# **K**Rocket.



# Rocket U2 DBTools

# **Release Notes**

Version 4.3.0

July 2017 UDBT-430-ALL-RN-01

# **Rocket U2 DBTools overview**

These release notes provide information about fixes made to the 4.3.0 U2 DBTools.

Build: 2715 Release Date: July 2017

#### Important news at this release

Beginning at 4.3.0, Apple Mac OS X users will be unable to install DBTools v4.2.0 on Eclipse Mars or Neon.

**Important:** It is recommended that users backup their previously installed DBTools directory before installing v4.3.0. This is normally found in C: U2U2Toolsv4 (and/or v3).

To access the documentation library, Adobe Acrobat Reader must be set as your default PDF reader.

#### Component versions included in this release

Component	Version	Release Date	
U2 DBTools Shared Components	4.3.0	July 2017	
U2 Basic Developer Toolkit (BDT)	4.3.0	July 2017	
U2 EDA Replication Configuration Tool	4.83.0	July 2017	
U2 EDA Schema Manager	4.33.0	July 2017	
U2 Extensible Administration Tool (XAdmin)	4.13.0	July 2017	
U2 Metadata Manager	4.73.0	July 2017	
U2 RESTful Web Services	4.63.0	July 2017	
U2 Web Services Developer (WSD)	4.23.0	July 2017	
U2 XML/DB Mapping Tool	4.43.0	July 2017	
XTOOLSUB	4.103.0	July 2017	

Note: You must use InstallShield to install this version.

When making a connection to your U2 server for the first time with this version of U2 DBTools, you may be prompted to update the XTOOLSUB server routine. Depending on the user originally connected to the server, you may have to supply an alternate user who has permissions to write to the installed home directory of the database installation. After the initial update to the server, subsequent server connections will not prompt for updates.

#### U2 DBTools setup

To install or upgrade a package, simply click the appropriate component name from the installer.

This package is compatible with Windows 7 Service Pack 1 or higher.

The following database tools can be installed from this package:

Component	Description
U2 Basic Developer Toolkit (BDT)	This Eclipse-based tool provides a modern integrated development tool for BASIC developers that features a resource explorer, a dictionary editor, a code editor and an integrated debugger.
U2 EDA Replication Configuration Tool	The EDA Replication Configuration Tool is an Eclipse-based tool used to replicate your data to a SQL database, in addition to keeping your data safely stored in UniData. It allows you to store your data in UniData while it is simultaneously replicated to Oracle, IBM DB2, or Microsoft SQL Server. Use the replicated database for data-mining or reporting while you use UniData as your production workhorse.
U2 EDA Schema Manager	EDA Schema Manager is an Eclipse-based tool that allows users to create and manage schemas for conversion of data stored in a U2 database to a 1NF database such as Microsoft SQL Server.
U2 Extensible Administration Tool (XAdmin)	XAdmin is an Eclipse-based tool that provides a modern integrated environment for U2 database administration.
U2 RESTful Web Services	U2 RESTful Web Services enable U2 users to define and publish U2 resources, such as data files and subroutines, to a U2 REST server so they can be accessed in a RESTful manner.
U2 Metadata Manager	The U2 Metadata Manager is an Eclipse-based, client-side tool used to make changes to the U2 database servers. It allows users to better describe the type of data stored in each location of their data files and is also used to define first normal form exposure.
U2 Web Services Developer (WSD)	U2 Web Services Developer is an Eclipse-based tool that allows you to create and deploy your Web Services applications, and manage your SOAP servers.
U2 XML/DB Mapping Tool	The XML/DB Tool is a graphical user interface tool with which you can create an XML mapping file to use when exporting or importing XML documents with the UniData or UniVerse databases. This is an Eclipse-based tool.
XTOOLSUB	BASIC routines that provide communication with the U2 databases.

#### Contacting customer support

Click the following link to find worldwide contact information for Rocket Support:

https://my.rocketsoftware.com/RocketCommunity/RCEmailSupport

U2 Technical Support is available Monday through Friday, 9:00 AM to 5:00 PM in the customer's time zone. After-hours, weekend, and holiday support is available for customers with priority 1, critical down systems, only. If you are experiencing a priority 1, critical down system, please call 1-855-577-4323 (Toll Free) or 1-781-577-4323 (Direct) or visit the link above for non-US phone numbers, and leave a message with your name, a phone number where you can be reached, your U2 product serial number, and a description of the problem. A U2 Support Engineer will return your call as soon as possible.

# Shared components

The release notes in this section provide information about new features and fixes made to the components shared by all U2 Eclipse-based tools.

## U2 DBTools Shared Components 4.3.0

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in 4.3.0

The following issues were fixed in this release:

Issue number	Description
UDBT-2632	Beginning at this release, users running DBTools on Eclipse Galileo will be unable to update their tools using the update site. The update site only supports Eclipse Luna or later.
UDBT-2992	Beginning at this release, the U2 DBTools product is built on Eclipse Neon 4.6.
UDBT-3068	Apple Mac OS X only. Starting at this release, DBTools 4.3.0 can be installed on Eclipse Mars or Neon.
UDBT-3178	Starting at this release, the Java virtual memory heap size has been changed from 512MB to 1GB in all of the .ini files. This can be seen with the -Xmx1G parameter.

### U2 DBTools Shared Components 4.2.0

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in 4.2.0

There were no fixes specific to this release.

### U2 DBTools Shared Components December 2015

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in December 2015

Issue number	Description
UDBT-1939	Beginning at this release, Rocket U2 DBTools are built on Eclipse 4.4.2.
UDBT-2496	Beginning at this release, the U2 REST and U2 WSD products are now built with the Jetty 9.2.10 engine and meet all security requirements.
UDBT-2497	All version 4.x DBTools products have been updated to Java JRE 8 u60.

### U2 DBTools Shared Components January 2015

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in January 2015

The following issues were fixed in this release:

Issue Number	Description
UDBT-2467	Prior to this release, certain characters being used in a password could cause U2 Resource View connections to have an error. This issue has been resolved with an updated U2 Resource View.
UDBT-1558	In previous versions, dictionary elements could get misinterpreted in cases where there was a corresponding SB field. An M-type field could have been changed to an S-type field. This issue has been resolved.

### U2 DBTools Shared Components August 2014

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in August 2014

The following issues were fixed in this release:

Issue Number	Description
UDBT-1092	Prior to this release, the U2 administration tools such as XAdmin and EDA Schema Manager did not recognize multilevel UniData files as valid file types. This issue has been resolved.
UDBT-1829	At the AUG2014 release, IPv6 support has been implemented in the U2 DBTools. IPv4 remains compatible.

### U2 DBTools Shared Components January 2014

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in January 2014

Build: 2082 Release Date: January 2014

Issue Number	Description
UDBT-1407	Prior to this release, when a user used the Ctrl + click method to select multiple elements, such as servers, from the U2 Resource view and then clicked <b>Delete</b> , only the first server selected was actually deleted. Beginning at this release, the U2 Resource view now supports the deletion of multiple elements. This issue has been resolved.

### U2 DBTools Shared Components November 2013

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

Fixes in November 2013

Build: 2054 Release Date: November 2013

There were no fixes specific to this release.

### U2 DBTools Shared Components October 2013

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in October 2013

Build: 2025 Release Date: October 2013

There were no fixes specific to this release.

### U2 DBTools Shared Components June 2013

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in June 2013

Build: 1114 Release Date: June 2013

There were no fixes specific to this release.

### U2 DBTools Shared Components May 2013

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in May 2013

Build: 1108 Release Date: May 2013

There were no fixes specific to this release.

## U2 DBTools Shared Components March 2013

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in March 2013

Build: 1099 Release Date: March 2013

The following issues were fixed in this release:

Issue Number	Description
UDBT-1296	Prior to this release, the XTOOLSUB deployment log noted the completion of the deployment process, but did not indicate success or failure. The log file now states whether the XTOOLSUB deployment has been successful. This issue has been resolved.
UDBT-1277	XTOOLSUB would fail to deploy correctly after a UniVerse upgrade, causing users to be unable to use upgraded versions of the U2 DBTools. XTOOLSUB now deploys as expected. This issue has been resolved.
UDBT-1204	The U2 DBTools are now certified for Windows 8 and Windows 2012.
UDBT-1050	Prior to this release, when users hovered over a file in the U2 Resource view, the configuration pattern filter would open and have to be closed before users could continue their work. Beginning at this release, the behavior for the configuration pattern filter has changed, and the filter is turned off by default. To turn the filter on, navigate to <b>Window &gt; Preferences &gt; UniData/UniVerse</b> and then select <b>Enable Pattern Configuration</b> .

### U2 DBTools Shared Components November 2012

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in November 2012

Build: 1080 Release Date: November 2012

There were no fixes specific to this release.

# U2 DBTools Shared Components May 2012

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in May 2012

Build: 1050 Release Date: May 2012

The following issues were fixed in this release:

Issue Number	Description
UDBT-974	U2 DBTools attempts to detect the multivalue status of a field in various contexts. If Attribute 6 is empty, U2 DBTools looks for an SB+ version of the field (.FieldName) to use as an override to get the multivalue status. If an SB+ field is located, the multivalue status for that field is used when displaying dictionary data for the standard field.
	<ul> <li>On UniData, the multivalue status is returned as "MV" for all multivalue and multi-subvalue fields.</li> </ul>
	• On UniVerse, the multivalue status is returned as "M" for all multivalue fields.
	Prior to this release, the return value was incorrectly returned as "M" for UniVerse files. This issue has been resolved.

# U2 DBTools Shared Components March 2012

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in March 2012

Build: 1050 Release Date: March 2012

Issue Number	Description
UDBT-974	U2 DBTools attempts to detect the multivalue status of a field in various contexts. If Attribute 6 is empty, U2 DBTools looks for an SB+ version of the field (.FieldName) to use as an override to get the multivalue status. If an SB+ field is located, the multivalue status for that field is used when displaying dictionary data for the standard field.
	<ul> <li>On UniData, the multivalue status is returned as "MV" for all multivalue and multi-subvalue fields.</li> </ul>
	• On UniVerse, the multivalue status is returned as "M" for all multivalue fields.
	Prior to this release, the return value was incorrectly returned as "M" for UniVerse files. This issue has been resolved.

# Shared Components 3.x

These release notes provide information about fixes to the components shared by all U2 Eclipse-based tools.

#### Fixes in 3.x

Build: 1022 Release Date: January 2012

Issue Number	Description
UDBT-370	For UniVerse only, when a user created a new file, deleted the voc pointer file and then tried to create a new file with the same name, the Eclipse tool would hang. This problem no longer occurs and a pop-up window now displays, telling users that the file already exists but is missing the VOC entry.
UDBT-372	Beginning at this release, the U2 Eclipse-based tool installation includes the Oracle Java Runtime Environment (JRE) 1.6. The IBM JRE is no longer part of the U2 Eclipse-based client installation.
UDBT-374	All U2 Eclipse-based tools now include filtering and paging capabilities in the U2 Resource View.
UDBT-376	All U2 Eclipse-based tools have been upgraded to use Eclipse 3.5.2. Previously, the tools ran on Eclipse 3.3.1.1.
UDBT-375	A client-based server deployment tool has been added to the U2 Eclipse-based tools. This allows users to more easily apply updates to XTOOLSUB and to upgrade accounts. This issue is related to UDBT-379.
UDBT-379	Beginning at this release, all U2 Eclipse-based tools will automatically check the XTOOLSUB version and update the server if the version is out of date.
UDBT-380	Beginning a this release, all U2 Eclipse-based tools have been fully rebranded with all references to IBM removed from package names. U2 Package names now begin with "com.rs.u2".
UDBT-634	For all U2 Eclipse-based tools, when you create a new account the U2 Resource view now allows you to define Owner names, Group names, and user permissions.
UDBT-649	Beginning at this release, the U2 tools are being delivered as a separate package and are no longer shipped with the U2 clients. Because of this, the installation details have changed, as follows:
	• Each U2 tool can be installed separately from the U2 Tools installation tool.
	<ul> <li>The U2 Tools are now installed in the C:\U2\U2Tools\v3 directory.</li> </ul>
	This affects only newly installed tools. Tools not upgraded will remain in C: \U2\U2Tools.
	<b>Note:</b> The old versions of the tools do not contain registered path details for all of the components. If you try to install the new versions of the tools into a location other than where they were installed previously, the configuration details are not carried over. To fix this, manually copy the configuration details over from the _workspace and _configuration directories for the appropriate component.

# U2 Basic Developer Toolkit

The release notes in this section provide information about changes in U2 Basic Developer Toolkit.

The UniData and UniVerse Basic Developer Toolkit (BDT) provides a modern integrated development tool for Basic Developers that features a Resource Explorer, a Dictionary Editor, a Code Editor, and an Integrated Debugger.

# U2 Basic Developer Toolkit 4.3.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 4.3.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue number	Description
UDBT-2758	UniData only. Prior to this release, BDT would not save the <b>Basic Type</b> when compiling a BASIC program and users would have to select the basic type each time they compiled. This issue has been resolved.
UDBT-2941	Previously, after installing UDBT version 4 for BDT and updating the software from the update site, the installation would break. Users may have experienced warnings. The jar signing portion of the update site has been updated to fix the warnings and allow the jars to pass validation during the update.
UDBT-2995	Beginning at this release, BDT has been enhanced to support BASIC field-level update statements. This feature is available at UniData 8.2.1 and is planned to be included at UniVerse 11.3.2.
UDBT-3149	Previously, when debugging a BASIC program in BDT, the Variable Watch view would display the values in the <b>Value</b> column with $\r$ appended. This issue has been resolved.
UDBT-3174	Beginning at UniData 8.2.0, an enhancement was added to UniBasic to control which mark character the REMOVE statement and function stop at. This is done by the use of the @REMOVE.ATTRIBUTE @variable. For more details, see the <i>UniBasic</i> <i>Commands Reference Guide</i> .
UDBT-3180	Beginning at this release, users can add custom response messages when returning from calling XTOOLSUB. The following response types are available:
	Text dialog box
	HTML page
	Data table
	For detailed instructions on how to use this features and customizing XTOOLSUB functionality, see the <i>DBTools User Guide</i> .
UDBT-3186	Beginning at this release, line numbers displayed in the <b>Location</b> column in the <b>U2 Problems</b> tab now display in numeric order.

### U2 Basic Developer Toolkit 4.2.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 4.2.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue number	Description
UDBT-2413	Beginning at this release, the BDT Editor, Command Prompt, and Debugger have been enhanced to support NLS on UniVerse systems
UDBT-2775	Beginning at this release, BDT is now integrated with Aldon. To enable Aldon integration, click <b>Windows</b> → <b>Preferences</b> → <b>UniData/UniVerse</b> → <b>LMe</b> and check the LMe flag.
UDBT-2921	Linux only. Prior to this release, when banner was enabled, users may have experienced the following error when debugging a BASIC program using the SSH library in BDT:
	Password login failed with code 53 U2 Terminal is requested to terminate.
	The SSH library has been updated. This issue has been resolved.
UDBT-2929	Prior to this release, files written in different locations would be saved incorrectly when BDT had the <b>Text file encoding</b> option set to <b>Other UTF-8</b> , which was the default. <b>Default</b> is now the default option. This issue has been resolved.
UDBT-2949	Beginning at this release, the Basic Developer Toolkit now recognizes U2 Python APIs.

# U2 Basic Developer Toolkit 4.1.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 4.1.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue number	Description
UDBT-2443	Prior to this release, using the key stroke combination of ctrl+alt-v to insert a value mark while editing a new program caused a java.lang.NullPointerException error. Now the correct value, ^253, will be inserted into the program.
UDBT-2462	Prior to this release, BDT would fail when users manually inserted VM, FM, or other system values. In addition, when saving a file with VM, FM, or other system values, BDT would insert incorrect characters. This issue has been resolved.
UDBT-2526	Prior to this release, it was possible to see an incorrect message indicating that a program had been changed by another user. This has now been resolved.
UDBT-2586	Prior to this release, special characters for value mark, text mark, etc. insertion (e.g. ^254) would corrupt the server-side record. This has been resolved.

Issue number	Description
UDBT-2659	Prior to this release, changes to XTOOLSUB caused BASIC programs saved to UniData on Windows servers to add extra char 13 characters to the end of each line. This issue has been resolved.

# U2 Basic Developer Toolkit 3.2.1

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 3.2.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-2459	Prior to this release, when using the Recently Used option, directory type files were duplicated. This issue has been resolved.
UDBT-2278	Prior to this release, when creating or updating a BASIC program using the Basic Developer Toolkit, it was not replicated to the subscriber. This was due to not supporting Sequential I/O within U2 Replication. This issue has been resolved by changing BDT program updates to standard Database WRITE.
UDBT-1221	In previous versions, when writing code in the Basic Developer Toolkit, the backslash delimiter could be misinterpreted, canceling out quotation marks that follow it. This issue has been resolved.

# U2 Basic Developer Toolkit 3.2.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 3.2.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-348	In versions 1.2.3 and 1.2.4, highlighting behavior in the explorer tree changed from the previously expected behavior. If you opened the explorer tree, double-clicked Database Files, entered text in the Enter file pattern names field, and double- clicked the results, the tool did not switch focus to the corresponding file as it did in previous versions. This issue is resolved; the file is highlighted when you double- click the result in the Open Files window.

Issue Number	Description
UDBT-1438	Prior to this release all reads from Basic Developer's Toolkit (BDT) were primary reads. This prevented third-party source control products from properly blocking files that were locked/checked-out by other users if they were the main program and not an INCLUDE-ed file.
	When these locked files were blocked from update but were INCLUDE files, messages were displayed to the screen after every character was typed making it very difficult to use the Basic Developer's Toolkit.
	Starting at this release of the Basic Developer's Toolkit, BASIC program reads from the server are broken up into two types:
	Primary Reads: The main basic program being opened.
	<ul> <li>Secondary Reads: Files referenced by INCLUDE and INSERT type of BASIC/ UniBasic commands.</li> </ul>
	To check for secondary reads programmatically, the ReadDIRRecord (Code 53) function has been modified. If a secondary read is done, the 4th parameter of the X_PARAMS variable will have an 's' included in it. If this a primary read, then the 4th parameter is empty.
	The following is an example of an XTOOLSUB_XPRE (on UniVerse), that will block primary reads of a file called 'MYVARS' and allow secondary reads ('\$INCLUDE INCLUDE MYVARS') to be read. Change XTOOLSUB_XPRE to XTOOLSUB_EXECPRE if using UniData.
	<pre>IF X_CODE = 53 THEN  * IF X_PARAMS&lt;3&gt; = "MYVARS" THEN; * Original Behavior  * New Behavior (4th parameter is 's' if secondary read)  * This example, checks for primary reads and if primary     read then block it  * With original behavior, opening the include file in BDT     will return blank</pre>
	<pre>IF X_PARAMS&lt;3&gt; = "MYVARS" AND X_PARAMS&lt;4&gt; = "" THEN     X_ERROR="X1010"     X_OUTDATA="Unable to modify this program!" END</pre>
	END RETURN
	This program will need to be globally cataloged. If using BDT at the time of this cataloging, you will need to disconnect and reconnect to the database server to test any changes.
	<b>Note:</b> If the INCLUDE file (MYVARS in example) is opened as part of another file (secondary read) and then you open the include file directly, it will open a local copy of the file. It is recommended to have a check against the WriteDIRRecord (Code 54) function to help in this situation, if the user tries to write this file back to the server. However, there have been no modifications made to the WriteDIRRecord function in this product change. Also, if a secondary read fails, BDT will not attempt to read the file again.
UDBT-1541	In version 3.0.6, the BASIC Developers Toolkit sometimes returned inappropriate errors if you used the compiler to compile a program with your own \$INCLUDE code. The tool returned errors on valid commands, but it compiled the program anyway. This issue is resolved.

Issue Number	Description
UDBT-1709	Prior to this release, when a user connected to an account and opened the Database Files node in BDT, it loaded all the database files. When the user clicked on a type 19 file, it reloaded all the database files again, plus the contents of the BP file. BDT also reloaded all files whenever a file was opened for editing. This caused users to have to navigate to the correct file in the Resource view repeatedly, and made it difficult to see which file was open. This behavior has changed and BDT now synchronizes the files as they load, as long as they are regular files. This issue has been resolved.
UDBT-1787	The syntax highlighter in the BASIC Developers Toolkit did not recognize some Universe-specific commands such as bscan in the October 2013 release. The failure to recognize such commands caused errors to be erroneously reported. This issue is resolved.
UDBT-1820	Prior to this release, when using the SUBR function on a subroutine that has 0 arguments the following error was generated. Function 'SUBR' requires 0 arguments. Number of arguments doesn't match. If the subroutine had two arguments, the error appeared twice. This issue have been resolved.
UDBT-2050	After performing an Eclipse Tools update for BDT from the U2 Tools update website using the October 2013 version of BDT (3.1.0), any attempt to use the debugger failed to execute. This issue is now fixed.
UDBT-2175	Prior to this release, the BDT BASIC editor did not show the contents of the local subroutines in the outline view. The main routine and calls to the local subroutines were visible, but none of the information in the local subroutines was displayed. This issue has been resolved.

# U2 Basic Developer Toolkit 3.1.2

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 2082 Release Date: January 2014

#### Fixes in U2 BDT 3.1.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-346	Prior to this release, some BDT users found that when they created a Basic program containing an INCLUDE statement, the Outline view did not show all variables. The Outline view now shows the correct information. This issue is resolved.
UDBT-528	An enhancement has been added to BDT to have open programs autosave to client-side storage. The default value is 5 minutes. To change the interval, navigate to <b>Window &gt; Preferences &gt; UniData/UniVerse &gt; U2 Basic &gt; Editor &gt;</b> <b>Editor automatic save interval</b> , and then select the desired time. If BDT crashes unexpectedly, the next time the user navigates to the same program on the server, a merge request will be displayed. This autosave feature does not autosave the server-side version of the program, only the client-side version.

Issue Number	Description
UDBT-581	An enhancement has been made to BDT that allows users to create new programs and files from the menu. Previously, users could only add information by navigating to the correct location in the U2 Resource view. Users can now create a new file or program by selecting the <b>File &gt; New</b> menu option.
UDBT-626	Prior to this release, when users navigated to <b>Window &gt; Preferences &gt; General &gt;</b> <b>Editors &gt; Text Editors</b> , set the <b>Displayed tab width</b> to a value, and then selected the <b>Insert spaces for tabs</b> option, an extra space was inserted. Now, when a user selects the Insert spaces for tabs option, the correct number of spaces are used. This issue is resolved.
UDBT-996	Beginning at this release, BDT now supports UniData 64-bit files and the Type 3 hash type. The CREATE.FILE syntax has a new 32BIT or 64BIT option for both static and dynamic files. If no option is specified, the 32-bit option is selected by default. The UDT 7.4 create.file syntax is:
	CREATE.FILE [DICT   DATA] [DIR   MULTIFILE   MULTIDIR] filename [,subfile][modulo [,block.size.multiplier]] [TYPE [0   1   3] [DYNAMIC [KEYONLY   KEYDATA] [PARTTBL part_tbl]] [RECOVERABLE] [OVERFLOW] [64BIT 32BIT]
UDBT-1308	Prior to this release, each time a program was run in BDT's U2 Debug Terminal, if the user did not enter "QUIT" in the terminal session, a database connection remained active in addition to the BDT connection, as well as an additional license consumed. Beginning at this release, a <b>Maximum number of sessions</b> field is included in the U2 server advanced properties page. When the number of sessions exceeds this limit, older sessions are terminated automatically. By default, this number is 0 (zero), meaning there's no limit on the number of sessions.
	Additionally, in the U2 Debug Terminal, a new <b>Pin</b> button has been added. When the connection is pinned, the terminal is not removed automatically. This issue has been resolved.
UDBT-1471	Starting at this release, the Basic Developer's Toolkit can communicate with CVS or SVN repositories. The BDT tool can only verify the status of text oriented documents on the U2 Servers (Basic programs, XML documents, etc.). With this change there are three new icons that can appear on the bottom right of items in the U2 Resource view. These are:
	<ul> <li>* (Asterisk) - Server/Item is tracked via a source code control system</li> </ul>
	<ul> <li>? (Question mark) - Current status of item is unknown</li> </ul>
	Classic Database cylinder graphic - Item is in sync with source system
UDBT-1810	Beginning at the March 2013 release, an error message was seen in BDT every time a user ran a RELEASE command. This was caused by an error parsing the ON ERROR clause and has been fixed. This issue is resolved.
UDBT-1826	Beginning at this release, the <b>Use fast loading method to load database file list</b> check box has been to the <b>Advanced</b> page in the U2 Server Properties wizard. When the box is selected, BDT will initially only load the file names of a selected U2 server. If the check box is not selected, all of the database information, including file type, is loaded with the file name.
	For performance reasons, the default setting for this option is <b>On</b> .

# U2 Basic Developer Toolkit 3.1.1

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 2054

Release Date: November 2013

#### Fixes in U2 BDT 3.1.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1708	Incorrect folding and gray text was displayed if a user included the MACHINE.NAME record of the UNIVERSE.INCLUDE directory in a program. This behavior was seen in both the individual file or if the file was included in custom programs. The BDT editor now works as expected with the MACHINE.NAME include file and any of the other programs listed in the UNIVERSE.INCLUDE directory. This issue is resolved.
UDBT-1767	Prior to this release, when AE saved/wrote a Basic program it appended a CRLF to each line. When BDT saved/wrote a Basic program, it appended an LF to each line except the last, which was appended with a CRLF. The behavior of BDT has been updated. Now, BDT uses an LF line delimiter for UNIX text files, and a CRLF line delimiter for Windows text files. This issue has been resolved.

# U2 Basic Developer Toolkit 3.1.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 2025 Release Date: October 2013

#### Fixes in U2 BDT 3.1.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1565	Prior to this release, BDT erroneously reported an error when using the INMAT function with a parameter included. The code editor no longer reports an error when valid syntax is used. This issue has been resolved.
UDBT-1369	Beginning at this release, BDT provides XML support for U2 Dynamic Objects.

Issue Number	Description
UDBT-1367	The following BASIC functions have been added to BDT:
	Audit logging
	□ AuditLog
	• XML
	<ul> <li>XDOMGetChildNodes</li> </ul>
	<ul> <li>XDOMGetElementById</li> </ul>
	<ul> <li>XDOMGetElementsByName</li> </ul>
	<ul> <li>XDOMGetElementsByTag</li> </ul>
	<ul> <li>XDOMItem, XDOMLength</li> </ul>
	<ul> <li>XDOMQuery</li> </ul>
	• UDO
	<ul> <li>UDOArrayAppendItem</li> </ul>
	<ul> <li>UDOArrayDeleteItem</li> </ul>
	<ul> <li>UDOArrayGetItem</li> </ul>
	<ul> <li>UDOArrayGetNextItem</li> </ul>
	<ul> <li>UDOArrayGetSize</li> </ul>
	<ul> <li>UDOArrayInsertItem</li> </ul>
	<ul> <li>UDOArraySetItem</li> </ul>
	UDOClone
	<ul> <li>UDOCreate</li> </ul>
	<ul> <li>UDODeleteProperty</li> </ul>
	UDOFree
	<ul> <li>UDOGetLastError</li> </ul>
	<ul> <li>UDOGetNextProperty</li> </ul>
	UDOGetOption
	<ul> <li>UDOGetProperty</li> </ul>
	<ul> <li>UDOGetPropertyNames</li> </ul>
	<ul> <li>UDOGetType</li> </ul>
	<ul> <li>UDOIsTypeOf</li> </ul>
	<ul> <li>UDORead</li> </ul>
	<ul> <li>UDOSetOption</li> </ul>
	<ul> <li>UDOSetProperty</li> </ul>
	UDOWrite
	A full description of these functions can be found in the <i>UniBasic Commands Reference</i> manual.
UDBT-1432	Prior to this release, the help dialog could not be moved or resized, which caused some users to be unable to see the code window at the same time they were looking at the help. The help dialog is now movable and resizable, allowing the dialog to be placed anywhere on the desktop. This issue has been resolved.

Issue Number	Description
UDBT-1012	Beginning at this release, BDT provides support of local functions and subroutines for UniVerse BASIC.

# U2 Basic Developer Toolkit 3.0.5

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 1099 Release Date: March 2013

#### Fixes in U2 BDT 3.0.5

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
	Prior to this release, BDT did not perform as expected when it encountered a percentage sign (%) in the variable name. This issue has been resolved.

## U2 Basic Developer Toolkit 3.0.4

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 1080 Release Date: November 2012

#### Fixes in U2 BDT 3.0.4

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
	A fix has been made to the U2 Basic Program Options feature to allow users of UniData 7.1 and earlier to override of the default compilation style under certain scenarios. This fix only applies to UniData connections. For UniData 7.2 and later, users must specify the BASICTYPE in the initial resource view connection.

### U2 Basic Developer Toolkit 3.0.3

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 1069 Release Date: September 2012

#### Fixes in U2 BDT 3.0.3

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1102	Prior to this release, BDT did not recognize numbers in labels if the numbers were followed by an asterisk (*) symbol. This issue applied to UniData only and has been resolved.
UDBT-1120	BDT failed to launch the Debug perspective when users selected the Direct Debug option in a Basic program. This issue applied to UniData only and has been resolved.

# U2 Basic Developer Toolkit 3.0.2

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

Build: 1061 Release Date: July 2012

#### Fixes in U2 BDT 3.0.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-332	Prior to this release, users could not expand or collapse (code fold) UniData or UniVerse code blocks that contained \$IFDEF or \$IFNDEF commands. Now, the code blocks can be used as expected and a coloring option has been added for unused \$IFDEF and \$IFNDEF code blocks. The default color is RGB(192, 192, 192) and can be changed in the preferences page. This issue has been resolved.
UDBT-333	When users mouseover SQL functions in the BDT code editor, the hover help details did not appear. The hover help now works as expected for all SQL functions in both UniData and UniVerse. This issue is resolved.
UDBT-334	The BDT code editor threw warnings "WARNING: Variable 'S.WORKFILE' never assigned a value" on SELECT statements in the style: SELECT F.WORKFILE TO S.WORKFILE
	This issue has been resolved.
UDBT-335	Prior to this release, variables that were used in subroutine or function calls were erroneously flagged as unassigned and displayed a warning. This is no longer a problem.
UDBT-337	Prior to this release, the EXECUTE command was not fully supported in UniVerse. This issue has been resolved.

Issue Number	Description
UDBT-338	In UniVerse accounts only, any form of the GET(ARG.) statement caused the variable to be reported as never assigned. For example,
	GET(ARG.) VAR1 GET(ARG.,2) VAR2
	This issue has been resolved.
UDBT-342	In the Basic Developer's Toolkit's edit window, if coding for the program contained an asterisk (for example, when used in an arithmetic expression), the color coding would be incorrect for comments on the following line. This issue has been resolved.
UDBT-343	Prior to this release, the BDT parser did not recognize the syntax of the INSERT() and REPLACE() commands correctly, causing an error to be thrown. This issue has been resolved.
UDBT-347	Beginning at this release, hover help is now available for INCLUDE files. The full code for INCLUDE files can be seen in the hover help and focus can be gained using the F2 key.
UDBT-349	Prior to this release, BDT did not correctly display the selected INDENT settings. This issue has been resolved. This issue is related to UDBT-361.
UDBT-350	The FORMAT function (Ctrl +Shift + F) did not work correctly with the FIND and FINDST statements. This occurred because the statements were not listed as keywords that could start statements. These statements have now been added as keywords. A new Preference page was also added ( <b>Window &gt; Preferences&gt;</b> <b>UniData/UniVerse &gt; U2 Basic &gt; Editor &gt;Formatting</b> ) that allows users to add new keywords, as needed. This issue has been resolved.
UDBT-356	Prior to this release, SUBROUTINE statements that included split-line syntax with comments were mistakenly highlighted as being incorrect. This issue has been resolved.
UDBT-357	BDT did not correctly compile programs with INPUT syntax in the form of 'INPUT PART.NUMBER,3_:'. The INPUT statement was not being handled as intended. This issue has been resolved.
UDBT-358	An "Auto-Recompile" feature has been added to BDT, allowing for programs to be automatically compiled prior to clicking the Run or Debug options. A new item has been added to the user Preferences that allows you to see a warning asking if you want to save and compile your changes before debugging a project. To turn this feature on or off, navigate to <b>Window &gt; Preferences &gt; UniData/UniVerse &gt;</b> <b>U2 Basic &gt; Computer</b> and select/deselect <b>Save and compile any unsaved files</b> <b>before debugging</b> . By default, this feature is set to <b>On</b> .
UDBT-360	Prior to this release, EQUATE and COMMON variables had no syntax highlighting. Syntax highlighting has been added for EQUATE and COMMON variables and users can now assign specific colors. The default color for EQUATE code blocks is RGB(192, 192, 192) and the default color for the COMMON code block is RGB(128, 128, 192). Both can be changed from the preferences menu. This issue has been resolved.
UDBT-361	Prior to this release, BDT did not correctly display the selected MARGIN settings. This issue has been resolved. This issue is related to UDBT-349.
UDBT-362	On the file creation dialog, support for input of the LARGE.RECORD percentage has been added.
UDBT-484	In BDT, the EXECPRE/XPRE programs correctly did not block the use of X_CODE 54(WriteDIRRecord). The EXECPRE/XPRE program was called and when it returned to the BDT client, it displayed the error and also allowed a record to be written. This issue has been resolved.

Issue Number	Description
UDBT-487	Prior to this release, right-clicking on a variable in the code editor window and selecting "Inspect" threw the message "The active frame cannot be located." This problem has been resolved and the "Inspect" option now allows variable contents to be viewed.
UDBT-495	Prior to this release, BDT could not find the \$INCLUDE file if it was contained in a MULTIDIR file. This issue has been resolved.
UDBT-497	An enhancement has been made so that direct cataloged programs can be accessed within BDT. Prior to this release, only local and global cataloged programs could be accessed.
UDBT-527	Prior to this release, if multiple EQUATE variables were defined on a single line, the following error was seen: "Expecting RPAREN, found 'TO'". This issue has been resolved.
UDBT-560	An enhancement has been made so that external subroutines can be accessed from the Outline view. This issue is related to UDBT-569.
UDBT-569	Prior to this release, BDT was unable to locate the source code for cataloged programs that were not previously opened via BDT. BDT has been fixed to correctly locate the source code for cataloged programs. A new dialog box has also been added to allow users to select the accounts to be searched for source code.
UDBT-572	An enhancement has been made that allows users to set a Watch Variable flag in the Debug perspective. You can access this feature from the right-click menu. This flag is available in the Debug perspective only.
UDBT-576	Prior to this release, source code lookup would search in the currently open account and then in all other accounts if code was not located in the current account. An enhancement has been made to allow users to limit the accounts to be searched based on a configurable dialog. This issue is related to UDBT-569.
UDBT-612	Prior to this release, in UniData only, BDT did not support the ENTER statement in UNIBASIC. This issue has been resolved.
UDBT-696	In earlier releases the BDT debugger was limited in the scope it had for inspection of equated variables from INCLUDE files. This enhancement allows direct inspection of equated variables in the BDT debugger without opening the INCLUDE file.
UDBT-950	When launching the BDT attach debugger to attach to a running UniVerse process, all background processes were not listed. This fix allows the BDT debugger process listing to match the listing shown by UniVerse PORT.STATUS.
UDBT-1065	Prior to this release, BDT did not recognize UniData UniObjects server-side processes as background processes. This issue has been resolved.

# U2 Basic Developer Toolkit 3.0.1

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in U2 BDT 3.0.1

Build: 1043 Release Date: March 2012

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-592	The U2 Basic Developer Toolkit Help is available in V3.0.1. You can access it from the U2 BDT main menu by selecting <b>Help &gt; Help Contents</b> . We plan to add content iteratively in this Help system in future releases of U2 DBTools.
UDBT-807	Support for UDO functions in BDT has been added at this release.

# Basic Developer Toolkit 3.0.0

These release notes provide information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in BDT 3.0.0

Build: 1022 Release Date: January 2012

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-336	The Compare option, which allows users to compare two programs with each other, quit working and failed to find the differences between the programs. This was due to a regression. This has been fixed and the Compare feature now works as expected.
UDBT-339	Prior to this release, if you created a file name that began with a Microsoft-reserved word, such as CON.TEST, BDT would allow you to create the file, which would then throw an error message. BDT now checks to see if new file names begin with a reserved word and does not allow you to proceed if a reserved word is used.
UDBT-364	Prior to this release, when a program was printed from BDT there were no line numbers included in the print out. Beginning at this release, the program information includes line numbers.
UDBT-368	Beginning at this release, device licensing can be used when launching run/debug sessions of BASIC programs. A "Use Device License" checkbox has been added to the advanced settings section for server connections. With this checkbox selected, run/debug sessions will not consume extra database licenses when run from the same server connection. Note that device licensing does not apply to subsequent connections through the Resource View, only to run/debug sessions on the same connection.
UDBT-369	Some users found that when they attempted to debug a BASIC program through BDT and clicked Step Over to advance to the next step, the debugger would hang. This occurred on machines connected to a Windows 2008 server. This issue has been resolved.
UDBT-371	Prior to this release, the @IDX.IOTYPE variable was not recognized as a valid variable in the BDT editor. This issue has been resolved.
UDBT-378	In BDT, the debugger only allowed access on the default Port 23, which did not allow for Secure Shell (SSH) port support. SSH port support is now available in BDT. This issue is resolved.

# Basic Developer Toolkit 1.2.4

This Readme provides information about fixes in Basic Developer Toolkit (BDT).

#### Fixes in BDT 1.2.4

Build: 7444 Release Date: May 2011

Issue Number	Description
UCC-164	Specific instances of valid syntax, such as using @VM in code, or LOOP/REPEAT, caused "unexpected token" errors in the BDT code editor. These errors have been resolved.
UCC-165	BDT displayed warnings in the code editor when scientific notation was used. These warnings have been removed and BDT now has full recognition of scientific notation.
UCC-174	BDT has been updated to allow the use of the variable name "KEY" without causing errors.
UCC-217	Creating a file through U2 Resource View caused extra data to appear in dictionaries when used with PICK accounts. This problem was fixed and enhancements were made to the dictionary editor to accommodate custom dictionary items and to support A-/S-type attributes.
UCC-233	Errors found when using a comma with the DISPLAY command were only appearing in the margins of the code editor window. These errors are now displayed in the U2 Problems tab.
UCC-252	Offline programs now display a "Read-only" tag at the bottom of the editor pane upon opening BDT. When a user clicks the tab of a program, the icon changes to show that it is offline. The text of the program is not editable. A connection to the server must be made to gain an editable version of the program.
UCC-400	Using #INCLUDE in a BASIC program would show errors in the BDT code editor. The behavior of #INCLUDE has been changed to match that of \$INCLUDE in the BDT code editor and errors no longer appear.
UCC-871	Some specific usage of the EQU syntax caused BDT to hang when opening programs. BDT has been fixed to successfully open programs containing EQU syntax.
UCC-908	Preferences modified under the <b>Window &gt; Preferences</b> menu were not being saved in BDT. This problem has been resolved at version 1.2.4.
UCC-915	U2 Eclipse-based tools have been updated to improve the file loading performance in the U2 Resource View. Full information for each file or program is loaded on- demand only. For nodes potentially containing a large amount of data, a pop- up window has been added that allows users to apply detailed pattern matching. This feature allows users to see only those files of interest and to significantly reduce the load time. Paging may be enabled and page size configured in <b>Window</b> <b>&gt; Preferences &gt; UniData/UniVerse &gt; U2 Resource View</b> .
UCC-924	When a * (comment) was contained on a line after code, the code was highlighted incorrectly in the code editor. The problem has been fixed. The code portion is now marked correctly in black and the comment is highlighted in green.

Issue Number	Description
UCC-930	After performing a refactor operation on a program, the BDT code editor was not marked to show updates and changes were not being saved to the server. This problem has been resolved. The code editor is now marked dirty after a refactoring operation.
UCC-932	The BDT Debugger was unable to show the values of watched variables after stepping into subroutines. This problem has been resolved.
UCC-949	Users can now extend server-side code for BDT by cataloging XTOOLSUB_XPRE and XTOOLSUB_XPOST (XTOOLSUB_EXECPRE and XTOOLSUB_EXECPOST respectively for UniData) to report connection errors back to the user interface.
UCC-959	Using the refactor option to rename a variable to a numeric value caused error "not a valid Basic identifier." With this fix, variables may now be refactored successfully to numeric values.
UCC-960	Using the refactor option to rename a variable to a previously-existing name caused error "not a valid Basic identifier." With this fix, variables may now be refactored successfully to existing names.
UCC-965 and UCC-166	The "Format" option in BDT was not working correctly for all code structures such as OPEN and WRITE code blocks. This option has been fixed to properly format all code structures in the code editor window.
UCC-970	Attempting to open a program in BDT when that program was already opened in another editor caused the error 'Could not find basic program "xxxxx" in account "xxxxx" on server "xxxxx".' The ability to detect the lock and display the message "Program xxxx is currently locked by user xxx" has been added at this version of BDT.
UCC-971	Opening programs containing an asterisk (*) in the ID caused an error similar to "Resource '/local-UV/HS.SALES/Database Files/BP/TEST*PROGRAM.uvbp' does not exist." This problem has been resolved.
UCC-977	In UniVerse BASIC, the XTOOLSUB subroutine now contains the <b>SetRCPToolName</b> (67) parameter that reports which Eclipse tool called the subroutine. Valid values are <b>xmlbd</b> , <b>eda</b> , <b>wsd</b> , <b>xadmin</b> , and <b>bdt</b> .
UCC-980	BDT now has the option to disable in-line compilation and syntax checking. To toggle this option, set the value for "Check syntax automatically during editing" in <b>Windows -&gt; Preferences -&gt; UniData/UniVerse -&gt; U2 Basic -&gt; Compiler</b> .
UCC-1003	When expanding files or programs in U2 Resource View, result sets with more than one page of data would only display the first page even when switching pages. This problem is fixed and pages change upon selection from the page drop-down box.
UCC-1019	Using bookmarks or tasks to open programs in BDT caused stale versions of programs to be opened after connect/reconnect. This fix opens programs according to an optimistic locking model, as follows:
	1) If the server is not connected, a bookmark or task will bring up the editor with locally-cached content and the file can not be edited. An icon appears to indicate the file is read-only.
	2) If the server is connected and the file has not been previously opened, a bookmark or task will open the editor with fresh content from the server. If the file was previously opened, the editor will use the cached version. When saving the file, optimistic locking will be used. If the file had been changed on server side while editing, a warning message will be displayed.
UCC-1028	The BDT dictionary editor caused corruption of dictionary attributes when used with PICK-flavored UniVerse accounts. This problem has been resolved in version 1.2.4.

Issue Number	Description
UCC-1039	Running programs using the BDT "Run Basic Program" option against UniData servers caused BDT to hang. This problem has been resolved and BASIC programs may now be run against UniData servers.
UCC-1046	A pop-up window allowing users to apply detailed pattern matching in the U2 Resource View has been added. This feature allows users to see only those files of interest, and to significantly reduce the load time required in accounts containing a large number of files or programs.
UCC-1124	In order to hide internal files used by SQL conversions, the filter used to hide internal and system files from the "Database Files" section in U2 Resource View has been updated to include a filter for names ending in "_SQLDEF".
UCC-1147	Items imported into dictionaries using the import option in the dictionary editor were not being saved. This problem has been fixed so that all imported items, along with any other dictionary changes, are saved.

# Basic Developer Toolkit 1.2.1

This Readme provides information about fixes in the Basic Developer Toolkit (BDT).

#### Fixes in BDT 1.2.1

Release Date: June 2010

The following issues were fixed in this release:

Issue Number	Description
UCC-49	Beginning at this release, the U2 Basic Developer toolkit now supports multilevel files.

# Basic Developer Toolkit 1.1.3

This Readme provides information about fixes in the Basic Developer Toolkit (BDT).

#### Fixes in BDT 1.1.3

Release Date: September 2009

Issue Number	Description
11471	Beginning at this release, you can create type 1, type 19, and type 25 files from the Basic Developer Toolkit.
11558	For UniVerse BASIC programs from a PI/Open-flavored account, labels and variables are now case-insensitive in the Basic Developer Toolkit by default.
11562	Prior to this release, the Basic Developer Toolkit incorrectly checked code within an \$IFDEF or \$IFNDEF statements. This code is no longer checked.

Issue Number	Description
11651	When using the Basic Developer Toolkit, using @ID in a program returned the following error:
	"expecting IDENT, found '@ID'"
	Changing @ID to ID eliminated the error. This problem has been fixed.
11652	If you displayed an error or warning the the Basic Developer Toolkit window, then clicked F2 to focus the window, and then started another application, the focused window displayed on top of the application you just started. This problem has been fixed.
11653	If a multiline EQU statement appeared in a program, the Basic Developer Toolkit returned an "unexpected token at the end of this line" message on the first line, and "unexpected token: TO" on each additional line. This problem has been fixed.
11656	Before this release, the Basic Developer Toolkit produced "unexpected token" errors when using the call or CALL statement. This problem has been fixed.
11673	Prior to this release, debugging a background phantom process or an interactive phantom process did not work on UNIX platforms. This problem has been resolved.
11774	The Basic Developer Toolkit may have hung when using the colon (":") and ampersand ("&") characters. An error was written to the client-side log. This problem has been fixed.
38321	When editing properties in the Advanced Connection Details dialog box, the Basic Developer Toolkit did not remember the password, even though "Remember Me" was selected. This problem has been fixed.
38700	If a comment appeared within IF/THEN statements, unexpected errors occurred, including an unexpected end-of-file. This problem has been resolved.
39848	When using the debugger, you can now update variable values from the main screen, rather than having to enter subscreens.
38978	Prior to this release, the Basic Developer Toolkit was unable to open remote INCLUDE files on UNIX platforms only.
39036	The Basic Developer Toolkit now supports the CRT/PRINT @(C,R) output statement on Windows platforms.
39059	If you selected any UniVerse BASIC Program Options through the Basic Developer Toolkit, the options were not saved the next time you opened the window. This problem has been fixed.
39060	The Basic Developer Toolkit no longer displays error messages when using the ON ERROR statement.
39105	Before this release, you could not open or create a UniVerse BASIC program in the Basic Developer Toolkit if you were running in the PI/Open flavor. This problem has been resolved.
39173	When using the Basic Developer Toolkit on UniVerse Windows platforms, you would not attach to a process. This problem has been fixed.
39306	You can now create directory files through the Basic Developer Toolkit.
40344	On Linux platforms only, the following error message was displayed when trying to execute a debug process:
	"Can not attach debug line. Device name = tty"
	This problem has been fixed.

# **U2 EDA Replication Configuration Tool**

The release notes in this section provide information about changes in the U2 EDA Replication Configuration Tool.

The U2 EDA Replication Configuration Tool is an Eclipse-based tool used to replicate your data to a SQL database, in addition to keeping your data safely stored in UniData. It allows you to store your data in UniData while it is simultaneously replicated to Oracle, IBM DB2, or Microsoft SQL Server. Use the replicated database for data-mining or reporting while you use UniData as your production workhorse.

# U2 EDA Replication Configuration Tool 4.83.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

#### Fixes in U2 EDA Replication Configuration Tool 4.83.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
UDBT-3141	Previously, when using the EDA Replication Configuration Tool to configure replication, <b>82</b> was not an available option in the <b>Version</b> drop-down menu. This issue has been resolved.

### U2 EDA Replication Configuration Tool 4.82.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

#### Fixes in U2 EDA Replication Configuration Tool 4.82.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue number	Description
UDBT-3043	Prior to this release, users were unable to create a new data source when using the right-click menu options from the EDA Replication Configuration tool. Now, users are able to create a new data source. Users are also able to create an EDA Map Schema.
UDBT-3044	Previously, users who were converting replicated files to EDA files may have experienced an error similar to the following: Unable to access regroup1 This issue has been resolved.
UDBT-3050	Previously, when users ran file sync using the EDA Replication Config tool, U2EDARepXCopy would compare with XTOOLSUB. A new versionEDARepXCopy.txt file has been added so the U2EDARepXCopy program can be verified without ties to the XTOOLSUB version.txt file.

Issue number	Description
UDBT-3054	Prior to this release, users may have experienced the following error when using the EDA Replication Config tool to do replication:
	Command failed at Subscribing Group
	This issue has been resolved.

# U2 EDA Replication Configuration Tool 4.81.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

#### Fixes in U2 EDA Replication Configuration Tool 4.81.0

There were no customer issues in this release. To see a list of fixes and new features common to all Eclipse-based tools, see <u>Shared components</u>, on page 4.

# U2 EDA Replication Configuration Tool 3.82.1

These release notes provide information about fixes in the EDA Replication Configuration Tool.

#### Fixes in U2 EDA Replication Configuration Tool 3.82.1

There were no customer issues in this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components, on page 4</u>.

# U2 EDA Replication Configuration Tool 3.82.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

#### Fixes in U2 EDA Replication Configuration Tool 3.82.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-2172	Beginning at this release, 74 is an available option for UniData users in the replication system definition.
UDBT-2174	Prior to this release, attempting to synchronize replication files in the EDA Replication Configuration tool would cause the following error on dbresume "dbresume: sh: -c: line 0: syntax error near unexpected token `/ud_repadmin." This issue has been resolved.

### U2 EDA Replication Configuration Tool 3.81.2

These release notes provide information about fixes in the EDA Replication Configuration Tool.

Build: 2082 Release Date: January 2014

#### Fixes in U2 EDA Replication Configuration Tool 3.81.2

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 EDA Replication Configuration Tool 3.81.1

These release notes provide information about fixes in the EDA Replication Configuration Tool.

Build: 2054 Release Date: November 2013

#### Fixes in U2 EDA Replication Configuration Tool 3.81.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 EDA Replication Configuration Tool 3.81.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

Build: 2025 Release Date: October 2013

#### Fixes in U2 EDA Replication Configuration Tool 3.81.0

There were no customer issues in this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components, on page 4</u>.

### U2 EDA Replication Configuration Tool 3.80.0

These release notes provide information about fixes in the EDA Replication Configuration Tool.

Build: 1043 Release Date: March 2012

#### Fixes in U2 EDA Replication Configuration Tool 3.80.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
	Support for the EDA Replication Configuration Tool has been added at this release. This tool is currently available for UniData only.

# U2 EDA Schema Manager

The release notes in this section provide information about changes in the U2 EDA Schema Manager.

U2 EDA Schema Manager is an Eclipse-based tool that allows users to create and manage schemas for conversion of data stored in a U2 database to a first normal form database such as Microsoft SQL Server.

# U2 EDA Schema Manager 4.33.0

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manger 4.33.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
UDBT-3165	Prior to this release, the EDA Schema Manager would fail when virtual fields were used. This issue has been resolved.
UDBT-3166	Beginning at this release, the dot SB/XA dictionary items will not be listed in the EDA <b>U2 File Dictionary</b> list as they are not a valid field for the EDA Schema.
UDBT-3171	Beginning at this release, if EDA Create Schema fails, details of the failure will be displayed in a dialog box.
UDBT-3237	UniData only. Prior to this release, V-type virtual fields would not display, but I- type and dictionary fields would display correctly. This issue has been resolved.
UDBT-3241	Beginning at 4.2.0, users were unable to create new objects using the EDA Schema Manager and could have seen an error message similar to the following:
	Attribute Name should be one of the U2Fields
	This error message was incorrectly displayed, as it should have only applied to attributes. This issue is now resolved.
UDBT-3250	UniData only. Previously, EDA would not generate the correct SQL statement for TRANS fields.

### U2 EDA Schema Manager 4.32.0

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manager 4.32.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue number	Description
UDBT-3025	Previously, XTOOLSUB could have caused the EDA Schema Manager to overwrite the EDAMAPSUB subroutine. XTOOLSUB has been updated. This issue has been resolved.

# U2 EDA Schema Manager 4.31.0

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manager 4.31.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
UDBT-2617	Beginning at the December 2015 U2 DBTools release, UniVerse users on version 11.3.0 or earlier could not use the EDAMAPSUB subroutine, as it no longer mapped to the SQL Server DATETIME field correctly. This was caused by a server-side enhancement that allowed users to map to the SQL Server 2008 DATE and TIME fields.
	Until SQL Server 2008, there was only a DATETIME field to which the UniVerse DATE or TIME field would be mapped. SQL Server 2008 introduced the individual DATE and TIME fields.
	Beginning at this release for both UniVerse and the U2 DBTools, the EDAMAPSUB subroutine will check the database version to determine how the mapping will work.
	For versions earlier than UniVerse 11.3.1, the UniVerse DATE and TIME will map to SQL Server DATETIME field.
	For UniVerse 11.3.1 and later, the UniVerse DATE and TIME will map to the SQL Server DATE and TIME fields, respectively.

### U2 EDA Schema Manager 3.32.1

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manager 3.32.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-2239	When the EDA Schema Manager was upgraded from the October 2013 version to the August 2014 version on UniData version 7.3.6, the virtual fields would disappear. This issue has been resolved.

# U2 EDA Schema Manager 3.32.0

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manager 3.32.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1801	If you tried to create a new EDA Map Schema in the EDA Schema Manager, the same file name was displayed twice when you clicked the file name. This issue is resolved.

### U2 EDA Schema Manager 3.31.2

These release notes provide information about fixes in the EDA Schema Manager.

Build: 2082 Release Date: January 2014

#### Fixes in U2 EDA Schema Manager 3.31.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1669	An enhancement has been made to EDA that allows users to alter or change existing schemas without having to reload the existing tables. The GUI tool now contains an <b>EDA Alter</b> button. Now a user can add an attribute to the EDA Schema in the editor and then click <b>Convert &gt; EDA Alter</b> and the new attribute will be appended to the table without the table having to reload.
UDBT-1822	Prior to this release, when an unmapped block was set to 0, the <b>Whole Record</b> and <b>Nonconforming Record</b> fields were not set to <b>No</b> , the settings were not saved. EDA now checks to make sure that all fields are set appropriately and saves the changes when the settings are correct. This issue is resolved.

### U2 EDA Schema Manager 3.31.1

These release notes provide information about fixes in the EDA Schema Manager.

Build: 2054 Release Date: November 2013

#### Fixes in U2 EDA Schema Manager 3.31.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-923	Prior to this release, users could not map PICK-style DICT items to SQLServer with TRANS or DATA type in the Schema mapping tool. Now, the TRANS and DATA types map as expected. For existing schema maps, ensure the TRANS fields have attribute type "TRANS" instead of "DATA. This issue has been resolved.
UDBT-1233	Prior to this release, the attributes in the DDL create table statement were not sorted by dictionary order. This made it difficult for users to find a particular attribute, especially in cases when the primary key needed to be the first column in a table. Beginning at this release, fields in the schema map are saved in dictionary location order by default. Users can also choose other sorting options by right- clicking on the schema map. This issue is resolved.
UDBT-1235	An enhancement has been made to the EDA Schema Manager tool so that when a UniData file is converted, the owner and group permissions do not get changed, but instead keep the permissions from the original permissions on the file. However, only the administrator (root on UNIX, or udadm users) can retain the owner/group information. If a non-root user converts the file, the new file will have this user's owner/group information.
UDBT-1669	An enhancement has been made to EDA that allows users to alter or change existing schemas without having to reload the existing tables. The GUI tool now contains a "EDA Alter" button. Now a user can add an attribute to the EDA Schema in the editor and then click Convert > EDA Alter and the new attribute will be appended to the table without the table having to reload.

# U2 EDA Schema Manager 3.31.0

These release notes provide information about fixes in the EDA Schema Manager.

Build: 2025 Release Date: October 2013

#### Fixes in U2 EDA Schema Manager 3.31.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see the <u>Shared</u> <u>components, on page 4</u>.

Issue Number	Description
UDBT-1481	In the EDA Schema Manager tool, the data type for the @ID location field was incorrectly set to DATA. The data type for the @ID field is now set to ID DATA and working as expected. This issue is resolved
UDBT-1480	Prior to this release, SQL column names could not exceed 30 characters in length against SQL Server. This has been changed and the SQL column names now have a 60 character limit when using EDA connections to SQL Server. This issue has been resolved.
UDBT-1478	Prior to this release, users could not create an EDA schema map if certain special characters, such as an ampersand (&) were contained in field 4. EDA Schema Manager now allows for the following special characters: &, <, > and ". This issue has been resolved.

### U2 EDA Schema Manager 3.30.1

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in U2 EDA Schema Manager 3.30.1

Build: 1043 Release Date: March 2012

There were no customer issues at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

# EDA Schema Manager 3.30.0

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in EDA Schema Manager 3.30.0

Build: 1022 Release Date: January 2012

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
UDBT-27	Some AIX UD 7.2.8 and HPUX UD 7.2.x users who tried to create an EDA data source name against the server saw the following error: "Failed to open file EDA_DATA". This issue has been resolved.

### EDA Schema Manager 1.2.3

These release notes provide information about fixes in the EDA Schema Manager.

#### Fixes in EDA Schema Manager 1.2.3

Build: 7444

Release Date: May 2011

Issue Number	Description
UCC-1104	In EDA Schema Manager, the EDA Map menu option "EDA Scripts" was changed to "Get DDL Scripts" to more accurately reflect the behavior of this menu option.

# U2 Metadata Manager

The release notes in this section provide information about changes in the U2 Metadata Manager.

The U2 Metadata Manager is an Eclipse-based, client-side tool used to make changes to the U2 database servers. It allows users to better describe the type of data stored in each location of their data files and is also used to define first normal form exposure.

# U2 Metadata Manager 4.73.0

This release note provides information about fixes in the U2 Metadata Manager.

Fixes in U2 Metadata Manager 4.73.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 Metadata Manager 4.72.0

This release note provides information about fixes in the U2 Metadata Manager.

Fixes in U2 Metadata Manager 4.72.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 Metadata Manager 4.71.0

This release note provides information about fixes in the U2 Metadata Manager.

#### Fixes in U2 Metadata Manager 4.71.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue number	Description
UDBT-2733	Prior to this release, changing a table name in MDM deleted information from the
	_METADATA_REPOSITORY_ file. This has now been resolved

### U2 Metadata Manager 3.73.1

This release note provides information about fixes in the U2 Metadata Manager.

#### Fixes in U2 Metadata Manager 3.73.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-2186	In previous versions, when there was a large number of attributes selected for the virtual and 1NF attributes, and it produced a string larger than the U_SENTLEN limit (maximum sentence length) in UniData, an error occurred. Now, an error displays if the length of the string of the selected attributes exceeds the limit of 9247.

### U2 Metadata Manager 3.73.0

This release note provides information about fixes in the U2 Metadata Manager.

#### Fixes in U2 Metadata Manager 3.73.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 Metadata Manager 3.72.2

This release note provides information about fixes in the U2 Metadata Manager.

Build: 2082 Release Date: January 2014

#### Fixes in U2 Metadata Manager 3.72.2

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 Metadata Manager 3.72.1

This release note provides information about fixes in the U2 Metadata Manager.

Build: 2054 Release Date: November 2013

Fixes in U2 Metadata Manager 3.72.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 Metadata Manager 3.72.0

This release note provides information about fixes in the U2 Metadata Manager.

Build: 2025 Release Date: October 2013

#### Fixes in U2 Metadata Manager 3.72.0

There were no customer issues at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

# U2 Metadata Manager 3.71.0

This release note provides information about fixes in the U2 Metadata Manager.

Build: 1099 Release Date: March 2013

### Fixes in U2 Metadata Manager 3.71.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1325	Some users found that the scroll bar did not always stay in a fixed position when choosing alternate fields in the U2 MDM wizard. This issue has been resolved.
UDBT-1322	Some UniVerse users found that the U2 MDM schema tool reported stale schema on the server when the schema was not stale. This issue has been resolved.
UDBT-1290	Prior to this release, if a user ran U2 MDM on the Demo account and then uninstalled and reinstalled UniData, the METADATA_REPOSITORY file was left in the Demo account. After re-installing UniData, the MDM tool would encounter an issue when this occurred, because the VOC did not have the METADATA_REPOSITORY file pointer, but the file system had the physical file. The files now sync as expected. This issue is resolved.
UDBT-1259	Some users found that they could not open a new editor if the metadata editor was already open for the same file. This issue has been resolved.
UDBT-1236	Prior to this release, Basic subroutines that were converted by U2 MDM did not return all of the subtable information. This issue has been resolved.
UDBT-1150	Previously, the U2 MDM tool did not automatically create a schema after the metadata/1NF map was created. Beginning at this release, users can select the <b>Create schema</b> option as the final step of the wizard process. If this option is selected, a new schema will be created when the wizard creates the new 1NF map.
UDBT-1145	Beginning at this release, the U2 Metadata Manager supports UniVerse 11.1.11 or later.
UDBT-1031	When a table was opened in the graphical view of the U2 MDM editor, and a user right-clicked on a field name to view the table properties, the dictionary field properties did not display correctly. This issue has been resolved.

### U2 Metadata Manager 3.70.2

This release note provides information about fixes in the U2 Metadata Manager.

Build: 1080 Release Date: November 2012

### Fixes in U2 Metadata Manager 3.70.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1140	The U2 MDM tool has updated the way it selects the initial field that will represent the attributes for a file. Fields with a data type other than VARCHAR and/or FMT fields not set to 10 or L are given precedence over fields containing the default settings.
UDBT-1131	Prior to this release, when a user created a new set of metadata using the U2 MDM editor, a second, unused editor was also created. This second editor no longer opens and the issue is resolved.
UDBT-1129	Prior to this release, the table graphics in the graphical editor used horizontal scroll bars located on the bottom of each table representation, causing users to have to scroll horizontally to view a vertical list. This has been changed, and the table graphics now use the more standard right-side, vertical scroll bars. This issue has been resolved.
UDBT-1125	In the U2 MDM wizard, users found that if they selected virtual fields and then clicked <b>Finish</b> instead of <b>Next</b> , the virtual field selection would be lost. This did not occur if the user selected <b>Next</b> and continued in the wizard to create the 1NF map page. Users can now use the wizard to select virtual fields for their metadata files without having to also create a 1NF map. This issue has been resolved.
UDBT-1119	Prior to this release, U2 MDM could not handle multiline error messages. This issue has been resolved.
UDBT-1117	The U2 Metadata Manager's Schema Tools verify tab uses JDBC to connect to the U2 databases. It uses the account name in the connection string. Prior to this release, it used the account name, instead of the account path on the server. This meant that the account name had to be located in the \$UDTHOME/include/ ud_database file on the server. The JDBC connection now uses the fully specified path instead, so that the account name no longer has to reside in the ud_database file on the server.
UDBT-1106	Some users found that U2 MDM failed to load the field data from the repository. When data saved in the _METADATA_REPOSITORY_ file was loaded, none of the single-valued fields or containers would open. This occurred only when a dictionary item contained an item with the same name as the data file. All data now loads as expected. This issue has been resolved.
UDBT-1097	If a metadata repository record existed for a database file, but the database file/ dictionary was not present on the account, a Null Pointer Exception was thrown when the user right-clicked on the file name in the "Metadata Repository" section of the U2 Resource view. This occurred when a file was mapped and then later deleted from the account. It also occurred when the data for the file was deployed from the metadata repository to an account that did not contain the mapped file's database file. These conditions no longer cause a Null Pointer Exception and instead generate a regular error message explaining that metadata still exists for a file even though the file itself is gone. This is also recorded in the Eclipse error log. This issue has been resolved.
UDBT-1045	Prior to this release, some users found that the Schema tool would report that a schema on the server was stale even when it was not stale. This issue has been resolved.

Issue Number	Description
UDBT-1033	In the U2 MDM wizard, users found that if they made a virtual association selection, clicked <b>Next</b> and selected some 1NF map attributes, clicked <b>Back</b> and deselected one of the virtual attributes and then clicked <b>Next</b> again to continue, the virtual field selection would be lost. This issue has been resolved.
UDBT-899	Prior to this release, users who attempted to use the schema tool against schemas with VSG schema version 4000.00.01 that had not updated using the MIGRATE.SQl command, saw the following unhelpful error: "Generation of the schema data on the server failed for file: XXXX. Error code: –1. Can't open UD_SQLTABLES". Now, users see a message that tells them they need to update the schema using the MIGRATE.SQL command. This issue has been resolved.

# U2 Metadata Manager 3.70.1

This release note provides information about fixes in the U2 Metadata Manager.

Build: 1050 Release Date: May 2012

### Fixes in U2 Metadata Manager 3.70.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-937	The U2 Metadata Manager now supports virtual attributes for UniData accounts. Note that data type enforcement is not supported for these virtual attributes.
UDBT-957	Prior to this release, some users found that under certain circumstances a file's record in the METADATA_REPOSITORY would become corrupt and could not be opened in the U2 MDM editor. This occurred when a file that existed in the metadata repository without any 1NF mapping was loaded into the U2 MDM editor and a change was made in the metadata and then the file was saved without a 1NF map. This issue has been resolved.
UDBT-976	When users attempted to use the Ctrl + click-and-drag feature to create a new metadata file in the U2 MDM editor, a null pointer exception was thrown. This issue has been resolved and users can now use this feature as expected.
UDBT-983	Prior to this release, you could not delete schema data. The U2 MDM editor now allows you to clear the schema data from the repository, either by right-clicking the file name in the U2 Resource view and then selecting <b>Delete</b> from the menu, or by clicking the <b>Delete</b> button on the toolbar when the schema is open in the schema editor. This issue has been resolved.
UDBT-1007	When users attempted to generate a schema on a dictionary file that contained a Basic keyword in the multivalue association, the schema generation would fail. Now, if a Basic keyword is used, U2 MDM adds an underscore to the end of the reserved word. For example, if OCONV is used in the dictionary it is changed to OCONV_ in the schema map. This issue has been resolved.
UDBT-1013	The U2 MDM tool now allows you to define the trace level for JDBC logging when testing a schema.

Issue Number	Description
UDBT-1028	Tables based on multivalued associations cannot contain only virtual fields and must contain at least one D-type field, in addition to the primary key. If this situation occurs, an icon now appears next to the table name that warns the user that a D-type field is required.
UDBT-1030	Prior to this release, some dictionary fields were sized incorrectly in the U2 MDM editor. This issue has been resolved.

# U2 Metadata Manager 3.70.0

This release note provides information about fixes in the U2 Metadata Manager.

Build: 1043 Release Date: March 2012

### Fixes in U2 Metadata Manager 3.70.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-672	Support has been added for U2 Metadata Manager at this release. This tool is currently available for UniData only.
UDBT-921	The U2 Metadata Manager Help is available in V3.70.0. You can access it from the U2 MDM main menu by selecting <b>Help &gt; Help Contents</b> . We plan to add content iteratively in this Help system in future releases of U2 DBTools.

# U2 RESTful Web Services

The release notes in this section provide information about changes to the U2 RESTful Web Services.

# U2 RESTful Web Services 4.63.0

These release notes provide information about fixes to U2 RESTful Web Services.

### Fixes in U2 RESTful Web Services 4.63.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
UDBT-3201	In v4.3.0, U2 RESTful Web Services has been enhanced to allow MV Discover to use database credentials to protect its REST API endpoints using HTTP Basic authentication.
UDBT-3217	Previously, the RESTful Web Service Developer would display loopback scan messages even if a user had not defined a service. This was caused by a Jetty component that was added that scans a directory for configuration changes and logs at the debug level each time it does a scan. This issue is resolved.
UDBT-3175	Prior to this release, a file with spaces in the IDs could be invalid because of the URI that was created. This issue has been resolved.

## U2 RESTful Web Services 4.62.0

These release notes provide information about fixes to U2 RESTful Web Services.

### Fixes in U2 RESTful Web Services 4.62.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue number	Description
UDBT-2903	Beginning at this release, any action that requires a write method such as PUT, DELETE, or POST on a locked file record will now return an HTTP 409 error.
UDBT-2917	Previously, users were unable to open large dictionaries using the U2 Resource view for RESTful Web Services. The following parameters were added to the u2rest.ini file to increase Java memory: -Xms40m
	-Xmx1200m This issue has been resolved.
UDBT-2955	Prior to this release, when creating or amending Access Control for a RESTful web service after adding an HTTP user and selecting ANY ROLE and one or more methods, users may have seen an HTTP Error 403 or a !role message. This occurred on both data and subroutine services. This issue has been resolved.

Issue number	Description
UDBT-3000	Beginning at this release -Dloopbackonly=true can be added to the startup script to change the IP address to 127.0.0.1. Changing the IP address to 127.0.0.1 enables only the local server to connect to any port that the web server has enabled.

# U2 RESTful Web Services 4.61.0

These release notes provide information about fixes to U2 RESTful Web Services.

### Fixes in U2 RESTful Web Services 4.61.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed at this release:

Issue number	Description
UDBT-2279	Previously, U2 WSD or U2 REST servers could not disable SSLv2 or SSLv3 due to the use of Java 1.7 or lower. The current release has included Java 1.8 to allow the disablement of these SSL versions, which are now disabled by default. To reenable these SSL versions, the U2SOAP.config and U2REST.config files must be manually modified to allow them.
UDBT-2602	Prior to this release, users could not deploy their RESTful web services when using the generated deployment configuration file. This issue has been resolved.
UDBT-2744	Beginning at this release, the secure connection between a U2 REST or U2 SOAP server will attempt to negotiate the highest possible security protocol to the U2 database automatically. SSLv3 is turned off automatically from any negotiation by the latest JVM's.

# U2 RESTful Web Services 3.62.1

These release notes provide information about fixes to U2 RESTful Web Services.

### Fixes in U2 RESTful Web Services 3.62.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1818	In previous versions, if more than 10 input fields were defined and tested on the web service, an error occurred. This issue has been resolved.
UDBT-1817	In previous versions, when generating resources from a U2 file in U2 RESTful Web Services Developer, if you selected a dictionary name that contained a backslash character, the resource name reflected a change of the backslash character to an underscore. When the U2 RESTful Web Services Developer server started up and attempted to open that data resource, an HTTP 404 error would occur. This issue has been resolved.

# U2 RESTful Web Services 3.62.0

These release notes provide information about fixes to U2 RESTful Web Services.

#### Fixes in U2 RESTful Web Services 3.62.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed at this release:

Issue Number	Description
UDBT-1512	Beginning at this release, U2 RESTful Web Services uses and supports JRE 1.7 in the development and deployment environments. In order to use Java 7, U2 RESTful Web Services was re-architected and no longer has a dependency on Java Persistence API (JPA) technology. In order to take advantage of the newly architected U2 RESTful Web Services, you must first back up your existing development environment, using the methods described in the U2 RESTful Web Services User Guide. After backing up your files, follow the installation prompts which will automatically convert any existing data resources and services to work with the re-architected U2 RESTful web services.
	<b>Note:</b> The file conversion is a one-time process and cannot be undone. U2 recommends that you make a backup copy of these files before completing the conversion process.
	<b>Warning:</b> The application must be tested in the development environment before redeploying any U2 RESTful web services. Do not make any manual changes to the generated files, as this may break the application.
UDBT-1876	Beginning at this release, users can modify the Java heap size for a Java virtual machine when starting a REST server. This option can be utilized by navigating to <b>Window &gt; Preferences &gt; U2 RESTful Web Services Developer</b> , and then selecting Set Java heap sizes. This option is not enabled by default.
UDBT-1908	An enhancement has been made so that if U2 RESTful Web Services encounters an INPUT parameter and the client have not passed anything in that parameter, then it will fill that parameter with the IP Address of the request before calling the Basic program with the data passed from the client.
UDBT-1914	Prior to this release, some users found that U2 RESTful Web Services would return an empty JSON array when an association contained only one multivalued field. This issue has been resolved.
UDBT-1938	Beginning at this release, when a new version of U2 RESTful Web Services is installed users will see a message asking them to backup their files.
UDBT-1944	Prior to this release, U2 SOAP services and U2 RESTful web services could only be deployed onto the C:\ drive. Users can now deploy the services on any drive. This issue has been resolved.

# U2 RESTful Web Services 3.61.2

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 2082 Release Date: January 2014

### Fixes in U2 RESTful Web Services 3.61.2

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

## U2 RESTful Web Services 3.61.1

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 2054 Release Date: November 2013

#### Fixes in U2 RESTful Web Services 3.61.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 RESTful Web Services 3.61.0

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 2025 Release Date: October 2013

#### Fixes in U2 RESTful Web Services 3.61.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1692	When a user tried to import the RESTful web services from a deployed package, a duplicate copy of the server name was made in the U2 Resource view. Deleting the duplicated copy also deleted the original server information. Importing web services from the deployed package now works as expected. This issue is resolved.
UDBT-1640	Some users found that after a REST server has been exported, deployed and installed on the target computer, the authentication type would reset to 'digest' and could only be changed in the u2rest.config file. Users can now define or change the authentication type both in the GUI tool and from the command line. This issue has been resolved.
UDBT-1497	When users backed up U2 REST directories and then later attempted to restore those directories on a new machine, duplicate server names were created in the U2 Resource view. Deleting these duplicated names deleted both the original server and the duplicate. This issue has been resolved.
UDBT-1494	U2 RESTful Web Services now allows users to import the services developed in one U2 RESTful Web Services Developer instance into another instance of the Developer. This includes the ability to import, update, and merge the web services.

Issue Number	Description
UDBT-1444	Prior to this release, U2 RESTful Web Services did not support A-type or S-type dictionaries when creating a REST server. Now, users can select the A-type and S-type fields with correlatives and generate U2JPA classes that include these fields. Two buttons have been added to the REST server wizard, Raise All MS to MV and Raise All MS to S, that makes it easy for the user to specify the true S/M value for the fields with only the M value specified.
UDBT-1443	Prior to this release, users could not easily select all S-type dictionary items. An option has been added to the U2 REST developer that allows users to select all S-type dictionaries when a PICK files is selected. This issue has been resolved.
UDBT-1366	When users created a data resource to a PICK-style account, they were unable to select any dict items pointing to attribute 0 (ID). Users can now select dict items located in attribute 0. This issue has been resolved.

# U2 RESTful Web Services 3.60.7

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1114 Release Date: June 2013

### Fixes in U2 RESTful Web Services 3.60.7

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed at this release:

Issue Number	Description
UDBT-1379	When input string parameters were left blank in a RESTful subroutine service, the subroutine would crash with a Server 500 error. This issue has been resolved.
UDBT-1440	Prior to this release, if multiple associations were used out of sequence in the U2 REST subroutine resource, the resource would fail with a Server 500 error. This was only seen if an association was referenced multiple times out of sequence. This was caused by a mapping error in the dynamic array. This issue has been resolved.

## U2 RESTful Web Services 3.60.5

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1099 Release Date: March 2013

### Fixes in U2 RESTful Web Services 3.60.5

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1230	Prior to this release, from the Edit Resource Folder page in the U2 REST resource wizard, users could not change the name of the server to which they were attempting to connect. Now, both the name of the account and the name of the server can be changed in the wizard. This issue is resolved.
UDBT-698	Prior to this release, U2 REST did not provide the functionality needed to register a REST server as a service, preventing the services from being started automatically. Beginning at this release, users can start and stop a REST server as a service. To start the REST server as a service:
	U2restservice.exe –i u2rest-server-name [-s u2rest-service-name] [-d u2rest- service-description]
	The default value for <b>-s</b> is u2rest-server-name. The default value for <b>-d</b> is "U2 RESTful service to start and stop U2 REST server". After you install the service you can start or stop the u2rest-server-name as a Windows service from the Windows control panel. When you start the service it executes 'runrestserver.bat u2rest-server-name' and waits until this bat file exits. When you stop the service, it executes 'stoprestserver.bat u2rest-server-name'. You can pass additional arguments to runrestserver.bat by specifying the start parameters to the service.
	To remove the U2 REST server as a service:
	U2restservice.exe –r u2rest-server
	Detailed instructions on deploying a U2 REST server as a service can be found in U2 RESTful Web Services Help.

# U2 RESTful Web Services 3.60.4

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1080 Release Date: November 2012

### Fixes in U2 RESTful Web Services 3.60.4

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed at this release:

Issue Number	Description
UDBT-1179	The documentation for U2 RESTful Web Services is now included in the Eclipse Help. To access the documentation from within the tool, select <b>Help &gt; Help</b> <b>Contents</b> from the Eclipse toolbar and then select <b>U2 RESTful Web Services</b> from the Contents list.
UDBT-700	A new subroutine parameter type, <b>json</b> , was added to the tool which allows the U2REST server to interact with U2 Dynamic Object (UDO), which can be used to consume and present the JSON object both to and from the subroutine, and will ensure the correct JSON format is used. This issue has been resolved.

# U2 RESTful Web Services 3.60.3

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1053 Release Date: June 2012

### Fixes in U2 RESTful Web Services 3.60.3

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed at this release:

Issue Number	Description
UDBT-808	Beginning at this release, a <b>New Dynamic Array</b> menu item has been added to the <b>U2 REST Servers &gt; Subroutine Resources &gt; Dynamic Array Definitions</b> context menu. Prior to this, users could only create a new dynamic array by dragging it from the U2 Resource view.
UDBT-947	Users saw incorrect tool tips and menu options when defining new dynamic arrays and subroutines. This issue has been resolved.
UDBT-963	Users who mapped a UniVerse multi-subvalue field in the U2 RESTful Web Services developer and then renamed the resource found that this resulted in invalid, duplicated names. This caused the resource to break and in some instances also caused the U2 RESTful server to fail. This issue has been resolved.
UDBT-966	Prior to this release, you could not define multiple access control lists (ACLs) on the same resource. For example, if you created an admin ACL for your POST, PUT, and DELETE methods, you could not then define a restricted user role for the GET method. Users can now define multiple ACLs on the same resource. This issue has been resolved.
UDBT-967	Prior to this release, in U2 RESTful Web Services, users found they could not keep a persistent connection if they used the runstartserver.bat and runrestserver.sh processes. These processes now start a RESTful Web server when called, solving this problem.
UDBT-993	When users developed an SSL-enabled U2 RESTful Web service, the URI connection property did not change from HTTP to HTTPS. Developers had to manually insert the 's' character. This issue has been resolved and the connection property now automatically changes from HTTP to HTTPS.
UDBT-994	Prior to this release, users could not import or export any HTTP users or Access Control properties from your U2 RESTful Web services. This issue has been resolved.

# U2 RESTful Web Services 3.60.2

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1045 Release Date: April 2012

### Fixes in U2 RESTful Web Services 3.60.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-948	If the data resource name was changed in U2 RESTful Web Services Developer, restarting the service and attempting a connection caused an HTTP 500 error. This error was caused by .jar files associated with U2 RESTful Web Services Developer versions not getting updated correctly. This problem has been resolved in this update.

# U2 RESTful Web Services 3.60.1

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1043 Release Date: March 2012

### Fixes in U2 RESTful Web Services 3.60.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed at this release:

Issue Number	Description
UDBT-691	Some users encountered an XTOOLSUB 'Base 64' error instead of the appropriate permission error when connecting to servers where an XTOOLSUB update was required but permissions were insufficient to write the update. This issue has been resolved.
UDBT-709	Prior to this release, when a user created a new U2 RESTful resource, added a subroutine to the resource without adding a data type, and then tried to export that subroutine resource, the export would fail. This issue has been resolved and U2 RESTful resources that contain only a subroutine now export as expected.
UDBT-908	When users defined a UniVerse or UniData data type field as either "MS" or "MV", U2 REST would incorrectly treat that data type as an "M" type. This issue has been resolved.

### U2 RESTful Web Services 3.60.0

These release notes provide information about fixes to U2 RESTful Web Services.

Build: 1022 Release Date: January 2012

### Fixes in U2 RESTful Web Services 3.60.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-21	Support for U2 RESTful Web Services has been added at this release.

# U2 Web Services Developer

The release notes in this section provide information about changes in the U2 Web Services Developer (WSD).

U2 Web Services Developer (WSD) allows you to create and deploy your Web Services applications, and manage your SOAP servers. This is an Eclipse-based tool.

# U2 Web Services Developer 4.23.0

These release notes provide information about fixes in the U2 Web Services Developer.

### Fixes in U2 Web Services Developer 4.23.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
	Prior to this release, the U2 SOAP services could only be deployed onto the C : \
	drive. Users can now deploy the services on any drive.

# U2 Web Services Developer 4.22.0

These release notes provide information about fixes in the U2 Web Services Developer.

### Fixes in Web Services Developer 4.22.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue number	Description
UDBT-2920	Beginning at the Dec2015 release, U2 Web Services Developer services would not work with CORS requests. This was caused by an upgrade to the Jetty 9.x server. This issue has been resolved.
UDBT-2922	Prior to this release, users would manually adjust rows when adding or deleting a field in the Web Services Developer. Now, a dialog box opens to show that the field is already in use and offers to move the new field to the requested location and move up the location of the fields above the insertion. This issue has been resolved.

# U2 Web Services Developer 4.21.0

These release notes provide information about fixes in the U2 Web Services Developer.

### Fixes in Web Services Developer 4.21.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

# U2 Web Services Developer 3.22.1

These release notes provide information about fixes in the U2 Web Services Developer.

### Fixes in Web Services Developer 3.22.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-2468	Prior to this release, on Linux there was a timeout issue when closing a socket whose counterpart was already closed. This issue has been resolved with an updated uoj.jar file.
UDBT-2440	Prior to this release, if connection pools were idle and the database had cleaned up all connections, any SOAP request would fail with an error similar to:
	asjava.uniobjects.UniSessionException: The connection is bad, and may be passing corrupt data
	This issue has been resolved.

# U2 Web Services Developer 3.22.0

These release notes provide information about fixes in the U2 Web Services Developer.

#### Fixes in Web Services Developer 3.22.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue number	Description
UDBT-1557	Prior to this release, U2 SOAP services could only be deployed onto the C:\ drive. Users can now deploy the services on any drive. This issue has been resolved.
UDBT-1876	Beginning at this release, users can modify the Java heap size for a Java virtual machine when starting a U2 SOAP server. This option can be utilized by navigating to <b>Window &gt; Preferences &gt; U2 Web Services Developer</b> , and then selecting Set Java heap sizes. This option is not enabled by default.
UDBT-1944	Prior to this release, U2 SOAP services and U2 RESTful web services could only be deployed onto the C:\ drive. Users can now deploy the services on any drive. This issue has been resolved.

# U2 Web Services Developer 3.21.2

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 2082 Release Date: January 2014

#### Fixes in Web Services Developer 3.21.2

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

## U2 Web Services Developer 3.21.1

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 2054 Release Date: November 2013

### Fixes in Web Services Developer 3.21.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### U2 Web Services Developer 3.21.0

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 2025 Release Date: October 2013

#### Fixes in Web Services Developer 3.21.0

There were no customer issues in this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components, on page 4</u>.

### U2 Web Services Developer 3.20.4

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1099 Release Date: March 2013

#### Fixes in Web Services Developer 3.20.4

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1260	When a WSD web service was deployed on a computer running UNIX, and the /.unitools file was empty, it returned a java.io.FileNotFoundException error but still continued with the deployment. This issue has been resolved.
UDBT-1231	When a user attempted to set up a parameter on a query, and used a question mark (?) in the statement, the test would fail. This issue has been resolved.
UDBT-605	Prior to this release, WSD did not provide the functionality needed to register a SOAP server as a service, preventing the server from being started automatically. Beginning at this release, you can start and stop the SOAP server as a service. To start the SOAP server as a service:
	U2soapservice.exe -i u2soap-server-name [-s u2soap-service-name] [-d u2soap-service-description]
	The default value for <b>-s</b> is u2soap-server. The default value for <b>-d</b> is "U2 soap service to start and stop U2 soap server". After you install the service you can start or stop the u2soap-server as a Windows service from the Windows control panel. When you start the service it executes 'runsoapserver.bat u2soap-server' and waits until this bat file exits. When you stop the service, it executes 'stopsoapserver.bat u2soap-server'. You can pass additional arguments to runsoapserver.bat by specifying the start parameters to the service.
	To remove the SOAP server as a service:
	U2soapservice.exe -r u2soap-server
	Detailed instructions on deploying a U2 SOAP server as a service can be found in <i>Web Services Developer's Guide</i> .

# U2 Web Services Developer 3.20.3

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1080 Release Date: November 2012

### Fixes in Web Services Developer 3.20.3

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
UDBT-602	Beginning at version 1.2.2, the RunSoapServer.bat script referenced an incorrect list of JAR files and so did not work in the U2 Web Services Developer. This issue has been resolved.
	<b>Note:</b> This fix can only be applied when installing through the InstallShield package for NOV2012 DBTools.

# U2 Web Services Developer 3.20.2

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1063 Release Date: August 2012

### Fixes in Web Services Developer 3.20.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
	Users running U2 Web Services Developer 3.20.0 found they could connect from WSD but when they called the SOAP server from the .NET client, no data or errors were returned. This issue has been resolved.

# U2 Web Services Developer 3.20.2

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1053 Release Date: June 2012

### Fixes in Web Services Developer 3.20.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following issues were fixed in this release:

Issue Number	Description
UDBT-1006	Users running U2 Web Services Developer 3.20.0 found they could connect from WSD but when they called the SOAP server from the .NET client, no data or errors were returned. This issue has been resolved.

# U2 Web Services Developer 3.20.1

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1043 Release Date: March 2012

### Fixes in U2 Web Services Developer 3.20.1

There were no specific fixes to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

# Web Services Developer 3.20.0

These release notes provide information about fixes in the U2 Web Services Developer.

Build: 1022 Release Date: January 2012

### Fixes in Web Services Developer 3.20.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following issues were fixed in this release:

Issue Number	Description
UDBT-615	Some users found that when they changed the connection details on a SOAP server, their Web Services definitions and dynamic array definitions were lost. This occurred if the SOAP server was refactored while a Web Service was not loaded. This issue has been resolved.

### Web Services Developer 1.2.5

These release notes provide information about fixes in the U2 Web Services Developer.

Release Date: October 2010

### Fixes in Web Services Developer 1.2.5

There were no customer issues at this release.

### Web Services Developer 1.2.4

These release notes provide information about fixes in the U2 Web Services Developer.

Release Date: June, 2010

#### Fixes in Web Services Developer 1.2.4

The following issues were fixed at this release:

Issue Number	Description
12535	Prior to this release, U2 Web Services Developer returned a Java error if the UniRPC connection timed out and users had enabled SSL on their WSD deployments. This was a UniObjects for Java problem that was caused by a incorrect socket setting. This issue has been resolved.
12935	Before this release, if you specified a unirpc daemon port number other than the default of 31438 using Web Services Developer, all requests from that daemon still went to port number 31438. This problem has been resolved.

# Web Services Developer 1.2.3

These release notes provide information about fixes in the U2 Web Services Developer.

Release Date: September 2009

#### Fixes in Web Services Developer 1.2.3

Issue Number	Description
12062	Prior to this release, web service calls initiated through a Web Services application would time out if the call duration was longer than 5 minutes. At the current release of the Web Services Developer, the default timeout of value of 5 minutes is now user configurable.
	To specify the timeout value, click the SOAP Server for which you want to specify the value with the right mouse button, then click <b>Properties</b> . Click <b>Next</b> , then <b>Next</b> to the <b>U2 Database - Connection Properties</b> box.
	Enter the number of seconds for the UniRPC timeout in the <b>UniRPC Timeout</b> box, then click <b>Finish</b> .
12093	Before this release, when deploying a SOAP server and selecting the option to use the SOAP server connection details for all the services was not working properly. This problem has been fixed.

# Web Services Developer 1.2.2

This Readme provides information about fixes in the Web Services Developer.

Release Date: February 2009

### Fixes in Web Services Developer 1.2.2

The following issues were fixed at this release:

Issue Number	Description
11398	Prior to this release, if you set the value of the SOAP Request Validation property to true, all web services in that SOAP server failed. The response to any Web service call was:
	IWAB0135E An unexpected error has occurred. 500 Internal Server Error.
	This problem has been fixed.

# Web Services Developer 1.2.1

This Readme provides information about fixes in the Web Services Developer.

Release Date: August 2008

### Fixes in Web Services Developer 1.2.1

The following issues were fixed at this release:

Issue Number	Description
36803	Beginning at this release, you can start or stop the soap server manually. To start the soap server, execute "runsoapserver" from the command line. To stop the soap server, execute "stopsoapserver" from the command line.

# Web Services Developer 1.1.2

This Readme provides information about fixes in the Web Services Developer.

#### Release Date: October 2007

### Fixes in Web Services Developer 1.1.2

Issue Number	Description
9642	Beginning at this release, in the Properties wizard of the Update a SOAP Server dialog box, the capability to enable or disable Connection Pooling has been added. This enables the U2 Web Services Developer to communicate with a UniData or UniVerse server that is running with Connection Pooling disabled.
10189	If a SOAP request was received by Web Services Developer that exceeded 200,000 bytes, Web Services Developer could not read the request. At this release, the http packet size has been increased to 2 MB, resolving the problem.

# **U2 Extensible Administration Tool**

The release notes in this section provide information about changes in the U2 Extensible Administration Tool (XAdmin).

XAdmin is an Eclipse-based tool that provides a modern integrated environment for U2 database administration.

**Note:** Most functions in XAdmin require administrative access to the server. If you experience error messages when connecting to a server or when executing a task, such as File Tools or Data Encryption, verify that you have the correct permissions or are logged in as an administrative user. Possible error messages include:

- "The subroutine failed to complete successfully"
- "Error opening the editor. Reason: Argument cannot be null."
- "The RPC failed, possibly the server process exited abnormally."

In addition, if the expected data is not returned from a task, it could be the result of inadequate permissions.

## U2 Extensible Administration Tool 4.13.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

### New features and fixes for U2 Extensible Administration Tool 4.13.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue number	Description
UDBT-1186	Prior to this release, XAdmin users were unable to add pattern match exclusions into the repconfig definition file. This issue has been resolved.
UDBT-1920	Starting at this release, XAdmin no longer allows for duplicate UniRPC service names, and the <b>Network Type</b> field is now mandatory.
UDBT-2010	Prior to this release, when changing the RPC service name in the Edit U2 Server Definition window, the old RPC service name would continue to display. This issue has been resolved.
UDBT-2101	Beginning at this release, the following UniData error logs are available to view in XAdmin:
	• smm
	• cleanupd
	• sbcs
	• sm
	• rm
	- udt
	• audit

Issue number	Description
UDBT-2102	Beginning at this release, the following UniVerse error logs are available to view in XAdmin:
	• uvsmm
	• uvcleanupd
	• uvdlockd
	• uvrm
	• errlog
UDBT-2265	Prior to this release, when updating a printer device definition, the <b>OK</b> button was grayed out after editing fields. This issue has been resolved.
UDBT-2677	Beginning at UniData 8.2.0, U2 Python authorization is available in XAdmin.
UDBT-2819	Starting at this release, users do not need to enter a certificate name and private key to continue to the next wizard entry screen.
UDBT-2965	Beginning at this release, XAdmin now includes U2 Data Replication field-level update wizards. Field-level updating was added at UniData 8.2.
UDBT-2996	XAdmin has been enhanced to support audit logging included in UniData 8.2. For details about audit logging and how it works, see the <i>UniData Security Features Guide</i> .
UDBT-3023	Windows only. Beginning at UniData 8.1.0, the registry entries for SSL_PROTOCOLS and SSL_OPTIONS can be edited using XAdmin. To edit these settings, from the Admin Task List, click <b>Network Services</b> → <b>UDTelnet</b> .
	To edit the SSL_PROTOCOLS registry entry, select the following check boxes that apply:
	• <b>SSLv3</b> (This is disabled permanently even though it is visible.)
	• TLSv1
	• TLSv1.1
	• TLSv1.2
	If server-side registry entries are present for SSL_PROTOCOLS, the check box selections default to the current server settings. If no server-side registry entries are present, <b>TLSv1</b> , <b>TLSv1</b> .1, and <b>TLSv1</b> .2 are selected by default.
	To edit the SSL_OPTIONS registry entry, select one of the following options:
	NO_TLS_FALLBACK_SCSV
	• TLS_FALLBACK_SCSV
	If server-side registry entries are present, the selected option will default to the current server setting. If no server-side entries are present, <b>NO_TLS_FALLBACK_SCSV</b> is selected by default.
UDBT-3058	UniVerse only. Starting at this release, multi-level files are no longer hidden.
UDBT-3136	Prior to this release, the <b>Connect As Admin</b> option for a UniData session in XAdmin would not be aware of the version of the database it was connecting to. This issue has been resolved.
UDBT-3142	Starting at DBTools 4.3.0, the <b>Disable NFA Security</b> option has been removed from XAdmin.

Issue number	Description
UDBT-3148	Windows only. Beginning at UniVerse 11.3, the registry entries for SSL_PROTOCOLS and SSL_OPTIONS can be edited using XAdmin. To edit these settings, from the Admin Task List, click <b>Network Services</b> → <b>Telnet</b> .
	To edit the SSL_PROTOCOLS registry entry, select the following check boxes that apply:
	• <b>SSLv3</b> (This is disabled permanently even though it is visible.)
	• TLSv1
	• TLSv1.1
	• TLSv1.2
	If server-side registry entries are present for SSL_PROTOCOLS, the check box selections default to the current server settings. If no server-side registry entries are present, <b>TLSv1</b> , <b>TLSv1</b> , and <b>TLSv1</b> .2 are selected by default.
	To edit the SSL_OPTIONS registry entry, select one of the following options:
	NO_TLS_FALLBACK_SCSV
	TLS_FALLBACK_SCSV
	If server-side registry entries are present, the selected option will default to the current server setting. If no server-side entries are present, <b>NO_TLS_FALLBACK_SCSV</b> is selected by default.
UDBT-3156	Beginning at this release, XAdmin works with the FIPS module if enabled for UniData 8.2.0 and UniVerse 11.3.1.
UDBT-3161	Beginning at this release, when U2 Audit Logging is enabled, selecting the <b>Audit</b> tab displays the following message:
	U2 Audit Logging is enabled. All Data Encryption transactions are logged in the U2 Audit Logs.

# U2 Extensible Administration Tool 4.12.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

### New features and fixes for U2 Extensible Administration Tool 4.12.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue number	Description
UDBT-2259	Beginning at 11.2, when a parameter was changed in the XAdmin Configuration Editor, XAdmin would not respond when the <b>Save</b> button was selected, though the uvconfig file change was saved. This issue has been resolved.
UDBT-2894	Beginning at this release, Credential Wallet administration tasks have been added for UniVerse. Users are able to add, update, or delete credential mapping records. Users are also able to configure and manage wallet tasks such as changing a password and adding or removing machine tags.

Issue number	Description
UDBT-2991	Windows only. Prior to this release, the setting was not saved when the <b>Allow</b> <b>Space in User Name</b> check box was selected in the UniData Telnet Server Configuration dialog box. This issue has been resolved.

# U2 Extensible Administration Tool 4.11.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

### New features and fixes for U2 Extensible Administration Tool 4.11.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue number	Description
UDBT-1186	Prior to this release, XAdmin users were unable to add pattern match exclusions into the repconfig definition file. This issue has been resolved.
UDBT-1996	Windows only. Prior to this release, uvrestore used single quotes when using the –F option, which caused restore to fail. This issue has been resolved.
UDBT-2047	Previously, XAdmin users were unable to configure Transaction Logging to UniVerse. Users would not see a dialog box if the logging directory existed. This issue has been resolved.
UDBT-2048	Previously, XAdmin users were unable to see the transaction logs for UniVerse after configuring the Transaction Logging directory. This issue has been resolved.
UDBT-2049	Prior to this release, Transaction Logging systems skipped the active/current log file for XAdmin users. This issue has been resolved.
UDBT-2055	Previously, XAdmin users could not restore individual files due to an incorrect uvrestore syntax. This issue has been resolved.
UDBT-2068	From this release, all DBTools connections to the database can be SSL enabled through the U2 Resource View.
UDBT-2212	Previously, the descriptions of configuration parameters RFS_DUMP_HISTORY and RFS_DUMP_DIR were missing from the XAdmin Configuration Editor. Descriptions have been added for these parameters. This issue has been resolved.
UDBT-2273	Prior to this release, XAdmin users were unable to delete UniData accounts. This issue has been resolved.
UDBT-2638	Previously, XAdmin users saw an incorrect error message when they attempted to use Audit Configuration with a non-root user ID. Users will now see a more meaningful error message. This issue has been resolved.
UDBT-2756	Prior to this release, XAdmin users may have seen the Start Telnet service button grayed out. If this occurred, it was likely because the telnet ports were disabled. To enable telnet ports, deselect the <b>Disable Telnet Port</b> and/or <b>Disable SSL Telnet</b> <b>Port</b> and save it. The <b>Start</b> button will now become available.
UDBT-2797	Previously, the Disable Telnet Port and Disable SSL Telnet Port were selected in the telnet tab for XAdmin users by default. The check boxes are now deselected by default. This issue has been resolved.
UDBT-2799	Beginning at this release, a new task field has been added to administer Credential Wallets. This task is called the Credential Manager.

# U2 Extensible Administration Tool 3.12.1

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

### New Features and Fixes in U2 Extensible Administration Tool 3.12.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1428	An enhancement has been made to include replication enablement and disablement.
UDBT-2501	Prior to this release, the Audit tab was inadvertently removed from XAdmin. This issue has been resolved, and the Audit tab is available.
UDBT-2263	Prior to this release, when using XAdmin or UniAdmin to load programs into catalog shared memory, the SHM.TO.LOAD file was created in UVHOME. When UniVerse was restarted, the file was read. This would cause the UniVerse Resource Service to crash in 64-bit UniVerse 11.2.3. This issue has been resolved.
UDBT-2498	Prior to this release, when the <b>Data Encryption &gt; Audit &gt; Choose Operations</b> option was selected in XAdmin, the list of operations was inaccurate and did not reflect updated operations. This issue has been resolved.
UDBT-2451	Prior to this release, if XAdmin was used to resize a file and then selected the dictionary, the DICT parameter was misplaced, causing a syntax error. This issue has been resolved.

Issue Number	Description
UDBT-2275	An enhancement has been made to include the following new configuration parameters in the XAdmin Configuration Editor:
	TOGGLE_NAP_TIME_NS - Controls the wait time on retrying to gain a shared memory address in UNIX. Do not change this value unless Rocket advises you to do so.
	SINGLE_SAVEDLIST - Controls if the SAVE.LIST verb produces a single or multiple records in the SAVEDLISTS directory.
	WHOLEFILE_SPLIT_LOAD - The default split load value for a WHOLEFILE dynamic file if no value is specified on creation.
	WHOLEFILE_MERGE_LOAD - The default merge load value for a WHOLEFILE dynamic file if no value is specified on creation.
	DEFAULT_SPLIT_STYLE - The default split style for a dynamic file if no style is specified on creation.
	HTTP_DEFAULT_VERSION - The default HTTP version used in the UniBasic if not programmatically set.
	SSL_PROTOCOLS - UniData and UniVerse (U2) support multiple secure transmission protocols; including SSLv3, TLSv1, TLSv1.1 and TLSv1.2. The newer protocols (TLSv1.2 is the latest) are more robust and secure. SSLv3 has been found to have many security vulnerabilities at the protocol or implementation level, the most serious of which are Heartbleed and POODLE. TLSv1 also has security problems.
	We recommend using the strongest protocol supported by both the client and server. If your client and server are both the latest Rocket U2 products, then TLSv1.2 will likely be used by default. However, many users still need to communicate with older U2 or third party servers which may not support the latest protocols.
	SSL_PROTOCOLS allows you to control which protocols are permitted to be used. Use a comma (,) or plus sign (+) separated protocol list. The default is: SSL_PROTOCOLS=TLSv1,TLSv1.1,TLSv1.2 Note: By default, SSLv3 is turned off. This is to follow the industry recommendations following POODLE. If you must use SSLv3 it needs to be added back manually. Before an SSL connection is attempted, this configuration value will be used in conjunction with the version setting in the Security Context Record (SCR) or Security Property List (SPL) to determine the protocols to use during SSL handshake.
	SSL_OPTIONS - Downgrade protection is a feature of a cryptographic protocol so that the client and server sides use the strongest protocol version available. Even in the absence of malicious attacks such as POODLE, downgrades are not advised. For example, even if SSLv3 is turned off, if both sides support TLSv1.2, you do not want to downgrade to TLSv1.1 or TLSv1. The TLS_FALLBACK_SCSV flag, which is supported by UniData 8.1 and UniVerse 11.3, resolves the voluntary downgrade problem introduced by SSL clients.
	For the TLS_FALLBACK_SCSV to take effect, it must be supported by both the client and server. Some older servers reject connections if they receive TLS_FALLBACK_SCSV from a client, even if it supports the protocols advertised by the client. For this reason, UniData and UniVerse ship with the default SSL_OPTIONS setting as: SSL_OPTIONS=NO_TLS_FALLBACK_SCSV If you want to prevent protocol downgrade and both your client and server support TLS_FALLBACK_SCSV, change the value to TLS_FALLBACK_SCSV.

# U2 Extensible Administration Tool 3.12.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

### New Features and Fixes in U2 Extensible Administration Tool 3.12.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-659	Prior to this release, the XAdmin tool did not work correctly in an NLS environment. XAdmin now works as expected. This issue has been resolved.
UDBT- 1886	The File Tools context menu in the U2 Resource view of XAdmin presented a list of UniData tools even for users in a UniVerse account. This issue is resolved.
UDBT- 1901	You can view and refresh the current audit log file status in XAdmin with a new window that has been added to the Audit Configuration administration task.
UDBT-1912	The following parameters have been added to XAdmin and are available for UniData 7.4 or later:
	When you create a new U2 file you can define it as a 64-bit file by selecting the <b>64-</b> <b>bit</b> checkbox. If you do not select the 64-bit option, the file will be created as a 32- bit file by default.
	The <b>File Tools &gt; Guide</b> option now features the Saving File Load (-sfl) parameter.
	The <b>File Tools &gt; Memresize</b> option now features the ability to specify either 32-bit or 64-bit files.
UDBT-1923	Using a new check box added to the telnet settings tab in XAdmin, you now can choose to disable telnet and SSL telnet. If you check Disable Telnet Port, the port is set to 0 and the server does not listen on that port. If you check Disable SSL Telnet Port, the SSL telnet port is set to 0 and the server does not listen on that port.
UDBT-1941	If you opened XAdmin without first starting the UniData server and then tried to connect to the server, the connection failed as expected. If you then right-clicked the server, Disconnect appeared in the context menu. The option to disconnect should not have been presented, because there was no active connection. This issue has been resolved.
UDBT-1945	XAdmin support for encrypted SSL configuration files has been added at this release and will be fully available for connections to UniData 7.4 or later and UniVerse 11.2.5 or later when released.
UDBT-2018	XAdmin now supports account-based licensing for UniVerse 11.2.0.
UDBT-2023	Beginning at this release, XAdmin supports SHA-2 self-signed certificates.
UDBT-2133	In the January 2014 version of XAdmin, the telnet window closed when you clicked OK. The window should have closed only if you clicked Close or X. This issue is resolved.
UDBT-2162	Beginning at this release, users can specify PKCS #12 security certificates
UDBT-2172	Beginning at this release, 74 is an available option for UniData users in the replication system definition.

# U2 Extensible Administration Tool 3.11.2

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 2082 Release Date: January 2014

### New Features and Fixes in U2 Extensible Administration Tool 3.11.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-138	Prior to this release, when a user selected the <b>Replication &gt; Monitor Replications</b> <b>&gt; Replications</b> option, the replication status did not automatically refresh and users had to manually exit and restart the monitor to see the status change. This issue has been resolved.
UDBT-1597	Prior to this release, XAdmin users were unable to change only the expiration date when making a license change. Beginning at this release, clicking the <b>Save</b> button after making a change to the expiration information will save the changes. This issue has been resolved.
UDBT-1770	Prior to this release, when a change was made to the audit configuration file, the change was not seen in the audit config view. Users had to restart the audit config view to sync the two views. Now, when a change is saved in the configuration file, it is also reflected in the audit config view automatically. This issue has been resolved.

The following new features and fixes are implemented at this release:

# U2 Extensible Administration Tool 3.11.1

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 2054 Release Date: November 2013

### New Features and Fixes in U2 Extensible Administration Tool 3.11.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1660	Prior to this release, the Checkover, Filever, Udfile and Shfbuild options were available in UniAdmin but not in XAdmin. These options are now available in XAdmin and can be accessed from the <b>Admin Tasks &gt; File tools</b> menu. This issue has been resolved.

## U2 Extensible Administration Tool 3.11.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 2025 Release Date: October 2013

### New Features and Fixes in U2 Extensible Administration Tool 3.11.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1644	A U2 Replication task group has been added to the XAdmin menu options. This group contains options to update or view information about replication configuration, logs, performance, and status.
UDBT-1643	The "Replication logs" task has been added to the U2 Replication group in XAdmin. This new task allows users to view the uvrm.log and uvrm.errlog files from within the U2 Replication task group.
UDBT-1601	Users who installed XAdmin 3.10.9 found that the XAdmin Telnet service displayed incorrect Telnet service port numbers. This issue has been resolved.
UDBT-1587	UniData users who upgraded to XAdmin v 3.10.9 found that the Replication Monitor tab was not there anymore. The replication monitor can now be found under the U2 Replication tree view, with the option name changed from Replication Monitor to Status. This issue has been resolved.
UDBT-1370	XAdmin now supports account-based licensing for UniVerse 11.2.0.
UDBT-1359	Replication performance monitoring has been added to XAdmin. Users can now access the performance monitor by navigating to the U2 Replication task.
UDBT-1266	XAdmin has been enhanced to support the new audit logging features included in UniVerse 11.2.0. For details about audit logging and how it works, refer to the <i>UniVerse Security</i> manual.

The following new features and fixes are implemented at this release:

# U2 Extensible Administration Tool 3.10.9

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1114 Release Date: June 2013

#### New Features and Fixes in U2 Extensible Administration Tool 3.10.9

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-1420	After upgrading UniData (for example, from 7.3.3 to 7.3.4), users who updated the license information and entered an 8-digit serial number found that when a connection was then made to Unidata, the XAdmin License screen displayed only the first 7 digits of the serial number. This issue has been resolved.
UDBT-1460	Some users found that if they used the 'Connect as Admin' option, they would see incorrect repsys and repconfig screens that included replication options. After making changes to these screens and clicking Finish would then write back incorrect values, corrupting the configuration files. The Replication option is now disabled when using the 'Connect as Admin' option because this feature requires a fully licensed connection.

# U2 Extensible Administration Tool 3.10.8

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1108 Release Date: May 2013

### New Features and Fixes in U2 Extensible Administration Tool 3.10.8

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following new features and fixes are implemented at this release:

Issue Number	Description
UDBT-936	The XAdmin tool could not create a correct x509 certificate request file. Only the state name was being used to create the certificate name. This issue has been resolved and now the certificate is created using the Common Name for the certificate.
UDBT-1183	The XAdmin tool was not correctly refreshing the Replication Group list and was adding a duplicated entry whenever a new Group was added. This issue has been resolved.

# U2 Extensible Administration Tool 3.10.6

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1099 Release Date: March 2013

### New Features and Fixes in U2 Extensible Administration Tool 3.10.6

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
	Prior to this release, replication recovery logs could not be displayed in XAdmin. This issue has been resolved.

# U2 Extensible Administration Tool 3.10.5

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1080 Release Date: November 2012

### New Features and Fixes in U2 Extensible Administration Tool 3.10.5

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

The following new features and fixes are implemented at this release:

Issue Number	Description
UDBT-1168	In the configuration editor in XAdmin, there are two columns after each parameter: the current value and the new value. Prior to this release, when the user entered a new value and saved the change, the new value column was not cleared. This issue has been resolved.
UDBT-987	Prior to this release, any warning message resulting from a change made in the Configuration Editor was treated as an error and disallowed changes to the configuration. This fix correctly displays warnings but does not prohibit saving of the configuration.
UDBT-313	Prior to this release, UniData users could not use XAdmin without consuming a license. In instances when all licenses were consumed an administrator could not use XAdmin to perform any administration tasks, such as clearing the licenses. To solve this problem, the following changes have been made to XAdmin:
	<ul> <li>A Connect as Admin option has been added to the U2 Resource view. When you select this field, you can sign into XAdmin as an administrator to perform tasks that do not require a UniData license.</li> </ul>
	<ul> <li>A Number of Admin Connections field has been added to the server properties view, which allows you to monitor the number of Admin connections in use.</li> </ul>
	This issue has been resolved.

## U2 Extensible Administration Tool 3.10.4

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1069 Release Date: September 2012

### New Features and Fixes in U2 Extensible Administration Tool 3.10.4

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following new features and fixes are implemented at this release:

Issue Number	Description
UDBT-929	Prior to this release, XAdmin users could not re-enable the print queuing option. This issue applied to UniVerse only and has been resolved.
UDBT-1076	At this release, a User ID button has been added to the XAdmin Locks menu. Users can use this option to clear all locks for a specific user ID.

# U2 Extensible Administration Tool 3.10.3

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1063 Release Date: August 2012

### New Features and Fixes in U2 Extensible Administration Tool 3.10.3

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

The following new features and fixes are implemented at this release:

Issue Number	Description
UDBT-989	After updating the UniData license through XAdmin, users saw an incorrect message directing them to IBM Support to obtain an authorization code. This message has been corrected to notify the customer to contact Rocket Software.
UDBT-1046	Prior to this release, XAdmin users could not clear locks when connected to UniData servers. Locks can now be cleared by selecting the <b>Clear Locks</b> button under the <b>Locks</b> task.

# U2 Extensible Administration Tool 3.10.2

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1045 Release Date: April 2012

### New Features and Fixes in U2 Extensible Administration Tool 3.10.2

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

Issue Number	Description
UDBT-139	When connecting XAdmin to a server as a non-root user, users saw error messages that did not describe permissions problems accurately. Error messages have been corrected in this update that more accurately describe the permission problems to the user.

Issue Number	Description
UDBT-141	Print spooler options available for UniVerse on UNIX within UniAdmin were not in previous versions of XAdmin. This update adds the print spooler functionality to XAdmin when connected to UniVerse servers on UNIX.
UDBT-682	When selecting the "File Tools" task in XAdmin connected to a UNIX server, users saw the following error message: "The subroutine failed to complete successfully." This condition was determined to be caused by lack of permissions. A more appropriate error message indicating the permission error has been added at this update.
UDBT-935	When using the "Import" functions of the Replication task in XAdmin with UniData 7.3, an error was returned saying 'Failed to start remote admin program;errcode=81014.' This was caused by XAdmin not passing the version number to the server, making the system unreachable. This issue has been resolved in this update.
UDBT-939	When connected to a UniData 7.3 server, XAdmin produced an incorrect entry in the repconfig file containing a trailing ':' that resulted in UniData not starting. This problem has been resolved in this update.

# U2 Extensible Administration Tool 3.10.1

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1043 Release Date: March 2012

### New Features and Fixes in U2 Extensible Administration Tool 3.10.1

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-127	The User Counter metric and the option to modify the vertical scale of the counter has been implemented in the Performance Monitors graph and report views.
UDBT-130	The File Tools task has been implemented in the Admin Tasks view of the UniData edition. This option enables you to run UniData file tools Convcode, Convdata, Convidx, Convmark, Dumpgroup, Fixfile, Fixgroup, Guide, and Memresize in the XAdmin interface.
UDBT-136	The RFS Monitor is now implemented in the UniData edition of XAdmin, allowing you to view the performance of the UniData Recoverable File System (RFS) in real time.
UDBT-146	An RFS Configuration task has been implemented in the Admin Tasks view of the UniData edition. With this feature, you can configure archiving and logging for the UniData Recoverable File System (RFS).
UDBT-148	The GLM and UPL tools are now available in the Tools option of the Admin Tasks view in the UniData edition of XAdmin. The GLM Tool and UPL Tool can be used to display a map of locks, holding locks, and waiting queues for a transaction.

Issue Number	Description
UDBT-263	A first iteration of U2 Extensible Administration Tool Help is available in V3.10.1. You can access it from the XAdmin main menu by selecting Help > Help Contents. The Help content is limited in this initial release; it covers several tasks from the Admin Tasks menu, giving you a preview of other tasks to come. We plan to add content iteratively in this Help system in future releases of U2 DBTools.
UDBT-300	When using the SSL Configuration tool to generate an x.509 certificate signing request (CSR), a .req file was created incorrectly in DER format. The product requires the CSR to be in PEM format. If the user selected DER as the key format, the SSL Configuration tool incorrectly created the CSR in DER format as well. The .req file is now created in PEM format, regardless of the key format.
UDBT-314	Version 3.10.1 implements the ability to save graphs and reports. With this enhancement, you can customize a graph or report and save the values for future use.
UDBT-622	The ability to modify the event logging level is now supported in the UniData edition of XAdmin.

# Extensible Administration Tool 3.10.0

These release notes provide information about new features and fixes in the Extensible Administration Tool (XAdmin).

Build: 1022 Release Date: January 2012

### New Features and Fixes in Extensible Administration Tool 3.10.0

To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, <u>on page 4</u>.

Issue Number	Description
UDBT-132	When using XAdmin to add a tape device on a UNIX platform, both the No Rewind and Rewind paths were automatically populated with "/dev", and the Lock File was populated with "/". If the user did not change the default values, XAdmin returned an error message, "Rewind path and no-rewind path must be different." In addition, the dialog box contained a "Dos Commands" area that was irrelevant to UNIX. In version 3.10.0, the default values for the Rewind path and Lock File have been modified, and the Dos Commands area has been removed from the dialog box.
UDBT-135	In the Add Printer Device dialog box, the label for adding a form contained a typographical error, "From". The label has been changed to "Form".
UDBT-137, UDBT-152	If the user changed any value in the Telnet configuration and clicked OK to save changes, the new values were not saved. XAdmin returned an error, "RPC Call Error - The Subroutine failed to complete successfully," and the UniVerse section of the Registry was missing the appropriate Telnet keys. With a fix in version 3.10.0, Telnet values are saved correctly. In addition, the button label has been changed from "OK" to "Save" to clarify its purpose.
UDBT-143	With an error log active and UOLOGIN in use, XAdmin wrote UOLOGIN errors to the main UniData or UniVerse error log, rather than the UniObjects error log as expected. A global variable now manages UOLOGIN error logging correctly, resolving this issue for both UniData and UniVerse.

Issue Number	Description
UDBT-150	For UniVerse only, the Backup option always saved the first account in the list, regardless of whether the user had selected a different account. This issue has been fixed and the Backup option now saves the selected account as designed.
UDBT-153	When connected to a UniVerse server on UNIX, if the user selected the Users option, the dialog box contained a User# field displaying information that was not relevant to UNIX. The Users dialog box now displays the User# column only when connected to a Windows server. This column has been removed from the display when connected to a UNIX server.
UDBT-156	In the Add Telnet User dialog box, if the user clicked the Add button in the Local Machines area, the Add Local Machine Information dialog box was displayed, but it prompted for Domain Account information rather than Local Machine and Account. The field labels in the Add Local Machine Information dialog box have been changed to prompt for the correct information.
UDBT-164	When connected to a UniData server, XAdmin licensing did not validate the number entered in the Device License box. The validation routine should have enforced a restriction on the number of device licenses as 0 or an integer from 2 to 10. The program now validates the number of device licenses to enforce these restrictions as designed.
UDBT-165	In the Network Services > Database Admin option, if the user clicked the Update button and then browsed for a path in either the UDTHOME or UniData Account field, XAdmin displayed the error message, "The RPC failed, possibly the server process exited abnormally." The user was then unable to browse to any path. The fix to a related issue has resolved this problem in version 3.10.0.
UDBT-166	In UniVerse only, if the user selected a file in the File Tool dialog box, the four extra options (Properties, Statistics, Diagnostics, and Repair) were unavailable (dimmed). This issue has been corrected, and the extra options can now be selected as designed.
UDBT-169	After adding an NFA server, the NFA service must be restarted to complete the process of creating the NFA server. In previous versions, the NFA service did not restart automatically or prompt the user to restart it manually. This issue has been addressed in version 3.10.0, and the user is prompted to restart the NFA service after adding an NFA server.
UDBT-288	In UniVerse only, validation of administrator logon credentials was not performed correctly and did not prevent non-administrator users from performing certain tasks. In version 3.10.0, the security routine for UniVerse servers has been amended to correctly validate credentials.
UDBT-299	Several field labels in the File Tools option Statistics dialog box contained typographical errors. These errors have been corrected in version 3.10.0.
UDBT-304	When monitoring U2 Replication, XAdmin displayed a remote procedure call (RPC) error in a loop when a UniVerse system was shut down: "The RPC failed, possibly the server process exited abnormally." Changes to error handling and Replication processing prevent this looping error in version 3.10.0.
UDBT-306	XAdmin 3.10.0 implements the UniVerse logon cache as a new feature. The user can turn the persistence logon cache on or off by selecting or clearing a check box. The user can also delete a cache entry from the logon cache.

Issue Number	Description
UDBT-586	If the user right-clicked a U2 server in the U2 Resource view, the Performance Monitor graph and report views were started by default. Each monitor view consumes a license, so as an undesired effect, the monitors used extra licenses by default. If the user closed a monitor view, the license was not released, and the server connection sometimes became unresponsive. In version 3.10.0, the Performance Monitor views are no longer started by default. A license is consumed for each monitor, but only if the user chooses to start it.
UDBT-617	In the Replication option, the screen "wobbled" when expanding columns and caused XAdmin to hang while monitoring either the publisher or the subscriber. A fix resolves this issue in version 3.10.0, and columns remain stable after they have been expanded.
UDBT-627	Horizontal and vertical scroll bars were missing from editor views that were sized too small to display all buttons and other content. The code has been amended to add scroll bars as necessary in version 3.10.0.

# **Extensible Administration Tool 2.1.4**

This Readme provides information about fixes in the Extensible Administration Tool (XAdmin).

Build: 7444 Release Date: May 2011

### Fixes in Extensible Administration Tool 2.1.4

The following issues were fixed at this release:

Issue Number	Description
UCC-982	A memory leak occurred in the XAdmin Performance Monitor graph view when the refresh interval was set to 1 second. This issue has been fixed.
UCC-974	In the XAdmin uv_repadmin tool, when a user utilized the Target option to add a selected target to the target table and chose a group as the selected target, the user would be prompted to choose from a selected distribution as well. Supplying both a system ID and a group ID would then cause the uv_repadmin tool to fail. This issue has been resolved. Note: At this release, you cannot sync with targeted replications.
UCC-1006	A stand-alone XAdmin tool is now available.
UCC-1107	In the Xadmin uv_repadmin tool, users who attempted to select targets and chose the local system saw the following error message: No such replication. This issue has been resolved and the local system is no longer an option.
UCC-1116	The File Tools option has been added to the Admin Tasks menu in XAdmin. Users can use the available File Tools options to view properties and statistics, run file diagnostics, and run file repair programs.

# Extensible Administration Tool 2.1.3

This Readme provides information about fixes in the Extensible Administration Tool (XAdmin).

Build: 7433 Release Date: March 2011

### Fixes in Extensible Administration Tool 2.1.3

Issue Number	Description	
UCC-729	The Licensing option in the U2 Extensible Administration Tool now supports licensing reports and cleanup for UniVerse.	
UCC-744	You can now send messages to other users through the Users view in the U2 Extensible Administration Tool.	
UCC-786	At this release, unirpc support for Network Services when connecting to a UNIX server has been added.	
UCC-833	A problem was discovered when using the recording and playback feature of the Performance Monitor. When trying to play back data, the following error was displayed:	
	"Unable to open file PERFMON.DATA in account UV, STATUS() is -1"	
	The U2 Extensible Administration Tool now searches for the PERFMON.DATA file in the account you specify, correcting the problem.	
UCC-927	Resizing the UniVerse Dead Lock window in the U2 Extensible Administration Tool caused the tool to throw a Java error and exit. This problem has been corrected.	
UCC-941	When trying to restore the default password policies for ALL encryption keys in Automatic Data Encryption, an error occurred indicating that ALL was not a valid package. This error message remained on the screen. Now, the ALL option restores the default policies for encryption keys, wallets, and the master key, and the message is cleared once another operation has been performed.	
UCC-946	<ul> <li>Beginning at this release, you can select the level of event logging through the U2</li> <li>Extensible Administration Tool. You can select whether to report error messages,</li> <li>warning messages, or informational messages for UniVerse, Telnet, UVSMM, UCI,</li> <li>UVNet, UVCleanupd, UVDlockD, UniRPC, and UniVerse Replication. To set the levels</li> <li>of event logging, click Logging, then click Event Logging Level.</li> </ul>	
UCC-948	The U2 Extensible Administration Tool now displays the error logs for the uvsmm, uvcleanupd, uvdlockd, and the uvrm processes if they are supported on the server to which you are connected.	
UCC-964	In the Generate SSL Certificate Wizard, selecting and clearing check boxes in the X.509 v3 Certificate Extensions dialog box did not work properly. This behavior has been corrected in version 2.1.3. In addition, field labels in this wizard used a mixture of terms for the same type of certificate; the term "CA Certificate" has been standardized to "Signing Certificate."	
UCC-982	A memory leak discovered when running the U2 Extensible Administration Tool Performance Monitor has been fixed.	
UCC-977	In UniVerse BASIC the XTOOLSUB subroutine now contains the SetRCPToolName (67) parameter, which reports which Eclipse tool called the subroutine. Valid values are xmlbd, eda, wsd, xadmin, and bdt.	
UCC-983	The U2 Extensible Administration Tool would hang when attempting to encrypt a file using WHOLERECORD mode without providing an encryption key password on UniVerse. This problem occurred because incorrect encryption parameters were sent to the server, and has been fixed.	
UCC-992	he Event Logging Level view was displaying incorrect server information before this release. This problem has been fixed.	
UCC-985, UCC-997	Before this release, the UniData license expiration date did not display properly in the U2 Extensible Administration Tool. This problem has been fixed.	

Issue Number	Description	
UCC-1016	You can now update the DISTRIBUTION phrase of U2 Data Replication through the U2 Extensible Administration Tool.	
UCC-1021	Beginning at this release, you can now successfully set up U2 Data Replication from the U2 Extensible Administration Tool.	
UCC-1023	The Telnet Users functionality is now available in the U2 Extensible Administration Tool.	
UCC-1042	When you logged into the database as a non-administrator user, and you did not have permission to the VOC and the VOCLIB files, the following message was displayed:	
	"The subroutine failed to complete successfully"	
	After this message, no administration tasks could be performed successfully from the U2 Extensible Administration Tool.	
	This problem has been fixed.	
UCC-1052	In the UniVerse Command view, the following message is displayed when attempting to execute a stack function, such as .L, .D, .X, and so forth:	
	"." command not supported	
UCC-1059	In the Accounts view of the U2 Extensible Administration Tool, the path to the account was displayed with the user and group of the creator of the account appended. The user and group have been removed from the path at this release.	
UCC-1061	Prior to this release, the U2 Extensible Administration Tool did not show if the UniData or UniVerse was authorized, and the authorization code was not validated. These problems have been fixed.	
UCC-1066	The U2 Extensible Administration Tool is now available as a standalone product and as part of the U2 Client release.	
UCC-1074	Non-root administrator users now have access to administrative functions.	
UCC-1073	Extensibility functions were added at this release of the U2 Extensible Administration Tool.	
UCC-1087	You can now load cataloged UniBasic and UniVerse BASIC programs into shared memory through the U2 Extensible Administration tool and run them from there. Shared memory reduces the amount of memory needed for multiple users to run the same program at the same time.	

# U2 XML/DB Tool

The release notes in this section provide information about changes in the U2 XML/DB Tool.

The U2 XML/DB Tool is a graphical user interface tool with which you can create an XML mapping file to use when exporting or importing XML documents with the UniData or UniVerse databases.

# U2 XML/DB Tool 4.43.0

This release note provides information about fixes in the U2 XML/DB Tool.

#### Fixes in U2 XML/DB Tool 4.43.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 XML/DB Tool 4.42.0

This release note provides information about fixes in the U2 XML/DB Tool.

#### Fixes in U2 XML/DB Tool 4.42.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 XML/DB Tools 4.41.0

This release note provides information about fixes in the U2 XML/DB Tool.

#### Fixes in U2 XML/DB Tools 4.41.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all Eclipse-based tools, see <u>Shared components, on page 4</u>.

## U2 XML/DB Tool 3.42.1

This release note provides information about fixes in the U2 XML/DB Tool.

#### Fixes in U2 XML/DB Tool 3.42.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 XML/DB Tool 3.42.0

This release note provides information about fixes in the U2 XML/DB Tool.

#### Fixes in U2 XML/DB Tool 3.42.0

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

## U2 XML/DB Tool 3.41.2

This release note provides information about fixes in the U2 XML/DB Tool.

Build: 2082 Release Date: January 2014

#### Fixes in U2 XML/DB Tool 3.41.2

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### U2 XML/DB Tool 3.41.1

This release note provides information about fixes in the U2 XML/DB Tool.

Build: 2054 Release Date: November 2013

#### Fixes in U2 XML/DB Tool 3.41.1

The version number for all DBTools was increased at this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### U2 XML/DB Tool 3.41.0

This release note provides information about fixes in the U2 XML/DB Tool.

Build: 2025 Release Date: October 2013

#### Fixes in U2 XML/DB Tool 3.41.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### U2 XML/DB Tool 3.40.1

This release note provides information about fixes in the U2 XML/DB Tool.

Build: 1043 Release Date: March 2012

#### Fixes in U2 XML/DB Tool 3.40.1

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### XML/DB Tool 3.40.0

This release note provides information about fixes in the XML/DB Tool.

Build: 1022 Release Date: January 2012

#### Fixes in XML/DB Tool 3.40.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

# XML/DB Tool 1.3.5

This Readme provides information about fixes in the XML/DB Tool.

Build: 7409 Release Date: October 2010

#### Fixes in XML/DB Tool 1.3.5

There were no customer issues at this release.

### XML/DB Tool 1.3.4

This Readme provides information about fixes in the XML/DB Tool.

Release Date: June 2010

#### Fixes in XML/DB Tool 1.3.4

There were no customer issues at this release.

# XML/DB Tool 1.3.3

This Readme provides information about fixes in the XML/DB Tool.

Release Date: February 2009

#### Fixes in XML/DB Tool 1.3.3

There were no customer issues at this release.

# XML/DB Tool 1.3.2

This Readme provides information about fixes in the XML/DB Tool.

Release Date: August 2008

### Fixes in XML/DB Tool 1.3.2

The following issues were fixed at this release:

Issue Number	Description
10829	Prior to this release, if you removed the UniData demo account and updated the entry in the ud_database file to point to a different account, the XML/DB tool could not connect to that account. This problem has been fixed.
37004	Before this release, the value of Default was automatically set to Append for the "Exist-Record-Action" option when creating or editing an XMAP file through the XML/DB tool if the Default button was selected. This problem has been fixed.

# XML/DB Tool 1.3.1

This Readme provides information about fixes in the XML/DB Tool.

Release Date: October 2007

### Fixes in XML/DB Tool 1.3.1

Issue Number	Description
	Before this release, the "Next" button in the Create_XMAP and U2 Files in the XML/ DB Tool did not function. This problem has been fixed.

# **XTOOLSUB**

The release notes in this section provide information about changes to XTOOLSUB.

# XTOOLSUB 4.103.0

This release note provides information about fixes to XTOOLSUB.

### Fixes in XTOOLSUB 4.103.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

## XTOOLSUB 4.102.0

This release note provides information about fixes to XTOOLSUB.

### Fixes in XTOOLSUB 4.102.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### XTOOLSUB 4.101.0

This release note provides information about fixes to XTOOLSUB.

Build: 2466

Release Date: December 2015

### Fixes in XTOOLSUB 4.101.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### XTOOLSUB 3.102.2

This release note provides information about fixes to XTOOLSUB.

Build: 2258 Release Date: January 2015

### Fixes in XTOOLSUB 3.102.2

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

### XTOOLSUB 3.102.0

This release note provides information about fixes to XTOOLSUB.

Build: 2244 Release Date: August 2014

### Fixes in XTOOLSUB 3.102.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

## XTOOLSUB 3.101.0

This release note provides information about fixes to XTOOLSUB.

Build: 2025 Release Date: October 2013

### Fixes in XTOOLSUB 3.101.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

## **XTOOLSUB 3.100.4**

This release note provides information about fixes to XTOOLSUB.

Build: 1080 Release Date: November 2012

### Fixes in XTOOLSUB 3.100.4

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

## XTOOLSUB 3.100.1

This release note provides information about fixes to XTOOLSUB.

Build: 1043 Release Date: March 2012

#### Fixes in XTOOLSUB 3.100.1

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page <u>4</u>.

### **XTOOLSUB 3.100.0**

This release note provides information about fixes to XTOOLSUB.

Build: 1022 Release Date: January 2012

### Fixes in XTOOLSUB 3.100.0

There were no fixes specific to this release. To see a list of fixes and new features common to all U2 Eclipse-based tools, see <u>Shared components</u>, on page 4.

# Notices

### Edition

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