



WebDrive

Best Practices Guide for Large-Scale Deployment

Notices

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It is important to note that regardless of the degree of customization that a system administrator, solutions integrator/provider, or corporate user applies to WebDrive, a valid license is required for every computer on which the application is installed. SRT is licensing our unique client technology to the end user, and as such, requires that the end user legally register that technology. This license does not permit a system administrator or solutions integrator/provider to install WebDrive on any computers outside of a single enterprise. A customized version of WebDrive still requires the end user to accept the Terms and Conditions of the SRT End User License Agreement (EULA) during the installation of the application.

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Introduction to WebDrive®

The creation of electronic data in the form of web pages, text documents, spreadsheets, and graphics has grown significantly in the past decade. Because of this growth, the complexity of managing, accessing, and collaborating on electronic data has also grown. Secure access over the Internet has become essential for sharing files with team members in the next office or around the world. WebDrive® offers users secure file access and collaboration.

WebDrive offers expansive application customization capabilities. The application can be modified to permit customizations ranging from silent installs to end users' options. WebDrive's customization features allow system administrators and IT support personnel to implement a unique file management utility that seamlessly integrates with the Windows environment and is easily deployed in a large-scale environment.

WebDrive uses industry standard Secure Socket Layer (SSL) and SFTP to ensure secure transmission of your files. WebDrive can provide S/Key password encryption so that passwords cannot be read during transmission. WebDrive also supports WebDAV protocol, which allows you to lock files, change the files, and then release the locks to allow other users to review and update the information.

WebDrive allows you to connect to a GroupDrive®, FTP, WebDAV (DAV), SFTP, Amazon-S3®, or FrontPage® Server using a LAN or Internet connection and to map a Network Drive to the server. You can then treat the server as if it were a hard disk on your system. Drag and drop files or copy files to and from the server using Windows Explorer, or use familiar DOS commands such as *copy* and *xcopy*. WebDrive FTP or HTTP enables any application instantly by integrating the server site into the Windows file system.

If you would like information about system requirements or configuration options that are not included in the WebDrive Large-Scale Deployment Best Practices Guide, please see the [WebDrive User's Guide](#) or the [WebDrive Quick Start Guide](#) for your specific requirements.

WebDrive® Large-Scale Deployment Overview

The customization features of WebDrive allow IT support departments or system administrators to deploy an application that is uniquely configured for a desired environment. A simplified version of WebDrive's *Site Manager* can be configured to present fewer options to the end user and many of the dialogs can be configured to be hidden. The drive mapping client can be pre-configured and distributed throughout the environment, easing the burden of large-scale deployments.

Using, for example, an Enterprise license that permits the installation of the WebDrive client application on all computers belonging to, or associated with, a company, institution, or organization, the system administrator can pre-configure the software for easy deployment to each computer at the company. The computers may be located in an unlimited number of offices, locations, cities, or countries. Or, for example, using a 100 user license that entitles you to distribute a copy of WebDrive to 100 computers at the same geographical location, such as a building or office park, on all 100 computers under the control of a single administrator, WebDrive can be pre-configured to easily push out configuration options and updates to end user computers, and to have updates applied, without the system administrator having to visit each computer.

Most of WebDrive's customization features can be accessed by making updates to text files that are read during program installation. The features can be customized through either a setup initialization file or a registry editor file. In addition, changes can also be made to the program at execution time through another registry file. This guide documents the steps needed to perform these activities.

Setup Options

WebDrive® Installer

The WebDrive installation program is a Windows installer MSI file that is wrapped with an InstallShield 11.0 bootstrap loader. For most situations you can simply run the setup package. However, for advanced users it is possible to unpack the setup program and extract the MSI file so that it can be customized if you are familiar with MSI files and packages and transforms. IT administrators are familiar with MSI files because MSI files are useful for doing remote and unattended installations for network users. There are many ways to customize [MSI installs](#). We will include a few of the basic options for customizing the installer. For more information on editing MSI files and creating transforms, see Microsoft's Orca MSI editor <http://support.microsoft.com/kb/255905/EN-US/>

Unpacking the Setup

To gain access to the MSI file, it is necessary to unpack the WebDrive setup package. You can unpack the setup package by running the setup in *Administrator* mode.

To unpack the setup package, execute the downloaded WebDrive executable installation package (WebDrive.exe) from a DOS command prompt using the following syntax:

```
C:\>WebDrive.exe/a
```

In *Administrator* mode, the install will unpack the setup package to a directory that you choose; it will **not** install the program on the target system.

Once you have customized the unpackaged version of the setup, you can either run it as is or you can repack it into a self extracting single executable file. You can use XP's built-in utility [iexpress.exe](#) to create a self-extracting executable, or [WinZip](#), or any other third party utility.

Silent Install

To run the standard installer in silent mode so that no user interface is displayed, you can use the following command line parameters for the main setup executable:

```
C:\>Setup.exe /s /v"/qn REBOOT="ReallySupress""
```

The **/v** parameter passes information that follows to the MSIEXEC program, **/qn** suppresses the user interface. The **REBOOT="ReallySupress"** option disables a reboot that may occur if this is an upgrade and files were in use at the time of installation. For full details about MSIEXEC command line options, please refer to the Windows installer documentation.

Distribute WebDrive with Preset Registration Code

The distribution of a multi-seat WebDrive license can be simplified by pre-configuring the registration code. A custom initialization file is created and stored in the same folder as the distributed WebDrive installation package executable.

1. Create a file named **appsetup.ini** and place it in the same folder as the downloaded WebDrive install package executable.
2. Add a single line to the file:

```
RegCode=YOUR REGCODE
```

("YOUR REGCODE" is replaced with a valid WebDrive registration code.)

When the WebDrive installation executable is executed to install WebDrive, the **appsetup.ini** file will be read and the registration code will be pre-configured into the application. The user can then activate the license by selecting **Activate License** from the splash screen on the first execution of the program. The registration code will already be entered in the dialog box on the next page.

If you wish to force the program to automatically activate during the installation, add the following line to the setup file:

```
LicenseActivate=1
```

Please note that an active Internet connection is required for the automatic activation to succeed. If the activation is successful, the program will execute in its full operational status without activation reminders. If WebDrive is unable to activate, the default WebDrive activation splash screen will be displayed and the program will continue to run in trial mode.

Additionally, system administrators may want to turn off the **Check For Program Update** feature when installing multi-seat/enterprise wide licenses. This feature enables an end user to periodically check and download the latest revision of WebDrive during the maintenance period. This capability may not be suitable in larger installations where the computers are maintained by a central group.

To turn off the **Check For Program Update** feature, add the following line to the initialization file named above:

ProgramUpdate=0

Note that the **SETUP.EXE** installation setup program is only available in the ZIP version of the WebDrive Installation Package. This package must be requested from SRT.

Registry Settings

WebDrive stores its configuration and site information in the Windows registry. This makes it easy to export these settings into a registry file that can be quickly imported on another computer. The settings can be exported using WebDrive from the **File** Menu; or by using the Windows registry utility, **Regedit**.

WebDrive uses two primary keys. Settings that are global to all NT users and the WebDrive application are stored under the **HKEY_LOCAL_MACHINE** registry key. Site information and settings that a user would configure in the WebDrive application are stored under **HKEY_CURRENT_USER**. This key contains settings that each NT user on the target system can customize to meet their own needs. For example, one NT user may want to define a site to his own personal web server, while another NT user will have different external FTP sites that they would like to connect to with WebDrive. The table below describes the primary keys used to configure WebDrive.

Registry Key	Description
HKEY_LOCAL_MACHINE\Software\South River Technologies\WebDrive	Global settings for all NT users, for example, installation directory.
HKEY_CURRENT_USER\Software\South River Technologies\WebDrive	Application settings specific to the currently logged in NT user.
HKEY_CURRENT_USER\Software\South River Technologies\WebDrive\Connections	Site information specific to the currently logged in NT user.

In addition to the keys noted above, additional information is written to other registry keys by Windows based on different features that WebDrive will use as it interacts with the shell. The primary area relates to persistent drive mappings that are configured when you select the **connect at login/startup** option from the WebDrive *Site Manager*. When this option is selected, Windows records it under the **HKEY_Current_User\Network** registry key.

Registry Key	Description
HKEY_CURRENT_USER\Network\W	Created by Windows when drive W: is configured to connect at system startup/login. A series of additional sub keys are created (see below).
"ProviderName"	"WebDrive Network"
"RemotePath"	"\\<sitename>\<sitename>"
"RemotePathUI"	"\\<sitename>"
"ConnectionType"	dword: 00000001
"UserName"	" "
"ProviderType"	dword: 001e0000

Program Settings

The WebDrive program settings are stored under the registry key **HKEY_CURRENT_USER\Software\South River Technologies\WebDrive**. You can export this registry key and import it onto another computer so that WebDrive will be configured the same as on the PC that you exported from.

Site Database

The WebDrive site database is stored under the registry key **HKEY_CURRENT_USER\Software\South River Technologies\WebDrive\Connections**. Each site has its own key under this key that contains site settings such as site URL, site type, etc.

Automatic Setup of Registry Settings

You can manually import registry settings for WebDrive, or you can use WebDrive's automatic import feature to push settings to each user on a system, or to all users on multiple systems. This may be useful for system administrators who need to push out configuration updates to end user machines and have the updates applied without visiting each machine. There are two ways to take advantage of this feature. The first method is to set the registry key

HKEY_LOCAL_MACHINE\SOFTWARE\South River Technologies\WebDrive\RegImportFile to the name of the file you wish to import. This file can be either local to the machine or on a network drive/UNC location. Alternately you can place a file named **userdefaults.reg** in the program installation folder. (The default location is **C:\Program File\WebDrive** but the parameter **InstallDir** may be used to change this.) The file should initially be created by an export of the properly configured WebDrive program registry settings. Install WebDrive on a target system, define all the sites needed, configure all the application settings, and then export the registry keys to a **userdefaults.reg file**. The **userdefaults.reg file** can be edited with a text editor to customize as needed. WebDrive's main program interface offers a **registry export** function under the **File** menu. This is useful for system administrators who may have to install WebDrive on many different machines but would like to have all the sites and settings predefined.

Keep in mind that you may not want all settings exported and imported. Some registry settings, such as cache folder, etc., are often tied to **My Documents**, and these settings may change from system to system. You can use a text editor to edit the **.reg** file and remove any settings that contain a path in them, or if you wish to use the same path for all users, you do not need to change these settings.

This registry file will typically contain settings that are stored under the **HKEY_CURRENT_USER** key; however, other keys can also be imported as long as they conform to the **Regedit** file format. The file must be in ASCII format, not Unicode format. The file is imported when WebDrive is used by each NT user on the system. A recorded time stamp is used to determine if changes have been made to the **userdefaults.reg** file since the last execution of the program. If the time stamp of the file is more recent than the recorded time stamp, the **userdefaults.reg** file is imported. This is useful to propagate information to all NT users on the system after the install has been completed. If you use the registry setting **RegImportFile** to specify a registry file on a network drive or **UNC** path, it then becomes very easy to replicate settings to all your users; simply edit the global **userdefaults.reg** file and the next time the user runs WebDrive it will import the new settings.

Settings that are imported are overlaid on top of any existing settings for WebDrive; however, there is a special action that you can place in the registry file so that WebDrive will delete the existing site database and use the new one. To do this, place the following line early in the registry file, before any settings. Place it in a comment field exactly as shown:

;wdAction=Overwrite

If you require persistent network connections in your final WebDrive build to be installed on other PCs, it is recommended that you make the connections in WebDrive and select the **Connect at startup** option. Then, using **regedit.exe** (provided with Windows), export the Network key referenced above to a text file. The text file can then be added to your **userdefaults.reg** file.

Registry Settings Samples

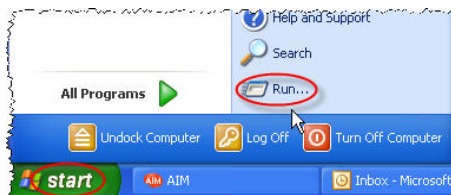
There are many registry settings that you may want use to create a custom site database for large-scale deployment. [Appendix C](#) outlines some of the settings that you may want to include, at a minimum, for your site.

Using Regedit

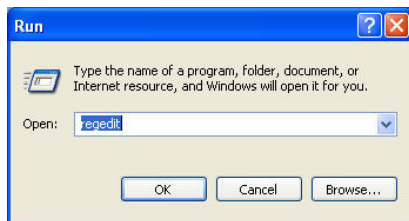
Windows ships with a registry utility named **regedit.exe**. To import a registry file you can use **regedit** or simply execute the registry file.

Running regedit

1. Select the **Start** menu.
2. Select **Run**.



3. Type **regedit**.



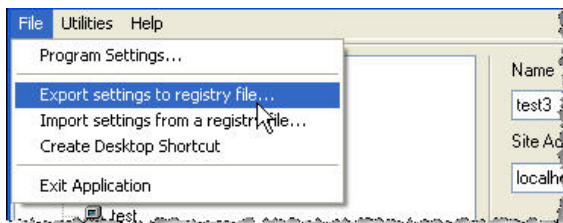
4. Click **OK**. The **Registry Editor** menu will appear.
5. Select the **key** you wish to export.
6. Select the **Registry menu**.
7. Select **Export Registry File**

Export Settings to a Registry File

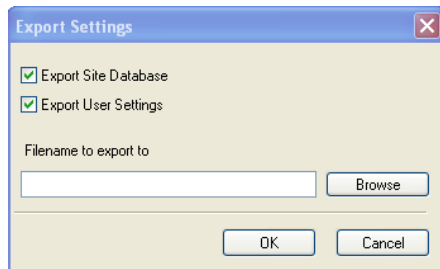
The WebDrive **Export Settings** dialog can be used to save your application and site information to a registry file. This registry file can be imported on another machine. The registry settings file can also be imported by the setup application. This provides system administrators with a way to pre-configure the software when it is installed on each computer at the company.

To **Export Settings** to a **registry file**:

1. Launch the WebDrive *Site Manager*. Select **File > Export settings to registry file**.



2. Select the **Export Site Database** check box to export the site/connection listings. Select the **Export User Settings** check box to export the program settings.



3. Type the **Filename to export to**, or click the **Browse** button to browse to the file.
4. Click **OK**.

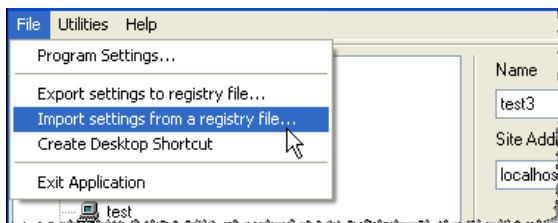
Import Settings from a Registry File

The WebDrive **Import Settings** dialog can be used to import a registry file that contains application and site settings information.

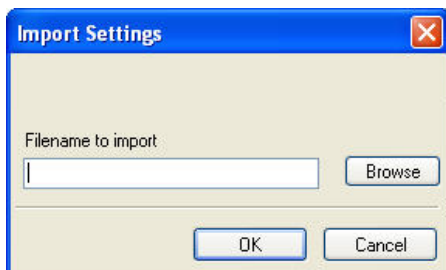
NOTE: *This feature is useful for transferring settings from one computer to another.*

To **Import** settings from a **registry file**:

1. Launch the WebDrive Site Manager. Select **File > Import settings from a registry file**.



2. Type the **Filename to import**, or click the **browse** button to browse the displayed files and then double-click to select the desired file.



3. Click **OK**.

Automating Connections/Disconnections

WebDrive allows you to map a network drive to a site in the following ways:

- From the **Application** window - select **Make a connection persistent**.
- From the **Site Manager** - select **Connect at login/startup**.
- **Program Command Line Options** - The application will accept a connection name as a parameter and perform the connection.

➡ *This can be useful when you wish to automate a connection using a [batch file](#). The connection name must be in quotes. For example **WebDrive.exe /s:"Microsoft"**. To disconnect you can specify the **drive letter** and **/d**, for example **WebDrive.exe X: /d** will disconnect **drive X**.*

To disconnect a drive, you can use the **WebDrive.exe** command line option listed above, or enter the command **use X: /d** where **X:** is the drive letter you wish to disconnect.

Scripting or Batch Files

WebDrive can be used in a **batch file** to open a connection, copy files back and forth between the client and server, and then disconnect. The following batch file is an example of how to do this. This assumes that WebDrive was installed into the default directory of **c:\program files\webdrive**.

Windows Example:

```
ECHO "Running FTP batch file!"
start /wait /D"c:\program files\webdrive" webdrive.exe /s:"Microsoft"
copy x:\dirmap.txt c:\
start /wait /D"c:\program files\webdrive" webdrive.exe X: /d
```

UNC - Universal Naming Convention

WebDrive has limited support for UNC. Universal Naming Convention is a name format used to refer to files on a network share. For example, instead of `c:\dir1\dir2\file.txt`, UNC follows the format `\\servername\share\dir1\dir2\file.txt`.

To refer to a UNC file in WebDrive, you would replace **server name** with **WebDrive** and **share** with the **site name** that you defined in WebDrive.

You can refer to files in UNC fashion as long as the connection to the server is already established. For example, if you are connecting to the connection Microsoft (ftp.microsoft.com), with drive letter X:, to do a **dir** using UNC from a DOS prompt, you can type the command **DIR \\WebDrive\Microsoft**.

To map a file you can type `\\WebDrive\Microsoft\dirmap.txt`.

Appendix A: Command Line Parameters

Each command line parameter is optional. If a parameter is omitted then the existing value will be used.

If the site name specified in the command line parameter does not exist, then a new site will be created in the registry. In this case, you will need to specify enough parameters to complete a valid connection, such as user name, password, and URL.

If a parameter value contains a space, you will need to enclose it in quotes, for example, **/s:"site name"**

- **/s:"sitename"** (The site name you wish to connect to; if this site does not exist then a new one will be created.)
- **/u:username** (The user name to use for connecting to the site.)
- **/p:password** (The password to use for connecting to the site.)
- **/url:url** (The URL to connect to.)
- **/pr:protocol** (FTP=0, WebDAV=1, FrontPage=2, GroupDrive=3, SFTP=4. For a FTP connection enter **/pr:0**)
- **/d:driveletter** (the drive letter to map to the site, for example **/d:W**)
- **/nosaveuserinfo** (When specified, the username/password are not recorded in the registry.)
- **/exp** (Launch an Explorer window after connecting to server.)
- **/service** (Map the drive in the **LocalSystem** process context rather than the current user's context. This allows system services like IIS to access the mapped drive.)
- **/ntservicecontext** (Tells WebDrive that the drive is being mapped by a different NT user than the one that created the specified site on the command line. WebDrive will then search the WebDrive site database for all users for the specified site. The first site found will be used.)
- **/lock:<filename>** (Takes out a DAV lock on the specified file; be sure to include the drive name, for example, **w:\hello.txt**)
- **/unlock:<filename>** (Removes a DAV lock on the specified file.)
- **/lockinfo:<filename>** (Displays lock information on the specified file.)
- **/cacheflush:<drivename>** (Flushes the file and directory cache. For example, WebDrive **/cacheflush:W:**)
- **/cacheflushfiles:<drivename>** (Flushes **file cache** only.)
- **/cacheflushdir:<drivename>** (Flushes the **directory listing** cache only.)

- **/flushandwait:<drivename>** (Flushes all files that are in the **delay close queue** and waits for them to upload to the server if needed. This is useful in scripting scenarios when before disconnecting the drive you need to flush files and wait, or during a script where you need to wait for an operation to complete on WebDrive before accessing the files on the server using a different access method.)
- **/online:<drivename>** (Switch to online mode, for example **/online:W:**)
- **/offline:<drivename>** (Switch to offline mode, for example **/offline:W:**)
- **/synch:<drivename>** (Perform a synchronization option on the specified drive.)
- **/job:"jobname"** (Run the specified file transfer manager job to perform a backup or synchronization task.)
- **/batch** (Suppress dialog prompts for some commands if an error occurs.)

Appendix B: Microsoft/Windows Utilities

Internet Explorer Administration Kit (IEAK) Deployment

Microsoft's **IEAK** includes the application **iexpress.exe**. IExpress is a technology designed and provided by Microsoft to simplify creation of a program used to deploy an application. This can be useful in large-scale environments because it allows system administrators or IT support personnel to deploy an application without having to visit every computer. Microsoft's Web site provides extensive information on the use of this tool. The tool is provided with Windows XP, but can be used to deliver applications for other environments. The resulting deployment package is an .exe file that, when executed, will extract the contents and run a named setup executable file.

The IExpress Wizard guides you through the process. If you are creating the deployment package from Development Environment, start IExpress from the **START/RUN** menu to create a new Self-Extracting Directive (SED) file. The package will be created to **Extract files and Run at Installation** command. You will provide a name for the package, typically the name that you used in the **APPNAME** setting from the **appsetup.ini** file. Proceed through the options to the **PACKAGED FILES** user dialog. Browse to the folder containing your WebDrive executable. Select the WebDrive **.exe** file that includes your current build from SRT, plus any of the following files that you are using for your customized build: **appsetup.ini**, **appdefaultls.reg**, or **userdefaults.reg**. In the next step you must specify the name of the WebDrive executable as the file that will be executed once the package has been decompressed. A post-install command is not needed. The next several screens can use default values if desired. The Package Name allows you to provide a name for the deployment package that will be created. This is the file that you will provide to users, either on CD or via a Web download. You should save the SED file so that changes can easily be made at a later time. Once the package is created it should be tested for all your target environments to ensure that it successfully installs the customized version of WebDrive as expected.

Self Extracting Archive - WinZip

Using a file compression utility, such as **WinZIP**, allows you to create a deployable installation package that can easily be distributed to end users via the Web, e-mail or a file collaboration tool, such as GroupDrive®.

1. Build **ZIP** archive. Include all files and folders.
2. Convert **ZIP** archive to a self extracting executable (SEE).
3. Deploy **SEE** to target computers. The resulting deployment package is an .exe file that, when executed, will extract the contents and run a named setup executable file.

Microsoft Scripting Utility

The full details of MSI installs and how they can be customized is extensive. For more information on editing MSI files and creating transforms, see Microsoft's Orca MSI editor <http://support.microsoft.com/kb/255905/EN-US/>

Appendix C: Registry Sample Settings

Sample WebDAV site

[HKEY_CURRENT_USER\Software\Sample Company Name\WebDrive\Connections]

```
[HKEY_CURRENT_USER\Software\Sample Company Name\WebDrive\Connections\SampleTest]
"Url"="https://sample.sitename.com.cn"
"UserName"="sampleusername@samplesitename.com.cn"
"ServerType"="1"
"Port"="0"
"DriveName"="R:"
"SavePassWord"="1"
```

Sample FTP site

```
[HKEY_CURRENT_USER\Software\Sample Company Name\WebDrive\Connections\Server]
"Url"="xxx.xxx.x.xx"
"UserName"="username"
"ServerType"="0"
"Port"="xxx"
"DriveName"="M:"
```

Sample FTP site

```
[HKEY_CURRENT_USER\Software\Sample Company Name\WebDrive\Connections\Server]
"Url"="xxx.xxx.x.xx"
"UserName"="sampleusername"
"ServerType"="0"
"Port"="xxx"
"DriveName"="O:"
"SavePassWord"="1"
```

About South River Technologies

South River Technologies (SRT) is an innovator in managed file transfer and document collaboration software. SRT's software seamlessly integrates access to remote files into the desktop applications that users rely on, creating an instantly familiar interface for collaborating, sharing, and accessing files. SRT's enterprise class server products are built using industry standard encryption, highly granular security configuration controls, and technologies to reduce the risk of network intrusions. Over 60,000 customers, including more than 70 colleges and universities, government agencies such as NASA and FAA and other blue chip companies in more than 110 countries rely on SRT's software to make remote file access and collaboration more efficient for their customers, partners, and distributed workforce. For more information, please visit www.southrivertech.com.