

UPGRADER'S GUIDE

Software Version 8.2+. UG Build 1.
For IBM i and Windows Edition.

WebSmart[®]

Rapid System i Web Application Development Solution

Successfully helping RPG developers build business web applications.
Create new web applications and web services or modernize
applications with System i or multi-platform data access.

**Exclusive Distribution Rights:
Business Computer Design International, Inc.**

950 York Road

Hinsdale IL, 60521 USA

Phone: 630-986-0800

Fax: 630-986-0926

E-Mail: sales@bcdsoftware.com

Web: www.bcdsoftware.com

For Technical Support, Contact:

ExcelSystems Software Development Inc.

Phone: 250-655-1766

Fax: 250-655-1733

E-Mail: excel@excelsystems.com

Web: www.bcdsoftware.com

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System Requirements

WebSmart ILE is designed to run on the IBM i, and requires an RPG IV compiler and a minimum OS/400 release level of V5R1M0. You also need to have TCP/IP and the IBM HTTP Server (Powered by Apache) configured correctly. WebSmart ILE will initially occupy approximately 50 MB on your IBM i, and up to 150 MB at times during the install and until the install libraries are removed from your system. After the install you can manually remove the library XL_WEBINST, if found.

WebSmart 8.2+ will run on any PC running at least Windows 98, with IE 4 installed. The minimum recommended processor speed is a Pentium 200. Note that it will run fine on slower machines, just slower!

WebSmart ILE and WebSmart JSE

WebSmart ILE generates ILE-CGI code. WebSmart JSE is WebSmart Java Servlet Edition that generates Java Servlets code. Both types of programs are created from the same IDE (Interactive Development Environment).

Acknowledgments

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About the WebSmart 8.2 Upgrader's Guide

This is the WebSmart 8.2 Upgrader's Guide. This guide includes instructions for upgrading to WebSmart 8.2 from WebSmart 7.x or higher only.

If you are currently running an earlier version of WebSmart, please contact Technical Support for instructions.

About the WebSmart 8.2 Documentation

The WebSmart Reference and User Guides have not been fully updated for WebSmart 8.2. The WebSmart PML help (accessed via the IDE) has been updated to include function reference information for the new XML functions, but we haven't yet updated the guides with the other changes.

For general information on the new features included in this release, please visit our website: <http://bcdsoftware.com/series400solutions/websmart/productinfo/features/tour/newfeatures/>.

For tutorials and reference information on all WebSmart's features, please refer to the WebSmart 7 User and Reference Guides.



The Security Code format for the WebSmart family of products changed for WebSmart 6 and Clover 1.5 (and higher). If you are upgrading to WebSmart 8.2 from a version earlier than 6, make sure that you have working security codes for both version 5 (or earlier) and version 8 (or later), for all systems on which you create and/or run WebSmart programs.

Contact BCD for details, or log in to myBCDsoftware.com to get your new security codes.

Getting Help

If you have any questions about WebSmart or these upgrade instructions, please don't hesitate to contact our support group at (250) 655-1766 [7:30 - 5:00 PST] or by email (excel@excelsystems.com).

SECTION

I

Upgrading to WebSmart 8.2

In this Section:

Chapter 1 - Introduction & Upgrade Instructions

Introduction & Upgrade Instructions

WebSmart 8.2 is a major new release that includes many significant new features. This guide describes how you can upgrade to WebSmart 8.2.

For information on the new features, please visit our website.



The Security Code format for the WebSmart family of products changed for WebSmart 6 and Clover 1.5 (and higher). If you are upgrading to WebSmart 8.2 from a version earlier than 6, make sure that you have working security codes for both version 5 (or earlier) and version 8 (or later), for all systems on which you create and/or run WebSmart programs.

Contact BCD for details, or log in to myBCDsoftware.com to get your new security codes.

Some of the highlights of WebSmart 8.2 are:

- ❑ New XML functions in WebSmart ILE.
- ❑ Updated SmartCharts.
- ❑ New Oracle templates for WebSmart PHP.
- ❑ Support for locally scoped variables in WebSmart ILE.
- ❑ A new Simple PHP template.
- ❑ Polymorphic SQLEXEC function allows dynamically constructed statements.
- ❑ New toolbar button to block comment your PML.
- ❑ Link to easily launch a GoToMeeting session within the IDE, when working with Technical Support.
- ❑ The ILE SQL templates have been simplified.
- ❑ Support has been added to use CTRL-G to go to a line number.

- ❑ In Clover, report attributes now available via the Attributes >> Files menu.
- ❑ The setsmurf function works for variable length fields.
- ❑ Smurf functions now work on Safari.
- ❑ The SQLSTATE is now available as a program field.
- ❑ The IDE debugger's automatic launch path now has a default value.
- ❑ Previews are now available upon creation of a WCM definition.

And as always, we are continually striving to improve the overall quality of the product, so you'll notice other minor changes in addition to the ones we've highlighted above.

Upgrade Instructions

The instructions below are for upgrading from WebSmart 7 to WebSmart 8.2 only.

To perform a brand new installation of WebSmart 8.2, please refer to the instructions in the WebSmart 8.2 User's Guide. If you are attempting to upgrade to WebSmart 8.2 from any version other than 7.x please contact Technical Support for assistance.

What is Installed

WebSmart is comprised of two main components:

1. An IBM i component, consisting of several libraries. These are:
 - **XL_WEBLIB.** Default WebSmart development library.
 - **XL_WEBSPT.** The Web Application Server library.
 - **XL_WEBDEMO.** The demo application library.
 - **XL_EXODUS.** Client/Server Communications Library (Exodus).
 - **BCDSUPPT.** BCD Technical Support Library.
2. A PC component called the WebSmart IDE. This Windows® application is used to create and maintain your definitions.

Both components must be upgraded at the same time.

IBM i Pre-Installation Instructions

When you are using WebSmart, there are two IBM i components running that are related to the product:

- The **EXODUS** subsystem, used for communication between WebSmart's PC and IBM i components (i.e. the design tool and the generator).
- The **WEBSMART** Apache HTTP Server Instance, installed and configured so you can run programs in the WebSmart demo library, or programs you create in the default WebSmart application library, **XL_WEBAPPS**.

Before beginning the install, you need to end both of these, to ensure that there are no locks on any of the libraries that are replaced.

Checking for Exodus Jobs

WebSmart uses **EXODUS** to transfer data between the IBM i and PCs. **EXODUS** is also used by other BCD products, including Catapult and Spool-Explorer/400. Before upgrading to WebSmart 8.2, make sure that there are no **EXODUS** jobs running.

Here is how you can verify that you are ready to install WebSmart 8.2:

- ❑ Sign on to an IBM i session and run the `WRKACTJOB` command. Check whether there is an active subsystem called `EXODUS`. If the subsystem is not active, you can proceed directly to Step 1 of the instructions in the next section.
- ❑ If the `EXODUS` subsystem is active, then someone at your site may be working with an application that uses `EXODUS` for communications. To see a list of these jobs, run the command `WRKOBJLCK XL_EXODUS *LIB`. This will present a list of the jobs using `EXODUS` and you can then you can contact the users who own the jobs to request that they end their connections. Of, if you know what the jobs are, you can end them yourself.

After ending all `EXODUS` jobs, run the following command to end the `EXODUS` subsystem: `ENDSBS SBS(EXODUS) OPTION(*IMMED)`.

Stopping the WEBSMART Apache HTTP Server Instance

WebSmart's installation process is designed to automatically create and start an Apache HTTP Server Instance called `WEBSMART`, running on port 8150. This server instance needs to be ended before you proceed with the install.

To confirm whether this server instance is currently running, go to an IBM i session and run the command `WRKACTJOB`. In the list of active jobs, look for a set of jobs named `WEBSMART` running in `QHTTPSVR`. If there are no jobs named `WEBSMART` running in that subsystem, you can skip the instructions below and proceed with the install.

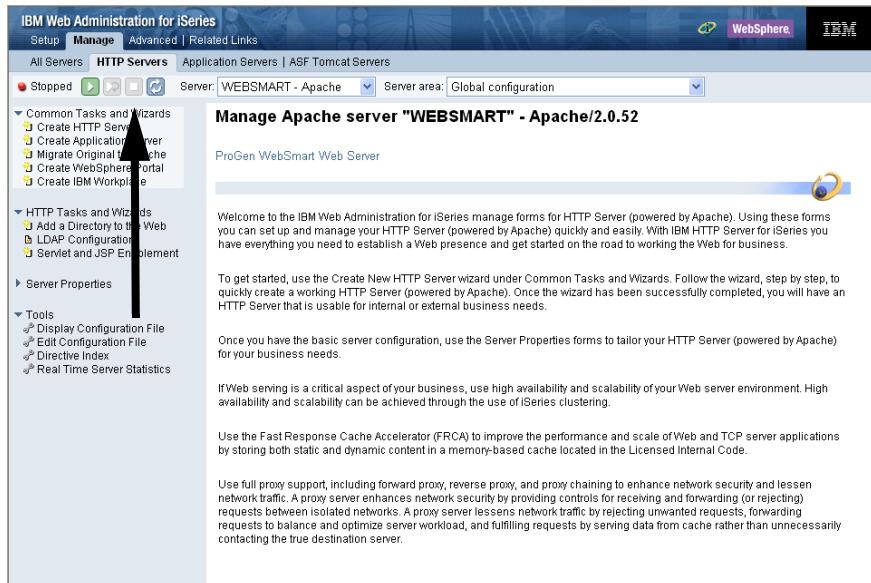
If you do have some `WEBSMART` jobs in `QHTTPSVR`, follow these steps to end them:

1. Still within the `QHTTPSVR` subsystem, check whether there are any jobs named `ADMIN`. If not, start the `*ADMIN` instance of the HTTP server, using the following command:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
```

2. When the jobs have been started, open a browser and go to the Admin interface for your IBM i, at the address `http://your_server_ip:2001`, where 'your_server_ip' is the IP address of your IBM i.
3. [This step may vary depending on your OS/400 release.] Click the IBM Web Administration for IBM i link to navigate to the Manage HTTP Servers page (how you do this will depend on your operating system level), and display the configuration for web server instance `WEBSMART`.

The page presented is similar to this one:



4. To stop this server instance, click the Stop button. In the illustration above, the instance has already been stopped.

Once the instance has been stopped, you are ready to proceed with the install.

IBM i Installation Steps

After reviewing the pre-installation instructions above, you should be ready to begin installing the IBM i components. The IBM i upgrade should take about 5-10 minutes, depending on the model of your IBM i. To complete this portion of the install you will need approximately 50Mb of free disk space, and up to 150Mb at times during the install.

WebSmart 8.2 requires that your IBM i be at OS/400 release V5R3 or higher.

Follow the instructions below:

1. Go to the **Free Trials & Downloads** link at www.bcdsoftware.com and select the option to download WebSmart 8.2. Fill out the form and choose the option to go to the software download.



If you have a myBCDsoftware.com login, you won't need to fill out the download form. Contact Technical Support for your login.

2. Download both the install files.
3. When the download finishes double-click the IBM i install executable (WebSmart820-iseries.exe) to unpack the install files and transfer them to the IBM i.
Enter your IBM i IP address and the QSECOFR password, as shown below:

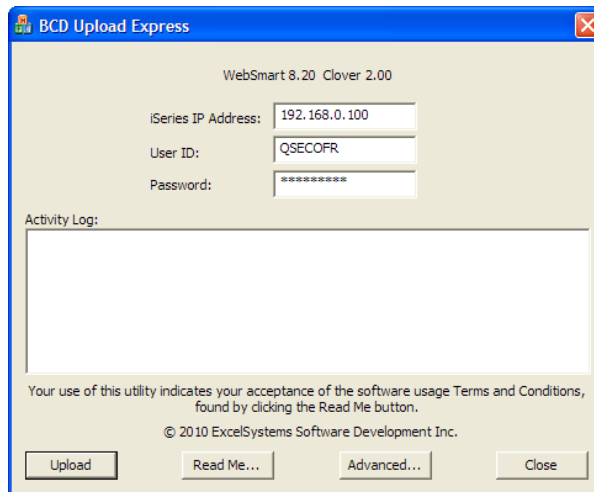


Figure 1-1. Preparing to upload the IBM i install file.

Click the Upload button. When the upload finishes the activity log will display the message 'File upload complete.' You can then close the FTP utility.

4. Log on to an IBM i session (with a command line) as QSECOFR.
5. Execute the command BCDINSTALL/BCDINSTALL. At the screen presented, select option 1 next to the product WebSmart 8.2.0 and press Enter to begin the installation.
6. When prompted to enter your security code, press F3 to exit and retain your current security code.

Once you have upgraded WebSmart on your IBM i to version 8.2, you'll need to upgrade everyone's PC clients as well.

Note Existing applications are not affected in any way by the upgrade, unless you regenerate and recompile.

If you have any questions about the install, please call Tech Support at (250) 655-1766. For questions about your security code, call BCD at (630) 986-0800.

Upgrading the PC Components

To upgrade your WebSmart IDE, follow these steps:

1. If you haven't done so already, go to the **Free Trials & Downloads** link at www.bcdsoftware website and select the option to download WebSmart 8.2. Fill out the form and choose the option to go to the software download.
2. Download the WebSmart PC component.
3. When the download finishes double-click the downloaded file (websmart820-pc.exe) to unpack the install files and initiate the install.
4. Follow the instructions to install the WebSmart 8.2 executables to your PC.
5. When the installation is complete, click Finish to exit InstallShield.

This concludes the installation instructions. If you have any questions about these, please contact Technical Support.

Using WebSmart on Multiple Systems

If you have WebSmart (or the WebSmart WAS) installed on multiple servers, and you intend to move programs from system to system you need to keep your versions of WebSmart in synch. This means that if you upgrade WebSmart on one system, you will want to upgrade it on the other before moving any objects across. Likewise, when you apply an update to one, you should apply it to the other.

The reason for this is that one of the core components of WebSmart is the main WAS service program. This service program is called PW_RT S_{xxx} (where xxx represents the current version of the service program), in library XL_WEBSPT. In fact, if you check XL_WEBSPT, you may find several versions of this service program. This is a consequence of our approach to upgrading and updating which tries to ensure that existing programs are not affected by the upgrade or the update. When a substantial change is made to the service program we create a new version instead of simply replacing the existing one (otherwise it would have the potential to affect existing production applications). As programs are compiled they automatically switch to use the most current version of the service program and any potential problems are then revealed in the testing phase of development.

Because the service programs referenced by your application may change after updates or upgrades are performed, you need to make sure that these updates and upgrades are applied uniformly across systems. This ensures that the various versions of the service programs are consistent across your installations. Otherwise, when you move a program from one system to another system, it may attempt to reference a version of the service program that does not exist on that system, and fail to run. If you are unsure as to what service program a particular program references, you can use the DSPPGM command to find out.

If you think you are having problems with your service program versions and cannot get to the bottom of it, please do not hesitate to call Technical Support.

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