



# Rocket U2 Web Development Environment

## Release Notes

*Version 5.2.2*

July 2016  
WDE-522-ALL-RN-01

# U2 Web DE v5

The release notes in this section provide information about changes in U2 Web DE v5.

## U2 Web DE v5.2.2

Build 3302

Release Date: July 2016

These release notes provide information about enhancements and fixes in Web DE v5.2.2.

### Enhancements and fixes in U2 Web DE v5.2.2

The following issues were addressed in this release:

Issue number	Description
WEBDE-4269	<p>Starting at this release, you can specify the Java Trust certificate store and password to reference the CA root certificate of the U2 Database Server you are connecting to. JVM truststore and password parameters were added to the <code>JavaScheduler.ini</code> file. These parameters are:</p> <ul style="list-style-type: none"><li>▪ <code>sslTrustStore</code></li><li>▪ <code>sslTrustStorePassword</code></li></ul> <p>These parameters can be defined using the U2 Web Designer <code>JavaScheduler.ini</code> configuration wizard.</p>
WEBDE-4270	<p>Starting at this release, three parameters were added to the <code>rgw5.ini</code> to be used in the connection parameters in the RedBeans client. They are:</p> <ul style="list-style-type: none"><li>▪ <code>usingTrustStore=1</code></li><li>▪ <code>sslTrustStore</code></li><li>▪ <code>sslTrustStorePassword</code></li></ul> <p>They can be set using the U2 Web Designer <code>rgw5.ini</code> configuration wizard</p>
WEBDE-4294	<p>Starting with this release, Web DE RedPagesNET supports secure protocols other than SSLv3. These include TLSv1, TLSv1.1, and TLSv1.2. This requires DOTNET 4.5 framework or above.</p> <p>Also included is the location and certificate name parameter (<code>MSCertificatePath</code>) and the parameter to turn on RedPages security (<code>usingMSssl</code>).</p> <p>The following was added to <code>rgw5.ini</code>:</p> <pre>usingMSssl=1 MSCertificatePath=path-to-certificate\certificatename.cer sslProtocol=TLS12</pre>
WEBDE-4296	<p>Prior to this release, the <code>JavaScheduler</code> SSL security negotiation with the connecting client side application was securing the data packets only, and not the connection. This issue has been resolved.</p>
WEBDE-4297	<p>Starting with this release, the U2 Resources View has been enhanced to include secure connections to U2 database servers to meet security compliance.</p>
WEBDE-4298	<p>Starting with this release, Web DE uses Java JVM 1.8 for security compliance purposes. ALL <code>javaScheduler</code> environments must use JVM 1.8. Please refer to your operating system provider for the latest 1.8 JVM.</p>

Issue number	Description
WEBDE-4305	Prior to this release, the Web DE Scheduler used the physical account name and not the name specified in the <code>Scheduler.ini</code> file. As a result, you could not identify which sessions belonged to which U2 Web DE scheduler defined account. This issue has been resolved by forcing the connection creation to use the account alias name if it exists.

## U2 Web DE v5.2.1.1

Build 3276

Release Date: March 2016

These release notes provide information about enhancements and fixes in Web DE v5.2.1.1.

### Enhancements and fixes in U2 Web DE v5.2.1.1

The following issues were addressed in this release:

Issue number	Description
WEBDE-4268	Prior to this release, the operating system level password could be visible in clear text when <code>WW.LME.CHECK</code> was called from U2 Web Designer. This issue has been resolved.
WEBDE-4271	Prior to this release, a severe error resulted when a socket was disconnected from a client. This should not have been considered a severe error, and this issue has been resolved.
WEBDE-4273	In Web DE 5.2.0 and 5.2.1, <code>getRequest.jar</code> did not work with new information obtained from the Web DE Monitor. This issue has been resolved.

## U2 Web DE v5.2.1

Build 3275

Release Date: October 2015

These release notes provide information about enhancements and fixes in Web DE v5.2.1.

### Enhancements and fixes in U2 Web DE v5.2.1

The following issues were addressed in this release:

Issue number	Release notes	Component
WEBDE-3980	Web DE v5.2.1 now supports Rocket Aldon Lifecycle Management, or LM(e). As a web developer, you can use the Web Designer to modify RBOs and methods associated with a task reference directly from an LM(e) client. Web DE supports the check in and check out actions of Aldon LM(e), adding an additional level of security using source control. For more information about how to use the Web Designer with this version of Web DE, see the <i>Web Designer User Guide</i> . For more information about Aldon LM(e), see the Rocket Aldon documentation located at <a href="https://docs.rocketsoftware.com">https://docs.rocketsoftware.com</a> . Navigate to <b>Rocket Aldon → Lifecycle Manager for Rocket U2.</b>	Web Designer

## U2 Web DE v5.2.0

Build 3236

Release Date: July 2015

These release notes provide information about enhancements and fixes in Web DE v5.2.0.

In v5.2.0, RESTful RBOs are available as part of the early release program to build your applications.

For more information about how to fully utilize this feature, contact [u2askus@rocketsoftware.com](mailto:u2askus@rocketsoftware.com).

### Enhancements and fixes in U2 Web DE v5.2.0

The following issues were addressed in this release:

Issue number	Release notes	Component
WEBDE-1081	<p>When deploying a Web DE application to a web server, you need to establish the <code>rgw5.ini</code> file on that server. While <code>rgw5.ini</code> does support unencrypted passwords, having plain-text passwords on a server is not secure. Previously, to encrypt the password, you had to use the Web Designer to edit the <code>rgw5.ini</code> file, save it locally, then deploy it to the server. Now, you can edit the <code>rgw5.ini</code> file outside of Web Designer, and use the following command to encrypt the password and send it back to the web server without interacting with the Web Designer:</p> <pre>java -cp /path/to/RedBeans.jar com.rs.u2.wde.redbeans.VerifyIni ./ rgw5.ini</pre>	U2 Web Designer
WEBDE-3014	<p>When you use RESTful services and need to upgrade Web DE, you can also manually upgrade the U2 REST servers you created so they can be updated with the latest code and artifacts that come with the latest version of Web DE.</p> <p>If you do not manually upgrade the servers, their current state remains, potentially rendering any bug fixes that come with Web DE upgrades useless. For steps on upgrading your U2 REST servers, see <i>Getting Started with REST Services</i>.</p>	RESTful RBOs
WEBDE-3345	<p>For RESTful uQuery services, the ability to test the RBO service using a session ID has been added. RBO Services that are backed by stateful RBOs use a session ID to reference the RBO state that is stored on the server in between requests. If the RBO you are testing is stateful, the RBO Service Test Browser has a Use Session Id check box. Select the Use Session Id check box to have the test page automatically copy the session ID from the result back into the service URL.</p>	RESTful RBOs
WEBDE-3433	<p>At v5.2.0, "U2WEBDE" is available to use as a value passed to the XTOOLSSUB to identify the tool (INITIALIZE). Before v5.2.0, the Web Designer would have the Basic Developer Toolkit (BDT) sent instead of a string identifying the Web Designer.</p>	U2 Web Designer

Issue number	Release notes	Component
WEBDE-3442	In v5.2.0, you can use the performance monitor to record statistics on the requests processed for each account. For the monitor to work properly with the Java Scheduler, you must use the same version of Web Designer as the Java Scheduler. For example, use 5.2.0 versions of both components of Web DE.	Monitoring, Scheduler, U2 Web Designer
WEBDE-3453	Internal testing found that the Java Scheduler was not catching some UO exceptions, such as UO subroutine and unisession exceptions. This has been fixed in v5.2.0.	Scheduler
WEBDE-3464	In v5.1.1, when installing only RedPages.NET, the <code>rgw5.ini</code> file installed incorrectly with the default values which could cause problems if left as default. In v5.2.0, the values have been changed to be more applicable and usable if unchanged.	Installation
WEBDE-3465	In v5.1.1, no <code>uoj_trace.log</code> file was created when the <code>PoolingDebug</code> parameter was set in the <code>JavaScheduler.ini</code> file. This has been fixed in v5.2.0.	Scheduler
WEBDE-3478	One of the features of the 5.2.0 performance monitor is the ability to keep track of exceptions and transactions. When exceptions and transactions occur, the stop light appears red in the monitor. The <b>Reset Counter</b> button on the <b>Scheduler Monitor</b> tab allows you to dismiss this critical status to view the stop light as a more accurate state of your environment.	Scheduler, U2 Web Designer
WEBDE-3485	While using the monitor, you can view the exceptions that occurred. The Exceptions thrown link on the <b>Scheduler Monitor</b> tab displays the <b>Scheduler Log View</b> pane below the monitor, where you can view only the exceptions.	Scheduler, U2 Web Designer
WEBDE-3492	The Java Scheduler performance monitor records statistics on the requests processed for each account. This information presented in the monitor is written to the performance statistics log.	Scheduler
WEBDE-3499	In previous versions of Web DE, a bug existed that allowed you to create an empty dynamic array subroutine resource for a REST server. This has been fixed and you are now required to enter a name for the dynamic array before it is created.	RESTful RBOs, U2 Web Designer
WEBDE-3503	When you create a multivalue field in a UniVerse NLS or UniData I18N environment, you need to obtain a UniDynArray from a UO session object so that the proper marks as defined on the server are used. You can create an instance of a UniDynArray to handle multivalue fields by calling the <code>getUniDynArray</code> method of the U2 Web DE connection class. This will allow you to create a multivalue field on your Web DE client application. For more information, see the <i>Application Developer's Guide</i> .	RedBeans, RedPages.NET
WEBDE-3504	In previous versions of Web DE, the I18N configuration of UniData did not work properly with licensing in the Web Designer. This has been fixed in v5.2.0.	U2 Web Designer
WEBDE-3505	In previous versions of Web DE, license violations were not properly reported back to the Web Designer when using a UniData I18N server. This has been fixed in v5.2.0.	U2 Web Designer

Issue number	Release notes	Component
WEBDE-3507	In v5.1.1, if the UniVerse example files were not selected during installation, an error occurred that left the installer in a non-responsive state. This has been fixed.	Installation
WEBDE-3523	In v5.2.0, an enhancement to the Java Scheduler has been implemented that allows the worker threads to log the IP address of the server that starts them, such as initialization information and error information.	Scheduler
WEBDE-3555	In RESTful services, an error occurred that prevented a newly created REST server from appearing until you restarted the Web Designer. This has been fixed so that immediately after creation, the new REST server appears.	RESTful RBOs
WEBDE-3598	In v5.1.1 and v5.1.2 of the Web DE Java Scheduler, the number of responders in use and requests waiting sometimes appeared incorrectly when a run queue was building for webshares. This has been fixed.	Scheduler
WEBDE-3622	In v5.1.2, when a MAXRESTARTWAIT timeout occurred and the account was automatically reset, the log did not contain enough information to help understand what happened. This has been fixed, and logging now contains more information when a timeout restart occurs.	Scheduler
WEBDE-3657	In the performance monitor, you can view the RBO process details to help you troubleshoot problems with slow processes. The process details are displayed in a table include information such as how long the process has been busy or when it started. You can sort the columns in this table to help with the troubleshooting process.	U2 Web Designer
WEBDE-3660	The performance monitor allows for a definable parameter, <code>SlowProcessTime=n</code> , that triggers monitor warnings when any requests exceeds the <i>n</i> value. <i>n</i> is the amount of time in milliseconds when the monitor displays red.	Scheduler, U2 Web Designer
WEBDE-3677	When you encounter a slow process while using the performance monitor, you can view the BASIC call stack to help you troubleshoot the problem. When the Slow Requests column appears red in the monitor table, click <b>RBO Process Details</b> . A window appears where you can view the call stack for each slow process. For more information, see the <i>Administrator's Guide</i> . Note that the BASIC call stack is viewable with UniData versions 8.1 and higher.	Scheduler
WEBDE-3681	The Web Designer now supports starting and stopping of the Java Scheduler on a remote UNIX server.	Scheduler, U2 Web Designer
WEBDE-3776	You can filter which accounts you want to see in the performance monitor and then restart the monitor so that only the selected accounts displayed. You can also adjust the table columns by dragging and dropping them in your preferred order, or filtering some columns out so that you can see only the information that is relevant to your site. For more information, see the <i>Administrator's Guide</i> .	Scheduler, U2 Web Designer

Issue number	Release notes	Component
WEBDE-3777	The performance monitor contains specific parameters that trigger the stop light and table cells to be red or yellow. The average response time, average response time interval, the number of requests waiting to be served, and slow processes are defined with default values in the <code>JavaScheduler.ini</code> file. You can change these values to better suit your environment from the Java Scheduler account editor wizard or directly in the <code>JavaScheduler.ini</code> file. For more information about these parameters and the default settings, see the <i>Administrator's Guide</i> .	Scheduler, U2 Web Designer
WEBDE-3805	As of v5.2.0, Web DE supports 64-bit versions for both UniVerse and UniData.	Installation
WEBDE-3859	In v5.2.0, the <code>como</code> directive can now be used from <code>JavaScheduler.ini</code> as well as the <code>rgw5.ini</code> file. Because SB/XA services do not use the <code>rgw5.ini</code> file, the functionality has been copied to the <code>JavaScheduler.ini</code> so that you can take advantage of this server-side logging feature. The account wizard in the Web Designer has been updated so that you can select this option while creating an account, or you can modify the <code>JavaScheduler.ini</code> in a text editor and set <code>como=1</code> in the default or account section to enable it. The <code>como</code> directive is still available in the <code>rgw5.ini</code> file so that users not using the client can still utilize its functionality.	Scheduler
WEBDE-3881	In version 4.4.2, an enhancement was added to the RBO Server that allowed users to determine which exact RBO, method, and variable name caused an UNASSIGNED variable on the <code>WW.SET.PROPERTY</code> calls, identifying which basic program had a coding error. This enhancement did not properly get ported into 5.x code initially, but is now added back to v5.2.0.	RBO Server
WEBDE-3882	In previous versions of Web DE, the Java Scheduler falsely triggered a security violation 11 when the UniVerse common block was corrupted. In v5.2.0, a test has been added that re-reads the checksum from disk to detect whether a user has triggered a false positive situation. If it is a false positive, the common variable value gets corrected and an event item in the <code>Javascheduler.log</code> is added.	Scheduler
WEBDE-3919	In v5.2.0, the SOAP worker thread has been modified so that it queries the SOAP header at the beginning of the read process for the Java Scheduler. The content length is parsed from the header and is used to determine how much data should be in the SOAP envelope. The worker thread polls the socket in an attempt to read this amount of data before timing out. The timeout is a default number of 5000ms. You can configure this number in the <code>JavaScheduler.ini</code> file under the account section with the parameter <code>soapTimeout=nnnn</code> , where <code>nnnn</code> is the timeout number in milliseconds.	Scheduler

Issue number	Release notes	Component
WEBDE-3961	During a clean installation of Web DE with no modifications to the accounts, when you started the Java Scheduler, it appeared to not properly start. This has been fixed in v5.2.0,	Scheduler, U2 Web Designer
WEBDE-3963	In v5.2.0, you can filter which accounts you want to see by the performance monitor. For more information, see the <i>Administrator's Guide</i> .	Monitoring, U2 Web Designer
WEBDE-3981	When using advanced monitoring and logging in Web DE, some RPC call information was not being displayed properly in the RBO Process window or log file. This has been fixed in v5.2.0.	Scheduler
WEBDE-3987	In previous versions, certain server level errors, such as an uncataloged server subroutine, caused a null pointer exception that was not caught when making Web DE RPC calls. These types of errors are now caught and logged properly in v5.2.0.	RedBeans, RedPages.NET
WEBDE-4003	In v5.2.0, you can choose to bypass the <code>rgw5.ini</code> file. A new RBO instantiation method has been added to RedPages.NET that allows the instantiation of a RedObject without an <code>rgw5.ini</code> file. The format is:  <pre>RedObject r = new RedObject("rbexamples", server, port, min, max, connectionString, "EXMOD:EmpReader");</pre>	RedPages.NET
WEBDE-4012	In previous versions of the Web Designer, if the server editor was left open after the server connection was closed in the U2 Resource view with the Java Scheduler running, multiple instances of some dialog boxes appeared. This has been fixed in v5.2.0 and the multiple dialog boxes no longer appear.	U2 Web Designer
WEBDE-4018	Previously, when you added a new account in the <code>JavaScheduler.ini</code> file but did not change the number of connections using the wizard, the minimum and maximum numbers were set to zero by default instead of one. This has been fixed in v5.2.0 and the default connections are now one.	Scheduler, U2 Web Designer
WEBDE-4019	Older versions of Web DE incorrectly allowed you to add the same soapPort to two different accounts for the Java Scheduler. This has been fixed in v5.2.0 so that if a service tries to start on a port that is already in use, an error will be logged and the service fails to start.	Scheduler
WEBDE-4021	In previous versions of Web DE, you could not deploy to a U2 Server with a directory that contained spaces. This has been fixed in v5.2.0 so that these directories can be utilized.	Installation

## Requirements for v5.2.0

The following lists provide detail about the requirements to support components of U2 Web DE v5.2.0.



## RedBack Object Server (Windows or UNIX)

### Operating system

- Windows 7, Windows 8, or Windows 8.1 and Windows Server 2012

### Data server

- UniData v7.2 or later; however, v8.1 or later is recommended
- UniVerse v10.3 or later; however, v11.2.3 is recommended

## Web Server for .NET applications (RedPages.NET)

### Recommended Web server software

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.

### Common language runtime and class libraries

- Microsoft .NET Framework v2.0 or later
- Microsoft .NET Framework v4.0 or later if you use RedPages COM Wrapper

## Web Server for Java applications (RedBeans)

### Java Runtime Environment (JRE)

- JRE 7 or later

# U2 Web DE v5.1.2

Build 3104

Release Date: July 2014

These release notes provide information about enhancements and fixes in Web DE v5.1.2.

## Enhancements and fixes in U2 Web DE v5.1.2

The following issues were addressed in this release:

Key	Release Notes	Component
WEBDE-3452	UniObjects exceptions were not logged properly in the Java Scheduler log file. In v5.1.2, the UniObjects exceptions and error codes are now logged with the Java Scheduler error messages.	Scheduler
WEBDE-3526	When an account was restarted and a responder was busy, the restart shut down all of the processes except for the one that was stuck. This caused the web application to become unresponsive because no sessions were available. This issue is resolved.	Scheduler

Key	Release Notes	Component
WEBDE-3527	Setting a new value for the <code>unirpcTimeout</code> setting in the Account section of the <code>JavaScheduler.ini</code> file did not work. This issue is resolved.	Scheduler
WEBDE-3528	The Java Scheduler process terminated unexpectedly when the request exceeded 5 minutes. This issue is resolved.	Scheduler
WEBDE-3544	Using any connection string other than "uvcs" caused the Java Scheduler to throw an exception and leave behind established TCP connections. This prevented new TCP socket connections from running. This issue is resolved.	Scheduler
WEBDE-3550	When the Java Scheduler was stopped, the number of consumed licenses doubled. This issue is resolved.	Scheduler
WEBDE-3553	Invalid requests to the Java Scheduler resulted in an outstanding socket that was left connected and used system resources. These requests eventually would use all of the resources on the system and resulted in the system being down. This issue is resolved.	RedBeans, RedPages.NET, Scheduler
WEBDE-3559	When an exception was received at the Java Scheduler level on an RBO call, there were no details logged in the Scheduler log file. In v5.1.2, details such as the RBO name, the method called, and the properties are now logged.	Scheduler
WEBDE-3561	If a call was made to an RBO and the call timed out, the next call to an RBO received the data from the call that timed out rather than the current call. This issue is resolved.	Scheduler
WEBDE-3567	As of v5.1.2, you can set the UniRPC or socket timeout for an account in the <code>rgw5.ini</code> file.	RedBeans, RedPages.NET
WEBDE-3613	A new parameter, <code>ThreadSocketTimeOut</code> , has been added to the <code>JavaScheduler.ini</code> file. This parameter specifies the number of milliseconds that sockets can be left open with no activity before they timeout on the listening thread. If not set, the default socket timeout of 8 hours is set on the listening thread.	Scheduler

## U2 Web DE v5.1.1

Build 3094

Release Date: January 2014

These release notes provide information about enhancements and fixes in Web DE v5.1.1.

### Enhancements and fixes in U2 Web DE v5.1.1

The following issues were addressed in this release:

Issue Number	Description	Component
WEBDE-67	In previous versions, access to the <code>RedPages_accountname.log</code> file was locked when using RedPages.NET. This caused subsequent Windows processes that use RedPages.NET to fail to log to the file. This has been fixed in v5.1.1 by appending a process ID to the RedPages.NET log file, making its name unique.	Logging

Issue Number	Description	Component
WEBDE-1027	As of v5.1.1, when you uninstall U2 Web DE, you can select to remove all of the components, including removal of all account files and temporary files except for the .ini files or the log files. This clean uninstallation allows for a stable work environment ready for future upgrades.	Installation
WEBDE-1051	In previous versions, Microsoft Internet Information Services (IIS) was required to install RedPages.NET. As of v5.1.1, RedPages.NET is installable without IIS.	Installation
WEBDE-2198	When editing an RBO's method, entering a long description that contained more than one carriage return did not save correctly; the carriage returns converted to in-line text, changing to "-4." This issue has been resolved.	U2 Web Designer
WEBDE-2628	As of v5.1.1, you can view the <code>JavaScheduler.log</code> file directly in the U2 Web Designer by using the <b>Scheduler Log View</b> tab while the Java Scheduler is running.	U2 Web Designer
WEBDE-2878	In v5.1.0, the Java Scheduler monitor display in the U2 Web Designer was missing information. The correct information has been added to resolve this issue.	U2 Web Designer
WEBDE-3028	In v5.1.1, the U2 Web Designer shortcut icons have been updated.	U2 Web Designer
WEBDE-3034	In previous versions, UNIX users could only install the Java Scheduler using the Eclipse deployer. As of v5.1.1, the <code>rbappsvr</code> script used to install U2 Web DE components on UNIX includes the Java Scheduler.	Scheduler
WEBDE-3093	In previous versions, when multiple web servers were used, the <code>JavaScheduler.log</code> file did not contain the data coming in or out for each request. As of v5.1.1, the <code>JavaScheduler.ini</code> file allows you to set the trace parameter to allow the logging of incoming request names, request values, property names, and property values from the client. This also logs outgoing property names and values being returned to the client.	Logging
WEBDE-3096	Running a <code>RECATALOG</code> at TCL in UniVerse incorrectly changed field 2 of <code>RELLEVEL</code> to version 8, forcing the UniVerse account to be out of date. This issue has been fixed to keep the correct UniVerse version number in field 2.	RBO Server
WEBDE-3097	In previous versions, the permissions on the deployed files for the server and Java Scheduler matched the umask of the user. If the umask put a restriction of the file, then U2 Web DE would not work. This issue has been fixed in v5.1.1 by changing the permissions on all deployed accounts and the Java Scheduler directory on UNIX deployments for UniData and UniVerse.	Installation, U2 Web Designer
WEBDE-3141	In previous versions, the <code>rbdefn</code> account in the U2 ReSource view was used incorrectly for new accounts. This issue has been fixed in v5.1.1 by having a dialog box appear to define the correct path when a user has more than one possible <code>rbdefn</code> account to enable for U2 Web DE.	U2 Web Designer

Issue Number	Description	Component
WEBDE-3143	In previous versions, session encoding in the JSP RBOScope testing tool was not supported. As of v5.1.1, the rgw5.ini file has the option in the [accountname] section to configure encoding so that information can be correctly displayed in the JSP application.	Web RBOScope
WEBDE-3165	U2 Web DE installation has been modified to allow for easier upgrade or concurrent installation methods. The installation default directory is now /U2WDEnnn, where nnn is the current version number in the install shield project file. Additionally, the installation checks for previously installed versions 5.0.1 through 5.1.0 and reports the latest version that it finds, warning the user of possible changes to the U2WDE environment variable.	Installation
WEBDE-3279	The Java Scheduler status monitor contained an incorrect negative number in the Requests Per Interval column when an account was restarted. This issue has been resolved.	U2 Web Designer
WEBDE-3290	When connecting to the RedBack Object Server with invalid credentials, users were not able to re-enter credentials without first disconnecting from the server or account. This issue has been fixed to allow users to immediately re-enter their credentials.	U2 Web Designer

## U2 Web DE v5.1.0

Build 3081

Release Date: September 2013

These release notes provide information about enhancements and fixes in U2 Web DE v5.1.0.

### Enhancements and fixes in U2 Web DE v5.1.0

The following issues were addressed in this release:

Issue number	Description
WEBDE-1004	In previous versions, the timestamp was incorrect in redbeans_account.log. This issue was corrected in v5.1.0.
WEBDE-1057	At v5.1.0, a Re-enter password field was added in the User tabbed page available from the Manage RedBack Users option in the U2 Web Designer.
WEBDE-1072	In previous versions, when re-enabling an account for Web DE from the U2 ReSource view on UniVerse systems, the LOGIN proc was restored to the VOC. This caused users to see a '?' prompt when logging into the account at TCL. This issue has been fixed.
WEBDE-1136	Version 5.1.0 introduces a Java Scheduler, which manages data transfer between the RedBack Object Server and the web server while using webshares. Version 5.0.x used the connection pooling feature of UniData and UniVerse to perform load balancing; version 5.1.0 gives users the ability to use the Java Scheduler or the connection pooling feature to perform this task. A form of request manager called the RedBack Scheduler was used in versions prior to 5.0.x and was not available in v5.0.x. The Java Scheduler reintroduces the request manager functionality of the RedBack Scheduler in a Java implementation in v5.1.0.

Issue number	Description
WEBDE-2093	In v5.0.x, RPC calls did not return data from the U2 Web Development Environment server back to the calling client (RedPagesNET.dll or RedBeans). This issue has been fixed.
WEBDE-2095	RPC calls were failing with error "Invalid parameter supplied to the subroutine" when perfstats was set to 1 in the rgw5.ini configuration file. This issue has been resolved.
WEBDE-2131	Version 5.1.0 allows environment variables to be passed from the JavaScheduler.ini file to the server. Users have the option to create an alias that points to the same account but uses a different environment variable for each set of connections.
WEBDE-2137	In previous versions, when multiple accounts were set up in the rgw5.ini file, the first account accessed by RedPages.NET created the log file for this account. All subsequent requests regardless of the account being accessed would log into that log file instead of the respective log file for each account. This issue has been fixed.
WEBDE-2156	In previous versions, when setting an RBO property on the server side to a JSON, the call of the RBO method was slow. This issue has been fixed.
WEBDE-2173	U2 Web DE v5.1.0 has been certified for Windows 8 and Windows 2012.
WEBDE-2192	In previous versions, RedPages.NET was not honoring UO session timeouts set in the rgw5.ini configuration file. This issue has been fixed.
WEBDE-2239	Version 5.1.0 corrects an issue which involved login credentials being incorrectly case sensitive. The issue has been fixed.
WEBDE-2265	Version 5.1.0 corrects an issue in which the JSP RBOScope previously referenced an incorrect package name and did not work. The issue has been fixed.
WEBDE-2285	In previous versions, when using the COM wrapper in an ASP page, a RedField object would become corrupted when setting its content using StringValue. This issue has been fixed.
WEBDE-2287	uQuery objects failed because the BOF property of RecordSets was not supported in the COM Wrapper in v5.1.0. This issue has been fixed.
WEBDE-2315	Typographical errors in the rgw5.ini configuration file sometimes resulted in incorrect messages. A misspelled account would error out with "object reference is not set to an instance of an object." An invalid logpath value did not use a fallback default location for the creation of the log file. The appropriate exceptions are now returned to the U2 Web DE client. If the logpath is incorrect in the rgw5.ini file, the preferred path location for the rgw5.ini file is used as the default location for the log file.
WEBDE-2341	The U2 Web Development Environment SOAP server was re-enabled at version 5.1.0. This is done by adding a listening port using the account level soapPort property in the JavaScheduler.ini configuration file. Example: [rbexamples] soapPort=7075 MinimumPoolSize=2 MaximumPoolSize=2 userId=guest password=KdkRpbZJkpPOnXv8s0+Gmw== server=localhost usingssl=0 workdir=C:\U2\U2WDE\UVserver\rbexamples ConnectionString=uvcs
WEBDE-2389	Issues concerning the accessibility of the RecordCount property through the COM Wrapper have been resolved.
WEBDE-2526	Issues related to StringValue assignments and unexpected error messages from RedFields in the COM Wrapper have been resolved.
WEBDE-2542	Using the COM Wrapper in an ASP page, a RedField object became corrupted when using the Count command. This issue has been fixed.

Issue number	Description
WEBDE-2593	A new batch file named redpagesCCW_uninstall.bat is included in the RedPages COM Wrapper package, for 32- and 64-bit platforms. This batch file uninstalls the RedPages COM Wrapper libraries and clears registry entries associated with the COM Wrapper.
WEBDE-2640	An issue with header information related to the SOAP server component of the Java Scheduler was causing a ConnectionAborted error. The issue has been resolved.
WEBDE-2667	The copyright banner in the JSP examples was changed to "(c)Rocket Software, Inc. or its affiliates 1989-2013. All Rights Reserved."
WEBDE-2903	U2 Web DE v5.1.0 gives users the ability to select 0 webshares when licensing the product, whereas in previous versions the minimum was 1.
WEBDE-2906	When installing RedPages.NET, the UO.NET performance counter registry is now automatically created in the rgw directory.

## Requirements for v5.1.0

The following lists provide detail about the requirements to support components of U2 Web DE v5.1.0.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows 7, or Windows 8
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v7.2 or later; however, v7.3.5 or later is recommended
- UniVerse v10.3 or later

### Web Server for .NET applications (RedPages.NET)

#### Recommended Web server software

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.

#### Common language runtime and class libraries

- Microsoft .NET Framework v3.5 or later
- Microsoft .NET Framework v4.0 or later if you use RedPages COM Wrapper

**Development tool**

- Microsoft Visual Studio 2005 or later

**Web Server for Java applications (RedBeans)****Recommended Web server software**

- Tomcat 6.x or later
- IBM WebSphere Application Server

**Java Runtime Environment (JRE)**

- JRE 6 or later

**Java Development Kit (JDK)**

- JDK 6 or later

## U2 Web DE v5.0.3

Build 3041

Release Date: September 2012

These release notes provide information about enhancements and fixes in U2 Web DE v5.0.3.

### Enhancements and fixes in U2 Web DE v5.0.3

The following issues were addressed in this release:

Issue number	Description
WEBDE-2006	uQuery objects containing fields larger than 1K bytes caused all data that was returned in the query to be skewed. The hard-coded buffer size for uQuery objects has been fixed and data is now returned correctly.
WEBDE-2033	An enhancement was made to the RedPages.NET log files that allows the display of additional debug information when the LogLevel <b>inf</b> and <b>times</b> flags are set to 1. At this release, the module, class, and property names and values have been added to the log information displayed.
WEBDE-2046, WEBDE-2062	Web applications running SB+ or SB/XA processes from an RBO caused the error "WW.SB.COMMON Invalid checksum." The correct SB common routines were not set up in U2 Web DE when WW.INITIATE was run on the account. This problem affected SB+ 5.x and SB/XA 6.x versions. This issue has been resolved at this release.  Additionally, attempting to link U2 Web DE and SB users from the Web Designer administration menu caused an "Invalid password" error after the SB+ password was supplied. This issue has been fixed for UniData installations but remains open as issue WEBDE-2086 for UniVerse installations. UniVerse users can work around this issue by supplying the SB+ user ID and password in the sb_user_id and sb_password properties of the RBO.
WEBDE-2079	Running ENABLE.RBO or RECATALOG in an SB+ or SB/XA account caused the VOC pointer SB.DISP to incorrectly point to the U2 Web DE installation path. This caused errors in SB+ and SB/XA applications when an SB.DISP call was made. ENABLE.RBO and RECATALOG have been fixed to retain the correct VOC pointer to SB.DISP.

## Requirements for v5.0.3

The following lists provide detail about the requirements to support components of U2 Web DE v5.0.3.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008, or Windows 7
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v7.2 or later, or
- UniVerse v10.3 or later

### Web Server for .NET applications (RedPages.NET)

#### Recommended Web server software

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.

#### Common language runtime and class libraries

- Microsoft .NET Framework v2.0 or later

### Web Server for Java applications (RedBeans)

#### Recommended Web server software

- Tomcat v6.x or later

#### Java Runtime Environment (JRE)

- JRE v1.5 or later

## U2 Web DE v5.0.2

Build 3035

Release Date: June 2012

These release notes provide information about enhancements and fixes in U2 Web DE v5.0.2.

### Enhancements and fixes in U2 Web DE v5.0.2

The following issues were addressed in this release:



Issue number	Description
WEBDE-1175	Running WW.INITIATE against accounts configured for SB+ v5.5.x or SB/XA v6.1.x was blocked because those versions were not supported. These newer versions SB+ and SB/XA are now supported.
WEBDE-1189	The Logical File Editor in the U2 Web Designer did not allow you to edit existing logical file definitions or create new ones. At v5.0.2, the Logical File Editor has been fixed to support the edit, create, and read functions.
WEBDE-1190	uQuery RBOs that used SELECT statements with BY.EXP in the select_criteria property returned data with incorrect delimiters. This problem has been resolved, and data is now returned correctly.
WEBDE-1194	Connection pools opened by the RBOScope remained open on the database server machine even after the RBOScope was closed. An enhancement has been implemented to close all connections when the RBOScope window or any child windows opened by the RBOScope are closed.
WEBDE-1942	<p>The change of architecture at U2 Web DE v5.0.0 removed the ability to set custom environment variables in the [Default.Environment] section of the rgwresp.ini file. Equivalent functionality has been added at version 5.0.2, enabling you to set environment variables in the VOC SPIDER.LOGIN item in a U2 Web DE-enabled account.</p> <p>The variable value must be set in VOC SPIDER.LOGIN as follows: SETENV MYRBHOME MYRBHOMEVALUE</p> <p>Get the value of the variable using standard UniData or UniVerse techniques for variable value retrieval.</p> <p><b>UniData:</b> myVar = GETENV("MYRBHOME")</p> <p><b>UniVerse:</b> IF SYSTEM(91) = 1 THEN *Windows cmd = "DOS /C 'set MYRBHOME'" END ELSE *UNIX cmd = "SH -c 'echo \$MYRBHOME'" END EXECUTE cmd CAPTURING RTNVAL</p>
WEBDE-1976	The version number of XTOOLSUB supplied with UniData and UniVerse was changed from 7.x or 11.x to a new scheme, 3.100.x. The new version numbering scheme caused the U2 Web DE server deployment tool to fail because it did not recognize the XTOOLSUB version correctly. This problem has been fixed.
WEBDE-1988	Several deprecated .dll and .ocx files contained in the U2 Web DE deployable packages were flagged by spyware utilities as possible trojans. These files have been removed from the deployable packages at v5.0.2.
WEBDE-1989	Attempting to set an RBO property to null when using the RedPages COM Wrapper returned an error, "UniSession Class error '80131600'." The RedPages COM Wrapper has been revised to allow properties to be set to null without error.

## Requirements for v5.0.2

The following lists provide detail about the requirements to support components of U2 Web DE v5.0.2.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008, or Windows 7
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

**Data server**

- UniData v7.2 or later, or
- UniVerse v10.3 or later

### Web Server for .NET applications (RedPages.NET)

**Recommended Web server software**

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.

**Common language runtime and class libraries**

- Microsoft .NET Framework v2.0 or later

### Web Server for Java applications (RedBeans)

**Recommended Web server software**

- Tomcat v6.x or later

**Java Runtime Environment (JRE)**

- JRE v1.5 or later

## U2 Web DE v5.0.1

Build 3030

Release Date: October 2011

These release notes provides information about new features, enhancements, and fixes in U2 Web DE v5.0.1.

### What's new in U2 Web DE v5.0.1

**RedPages COM wrapper**

In version 5.0.1 and later, U2 Web DE offers the option of implementing the RedPages COM Wrapper for backward compatibility with classic Active Server Pages (ASP) and other Component Object Model (COM)-based applications.

The RedPages COM Wrapper enables you to connect classic ASP and other COM-based applications to the U2 Web DE 5.x architecture, which relies on the Microsoft .NET Framework. For additional information and steps to install the RedPages COM Wrapper, see the *U2 Web Development Getting Started* manual.

### JSP version of RBOScope

At version 5.0.1, U2 Web DE provides a standalone Java Server Pages (JSP) RBOScope testing tool, which enables testing of RBOs outside of U2 Web Designer. This tool is designed for the use of developers with Java application servers such as Tomcat or WebSphere.

For steps to install the JSP RBOScope, see Chapter 5, “Installing the Standalone JSP RBOScope,” in *U2 Web Development Environment Getting Started*. For information on testing RBOs with the new standalone tool, see Chapter 4, “The RBOScope,” in *Developing RBOs with U2 Web Designer*.

### UNIX install script

At version 5.0.1, a standalone UNIX install script is included on the product CD image. For details, see WEBDE-1122 below.

### New features, enhancements, and fixes in U2 Web DE v5.0.1

The following issues were addressed in this release:

Issue number	Description
WEBDE-10	Rebranding of the U2 Web Development Environment documentation set from IBM to Rocket Software was completed after the release of version 5.0, when the content of <i>Administering RedBack Object Server with U2 Web Designer</i> was merged with <i>Administering U2 Web Development Environment</i> . The updated U2 Web DE documentation library was posted to the U2 ReSources page in April 2011.
WEBDE-450	In version 5.0.1 and later, U2 Web DE provides the optional RedPages COM Wrapper for backward compatibility with classic Active Server Pages (ASP) and other Component Object Model (COM)-based applications.
WEBDE-1002	U2 Web DE 5.0.1 provides a standalone Java Server Pages (JSP) version of the RBOScope testing tool, which enables testing of RBOs outside of U2 Web Designer for users with Java application servers such as Tomcat.
WEBDE-1040, WEBDE-1050	With the COMO option set to 1 (On) in rgw5.ini, methods containing a COMO statement did not properly create a COMO file. In the UniData edition, the method call did not create a COMO file at all. In the UniVerse edition, the method created a COMO file with only a header record. This issue has been resolved in version 5.0.1, and the method creates a complete COMO file in both editions as designed.
WEBDE-1090	When attempting to read a record using RedObject, no data was retrieved, but the status was returned as successful (status=0). With fixes to Java code, a read from RedObject now returns the correct data and status code.
WEBDE-1093	After using the wizard to deploy RedBack Object Server to a U2 server, the client and server logs showed an incorrect product version number for both the previous and current versions. The code that generates deployment logs has been fixed in U2 Web DE 5.0.1, so the log now reports the correct four-part version number (such as 5.0.1.3030) for the previous and current versions deployed to the U2 server.
WEBDE-1094	At version 5.0.1, the main Registry entry for U2 Web DE has been changed from “Rocket Software, Inc.” to “Rocket Software” to match all other U2 products.
WEBDE-1122	UniData and UniVerse versions of a UNIX install script are shipped with the product at version 5.0.1. The files are located in the server\unix\udt or server\unix\uv directory on the product CD image. To perform a UNIX install using the script, copy the rbappsrv file and the .tar file onto your UNIX machine, and then run the rbappsrv script.

Issue number	Description
WEBDE-1125	During the procedure of upgrading a 4.x account to the 5.x architecture, an error occurred when the user attempted to enable the account for U2 Web DE from the U2 Web Designer menu. This problem appeared only in the U2 Web Designer interface: the same account could be enabled successfully by running the ENABLE.RBO command at the ECL/TCL prompt. The code has been changed so that U2 Web Designer uses a different write method to enable RBOs, preventing the error.
WEBDE-1126	When running the REDBACK.UPG routine to upgrade an account from 4.x to 5.x, the program returned a "COMMON size mismatch" error, and the associated APP.IDS record remained at the old version number in the VOC. A fix to the REDBACK.UPG routine prevents this error, and the program now processes both UniData and UniVerse account upgrades correctly.
WEBDE-1128	On installing the RedPages.NET component, the redpagesNet.dll and UODOTNET.dll were written to the \rgw path. However, when RedPages.NET was modified, these DLLs were written to both the \rgw and \gateway paths. As of version 5.0.1, these DLLs are written to the \rgw path alone on installation or modification.
WEBDE-1129	The prompt for viewing the Readme has been removed at the end of the installation process.
WEBDE-1131	A new batch file named redpagesCCW_setup.bat is included in the RedPages COM Wrapper package, for 32- and 64-bit platforms. This batch file installs the RedPages COM Wrapper libraries. It also adds the uonetcp_iis.reg registry item to resolve a UO.NET problem required to use the RedPages COM Wrapper.
WEBDE-1147	When the GetSystemInfo method was called from the SysInfo object, U2 Web DE returned a "Cannot open file \doc\port.note" error. This issue has been resolved in version 5.0.1, so the Web page displays properly and the error no longer occurs.
WEBDE-1149	<p>While working with the RedPages.NET API on Windows 7, the U2WDE environment variable is sometimes not found and an error message is displayed. In version 5.0.0, the message, "Access to the path '<i>pathname</i>' is denied," was misleading and offered no solution.</p> <p>The fix is to reboot the RedBack object server machine. After a reboot, the RedBack object server is able to resolve the U2WDE environment variable and the error no longer occurs. In version 5.0.1, the message text has been clarified and provides instructions: "Unable to locate <i>filename</i> file in U2WDE environment variable path. Your system may require a reboot to resolve this error."</p>
WEBDE-1151	In certain circumstances, deploying the RedBack Object Server component through U2 Web Designer failed, and the program displayed the error message, "An Execute is already active on the server." This occurred if the user's server permissions were insufficient to create the required folders and files for the server log, which left the Execute command waiting for a response from the client. A segment of code has been added to handle insufficient permissions, and the deployment no longer fails in this situation.

## Requirements for v5.0.1

The following lists provide detail about the requirements to support components of U2 Web DE v5.0.1.

## RedBack Object Server (Windows or UNIX)

### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008 (including R2), or Windows 7
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

### Data server

- UniData v7.2 or later, or
- UniVerse v10.3 or later

## Web Server for .NET applications (RedPages.NET)

### Recommended Web server software

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.

### Common language runtime and class libraries

- Microsoft .NET Framework v2.0 or later

## Web Server for Java applications (RedBeans)

### Recommended Web server software

- Tomcat v6.x or later

### Java Runtime Environment (JRE)

- JRE v1.5 or later

# U2 Web DE v5.0

Build 3020

Release Date: November 2010

These release notes provide information about new features, enhancements, and fixes in U2 Web DE v5.0.

## What's new in U2 Web DE v5.0

### Changes to the U2 Web DE architecture

The architecture of U2 Web DE has changed significantly to leverage the underlying technologies of UniData 7.2 and UniVerse 10.3. U2 Web DE 5.x uses the connection pooling feature of UniData and UniVerse to perform load balancing, supported in UniObjects for .NET (UO.NET) and UniObjects for Java (UOJ). In addition, .NET technology is employed in the new RedPages.NET as the means to

access data Sources. ASP.NET provides the client interface to RedPages.NET. Details on the new architecture and connection pooling are provided in the *U2 Web DE 5.0 New Features* manual. Please see the *u2webDE50beta.pdf* file in the doc folder of the product CD image. Details on the new .NET-based application programming interface (API) are contained in the *RedPages.NET* manual. Please see the *redpages\_net.pdf* file in the doc folder of the product CD image.

### Changes to installation

Due to changes in the product's architecture, the selection list of Windows components has been revised in the InstallShield program, and now includes RedPages.NET. In addition, you can now deploy RedBack Object Server components to UNIX using a new deployment wizard. Detailed instructions are provided in the *Getting Started* guide. Please see the *getting\_started.pdf* file in the doc folder of the product CD image.

### Additional data server features supported

Due to changes in the product's architecture, many advanced data server features are now supported in U2 Web DE 5.x:

- SSL connections from Web server to data server.
- Automatic Data Encryption
- True 24x7 operation with the ability to pause the data server during backups.
- NLS on UniVerse
- I18N on UniData

For detailed information on setting up these features, see the respective product manuals for UniData or UniVerse.

### InstallShield upgraded to Version 2009

U2 Web Development Environment 5.x is built using InstallShield 2009.

## New features, enhancements, and fixes in U2 Web DE v5.0

The following issues were addressed in this release:

Issue number	Description
WEBDE-12	All U2 Web DE 5.0 Source code has been rebranded to show ownership by Rocket Software.
WEBDE-40	A new wizard allows users to create an RBO from a U2 database file. To get started, in the <b>U2 ReSource</b> view right-click the database file name and choose <b>Create RBO from Selection</b> from the context menu. This opens the wizard, which walks you through the steps of creating the RBO, including: <ul style="list-style-type: none"> <li>▪ Selecting the parent module</li> <li>▪ Selecting the type of RBO: <ul style="list-style-type: none"> <li>_ Stateful file-based RBO</li> <li>_ Stateless file-based RBO, or</li> <li>_ Query RBO</li> </ul> </li> <li>▪ Creating properties for the RBO, or Selecting fields to display in query output</li> </ul>
WEBDE-45	In previous versions, the RBOscope did not display subvalue data in tree format as it did with multivalued data. It displayed unknown character blocks and did not nest the subvalue data. In version 5.0, a subvalue layer has been added to the tree. If multivalued data contains subvalue data, the multivalued data displays "SubValues[n]" where <i>n</i> represents a count of the subvalue data. When the multivalued data level is expanded, each subvalue is shown on its own line.

Issue number	Description
WEBDE-60	As of version 5.0, the RBO perspective is the default perspective in U2 Web Designer. Note that the Web Page perspective is not available in the current version of the product.
WEBDE-61	UniObjects connection pooling properties have been added to the configuration file, which has been renamed rgw5.ini in version 5.0.
WEBDE-75	The grace period for entering license information and authorizing the product has been changed to 10 days. During the grace period, evaluation licenses can be authorized for a period of 60 days.
WEBDE-82	With this enhancement, a new environment variable named U2WDE specifies the primary path for the rgw5.ini file. If the U2WDE environment variable is not set, U2 Web DE searches for rgw5.ini in the path specified by the %SYSTEMROOT % variable.
WEBDE-110	When editing an RBO in U2 Web Designer, selecting a value from the <b>Default Value</b> drop-down combo box produced unexpected results and errors. A fix to the combo box/text box logic corrects this problem in version 5.0.
WEBDE-116	All new features, enhancements, and fixes in the RedBeans API have been copied to the RedPages.NET API.
WEBDE-120	In the RBO Editor of U2 Web Designer, the user can click an icon to disable drop-down lists for better performance. As an enhancement in version 5.0, the state of the disable option is saved on closing U2 Web Designer, and persists in the next session. The next time the user opens U2 Web Designer, drop-down lists in the RBO Editor are enabled or disabled per the option selected in the previous session.
WEBDE-134	The Redpages.dll providing COM-based support for ASP and other COM applications has been deprecated and is now replaced by RedpagesNET.dll. This new RedpagesNET.dll provides full support for .NET-based applications using C# and VB.NET only.
WEBDE-146	A new log parameter named “Times” has been added in the rgw5.ini file to allow logging of method execution times if the value is Times=1.
WEBDE-302	U2 Web Designer code has been upgraded for compatibility with Eclipse 3.5, Java 5.0, and the current versions of all associated plug-ins.
WEBDE-446	U2 Web DE 5.0 pioneers a tool that employs a wizard allowing the user to select the deployable U2 Web DE server components and install the server components on a UniData or UniVerse (U2) data server. On UNIX systems this replaces the former “rbappsrv” script. The tool can also be used to transfer any user-selected file or folder to a folder on the U2 data server.
WEBDE-457	In version 4.4.x, inserting a zero-length string in a RedField and calling the ins() method to insert a value after the zero-length string produced an exception that caused the application to fail. This issue has been resolved in version 5.0.
WEBDE-459	The U2 Web DE installation program has been upgraded to use InstallShield 2009.
WEBDE-948	When creating a new RBO, if you opted not to save it, the RBO Editor returned an error and wrote details to the error log. This occurred because the Editor attempted to update an item that was already disposed of. The code now checks for disposed status and if present, it skips that step, preventing the error.
WEBDE-959	The <b>U2 Connections</b> view in U2 Web Designer has been replaced by the <b>U2 ReSource</b> view, conforming to the new standard used in all Eclipse-based U2 tools.

Issue number	Description
WEBDE-975	In version 4.4.x, attempting to use the Copy and Paste functions of U2 Web Designer to copy an RBO and paste it to a module already containing an RBO by the same name produced the error, "The name already exists. No duplicates allowed." The validation routine has been changed in version 5.0, so in this situation, a dialog box asks if the user wants to overwrite the RBO. If "No," the naming dialog box is redisplayed; if "Yes," the existing RBO by the same name is overwritten.
WEBDE-996	Use of the Apache gateway, rgw.dll, or IP_address:port is no longer valid as the connection URL for an RBO. The only valid entry is the name of the account as found in the rgw5.ini file.
WEBDE-1014	Customers experienced slow response time when expanding the Accounts node in the U2 ReSource view. Multiple fixes resolve this problem in version 5.0, and accounts are now displayed instantly.
WEBDE-1029	In certain cases, if an RBO property was set to an empty string, the wrong property value was updated. This has been corrected.

## Requirements for v5.0

The following lists provide detail about the requirements to support components of U2 Web DE v5.0.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008 (including R2), or Windows 7
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v7.2 or later, or
- UniVerse v10.3 or later

### Web Server for .NET applications (RedPages.NET)

#### Recommended Web server software

- Microsoft Internet Information Services (IIS) v6.x or later  
If you are using IIS v7 or later, you must select the option for IIS v6 compatibility. To do so, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. Drill down in the list of features as follows:
  - Expand the Internet Information Services node.
  - Expand the Web Management Tools node.
  - Expand the IIS 6 Management Compatibility node, and select the **IIS Metabase and IIS 6 configuration compatibility** check box.



**Common language runtime and class libraries**

- Microsoft .NET Framework v2.0 or later

**Web Server for Java applications (RedBeans)****Recommended Web server software**

- Tomcat v6.x or later

**Java Runtime Environment (JRE)**

- JRE v1.5 or later

## Additional notes for v5.x

The following information contains additional notes for setting up U2 Web DE v5.x.

**Entering logon credentials in rgw5.ini**

Due to the architecture change in U2 Web DE v5.x to use UniObjects (UO) connections, an OS-level user ID and password are required to connect client to server.

The `rgw5.ini` configuration file comes by default with a sample connection to the `rbexamples` account using a guest user ID and password. These details in the `rgw5.ini` file must be changed to point to your data server machine, and you must supply a user ID and password with access to your data server machine. The path to the `rbexamples` account may be modified if it does not accurately reflect your server installation.

**Setting up performance monitoring samples**

The RedBeans component of U2 Web DE v5.x provides performance monitoring samples. To get up and running quickly with these samples, complete the steps below.

1. Set up the RedBeans component on your web server machine. The method depends on the operating system on your web server machine:
  - Windows – From the product CD image, run `setup.exe` and install the RedBeans component on your web server machine.
  - UNIX – Navigate to the RedBeans directory on the product CD image and transfer all contents from this directory to your web server machine.
2. Copy `redbeans.jar` to the application server library directory or to your client application directory. For example, when using Tomcat, `redbeans.jar` should be placed in `C:\%TOMCAT_HOME%\lib`.
3. Copy `asjava.jar` to the same location as `redbeans.jar`.
4. On UNIX platforms only, copy the `rgw5.ini` file to `/etc` or set an environment variable called `$U2WDE` to the path of your choice, and then copy the `rgw5.ini` file to that location.
5. The monitor folder on the product CD image contains JSP Web pages and Java programs that provide example usage of the new performance monitoring API. Copy the JSP and/or Java classes to your Tomcat or equivalent application server to preview. This is the full listing of the available performance monitoring methods:
  - a. Get an account object:  
`Account acct = Connection.getAccount("rbexamples");`
  - b. Get the number of connections that have been made to the account:  
`long connections = acct.getConnections();`  
a connection is a uo/session connection to the account.
  - c. Get the number of method calls that have been made to the account:

- long calls = acct.getMethodCalls();  
a method call is an rbo method such as ReadData on a stateful rbo.
- d. Get the number of session requests made for the account/connection pool:  
long requests = acct.getSessionRequests();  
a session request is a request for a uoj connection pool session.
- e. Get the number of failed session requests made for the account/connection pool:  
long failedRequests = acct.getFailedSessionRequests();
- f. Get the number of active session requests or busy sessions on the account/connection pool:  
int BusySessions = acct.getActiveSessions();
- g. Get the total time in milliseconds for all method calls made against the account/connection pool:  
long totalTime = acct.getMethodTime();  
The average method call time would be totalTime / calls.

### Migrating old RBOs to v5.x

RBOs created in earlier versions of U2 Web DE can be reused in v5.x. With a v5.x account and module created (such as EXMOD in rbexamples), locate the equivalent module at the OS-level in your old account. Locate the file `xxCLASSES` (where `xx` is the module ID, as in `EXMODCLASSES`) and copy it to the v5.x account.

New connections made to the v5.x account in U2 Web Designer should now show the RBOs from the old in account in the appropriate module under the U2 Web DE Elements node.

# U2 Web DE v4

The release notes in this section provide information about changes in U2 Web DE v4.

## U2 Web DE v4.4.3

Build 3020

Release Date: November 2010

These release notes provide information about new features, enhancements, and fixes in U2 Web DE v4.4.3.

### What's new in U2 Web DE v4.4.3

#### **Major performance issue in v4.4.1 and 4.4.2 fixed (UniVerse only)**

UniVerse users running U2 Web DE 4.4.1 and 4.4.2 discovered a major performance problem related to debug code added in version 4.4.1. This problem has been resolved for 4.4.3 and users can expect up to 50 percent less overhead in overall performance on the RedBack object server.

#### **Memory leak in RedBack Object Server is resolved**

A memory leak in RedBack object server v4.4.1 and 4.4.2 causing the server to fail after approximately 13 days was reported by multiple customers. A workaround was issued for 4.4.1 and 4.4.2 and a fix has been applied to 4.4.3.

#### **U2 Web DE rebranded from IBM to Rocket Software**

U2 Web DE 4.4.3 splash screens, copyrights, license files, and cover pages have been rebranded to show ownership by Rocket Software.

#### **Fixes and enhancements to U2 Web Designer**

Fixes and enhancements have been added to the U2 Web Designer allowing for easier RBO design and testing. For details of the fixes, please see issue numbers 11123 and 10869 under "Fixes and enhancements" below.

#### **InstallShield upgraded to Version 2009**

U2 Web Development Environment is now built using InstallShield 2009.

### New features, enhancements, and fixes in U2 Web DE v4.4.3

The following eCase issues were addressed in this release:

Issue number	Description
10869	The "field" window in the RBO editor previously displayed only five rows, making it unusable with dictionaries containing hundreds of fields. An enhancement has been added to allow an automatic resize of the "field" window to consume the entire vertical space available on the screen.

Issue number	Description
11123	<p>Several fixes to the U2 Web Designer are included in this release:</p> <ul style="list-style-type: none"> <li>▪ Parsing rgwresp.ini files resulted in an error if the files contained a comment consisting of a single ';' or '#' character. The configuration editor now parses the rgwresp.ini correctly and maintains comments.</li> <li>▪ All combo box displays have been modified to allow automatic resizing to accommodate the entire width of the widest entry.</li> <li>▪ Sorting of RBO items in the RBOScope quick changer is now alphabetical by RBO name instead of hierarchical.</li> <li>▪ Editing a uQuery RBO now allows field ordering via drag-and-drop in “disp_fields” and “sort_fields”.</li> </ul>
12798	A memory leak in RedBack object server 4.4.1 and 4.4.2 causing the server to fail after approximately 13 days was reported by multiple customers. A workaround was issued for 4.4.1 and 4.4.2 and a fix has been applied to 4.4.3.
12927	UniVerse users running U2 Web DE 4.4.1 and 4.4.2 discovered a major performance problem related to debug code added in version 4.4.1. The offending code has been removed for 4.4.3 and users can expect up to 50 percent less server overhead in overall performance on the RedBack object server.
41638	U2 Web DE 4.4.3 Source code and customer-facing messages have been rebranded from IBM to Rocket Software.
41674	Previous U2 Web DE versions warned the user when installing on an “uncertified” version of Windows. This warning has been removed at version 4.4.3, and users may install without warning on all Windows versions.
41716	The “Edit Gateway Configuration” dialog box was enhanced to accommodate the width of the “Server Version” column. Also, the previous U2 Web DE version “4.4.2” was added to the <b>Server Version</b> combo box to allow users to connect 4.4.3 clients to 4.4.2 servers, if necessary.

## Requirements for v4.4.3

The following lists provide detail about the requirements to support components of U2 Web DE v4.4.3.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, Windows Server 2008 (including R2), or Windows 7
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v6.1 or later, or
- UniVerse v10.1.18 or later on Windows, or  
UniVerse v10.1.15 or later on UNIX

**Tools**

- SB+ v5.4.1 or later, or SB/XA v6.0.0 or later (required only if you want to use U2 Web Designer to auto-convert SB+ screens)

**Web Server (Windows)****Operating system**

- Windows XP Professional, Windows Server 2003, Windows Vista, Windows Server 2008 (including R2), or Windows 7

**Web server software**

- Microsoft Internet Information Services (IIS) v5.1 or later (through v6.x), including ASP Extensions, on Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, or Windows Server 2003,  
or  
Microsoft IIS 7.0 or later, including ASP Extensions, on Windows Vista, Windows 2008, or Windows 7

**Data access components**

- Microsoft Data Access Components (MDAC) v2.7 or later

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**Note:** It is recommend to install MDAC after ASP Extensions because the ASP setup routine can incorrectly modify settings for MDAC in the Registry.

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**Common language runtime and class libraries**

- Microsoft .NET Framework v2.0 or later

**Applications using RedBeans****Java Runtime Environment (JRE)**

- JRE v1.4.2 or later

## Special instructions for v4.4.3

The following information contains special instructions for users of certain operating systems for U2 Web DE v4.4.3.

**Microsoft Windows Vista**

After installing Microsoft IIS v7, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. In the **User Account Control** dialog box, click **Continue**. In the IIS tree view, expand the IIS v6 Management Compatibility node and select the **IIS Metabase and IIS 6 configuration compatibility** option.

To start U2 Web Designer properly in Windows Vista, you must right-click the U2 Web Designer icon and select the **Run as Administrator** option.

**UNIX**

A known issue for this release exists in the UNIX version of the RedBack Scheduler. Depending on the number of responders started, a “Scheduler not running” error may occur upon performing `restartrgw`.

In the `rgw.log`, the error (`ErrorCode=67 Address already in use`) appears.

Two workarounds are available for this issue. The first is to discontinue use of the `restartrgw` command and instead use `stoprgw` followed by `startrgw` and `showrgw` to produce the same desired result. A second workaround is to edit the `restartrgw` script to build in a delay between `stoprgw` and `startrgw` as follows:

The last four lines of the default `restartrgw` script appear as:

```
$RGWHOME/bin/stoprgw
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

To add a delay, simply add the `sleep` in line 2 of this example:

```
$RGWHOME/bin/stoprgw
sleep 10
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

## U2 Web DE v4.4.2

Build 1550

Release Date: June 2009

These release notes provide information about new features, enhancements, and fixes in U2 Web DE v4.4.2.

### What's new in U2 Web DE v4.4.2

#### Support for SB/XA v6.0.1

U2 Web DE 4.4.2 enables support for IBM U2 SystemBuilder Extensible Architecture (SB/XA) versions 6.0.1 or later, yet to be released. If you upgrade to SB/XA 6.0.1 or later, you must upgrade to U2 Web DE 4.4.2 or later for compatibility in converting SB processes to Web pages.

#### Running WW.INITIATE after an upgrade

When you upgrade to a later version of SB+ Server or SB/XA, or when you upgrade to a later version of U2 Web DE, you must rerun WW.INITIATE in each SB/U2 Web DE-enabled U2 account to refresh pointers and to ensure that the correct system programs are set up for the account.

#### Changes to version control between components

The current version of the product removes a restriction that required you to run matching server components for RedPages. In U2 Web DE 4.4.2, RedBack Gateway and RedBack object server versions do not have to match; the only restriction is that each component must be version 4.2.6 or later.

RedBack object server 4.4.2 allows connections from RedBack Gateway 4.2.6 or later, and RedBack Gateway 4.4.2 can be used with RedBack object server 4.2.6 or later. Older versions of RedBack object server still employ version control to check for a matching version of RedBack Gateway, so we added the ability to provide the version number RedBack object server is expecting. This is explained in further detail below.

It is not possible to run more than one version of RedBack Gateway in a single implementation of U2 Web DE. In one scenario, you might upgrade the Web server to RedBack Gateway 4.4.2, but you want to continue running an earlier version of RedBack object server on certain accounts. RedBack Gateway 4.4.2 is backward compatible to the functionality of RedBack Gateway 4.2.6 through 4.4.1, so technically there is no problem with running RedBack Gateway 4.4.2 with RedBack object server 4.2.6 through 4.4.1.

To solve the issue of older versions of RedBack object server checking for a matching Gateway, the rgw.ini file supports a new compatibility parameter that tells RedBack object server you are running a matching version of RedBack Gateway, even though you are actually running a mismatched version that is compatible. This parameter allows you to run a different version of RedBack object server on each of several accounts.

You can specify this parameter for each account by either of two methods:

- Manually editing the rgw.ini file, or
- Using the Edit Gateway Configuration tool in U2 Web Designer (the recommended method)

#### *Manually editing rgw.ini*

The entries in the example rgw.ini file below illustrate how the compatibility parameter works. The parameter is entered as a three-part version number (such as “4.3.0”) at the end of the line for each account, after the host name and port, using the format shown in the example below. The compatibility parameter is empty by default. If you do not enter a version, U2 Web DE assumes that the account uses the current version of RedBack object server and a matching version of RedBack Gateway. In this example, we have three accounts: rbexamples, rbodemo, and rboxapp. The rbexamples account runs on RedBack object server version 4.2.6, while the rbodemo account uses version 4.4.1, and rboxapp uses version 4.4.2. In this scenario, the rgw.ini should contain the following parameters: rbexamples localhost:8401:4.2.6 rbodemo eagle:8402:4.4.1 rboxapp falcon:8403 Note that rgw.ini is a text file, and it does not perform validation checking to verify that you entered a version number from 4.2.6 to 4.4.2 for the compatibility parameter. If you enter an invalid version number, you can save the rgw.ini file without triggering an error. However, if you attempt to run the account with an invalid version as the compatibility parameter, U2 Web DE issues the following error: “RedBack object server n.n.n is not a valid version for RedPages n.n.n”.

#### *Using the Edit Gateway Configuration tool in U2 Web Designer*

Rather than edit the rgw.ini file manually, we recommend using the Gateway Configuration Editor tool. To access the tool in U2 Web Designer, select **Tools > Edit Gateway Configuration**. This opens a tool for editing account definitions in the rgw.ini file in a table format. On the row for each account, you can select the Server Version, or the version of RedBack object server to which the account connects. This is necessary only if the version of RedBack object server is earlier than the version of RedBack Gateway.

## New features, enhancements, and fixes in U2 Web DE v4.4.2

The following eCase issues were addressed in this release:

Issue number	Description
11002	If the access value of an RBO was set to R (Read only), RedBack object server could not update properties of the RBO from a Basic method call in version 4.4.1. This behavior was different than in previous versions. The code in U2 Web DE 4.4.2 has been revised so the access value works as it did in versions 4.4 and earlier: The RBO's access value (C R W) applies to the client side only; it is not enforced by RedBack object server. RedBack object server updates the RBO's properties from a Basic method call regardless of the access value.
11458	In versions 4.4.1 and earlier, if a method in an RBO called the RBO.setProperty() method and passed a variable that had not been initialized, the resulting warning message stated only that an uninitialized variable was used. It did not provide detail for use in troubleshooting. A check has been added in version 4.4.2 to determine if the passed-in variable is uninitialized. If so, the program prints a warning message that identifies the variable name, the RBO name, and the method name. This message is captured in the Responder logs.
11598	U2 Web DE 4.4.2 has been enabled for use with IBM U2 SystemBuilder Extensible Architecture for UniData and Universe (SB/XA) 6.0.1 or later.

Issue number	Description
11610	Removed version control between RedBack Gateway and RedBack object server, so the version of these components does not have to match for RedPages. U2 Web DE 4.4.2 checks only that it is running on RedBack Gateway 4.2.6 or later and on RedBack object server 4.2.6 or later. For more detailed information, see “Changes to Version Control between Components” under “What's New in U2 Web Development Environment 4.4.2” in these release notes.
38094	In the License tab of the Server Editor tool, the spinner in the <b>Number of Webshares</b> box allowed you to select a maximum of 100 webshares. If you typed a number greater than 100, the last digit was truncated. For example, 256 was truncated to 25. The code has been changed in version 4.4.2 so you can select or enter a maximum of 10,000 webshares.
38098	If you authorized your installation of U2 Web DE version 4.4 or 4.4.1 for 256 webshares, the license check failed, which caused the Scheduler to fail as well. Numbers greater than or less than 256 did not cause similar problems. A fix has been implemented in version 4.4.2 to address this issue.
38455	After changing garbage collection settings from the defaults through the new Server Editor tool in version 4.4.1, the tool calculated the timestamp for purging records as a future time. This prevented the garbage collection process from purging records. A fix in version 4.4.2 corrects this problem.
38742	In certain cases, when you created a server administration connection with the Save password check box selected, the connection worked on first use, but produced an “Array index out of bounds” error after U2 Web DE was restarted. The password encryption routine has been changed in version 4.4.2 to prevent the condition that caused this error.
38745	In versions 4.4 and 4.4.1, the rgw.ini editor tool ( <b>Tools &gt; Edit Gateway Configuration</b> ) allowed you to enter the account name, server name/host, and port with no validation. For example, the server name was not subject to validation, so you could embed spaces in the name without triggering an error. This meant you could create an rgw.ini file that the editor could not parse or open for editing. Version 4.4.2 implements validation routines in the rgw.ini editing tool to prevent this problem.
38746	If the first character in a string of multivalued data was a value mark (so the first value was empty) and the property type of the data element was not set to mvString, mvRef, or mvField in U2 Web Designer, RBOScope did not recognize the string as multivalued data and did not display a + button for expanding the multivalue tree. In version 4.4.2, the code has been changed so that when RBOScope encounters a value mark as the first character in a string whose property type is not set to one of the three multivalue types, it displays a + button for expanding the tree.
40065	<p>When running multithreaded Java programs through libjrgw.so on Linux and Solaris in version 4.4.1, users sometimes encountered Java stack traces after several minutes. The stack traces showed a segmentation fault similar to the following:</p> <p>SIGSEGV 11 segmentation violation</p> <p>This occurred in both 64-bit and 32-bit versions of libjrgw.so, and with greater frequency on multiprocessor machines. A fix has been implemented in version 4.4.2 to prevent this problem.</p>



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## Requirements for v4.4.2

The following lists provide detail about the requirements to support components of U2 Web DE v4.4.2.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, Windows Server 2003, or Windows Server 2008
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v6.1 or later, or
- UniVerse v10.1.18 or later on Windows, or  
UniVerse v10.1.15 or later on UNIX

#### Tools

- SB+ v5.4.1 or later, or SB/XA v6.0.0 or later (required only if you want to use U2 Web Designer to auto-convert SB+ screens)

### Web Server (Windows)

#### Operating system

- Windows XP Professional, Windows Server 2003, or Windows Vista

#### Web server software

- Microsoft Internet Information Services (IIS) v5.1 or later (through v6.x), including ASP Extensions, on Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, or Windows Server 2003,  
or  
Microsoft IIS v7.0 or later, including ASP Extensions, on Windows Vista

#### Data access components

- Microsoft Data Access Components (MDAC) v2.7 or later

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**Note:** It is recommend to install MDAC after ASP Extensions because the ASP setup routine can incorrectly modify settings for MDAC in the Registry.

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#### Common language runtime and class libraries

- Microsoft .NET Framework v2.0 or later

### Applications using RedBeans

#### Java Runtime Environment (JRE)

- JRE v1.4.2 or later

## Additional components

### RedBack Gateway library

In v4.4, the RBO tool of U2 Web Designer was removed as a separate component and its functionality was ported to the Eclipse-based U2 Web Designer. With this change, the RBO tool of U2 Web Designer no longer uses `rgw.dll`, `rgw.exe`, or `drgw.exe` to connect to the database server, and these elements were removed from the product installation in v4.4.1. If you still need the ISAPI file `rgw.dll` for any reason, you can find it in the following path on the product CD image

```
\gateway\win\rgw.dll
```

To continue using this ISAPI gateway, copy this file to `C:\Inetpub\Scripts` on the machine running IIS.

## Special instructions for v4.4.2

The following information contains special instructions for users of certain operating systems for U2 Web DE v4.4.2.

### Microsoft Windows Vista

After installing Microsoft IIS v7, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. In the **User Account Control** dialog box, click **Continue**. In the IIS tree view, expand the IIS v6 Management Compatibility node and select the **IIS Metabase and IIS 6 configuration compatibility** option.

To start U2 Web Designer properly in Windows Vista, you must right-click the U2 Web Designer icon and select the **Run as Administrator** option.

### UNIX

A known issue for this release exists in the UNIX version of the RedBack Scheduler. Depending on the number of responders started, a “Scheduler not running” error may occur upon performing `restartrgw`.

In the `rgw.log`, the error (`ErrorCode=67 Address already in use`) appears.

Two workarounds are available for this issue. The first is to discontinue use of the `restartrgw` command and instead use `stoprgw` followed by `startrgw` and `showrgw` to produce the same desired result. A second workaround is to edit the `restartrgw` script to build in a delay between `stoprgw` and `startrgw` as follows:

The last four lines of the default `restartrgw` script appear as:

```
$RGWHOME/bin/stoprgw
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

To add a delay, simply add the `sleep` in line 2 of this example:

```
$RGWHOME/bin/stoprgw
sleep 10
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

# U2 Web DE v4.4.1

Build 1537

Release Date: May 2008

These release notes provide information about new features, enhancements, and fixes in U2 Web DE v4.4.1.

## What's new in U2 Web DE v4.4.1

### Server administration tool in U2 Web Designer

U2 Web DE 4.4.1 introduces a new interface for administering RedBack object server within U2 Web Designer. This new view gives you access to all the administration, licensing, and status functions in a convenient and intuitive interface that is integrated into U2 Web Designer. If necessary, you can still access the old RBADMIN functions from the command shell. To get started with the new interface, see “Administering RedBack Object Server with U2 Web Designer” on the U2 Web DE installation menu.  
5253\*USA, 35478\*USA

### New features, enhancements, and fixes in U2 Web DE v4.4.1

The following eCase issues were addressed in this release:

Issue number	Description
2619	On UNIX platforms, the showrgw script used the Korn shell (ksh) in previous releases; all other U2 Web DE scripts use the Bourne shell (sh). In version 4.4.1, showrgw has been changed to use the Bourne shell like all other scripts.
5307, 37394	In previous versions, if you used the RedBack JNI Gateway with JSP code that performed a remote procedure call, it resulted in an error. Version 4.4.1 adds support for RPC functionality to JNI Gateway in RedBeans, so remote procedure calls are now handled successfully.
5982	In versions before 4.4, the installation program returned an error if the program group name contained a backslash character (\). In versions 4.4 and later, the installation program recognizes the backslash as a valid character in the program group name, and this no longer produces an error.
6048	The rgwresp.ini file should contain only one section of each type. For example, rgwresp.ini should contain only one [Accounts] section. If rgwlint encounters an additional [Accounts] section after the first one, it ignores the additional [Accounts] section. To prevent undesired results, please format the rgwresp.ini file with this rule in mind.
6177	A tech tip has been updated to explain that multiple RedBack Java accounts do not work together. For example, RedBack JavaServer Pages (JSP) and threads do not work together with Java Native Interface (JNI).
6259, 34476	In version 4.4, a problem with redpages.dll caused certain special characters to truncate. This issue has been resolved so all characters are passed from Gateway to the data server and back again without truncation.
6318	A customer attempted to write a wrapper routine to automatically enter the APP.ID in response to a prompt, but found that the WW.INITIATE routine did not accept input from the data stack. WW.INITIATE has been modified in version 4.4.1 to check the data stack and save any data the customer has placed in the stack. It then substitutes this data at the prompt.

Issue number	Description
6511	In previous versions, the account upgrade process WW.RB.UPGRADE created extraneous IDE files in U2 Web DE-enabled U2 accounts. Changes to WW.RB.UPGRADE correct this problem, so only those files that can be created by ENABLE.RBO are added if they are missing, and all old IDE files are removed.
6680	If you installed the product to a different path than the one you used for a previous installation of the product on the same machine (for example, if you upgraded from an older version or reinstalled the same version to a different path), there was no efficient means to update the path in VOC entries for your existing accounts. The RECATALOG command has been modified in version 4.4.1 to enable this functionality. If you fix the pointer to WWPROGS in the account to be updated and then enter the command RUN WWPROG RECATALOG <i>new_path_to_rbdefn</i> , all of the account's file pointers and catalog pointers are changed.
6758	Corrected a syntax error in the Basic code in the rbexamples program RESETDEMO in EXMODLIB, so the demo account is now reset properly.
7396	The RedBack object server core dumped when the client was a SOAP request and the trace, verb, big, or huge flag was turned on in rgwresp.ini. This issue has been fixed in versions 4.2 and later.
7836	On UNIX systems, the jrgw.log file was always created in the /tmp directory in versions 4.4 and earlier; there was no means to specify a different location. In version 4.4.1, if you set the environment variable U2JRGWLOGPATH to a directory, the jrgw.log file is placed there. If you do not set this environment variable, the log is created in the /tmp directory as the default location.
7853	Creating a stateless RBO inside a UniBasic or UniVerse BASIC program is disallowed, but when users attempted to do so, the RBO.CreateObject process did not return an error message. An error message is displayed in this situation in version 4.4.1.
7913	WW.INITIATE displayed conflicting messages in the following situation: When running WW.INITIATE in an SB+ application, if you specified the RedBack application ID as the SB+ system ID, the status message indicated that the RedBack application ID already exists as an SB+ system ID, but that WW.INITIATE completed successfully. A fix to resolve a separate issue with WW.INITIATE in a previous release also corrected the message text.
8422	In previous versions of the product on UNIX platforms, the redback.conf file was missing the environment variable RPVERSION. As a result, RedBack Gateway returned an error, "Invalid version of RedPages or JNI for 4.x.x Object Server." The RPVERSION variable has been added to redback.conf for UNIX platforms in version 4.4.1, preventing the error.
8438	RedBack object server is certified to run on Windows 64-bit operating systems in U2 Web DE version 4.4.1.
8452	Two log lines containing the process ID (pid) that were formerly displayed only in VERBOSE mode have been added to the default display of rgw.log to help with troubleshooting issues on systems running UniVerse on Windows.
9872	In version 4.4, U2 Web Designer was limiting its search for the rgw.ini configuration file to several specific locations. The designer now searches for the rgw.ini configuration file in the location established by the Windows "%SystemRoot%" environment variable.
32067	In earlier versions, the RBADMIN item in the WWUSERS file was corrupted and had to be edited manually. The problem has been fixed in versions 4.3 and later.

Issue number	Description
32231	If the LD_LIBRARY_PATH was not set to libjrgw.so, Java code external to U2 Web DE returned an unclear error message, "Could not load RgwJni class or find jrgw.dll". The message has been revised to provide more help: "Could not load RgwJni class or find jrgw library. Check RedBack Gateway status."
32232, 34022	The behavior of the RBO Editor has been changed to disallow setting a default value for a property when its access permissions do not include Create (C). The fix also corrects a problem with access values not being enforced correctly in some cases when setting or getting the value of an RBO property.
33078	In compliance with IBM software standards, the U2 Web DE 4.4.1 installation program implements the License Acceptance Process (LAP).
33994	On UniVerse systems, file pointers in some rbexamples files were created with specific path names to rbdefn at installation. If you later moved the installation to another path, the file pointers were invalid. To correct the problem, users had to delete the files from the VOC and re-create them through RUN WWPROGS ENABLE.RBO. All rbexamples files are now created with the path name referencing rbdefn (for example, "../rbdefn/WWTEXT"), preventing this problem.
34393	In the Web Page perspective of U2 Web Designer, when users selected a widget in the palette and released the mouse button, then clicked in the canvas and dragged the widget to a desired size, the widget snapped to a default size on release of the mouse button. This has been changed so the widget is created at the size the user intended.
34401	<p>The steps for binding a client-side JavaScript event handler to a button event will be added to the tutorial, <i>Developing Web Pages with U2 Web Designer</i>, at the next major release. In the meantime, please use the instructions below:</p> <ol style="list-style-type: none"> <li>1. In the Web Page perspective of U2 Web Designer, open an existing Web page project or create a new Web page project. These steps assume you are in the process of developing a new or existing Web page on the canvas.</li> <li>2. Drag a button control from the Palette onto the canvas.</li> <li>3. Write a JavaScript event handler to perform a client-side button event and save the event handler in a .js file.</li> <li>4. Drag the .js file to the canvas. The .js file is now listed in the Outline view.</li> <li>5. Click the button control on the canvas. The button's properties populate in the Properties view.</li> <li>6. In the Properties view, select a client-side button event. (Note that OnClick is a server-side event. OnClickClient is the client-side event.) In the Value column, type the name of the event handler you want to bind to the button event, followed by () as shown in this example: SayHello()</li> <li>7. Test the Web page to make sure the button performs the expected function.</li> </ol> <p>The methodology for binding JavaScript event handlers to button events differs from that for binding RBO methods or SB paragraphs to Web controls. When working with RBOs, binding a method to a control event is easy and intuitive: Drag the method from the RBO in the Outline view to the control on the canvas. The <b>Bind to Web Control Event</b> dialog box pops up, providing a list of all events defined for this control. Select the event to which you want to link the method. U2 Web Designer automatically binds the method to the selected event. In a similar manner, you can bind an SB paragraph process to a control event by dragging the process from the <b>U2 Connections</b> pane to the control on the canvas.</p>

Issue number	Description
34412	The Reset Button item was available on the palette in the Web Page perspective of U2 Web Designer, but the button performed no function on forms. In version 4.4.1, the OnClientClick event for the Reset Button has been set to clear any changes the user has made to the form since the last postback or load.
34415	In version 4.3 and later, the installation program did not allow you to specify the Start Menu name and group for U2 Web Designer if you installed this component alone. This issue has been corrected in version 4.4.1.
34562	When deleting a project in the Web Pages perspective of U2 Web Designer, if you leave any of the project's Web pages open on the canvas in design mode, the pages remain open. In previous versions, if you attempted to save an open page, U2 Web Designer displayed an error message, "The reSource cannot be saved while there are errors: ReSource xxxx does not exist." Further, the Save As option did not open a <b>Save As</b> dialog box. An enhancement in version 4.4.1 adds Save As functionality, so you can now save the open Web pages of a deleted project, specifying a new file name for the page. If you use the Save option instead, the same error message as in previous versions is displayed.
34611	U2 Web Designer did not catch optimistic locking errors or present the Web page developer with options for handling the event. This has been fixed.
34693	In previous versions, when Web pages created in U2 Web Designer contained lookups that were linked to fields in other columns, the generated .aspx page did not return the value from the target field. This issue has been resolved.
34737	By design, the Scheduler cannot start successfully without active accounts. If you want to start the Scheduler at the end of the installation process, you must install the rbexamples application, which creates a set of active accounts and populates the [Accounts] section of rgwresp.ini. An enhancement to the installation program in versions 4.4 and later prevents users from starting the Scheduler during installation if the rbexamples application (UniData Examples or UniVerse Examples component) has not been installed.
34891, 36222	When dragging an SB paragraph process from the U2 Connections pane onto a text box, combo box, check box, or radio button on the canvas, U2 Web Designer should have prompted you to bind the paragraph process to a Process After/ Process Before, rather than attach it to a Web page event. The Designer now presents a pop-up offering you the choice of binding to Process After or Process Before. Process After is the default.
35043	The value of SHLIB_PATH was not set properly for HP systems, preventing SB conversions. Version 4.4.1 corrects this problem by adding code to set the SHLIB_PATH for HP systems to \$UDTBIN, UVHOME/bin, or any other path needed in the [Default.Environment] section of rgwresp.ini. Non-HP systems are unaffected by this new code.
35197	<p>When users ran the InstallShield program to modify an existing installation of U2 Web DE, the program was unable to display calculations of the amount of space required or the percentage of space available on the drive. The following text appeared at the bottom of the component dialog box:</p> <p>"0.00 MB of space required on the drive %s of space available on %s drive"</p> <p>A fix has been implemented in version 4.4.1 to display the correct MB and percentages of space in this message.</p>

Issue number	Description
35316	The RBO and logical file data displayed in the U2 Connections pane in the RBO perspective was not synchronized to stay current with changes made in the U2 Web Designer interface. The U2 Connections pane was not refreshed until you explicitly closed and reopened it. In version 4.4.1, new routines for all updatable objects refresh the U2 Connection pane with the current RBO and logical file data for the module.
35336	The date and time stamp are now included by default in the redpages.log file name. When a restart of Microsoft Internet Information Server (IIS) is required, the timestamped redpages.log file remains available for troubleshooting. If you restart IIS frequently, the resulting log files accumulate quickly in the / temp area. You need to monitor your log usage and delete old logs as often as necessary to avoid running out of disk space.
35401	Version 4.4.1 improves the logic for creating the xxWBDRIVERS file when SB processes are converted to Web pages. U2 Web Designer now checks to see if the xxWBDRIVERS file and dictionary entry exist but the VOC entry is missing. In this condition, U2 Web Designer creates a VOC entry for the existing file/dictionary entry set.
35506	When applying Microsoft patches on Windows platforms that were running Microsoft Data Access Components (MDAC) version 2.7 or later, the MDAC version number incorrectly reverted to 2.0. The U2 Web DE installation program requires MDAC version 2.7 or later, so the incorrect version number resulted in an error. A fix in version 4.4.1 corrects this problem.
35731	Naming conventions used on U2 Web Designer menus and palette have been changed from U2WDE to U2 Web Designer, and from System Builder to SB+.
35815	Due to the program logic in version 4.4, the <b>Tools &gt; Edit Server File</b> menu option was disabled in certain contexts in which it should have been available. To address this issue, a drop-down selection list has been added at the top of the Edit File On Server dialog box in which you select the connection to use. On the first time you select this connection through this tool in the current session, you must enter a password. If you subsequently select the same connection in this session, you are not prompted to enter a password. After the connection opens successfully, the File name and Item name selection lists are populated. With this new logic, the <b>Tools &gt; Edit Server File</b> option is enabled regardless of context.
35820	If the connection timed out when you were working in U2 Web Designer, you could not continue your work until you closed the connection and reopened it. New logic has been added to all calls from the client to the RedBack object server to refresh the connection automatically if needed.
35822	An improvement to the garbage collection utility now enables the phantom process to recover automatically after it fails.



Issue number	Description
35832	In version 4.4, when you chose <b>New &gt; RedBack Object</b> to create a new RBO, you entered the name of the RBO in the Name text box of the RBO Editor. When you saved changes, U2 Web Designer created a new RBO by the name you specified in the text box. You could also edit an existing RBO and enter a different name for the RBO in the Name text box of the RBO Editor. When you saved changes, U2 Web DE created a new RBO by the name you specified in the text box and retained the existing RBO with the old name. However, the RBO with the old name did not appear in the U2 Connections pane until you refreshed or reopened the connection. The Name text box has been removed from the RBO Editor in version 4.4.1, changing the steps required to create a new RBO or rename an existing RBO. This change better aligns the RBO Editor with most other editors. When you choose <b>New &gt; RedBack Object</b> to create an RBO and save your changes, the Save As dialog box appears and you enter the name of the new RBO there. When you edit an RBO and save your changes, the <b>Save As</b> dialog box appears. If you enter a new name for the RBO, both the RBO with the new name and the RBO with the old name appear immediately in the U2 Connections pane without a refresh. You can delete the RBO with the old name if it is no longer needed.
35884	In previous versions, U2 Web Designer always created new projects in the default location, even if the <b>Use Default Location</b> check box was cleared. Code has been added in version 4.4.1 allowing new projects to be created in any location.
35895	In some circumstances, when converting an SB process to a Web page containing a drop-down list box driven by a code table, no properties were found in the RBO that wrapped the code table. A fix to another issue in version 4.4 has corrected the problem.
35957	In the Web Page perspective of U2 Web Designer, when users dragged a server-side script from the Navigator pane to the canvas, the script could not be executed because the generated script tag was incompatible to server-side scripts. To correct this problem, the generated script tag has been modified. In addition, the runAtServer attribute is now set to False for any script with a .js extension that is dragged to the canvas. This fix has been implemented in versions 4.4 and later.
35958	When editing a Web page in U2 Web Designer, if you deleted a script from the Outline view, the Save button was not activated, preventing the ability to save the Web page with the deletion. Deletions now properly register as a change to the Web page, enabling the Save function as well as Undo/Redo functions.
36064	U2 Web Designer attempts to add an ID field to the backing uQuery object of SB select processes that do not have an ID column defined. In version 4.4, it was possible that the generated ID column would have the wrong dictionary name, resulting in a runtime error. This problem has been corrected in version 4.4.1.
36097	Multivalue fields in grids are now included in U2 Web Designer's validation processing.
36098	In version 4.4, SB code tables that were defined in a file other than xxDEFN did not convert. This has been fixed.
36099	Web pages with multivalue associations displayed in a grid would throw an exception if the associated columns had different numbers of values. U2 Web Designer now pads out all columns so that they are the same length for display in the grid.



Issue number	Description
36188	If you attempted to convert an SB process and the connection had timed out, an empty popup appeared with no error message text. With the fix for issue 35820, connections are auto-refreshed, so this problem no longer occurs. However, the problem that caused the empty error message popup was also fixed so errors resulting for other reasons will be reported correctly.
36193	Clicking on a checkbox, sbcheckbox, or radio button control on the canvas in the Web Page perspective of U2 Web Designer did not update the Properties view. The behavior has been corrected so these controls now work the same as all others, opening the Properties view when clicked.
36196	When converting an SB process to a Web page in the Web Page perspective of U2 Web Designer, if a table definition that was not in XXDEFN contained a file name with a '.' character, the RBO was generated with a '.' This is an invalid character in an RBO name or in a C# class. A fix was implemented to convert the '.' character to an underscore, '_'.
36200	When users browsed through a Web application, hits to session records did not always refresh their date and time stamps. Consequently, the garbage collection process deleted the stale records and the Web browser displayed older, cached data. To address this issue, code was added in version 4.4.1 to refresh the RECORDSET state item's date and time stamps during execute calls to WW.RECORDSET.
36201	In version 4.4, after converting an SB process to a Web page, data in an input field appeared as it was entered, but if you saved the record and read the record again, the data in the input field was gone. This has been fixed.
36240	When converting an SB process to a Web page, dates in multivalue grids were not converted in version 4.4.1. This issue has been corrected in version 4.4.1.
36243	During installation of U2 Web DE for UniVerse, updates to the installed accounts (rbdefn, rbexamples, and rbdemo) failed. The update process failed when it attempted to create the &TEMP& file for the account and encountered existing &TEMP& and &D_EMP& files at the operating system level. At each login to any of these accounts, the user was prompted to update the VOC for the account until the update was completed successfully. This issue has been resolved so the accounts no longer need to be updated manually.
36244	After installing U2 Web DE for UniVerse version 4.4, a "?" prompt was displayed when users attempted to log on to the rbdefn, rbexamples, or rbdemo account. This condition required the user to enter the full path to the rbdefn account and log on to the account again. This issue has been fixed so the "?" prompt is no longer displayed and the path to rbdefn does not need to be entered in this situation.
36246	In version 4.4, when a Process After call completed via AJAX, any carriage-return/line-feed characters in an HTML text area would get converted into value-mark characters upon the completion of the AJAX call. This has been corrected in version 4.4.1.
36387, 36388	In version 4.4, the RBO tool of U2 Web Designer was removed as a separate component and its functionality was ported to the Eclipse-based U2 Web Designer. With this change, the RBO tool of U2 Web Designer no longer uses rgw.dll, rgw.exe, or drgw.exe to connect to the database server, and these elements have been removed from version 4.4.1.
36429	In some cases, opening a U2 connection through U2 Web Designer failed, and although the connection still appeared closed, no error message was displayed. In version 4.4.1, U2 Web DE detects that the connection failed in this condition and displays an error message to alert the user.

## Requirements for v4.4.1

The following lists provide detail about the requirements to support components of U2 Web DE v4.4.1.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Windows XP Professional, or Windows Server 2003 32-bit or 64-bit
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v6.1 or later, or
- UniVerse v10.1.18 or later on Windows, or  
UniVerse v10.1.15 or later on UNIX

#### Tools

- SB+ v5.4.1 or v5.4.2 (required only if you want to use U2 Web Designer to auto-convert SB+ screens)

### Web Server (Windows)

#### Operating system

- Windows XP Professional, Windows Server 2003 32-bit or 64-bit, or Windows Vista

#### Web server software

- Microsoft Internet Information Services (IIS) v5.1 or later (through v6.x), including ASP Extensions, on Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, or Windows Server 2003,  
or  
Microsoft IIS v7.0 or later, including ASP Extensions, on Windows Vista

#### Data access components

- Microsoft Data Access Components (MDAC) v2.7 or later

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**Note:** It is recommend to install MDAC after ASP Extensions because the ASP setup routine can incorrectly modify settings for MDAC in the Registry.

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#### Common language runtime and class libraries

- Microsoft .NET Framework v2.0 or later

#### Web browser

- Microsoft Internet Explorer v4.01 or later

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**Note:** If you are creating a Java-based or other CGI application on UNIX or Windows, please see *Installation and Configuration* for detailed information about requirements.

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## Applications using RedBeans

### Java Runtime Environment (JRE)

- JRE v1.4.2 or later

## Special instructions for v4.4.1

The following information contains special instructions for users of certain operating systems for U2 Web DE v4.4.1.

### Microsoft Windows Vista

After installing Microsoft IIS v7, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. In the **User Account Control** dialog box, click **Continue**. In the IIS tree view, expand the IIS v6 Management Compatibility node and select the **IIS Metabase and IIS 6 configuration compatibility** option.

To start U2 Web Designer properly in Windows Vista, you must right-click the U2 Web Designer icon and select the **Run as Administrator** option.

RedBack Object Server has not been certified for use on Windows Vista and no support will be provided for issues with running the server on this platform.

### UNIX

A known issue for this release exists in the UNIX version of the RedBack Scheduler. Depending on the number of responders started, a “Scheduler not running” error may occur upon performing `restartrgw`.

In the `rgw.log`, the error (`ErrorCode=67 Address already in use`) appears.

Two workarounds are available for this issue. The first is to discontinue use of the `restartrgw` command and instead use `stoprgw` followed by `startrgw` and `showrgw` to produce the same desired result. A second workaround is to edit the `restartrgw` script to build in a delay between `stoprgw` and `startrgw` as follows:

The last four lines of the default `restartrgw` script appear as:

```
$RGWHOME/bin/stoprgw
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

To add a delay, simply add the `sleep` in line 2 of this example:

```
$RGWHOME/bin/stoprgw
sleep 10
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

## U2 Web DE v4.4

Build 1526

Release Date: May 2007

These release notes provide information about new features, enhancements, and fixes in U2 Web DE v4.4.

## What's new in U2 Web DE v4.4

### Replacement of RedBack Designer Eclipse-based RBO design tool

The RedBack Designer (RBO) tool has been removed as a separate component, and the functionality has been ported to U2 Web Designer. RBO design features can be accessed by selecting the “RBO Perspective” from the “Window” menu in U2 Web Designer. The RBO design tasks you performed in the Windows-based RedBack Designer are supported in the Eclipse-based U2 Web Designer, and are accomplished in nearly the same manner. 32947\*USA

### Eclipse-based RBOScope

U2 Web Designer incorporates an Eclipse-based version of the RBOScope tool in both the RBO perspective and the Web Page perspective at version 4.4. For more information, see the *IBM U2 Web DE 4.4 New Features* manual. 35711\*USA, 35900\*USA

### New Features in creating and deleting web page projects

A significant new feature of U2 Web Development Environment 4.4 is added intelligence in the Web page project creation and deletion processes.

- New options in creating projects  
In this version of the product, you can select an existing IIS Web site and virtual directory for the Web page project you are creating. 8974\*USA, 34721\*USA, 35866\*USA
- New options in deleting projects  
When you delete a Web page project, you have the option of deleting or retaining your design files in the project workspace and the option of deleting or retaining the project’s virtual directory. 34718\*USA

For further details on enhancements to project creation and deletion, see the *IBM U2 Web DE 4.4 New Features* manual.

### New features in converting SB+ processes to web pages

- Conversion of SB+ drop-down lists  
In version 4.3, U2 Web Designer did not convert the functionality of SB+ drop-down selection lists in Web page design files. At U2 Web DE 4.4, SB+ drop-down lists that are based on a code table are rendered in the Web page representation as a drop-down list box populated with the associated list of values. 34555\*USA, 35816\*USA, 35881\*USA
- Support for SB+ work fields  
U2 Web DE 4.4 enables conversion of SB+ work fields in Web page design files. When you convert an SB+ process that includes a work field, the Web page representation displays the work field in the Preview pane and no longer produces a server error. 34565\*USA
- SB+ authentication passed to paragraphs  
In version 4.3, the SB+ user name and password were authenticated properly at logon to the Web page, but the authentication was not passed along to SB+ paragraphs invoked by processes of the Web page. Instead, all paragraphs were run under the credentials of an unprivileged user. U2 Web DE 4.4 executes all paragraphs invoked by processes of the Web page with the credentials of the logged-in user. 34654\*USA
- Improved field validation  
Asynchronous JavaScript and XML (AJAX) technology enables U2 Web DE 4.4 to perform field validation after you enter information in each field. 34669\*USA, 35940\*USA

For further details on these enhancements to conversion of SB+ processes, see the *IBM U2 Web DE 4.4 New Features* manual.

### Improvements to garbage collection

- Garbage collection runs as a phantom  
Server-side garbage collection has been modified to run as a phantom process on both UniData and UniVerse. This will ensure more reliable garbage collection. 32946\*USA
- Easier configuration of garbage collection parameters  
The RB.GC configuration interface has been modified to allow easier setup and configuration of garbage collection settings. 8300\*USA

For further details on enhancements to garbage collection, see the *IBM U2 Web DE 4.4 New Features* manual.

## New features, enhancements, and fixes in U2 Web DE v4.4

The following eCase issues were addressed in this release:

Issue number	Description
4326	All remaining occurrences of the term “RedBack Business Objects” have been removed from the product and from Registry entries at version 4.4.
5983	When installing RedBack Designer in previous versions, the setup program prompted you to enter a program group for this component, but if you changed the program group from the default, RedBack Designer was not added to a program group. At version 4.4, the functionality of RedBack Designer has been ported to U2 Web Designer, and there is no problem with adding U2 Web Designer to a program group.
6040	The Persistence On/Off feature was deprecated in a previous version of the product. All references to this feature have now been removed from the HTML documentation for rbexamples.
6177	An issue with multiple RedBack Java accounts not working together is discussed in a document named rb423 Deployment Platforms.pdf, available in the U2 Survival Kit.
6187	In previous versions, if you created a new U2 account, set up the WWPROGS file correctly, and then ran ENABLE.RBO, the VOC item WWLOG was assigned an incorrect file type in attribute 1. Version 4.4 implements a fix to VOC item creation in WWPROGS/REDBACK.INIT to create a DIR pointer for a UniData account or an F pointer for a UniVerse account.
7088	In previous versions, the RBOScope tool within RedBack Designer did not work properly on Windows XP SP2. With the Eclipse-based version of RBOScope in U2 Web Designer, this is no longer an issue.
7099	Automatic garbage collection did not run properly after running garbage collection manually in RedBack 4.2.3 on Windows 2000 and Windows Server 2003. The garbage collection utility was rewritten in version 4.4 as a phantom process, resolving this issue.
7126	The version 4.2.3 Documentation CD did not contain the RedBack SB+ manual. At version 4.3, the manual <i>Using SB+ with U2 Web Development Environment</i> was included on the Documentation CD. At version 4.4, all manuals in the U2 Web DE documentation set are available on the Quick Start CD.
7167	In RedBack 4.2.3 and later versions on HP-UX only, showrgw did not show a summary of statistics. This issue has been fixed.
7222	Date and time stamps now appear by default in rgw.log and jrgw.log, no longer requiring users to enable “trace” in rgwresp.ini and rgw.ini to activate this feature.

Issue number	Description
7226	In the manual <i>Developing RBOs with U2 Web Designer</i> , the section “Automatically Calling Subroutines” in Chapter 5, “Developing Server Code for RBOs,” incorrectly stated that you specify the subroutines you want to call in the SESSION.EVENTHANDLERS item of the WWTEXT file. The correct file name is WWCONTROL; this section of the manual has been revised accordingly.
7540	If an SB+ account was enabled for RedBack or U2 Web DE, SB+ remote processing did not work in version 4.2 or 4.3. This has been fixed.
7937	In the RedBeans.jar file, RbAdminDetails.class object, a misspelling “RbAdminDetatials” appeared in error messages. This has been fixed.
8040	The ScopeProps.asp page in the \rboscope directory contained a syntax error that resulted in a JavaScript error, “Unterminated String Constant.” This issue has been corrected.
8300	The RB.GC configuration interface has been improved to allow easier setup and configuration of garbage collection settings. For more information, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
8338	After installing RedBack 4.2.6 and opening RedBack Designer to access previously defined connection objects, the RedBack Designer toolbar was corrupted on opening. This problem no longer occurs in the Eclipse-based version of RBOScope incorporated in U2 Web Designer at version 4.4.
8363	This issue corrected a problem that prevented display of fields from the selected logical file in the Fields drop-down selection list on a new RBO.
8406	The open2 (or openStateful) and open3 (or openStateless) methods were available in RedBack 4.2.6, but they were not documented. Chapter 3, “Database Access Using the RedObject Interface” in the <i>RedPages</i> manual now provides documentation for these methods.
8486	In previous versions, the RedBack Gateway component did not install successfully to any Web site other than the default. This problem has been corrected in U2 Web DE 4.4.
8633	RedBack 4.2.6 did not uninstall if it was installed on any drive other than the C: drive. This issue is resolved in U2 Web DE 4.3 and later.
8697	Installation of RedBack 4.2.6 and U2 Web DE 4.3 on Windows 2003 R2 failed, producing an error and aborting the install program. Tests of U2 Web DE 4.4 on Windows 2003 R2 show no issues with installing the new version on this platform.
8708	On Sun Solaris and Linux platforms, RedBack 4.2 and U2 Web DE 4.3 incorrectly checked the error returned by gethostbyname() and did not report the failure properly. This has been fixed.
8751	Fixed an issue that caused restartacct to fail on Windows platforms in versions 4.2.6 and 4.3.
8974	In version 4.3, U2 Web Designer automatically created the virtual directory for a new Web page project under the default IIS Web site. At version 4.4, you can select an existing IIS Web site and select an existing virtual directory or create a new virtual directory for the Web page project you are creating.
8977	The RedBeans Javadoc rbjdoc.zip file was not shipped with U2 Web DE 4.3. At version 4.4, this file is copied to the \redbeans directory when you perform a complete installation or install the RedBeans component of the product.
9036	When users attempted to authorize U2 Web DE version 4.3, the authorization routine produced an error if the authorization code contained a lowercase letter. This has been fixed.

Issue number	Description
9088	In U2 Web DE 4.3, no query driver page was generated for uQuery processes that contained an operator other than “=”. This issue has been addressed so a query driver page is now generated for uQuery processes with any operator.
32946	At version 4.4, garbage collection has been improved to run as a phantom process on both UniData and UniVerse. With garbage collection running in the background, there is no longer a dependency on a responder to start the garbage collection process. For further details on enhancements to garbage collection, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
32947	The RedBack Designer (RBO) tool has been removed as a separate component, and the functionality has been ported to U2 Web Designer. RBO design features can be accessed by selecting the “RBO Perspective” from the “Window” menu in U2 Web Designer. The RBO design tasks you performed in the Windows-based RedBack Designer are supported in the Eclipse-based U2 Web Designer, and are accomplished in nearly the same manner. For more information, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34443	When U2 Web Designer auto-generated a Web page for an SB+ input process, the page contained blank buttons for some buttons (such as Save, Delete, and Notes). This issue has been corrected.
34555	In version 4.3, U2 Web Designer did not convert the functionality of SB+ drop-down selection lists in Web page design files. At U2 Web DE 4.4, SB+ drop-down lists that are based on a code table are rendered in the Web page representation as a drop-down list box populated with the associated list of values. For further details on enhancements to conversion of SB+ processes, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34563	When creating a Web page project in version 4.3, if a virtual directory by the same name as the new project existed, IIS responded with an exception. At version 4.4, U2 Web Designer detects an existing virtual directory and offers the option of using that virtual directory or creating a new one, preventing the IIS error. For further information on enhancements to project creation, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34565	U2 Web DE 4.4 enables conversion of SB+ work fields in Web page design files. When you convert an SB+ process that includes a work field, the Web page representation displays the work field in the Preview pane and no longer produces a server error. For further details on enhancements to conversion of SB+ processes, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34593	The U2 Web Development Environment splash screens have been updated at version 4.4.
34654	In version 4.3, the SB+ user name and password were authenticated properly at logon to the Web page, but the authentication was not passed along to SB + paragraphs invoked by processes of the Web page. Instead, all paragraphs were run under the credentials of an unprivileged user. U2 Web DE 4.4 executes all paragraphs invoked by processes of the Web page with the credentials of the logged-in user. For further details on enhancements to conversion of SB+ processes, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34655	When converting an SB+ process to a Web page, dates successfully converted to the output format; however, when an input conversion was used to change the date back to the internal format, the conversion was unsuccessful. This issue has been resolved.
34669, 35940	Asynchronous JavaScript and XML (AJAX) technology enables U2 Web DE 4.4 to perform field validation after you enter information in each field. For further details on enhancements to conversion of SB+ processes, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.



Issue number	Description
34718	Version 4.4 adds intelligence in the Web page project deletion process. When deleting a standard project or an SB+ project, U2 Web Designer performs the tasks necessary to delete design files from the project workspace and delete the project's virtual directory, if desired. For further information on enhancements to project deletion, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34721, 35866	A significant new feature of U2 Web DE 4.4 is added intelligence in the Web page project creation process. With this version, you can select an existing virtual directory or create a new virtual directory for the Web page project you are creating. For further information, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
34871	A fix in version 4.4 prevents occurrence of the error "Unable to get Input Process definition" in converting SBDEMO input process I*CUST*S10.
34980	At version 4.4, the U2 Web DE version number is included on installation and licensing screens.
35131	U2 Web DE 4.4 provides the <i>Quick Start Guide</i> as a new tool to help you get started finding information reSources and set up the supporting environment for the product. The <i>Quick Start Guide</i> is a PDF file on the Quick Start CD, which replaces the former Documentation CD. All manuals in the U2 Web DE 4.4 documentation set are available on the Quick Start CD.
35310	U2 Web Designer now makes use of connectionString variables in the Web.config file. Setting the value of this variable simplifies deployment of the Web application to multiple U2 accounts. For further information, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
35312	RBODataSource did not support the use of ASP.NET master pages in version 4.3. With .NET customization to the Web page, use of master pages is supported in U2 Web DE 4.4.
35423	When running a Web page in preview mode in version 4.3, the URL was always rendered as "localhost" with no port number. This issue has been corrected, so the Web page uses the correct URL with a port number, even for non-localhost Web sites.
35527	On some lookups involving SB+ selection processes, U2 Web Designer displayed the error "Object reference not set to an instance of an object". A change in the SBBatchConverter.cs file corrects the problem in version 4.4.
35544	After converting the SBDEMO Car Maintenance screen process I*CARS*S1 in U2 Web DE 4.3 for UniVerse, the generated Web page failed to return data and produced an error. This has been fixed.
35548	The oninit method in U2 Web Designer's SB+ Web controls expects SBODataSource to have registered with the SB+ Web page before the method runs. When oninit found that the SBODataSource had not registered with the Web page, it did not set the object variable for SBODataSource. A fix corrects this problem in version 4.4.
35568	In version 4.3, conversion of native SB+ processes (which do not run REGEN.EXP) required two reads before they were applied. A fix in the current version corrects this issue so conversions of native SB+ processes are applied on the first read.
35607	At version 4.4, if the user edits the generated code for a Web page and selects the Preview tab, U2 Web Designer detects that the code has been revised and displays a prompt to offer the option of saving a backup of the .aspx file. By electing the backup option, the customized file is not overwritten.
35674	Garbage Collection prompts did not accept lowercase letters in previous versions. This issue has been addressed with the rewrite of the Garbage Collection utility at version 4.4.



Issue number	Description
35711, 35900	U2 Web Designer incorporates an Eclipse-based version of the RBOScope tool in both the RBO perspective and the Web Page perspective at version 4.4. For further information, see the <i>IBM U2 Web DE 4.4 New Features</i> manual.
35731	At version 4.4, terminology in the user interface has been changed from U2WDE to U2 Web Designer and from System Builder to SB+.
35817	In converting the SBDEMO I*CUST*S1 input process to a Web page, the main page was generated as a .u2w file, but the lookup and driver pages were not generated. The problem stemmed from SB+ 5.4.1 adding an extra @VM to a driver line used by U2 Web DE. This issue has been corrected by fixing the driver line before processing.
36037	Handling of RBO session timeouts, authentication timeouts, and ASP.NET timeouts in version 4.3 resulted in issues with one component timing out while another continued running. For example, the RBO session might time out while the ASP.NET session remained active, or the ASP.NET session might time out when the user's authentication to SB+ was still valid. Changes to the Web.config file in version 4.4 improve U2 Web Designer's ability to manage timeouts.

## Requirements for v4.4

The following lists provide detail about the requirements to support components of U2 Web DE v4.4.

### RedBack Object Server (Windows or UNIX)

#### Operating system

- Microsoft Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, or Windows Server 2003
- IBM AIX®
- Sun Solaris
- HP-UX
- RedHat Linux®

#### Data server

- UniData v6.1 or later, or
- UniVerse v10.1.18 or later on Windows, or  
UniVerse v10.1.15 or later on UNIX

#### Tools

- SB+ v5.4.1 (required only if you want to use U2 Web Designer to auto-convert SB+ screens)

### Web Server (Windows)

#### Operating system

- Microsoft Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, Windows Server 2003, or Windows Vista

**Web server software**

- Microsoft Internet Information Services (IIS) v5.1 or later (through v6.x), including ASP Extensions, on Windows 2000 Professional, Windows 2000 Server, Windows XP Professional, or Windows Server 2003,  
or  
Microsoft IIS v7.0 or later, including ASP Extensions, on Windows Vista

**Data access components**

- Microsoft Data Access Components (MDAC) v2.7 or later

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**Note:** It is recommend to install MDAC after ASP Extensions because the ASP setup routine can incorrectly modify settings for MDAC in the Registry.

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**Common language runtime and class libraries**

- Microsoft .NET Framework v2.0 or later

**Web browser**

- Microsoft Internet Explorer v4.01 or later

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**Note:** If you are creating a Java-based or other CGI application on UNIX or Windows, please see *Installation and Configuration* for detailed information about requirements.

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## Applications using RedBeans

**Java Runtime Environment (JRE)**

- JRE v1.4.2 or later

## Special instructions for v4.4

The following information contains special instructions for users of certain operating systems for U2 Web DE v4.4.

### Microsoft Windows Vista

After installing Microsoft IIS v7, navigate to **Control Panel > Programs and Features > Turn Windows features on or off**. In the **User Account Control** dialog box, click **Continue**. In the IIS tree view, expand the IIS v6 Management Compatibility node and select the **IIS Metabase and IIS 6 configuration compatibility** option.

To start U2 Web Designer properly in Windows Vista, you must right-click the U2 Web Designer icon and select the **Run as Administrator** option.

RedBack Object Server has not been certified for use on Windows Vista and no support will be provided for issues with running the server on this platform.

### HP/UX

If you are using U2 Web Designer on an HP system to convert SB+ processes, you must set up the UNIX environment variable `SHLIB_PATH` for the UNIX user who administers the RedBack Scheduler. The value of `SHLIB_PATH` is typically set to point to either `$UDTBIN` or `$UVBIN`. To ensure that

SHLIB\_PATH is set for the RedBack Scheduler, you need to set it in the `rgwresp.ini` file in the [Default.Environment] section, as shown in the example below:

```
[Default.Environment]
TERM=dumb
RedBack=1
RBHOME=/disk1/rb43/udserver/redback
TZ=MST7MDT
UDTHOME=/disk1/ud61
UDTBIN=/disk1/ud61/bin
SHLIB_PATH=/usr/lib:/disk1/ud61/bin
```

Failure to properly set up SHLIB\_PATH for the UNIX user causes the following error to display when converting an SB+ process through U2 Web Designer:

```
Unable to get input process definition
Error occurred getting Input Process definition from server
Reason: Error creating XML document on server (Create root node)
```

In addition, the following error is written to the `out_xxxx` logs in `$RBHOME/rgw/log` for your account:

```
In /disk1/rb43/udserver/redback/rbdefn/WWLIB/_WW.EXPLORER.SBINUTPROC.
AS.MODEL at line 520 Can't load "/disk1/ud61/bin/libxalan-c1_3.sl":
shared lib error: No such file or directory
```

## UNIX

A known issue for this release exists in the UNIX version of the RedBack Scheduler. Depending on the number of responders started, a “Scheduler not running” error may occur upon performing `restartrgw`.

In the `rgw.log`, the error (ErrorCode=67 Address already in use) appears.

Two workarounds are available for this issue. The first is to discontinue use of the `restartrgw` command and instead use `stoprgw` followed by `startrgw` and `showrgw` to produce the same desired result. A second workaround is to edit the `restartrgw` script to build in a delay between `stoprgw` and `startrgw` as follows:

The last four lines of the default `restartrgw` script appear as:

```
$RGWHOME/bin/stoprgw
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

To add a delay, simply add the `sleep` in line 2 of this example:

```
$RGWHOME/bin/stoprgw
sleep 10
$RGWHOME/bin/startrgw
sleep 2
$RGWHOME/bin/showrgw
```

# Notices

## Edition

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# Corporate information

Rocket Software, Inc. develops enterprise infrastructure products in four key areas: storage, networks, and compliance; database servers and tools; business information and analytics; and application development, integration, and modernization.

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