addition of the HTML5 DOCTYPE will cause all pages to be viewed in Internet Explorer 11 in Standards Mode or the highest available mode for the selected browser. This upgraded standard allows enhanced functionality in the WebFOCUS interactive features, including:

❏ Cascading Multi-drill menus with styling (DRILLMENUITEM)

❏ Expand By Row Accordion Reports (EXPANDBYROW)

❏ Freeze Horizontal Frames (HFREEZE)

❏ HTML Table of Contents (HTMLTOC)

The following interactive features will continue to operate with an HTML4 DOCTYPE:

❏ Accordion by Column (EXPANDABLE)

❏ On Demand Paging (WEBVIEWER)

❏ OLAP

**Note:** For the above HTML4 interactive features, the legacy menus (blue and red) will appear, rather than the new cascading menus.

Changes in behavior:

❏ With HTML5 pages, the external CSS tags have become case sensitive.

❏ There may be a slight adjustment of margins on the report page, based on browser defaults.

## Change to AnV Fields When Output to a Delimited Format

When an AnV field is used in a request that generates a delimited file as output (FORMATS COM, COMT, TAB, TABT, and DFIX), trailing blanks in the AnV field are now retained. To have them removed, issue the SET HLDCOM_TRIMANV=ON command.

## Changes to the HTMLEMBEDIMG and HTMLARCHIVE Commands (HTML/DHTML)

The following are release considerations and product changes for the HTMLEMBEDIMG and HTMLARCHIVE commands:

❏ The default value for HTMLEMBEDIMG has changed from AUTO to ON.

❏ Embedded images are now supported in all WebFOCUS-supported browsers across all platforms.

❏ Due to this change, most requests will generate a .htm file, not a .mht file, with embedded images. For images placed at the REPORT level with absolute references, HTMLARCHIVE (and PDF) places images relative to the top of the page, while HTMLEMBEDIMG places images relative to the top of the table.

## DHTML Output Format

In DHTML format reports using ACROSSTITLE=SIDE and BORDERS at the REPORT level, attributes assigned to the STYLE keyword, including BOLD and UNDERLINE, are now applied.

## Change to ACROSS Column Limit

The limit on the number of ACROSS columns has been removed. The limit on the number of ACROSS keys remains the same. Total sort keys (BY and ACROSS) has a maximum of 128.

## Enhancement for JPG Compression

By default, the algorithm used to compress JPG images has been enhanced from FLATE to DCT. The DCT setting gives you control over the balance of image quality verses image size.

DCT (Discrete Cosine Transform) is a compression method, introduced in WebFOCUS Release 8.2 Version 01, which allows for the designation of the percentage of quality to be retained within the compressed image. In some images, quality loss is not noticeable when higher degrees of compression are applied. Generally, the higher the compression applied, the lower the image quality.

The default setting has been changed from FLATE at 100% to DCT at 75%.

For more information on the SET JPEGENCODE and SET JPEGQUALITY commands, see the *Developing Reporting Applications* manual.

## Changes to Report Backcolor

The following are release considerations and product changes for report backcolor:

❏ An enhancement has been implemented to standardize how all reports present alternating backcolor. It should now consistently present the colors in the order defined in the StyleSheet. This may cause a change in behavior for reports that previously presented the colors in reverse order.

❏ For alternating backcolor in a report, you can define two colors in the order they should be presented. In releases prior to Release 8.2 Version 01, features that require a second pass for styling (for example, borders, TABLASTPAGE, and SQUEEZE=ON) presented alternating colors starting with the second color, followed by the first color. As of Release 8.2 Version 01, all features work consistently, presenting the first color and then the second color. This may cause the alternating pattern to change in some instances.

## Change to the HTMLCSS Command (HTML/DHTML)

The following are release considerations and product changes for HTMLCSS:

❏ The default value for the HTMLCSS parameter has changed to ON. All core WebFOCUS styling is activated by this change.

  ❏ Due to this change in the default, you must add the SET HTMLCSS=OFF command to the procedure to provide continued support for external cascading style sheet styling.

  ❏ When HTMLCSS=ON, and grids are enabled, the inner gridlines inherit the color applied to the font defined in each cell.

❏ When HTMLCSS=ON and SQUEEZE=OFF, the em font measurement is used. The em font measurement is based on the point size of the font, which is the height of the character set including ascenders, descenders, and gap spacing. An em font measurement is wider than the largest letter in the font, usually a capital M or W, because it is not a measurement of width. Given these font measurement considerations, for requests with SQUEEZE=OFF, the following is recommended for the column width calculation to be the largest column value or the width of the column title, whichever is larger:

❏ Use proportional font.

❏ Add the SET HTMLCSS=OFF command to the procedure.

❏ When HTMLCSS=OFF and SQUEEZE=OFF, use a proportional font, since each proportional font character is the same size. The column width will be the largest column width calculation or the width of the column title, whichever is larger.

## Enhancement to the SET EXTENDNUM Command

The SET EXTENDNUM enhancement ensures that data values within a report no longer present as asterisks if the value is larger than the defined format. With the default value of EXTENDNUM=AUTO, report columns will automatically expand to fit the largest data value.

Column alignment is affected by the EXTENDNUM default in the following ways:

❏ For styled table-based formats (HTML, EXL2K, and XLSX), column alignment will always be maintained.

❏ For positioned output formats (PDF, PS, DHTML, PPT, and PPTX), where column locations are explicitly set, use SQUEEZE=ON to ensure that all data columns maintain alignment.

❏ For unstyled formats (WP), the columns are not adjusted to fit the new values, which may cause misalignment of data columns.

**Usage Considerations**

❏ Compound documents (PDF, DHTML, PPT, and PPTX) do not currently support paneling within component reports.

❏ Integers larger than 2GB cannot display on 32-bit machines. Therefore, such integers on these machines will display incorrect values.

❏ Floating-point numbers (types F and D) that require more than 31 digits to print correctly will continue to display asterisks. For example, a field with usage D33.30 and a value of 10.0 will print as asterisks because it needs 30 zeros to the right of the decimal point and two digits to the left.

## Numeric Precision in XLSX Workbooks

The following change in behavior describes how numeric precision in XLSX workbooks is defined in each of the WebFOCUS releases and how changes in this area might affect the numbers generated.

Numeric precision is defined by the number of significant digits retained in the value placed within the workbook. The value displayed in the worksheet cell will always reflect the digits defined in the display format. The value displayed in the formula bar represents the actual number passed from WebFOCUS.

The following table shows how numeric precision has changed across releases for the following sample value and format:

**Value**

32.123456789876567898

**Format**

D20.10

| WebFOCUS Release | Precision Passed from WebFOCUS to Excel | Formula Bar Display | Cell Display |
|---|---|---|---|
| Prior to Release 8.1 Version 05M | Output preserves up to six (6) decimal places. The values are truncated and rounded based on WebFOCUS calculation rules. Additional digits in the display format are padded with zeros (0). | 32.123457 | 32.1234570000 |

| WebFOCUS Release | Precision Passed from WebFOCUS to Excel | Formula Bar Display | Cell Display |
|---|---|---|---|
| Release 8.1 Version 05M | Output preserves the number of decimals places defined in the display format plus two (2), to support transformation in formulas and totals. The values are truncated and rounded based on WebFOCUS calculation rules. | 32.123456789877 | 32.1234567899 |
| Release 8.2 Version 01M and higher | Output preserves up to the Excel limit of 15 digits. Rounding is performed by Excel for values greater than 15. These rules also apply to data values defined with double precision or packed, with the percentage display format (D%, P%). | 32.1234567898766 | 32.1234567899 |

## XLSX FORMULA and EXL2K FORMULA

Only columns that precede the formula column will be included as a cell reference. Columns referenced in a COMPUTE command that occur after the COMPUTE in the report are represented in formulas by value, rather than reference.

## Locale Settings

❑ In EXL2K reports, the insertion of ISO codes for currency symbols generates view-only workbooks. In some cases, the symbol may be incorrectly represented.

❏ The following CURRENCY SET commands are not supported in EXL2K FORMULA:

❏ SET CURRENCY_ISO_CODE

❏ SET CURRENCY_DISPLAY

❏ SET CURRENCY_PRINT_ISO

## Conditional Styling With Borders

When individual top or bottom borders are defined (for example, BORDER-TOP=LIGHT or BORDER-BOTTOM=HEAVY), they may not present as specified if any existing conditional styling clause is not met for that cell. A workaround is to use the overall border syntax to apply borders to the entire cell (for example, BORDER=LIGHT).

## Error Messages

Some messages that did not have numbers in prior release now have them and will display where no message displayed previously. You can use the SET WARNING command to change the status of selected messages.

## DST. With NOPRINT

In prior releases, the NOPRINT option was not respected for fields prefixed with the DST. operator. They appeared on the report output and were propagated to a HOLD file even with SET HOLDLIST=PRINTONLY in effect. This behavior has now changed so that the NOPRINT is respected.

## Execution of Compound Reports

As of Release 8.2, a compound report will not be created when any of its component reports fail. To safeguard against issues caused by components dependent on earlier components that might return zero records, you can use Dialogue Manager to capture the record count of the initial HOLD file and skip over the dependent component when no file was generated by the earlier component.

## Changes to Default MATCH FILE Processing

In prior releases, MATCH FILE requests did not group verb objects with their sort keys across files. The resulting record was laid out by appending the fields from each file to the resulting record in the HOLD file. The current default behavior is to group verb objects with their sort keys. This can result in the fields being propagated to the HOLD file in a different order and can affect the MATCH results if the request uses the default alias names generated in the HOLD Master File. The advantage of this technique is that it supports HOLD file formats, such as FORMAT FOCUS that generate an associated Master File. If you need to invoke the processing from prior releases, issue the following command.

```
SET MATCHCOLUMNORDER = UNGROUPED
```

## Using &Variables as Dialogue Manager Labels

When using amper variables as Dialogue Manager labels, using the following syntax works correctly and navigates to the label name indicated by the amper variable.

```
-GOTO &LABEL
```

However, the following syntax does not navigate to the label indicated but rather generates the message FOC305 SPECIFIED LABEL NOT FOUND.

```
-IF condition THEN GOTO &LABEL;
```

This can be resolved by adding the .EVAL suffix to the amper variable.

```
-IF condition THEN GOTO &LABEL.EVAL ;
```

## Change in Results With WHERE TOTAL, Multi-Verb, and MAX.

A multi-verb request that uses the same field name in a WHERE TOTAL as it does in a field calculation causes a different output.

If a prefix operation is done on the same field in the lower verb request, the WHERE TOTAL is using the first verb occurrence, which is not intended behavior.

Changing verb object names to be unique or switching the multi-verb request to a single-verb request using WITHIN works.

## NATVFLG=2 causes VALIDATE error

Customers who were previously told to issue the command SET NATVFLG=2 to rectify a rounding issue for specific double precision numbers should remove this setting from their applications, as it is no longer needed and may cause equality test failures.

# Feedback

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# WebFOCUS

WebFOCUS Release Guide
**Release 8.2 Version 01 and Higher**