



# Rocket UniData

## Release Notes

*Version 8.2.2*

September 2020  
UDT-822-ALL-RN-1

# Rocket UniData release notes overview

These release notes provide information about customer issues and enhancements made for UniData 8.2.2.

## Important news at this release

### OpenSSL 1.1.1 support

This release of UniData has been upgraded to support OpenSSL version 1.1.1. Please note the following:

- Using the External Database Access (EDA) with the Microsoft SQL ODBC driver on Linux requires a minimum driver version 17.4. Changes made in the Microsoft SQL ODBC driver version 17.4 allows it to work with OpenSSL 1.1.1.
- The upgrade to OpenSSL 1.1.1 includes support for TLSv1.3. When connecting to a UniData 8.2.2 server with a client that does not support TLSv1.3, the connection might fail. In this situation, TLSv1.3 support should be disabled in the `udtconfig` file.

See the *Security Features Guide* and *UniBasic Commands Reference* for more information.

### Default Root Certificate

A default root certificate with basic protection is available starting with this release. The `UPDATE . CER` command has been added for installing the certificate.

See the *Security Features Guide* and *UniBasic Commands Reference* for more information.

### EDA Support for MySQL and Postgres

Windows and Linux versions of UniData now support the use of EDA with MySQL and Postgres. Support for the DATETIME datatype has now been added.

See the *External Database Access (EDA) Reference* for more information.

### Python version 3.7

Python version 3.7 is now bundled with UniData 8.2.2, and is supported on the AIX, Linux, Solaris SPARC, and Windows platforms.

In order to start the UniData-supplied version from the OS level on AIX or Solaris, the path to the UniData version should be defined by the `LIBPATH` or `LD_LIBRARY_PATH` environment variable.

A new ECL command of `REINIT . PYTHON` has been added, along with support of the UniBasic `FILEINFO` function in `u2py`. The ECL command `RUNPY` now has the ability to pass command line arguments. On UNIX platforms, auto-completion of commands and reserved words is now available.

The speed of reading from, and writing to, UniData files from `u2py` has been improved.

See the *UniData Python User Guide* for more information on Python version 3.7.

### ECL online HELP

The information displayed by the ECL `HELP` command has been updated at this release to sync with the current documentation. With this update, information on all ECL commands, and UniBasic statements and functions documented in the standard UniData documentation set, are now available via the `HELP` command.

## Performance

Changes have been made to dramatically improve the forward traversing of an array, not only at an attribute level, but also at the multivalue and multi-subvalue level for the `REPLACE`, `INS`, `INSERT`, `DEL`, `DELETE`, and `EXTRACT` functions in UniBasic. During Rocket development testing, performance improvements were up to 300 times faster with these updates.

The option of a new algorithm was added to collect and collate the results of multiple indices of a file when executing a UniQuery or SQL statement. This new algorithm may give better results than the engine's previous behavior and is dependent on the OS and the structure of the indices involved. Internal testing based on customer examples saw improvements of up to 600 percent were recorded, and common gain was up to 300 percent.

## TOJSON

The TOJSON operator has been added for use with the `LIST`, `SELECT`, and `SORT` verbs to produce output in a JSON format.

See the *UniQuery Commands Reference* for more information.

## UniBasic

- `PATCH` method support has been added to the `CallHTTP` function.
- `CLEARCOMMON` has a new option of `ALL` to reinitialize all named common areas with one command.
- Options used when a program was compiled can now be recorded and reported.
- `SYSTEM(1512)` has been added and will report the IPv6 address of a Telnet Client on Windows and `SYSTEM(512)` now only returns the IPv4 address.
- The `ENCODE()` function now supports `Base64`, `Base64A`, and `URLENCODE` encoding options.

See the *UniBasic Commands Reference* and *UniBasic Extensions* guide for more information.

## Audit

- Captured ADE-encrypted data can now be decrypted and read via the audman utility.
- Improved logging allows single records to be identified within a DATASET operation.
- The configuration of Audit has been improved so that lists and groups can be used when defining objects to be Audited.

See the *Security Features Guide* for more information.

## U2 Replication

The default values for several replication configuration parameters were increased in this release. These include `NLOG_INFO`, `REP_BUFSZ`, and `LARGE_RECSZ`.

The prior default values were typically too small to support normal replication volume. The replication configuration changes will not impact existing configurations where these parameters are already defined in the `repconfig` file.

If these parameters are not defined, the new default values will be used. If an existing replication configuration consists of many groups where these parameters are not defined, the configuration should be reviewed to ensure adequate shared memory is available for replication.

The previous and current defaults are noted in the following table:

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Configuration Parameter	Previous Default	Current Default
N_LOGINFO	4096	16384
REP_BUFSZ	52488	536870912
LARGE_RECSZ	64	512

Changes to replication in UniData 8.2.2 have resulted in the replication protocol level being incremented. Publishers and subscribers must be running the same protocol level for replication to function correctly. Therefore, when upgrading to UniData 8.2.2, the publisher and subscriber systems also must be updated to UniData 8.2.2 for replication to function.

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**Note:** Replication logs from prior releases are not compatible with UniData 8.2.2. Therefore, the publisher and subscriber systems should be in sync prior to the upgrade.

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See the *U2 Data Replication User Guide* for more information.

## TCA\_SIZE

To better support sites running replication and using cross-group transactions, the default value of the TCA\_SIZE udtconfig parameter has been increased to 2048000.

## 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.

# Resolved issues

## UniData 8.2.2

The following customer issues were fixed and enhancements were made in UniData 8.2.2.

### Build 1000

September 2020

Key	Release Notes	Components
UDT-3770	The UniData default is for all UniBasic common variables to be initialized to 0. On native Pick installations, common variables are not initialized. Starting with this release, <code>UDT .OPTIONS 127 U_PICK_DO_NOT_INIT_COMMON</code> has been added to allow programs compiled with <code>\$BASICTYPE "P"</code> to perform in the same way as native Pick installations.	U2 Basic
UDT-3773	Previously, if the index value in a UniBasic FOR/NEXT loop exceeded 214783467, the index would go negative due to an arithmetic overflow not being trapped. The index value then decreased in negative values until after another 2 billion recursions. This issue has been resolved.	U2 Basic
UDT-4088	Windows only. Prior to this release, using an XML map with StartNode data containing a trailing slash would cause the UniData session to crash. This issue has been resolved.	U2 Basic, DB Tool
UDT-9523	<p>When using a <code>SELECT</code> against a multi-valued indexed field, an extra step is performed to return the results in descending order. This can result in the <code>SELECT</code> (without the index) returning results faster as compared to using the index due to the extra overhead for the sort process.</p> <p>Starting with this release, the new <code>UDT .OPTIONS 125 (U_MV_SELIND_ASC)</code> has been added. If this option is enabled, the list will be returned in Ascending order. Without the overhead of the extra sort, the <code>SELECT</code> will run faster with the index.</p>	Performance, Query
UDT-11140	<p>Prior to UniData 8.2.2, when running a query that had more than 254 characters in a column, in SQL Server 2008 R2 SP1 one of the following would occur:</p> <ul style="list-style-type: none"><li>▪ An error message generated</li><li>▪ The returned data was truncated at 254 characters</li></ul> <p>To correct this problem, the <code>COLUMN_DISPLAY_LENGTH</code> parameter was added to the <code>uci-config/uvodbc.config</code> file. You can set this value to determine how many characters to display in a column. If this parameter is not set, the default value is 254.</p>	SQL
UDT-11789	Previously, client-server connections using the <code>unirpc</code> interface could be clear text or secure using SSL. Starting with this release, new options have been added to <code>unirpcd</code> to enable secure SSL-only connections if required.	SSL

Key	Release Notes	Components
UDT-11920	Starting with UniData 8.2.2, Python integration is available on the Solaris SPARC platform.	Python
UDT-11922	Starting with UniData 8.2.2, Python integration is available on the AIX platform.	Python
UDT-12435	Starting with UniData 8.2.2, if RW_REEVALUTE_VF is set to 1 then the Virtual Field index information is no longer placed in U2 Replication Logs.	Replication
UDT-12816	Starting in version 8.1.0, when checking to ensure disk space was available to update a file, the check did not cover any space needed for index writes. This issue has been resolved.	Indexes
UDT-13934	Linux only. Starting with this release, if you are at a Python prompt inside a UniData udt shell, you can now use the up and down arrow keys to traverse the Python command stack history. This functionality will not show commands run outside of Python.	Python
UDT-14224	Previously, if the size of the variable returned in the CAPTURING clause of an EXECUTE / PCPERFORM statement approached or exceeded 2GB, then (depending on the underlying operating system) the variable would be returned as an empty string (Windows) or the process would hang or abort and produce a core file (Unix). This issue has been resolved.	U2 Basic
UDT-14277	Windows Only. Starting with 8.1.0, users may have encountered an issue when trying to login to the demo account due to permissions of the sys/VOC file. This issue has been resolved.	Error Reporting
UDT-15391	Starting with 8.1.0, if a globally cataloged program used locally defined UniBasic functions, it would abort. This issue has been resolved.	U2 Basic
UDT-15443	Beginning with this release, the PATCH method has been added to the BASIC CallHTTP functionality. The PATCH method provides the ability to modify an existing HTTP resource as compared to the PUT method, which only allows a complete replacement of a document.	Basic Call Interface
UDT-15464	Starting with UniData 8.2.2, a virtual field I-type that combines a date field and a time field can now be mapped to one datetime field in the external database for EDA.	External Database Access
UDT-15567	Starting in UniData 8.2.2, a new ECL command COMPILERFLAGS was added to report the options used when a program was compiled. In order to report the options used, UDT.OPTIONS 124 (U_REPORT_COMPILERFLAGS) needs to be turned <b>ON</b> .	ECL Tools, U2 Basic
UDT-15700	Starting with this release, the UniBasic ENCODE () function has been enhanced with further options of Base64, Base64A and URLENCODE. For more details please refer to the manual set.	U2 Basic

Key	Release Notes	Components
UDT-15716	Starting with UniData 8.2.0, dynamic array access optimizations were added for the forward traversing of an array at an attribute level. Starting with 8.2.2, this has been further extended to the multi-value and sub-value levels and is controlled via <code>UDT.OPTIONS 123 (U_NON_OPTIMIZED_ARRAY_ACCESS)</code> . The new access optimization is turned on by default.	Performance, U2 Basic
UDT-15854	Previously, performing a re-conversion on an EDA file that was in use would result in the loss of all data in the EDA file.  Starting in UniData 8.2.2, the conversion operation will set an exclusive lock on the EDA file. If the file is already in use, the conversion operation will exit with an indication that exclusive access to the file is needed. This resolves the issue by eliminating the possibility of data loss.	External Database Access
UDT-15869	Beginning at this release, the <code>SYSTEM(512)</code> function will only return the IP address of the client in IPv4 format. If the client is not Telnet, or if the client's IP address is in IPv6 format, an empty string is returned.  The <code>SYSTEM(1512)</code> function has been added at this release. It will return the IP address of the client in either IPv4 or IPv6 format.  <b>Note:</b> Due to the new function calls used to support this functionality, the behavior exhibited when performing a Telnet connection to localhost has changed. Previously, the <code>SYSTEM(512)</code> function would return 127.0.0.1. At the current release, the returned IP address will be an empty string.	Telnet, U2 Basic
UDT-15879	Prior to this release, when using the memresize utility to convert a 32-bit dynamic file to a 64-bit dynamic file, the utility needed to be executed twice in some situations. The first execution would convert the file to a 64-bit file and the second execution would reduce the overflow files into one file. Starting with this release, the memresize utility only needs to be executed once to perform this conversion.	Files
UDT-15992	Starting with this release, a new option <code>-s</code> was added to UniBasic to show the inline line number of the included code when a caution or error is generated at runtime.	U2 Basic
UDT-16045	Prior to this release, when an invalid account name was defined in repconfig, Replication would generate an error message in <code>rm.log</code> without indicating the account name. An additional message is now generated including the account name and the line number in repconfig where the account was defined.	Replication
UDT-16185	Previously, if the <code>confcmd -m</code> command was used to set the master key or master key passwords with the content of a file, but the file name was not prefixed with the at symbol ( <code>@</code> ), the utility would use the text of the file path as the key or password instead of the contents of the file. Starting with this release, the <code>confcmd</code> utility now performs a check to see if the supplied key or password is actually a file on the system. If it is, a warning is displayed and the user is offered the option to abort the operation.	Automatic Data Encryption

Key	Release Notes	Components
UDT-16224	An issue was discovered with UniData sessions not always exiting on disconnection. If a thread exits out and the UniData main thread is still running, it sends a signal to the UniData main thread. Previously, if the UniData main thread did not respond or did not exit out, the udt process did not exit out. This has been changed so that if the UniData thread does not exit out within one minute, an error message is sent to the Windows event log and the udt process exits out.	Telnet
UDT-16225	Beginning with this release, the new <code>TCL REINIT . PYTHON</code> command has been added to control the re-initialization of the Python environment. The available options to the command are <code>ON/OFF/STATUS</code> . The default value is <code>ON</code> . The <code>STATUS</code> option shows the current setting.	Python
UDT-16232	Prior to this release, when UniData child processes were closed, a check against unused files was completed up to the <code>NFILES</code> value. On AIX, the truss output displayed <code>EBADF</code> error messages. In this release, this unused file check has been restructured to reduce the number of <code>EBADF</code> error messages to less than 1% of the line counts in the truss output. This change will improve performance for some applications.	Performance, Server Processes
UDT-16255	Starting with UniData 8.2.2, the option of a new algorithm was added to collect and collate the results of multiple indices of a file when executing a UniQuery or SQL statement. This new algorithm may give better results than the engine's previous behavior and is dependent on the OS and the structure of the indices involved.	Indexes, Performance, SQL
UDT-16271	Starting with this release, the <code>AUDMAN</code> command now has the ability to decrypt ADE encrypted data stored within the Audit Logs.	Audit Logging
UDT-16278	Starting with this release, changes have been made to improve the performance when a large number of sessions attempt to update the <code>SAVEDLISTS</code> at the same time and if it is located in the Elastic File System in AWS Cloud.	Files
UDT-16279	Starting with this release, internal changes have been made to temporary list naming to avoid problems if the <code>SAVEDLISTS</code> directory is shared across instances of UniData.	ECL Tools, Files
UDT-16315	Windows only. In some circumstances, <code>cleanupd</code> failed to completely cleanup a UniData session. When a session was forcibly terminated, <code>cleanupd</code> would release the locks and UniData license associated with the process. However, the pid of that session would remain in the LCT table and be reported by the <code>LISTUSER</code> and <code>PORT . STATUS</code> commands. A stop and restart of UniData was required to clean the LCT table. This issue has been resolved.	Server Processes
UDT-16349	Windows Only. Previously, the creation or deletion of a trigger could return a message similar to: <pre>LsaQueryInfoTrustedDomain() failed, error(6): The handle is invalid. 'CUSTOMERS' is owned by user -1</pre> This issue has been resolved.	Triggers



Key	Release Notes	Components
UDT-16370	Starting with 8.2.2, the default setting of the RW_SKIP_TRIGGER in U2 Replication will be set to 1.	Replication
UDT-16371	Prior to this release, when using the <code>setPrivateKey()</code> function with an encrypted key file using a blank password, a status of 4 was returned. The status meant that the key file could not be accessed because it was non-existent or it had a wrong pass phrase and was a result of the default security level. Beginning at this release, the <code>setPrivateKey()</code> function will accept encrypted keys with blank passwords.	Security, SSL, U2 Basic
UDT-16386	<p>When UniData was started or U2 Replication was reconfigured, U2 Replication scanned the VOC file of an account level group to load information on the files to replicate. If multiple file pointers defined the same file, the replication daemon would randomly select one of the VOC pointers and assign it as the primary reference. This could cause updates to be missed on the subscriber if the VOC pointer defined as the primary reference was removed. The rw processes on the subscriber would attempt to apply updates to the file based on the primary reference and would discover the file did not exist. Errors would be written to the replication log files indicating that updates did not occur.</p> <p>Beginning at this release, the U2 Replication loading process has been modified. When multiple VOC pointers exist for the same file, the pointer where the VOC name matches the DATA file will be defined as the primary reference. This pointer is typically the one created at file creation and is less likely to be deleted.</p> <p>Note: Updates done on the subscriber are based on the primary reference file name on the publisher. Therefore, the same VOC entry needs to exist on the subscriber or updates can be lost.</p>	Replication
UDT-16387	Windows Only. The <code>-a</code> option has been added to the <code>deleteuser</code> command. This option will remove all UniData user sessions from the system. A warning message is displayed for confirmation before removing users. Also, a <code>-s</code> option is added to suppress this prompt. The new syntax is <code>deleteuser -a [-s]</code> . Please be careful before using these options as it will log all users off of UniData. Other existing syntax options not noted here are still available for this command.	Server Processes
UDT-16390	Windows Only. Previously, the <code>NEWPCODE</code> command path parameter was case-sensitive where Windows itself is not case-sensitive. Starting with this release, the <code>NEWPCODE</code> command is no longer case-sensitive.	U2 Basic
UDT-16393	Windows only. Previously, when the audit logging configuration file using "audman -config" was edited and a program policy with a path starting with a forward slash was specified, audman would crash when saving the file and exiting the program. This issue has been resolved.	Audit Logging

Key	Release Notes	Components
UDT-16399	Starting with UniData 8.2.2, the following repconfig and udt-config parameter defaults have been increased. In repconfig <i>LARGE_RECSZ</i> to 512, <i>N_LOGINFO</i> to 16384 and <i>REP_BUFSZ</i> to 536870912. In udtconfig <i>TCA_SIZE</i> to 2048000.	Replication
UDT-16402	Prior to this release, when using the <i>DAT.CLIENT.WRITE/DELETE</i> operation in Audit on a dataset, only one operation with all the IDs in a single log record was created. Starting with this release, a separate log record will be created for each ID involved in the operation.	Audit Logging
UDT-16405	Starting with this release, the UniBasic <i>setPrivateKey</i> function now accepts unencrypted PKCS#8 formatted private keys with or without a password.	SSL, U2 Basic
UDT-16410	Starting with UniData 8.2.2, a new parameter of <i>TOJSON</i> has been added to the <i>LIST</i> and <i>SORT</i> UniQuery verbs to output results in a JSON format. For further details please refer to the manual set.	ECL Tools
UDT-16416	Replication. If an update failed on the subscriber, it was not always reported in the log files.  Consequently, there was no record that the subscriber database was out of sync with the publisher. This issue was caused by changes made for UDT-2270, which stopped recording errors to the replication logs due to performance impact. This change has been reversed.	Replication
UDT-16427	Windows Only. UniData uses function calls to the Windows environment in order to establish the relationship between the User ID (UID) and Security Identifier (SID). These function calls are run on a domain controller and can take some time to run. Previously UniData repeated these calls each time the relationship needed to be identified and checked which could result in certain commands or logins taking longer to perform than expected. Starting with this release once the relationship has been identified, it is stored in a cache to speed up subsequent checking of the relationship when it is needed.	Error Reporting, Performance
UDT-16438	Prior to this release, if the <i>BL#</i> command was used when debugging a large globally cataloged program in the UniBasic Debugger, the execution of the program would hang or an error message similar to the following would be displayed:  ***Line 9 is not an executing statement or program was not compiled with -D option  This issue has been resolved.	UniBasic Debugger
UDT-16442	Starting with 8.1.2, a UniBasic program could fail to complete the compilation phase if the <i>-X</i> option was used. On Windows, this would result in a hung telnet session or an unexpected termination of the udt executable performing the compilation. On UNIX, the session would terminate or no <i>compilation finished</i> message would be displayed. This issue has been resolved.	Error Reporting, U2 Basic
UDT-16443	Previously, <i>CallHTTP</i> failed on certain responses because it did not process HTTP status code 207 correctly. This issue has been resolved.	U2 Basic

Key	Release Notes	Components
UDT-16445	Starting at 8.2.0 , if a program used a <code>WRITEV</code> or <code>FIELDWRITE</code> command resulting in the firing of a trigger that performed an update to another file, then the session could end abnormally. Although only seen and reproduced on Windows, the underlying error could also be experienced in UNIX. This issue has been resolved.	U2 Basic
UDT-16455	Previously, logging off with <code>CHAIN QUIT</code> , or using any <code>CHAIN</code> command after invoking Python, caused a minidump or core dump. This issue has been resolved.	Python
UDT-16469	Windows Only. Starting with this release, <code>udt.exe</code> processes that could not be previously terminated in taskmanager or using the <code>taskkill</code> command can now be terminated.	Telnet
UDT-16471	Beginning at 8.2.0, when a UniBasic program was compiled using the <code>-D</code> option, a new INCLUDE file stack was also produced. This stack would be used during the program's execution to report the included program name and line location in the following format:  <pre>In BP_MAIN.PROG at line 2, BP\INCLUDE1 at line 4, BP\INCLUDE2 at line 1</pre> <p>WARNING: UNINITIALIZED VARIABLE USED! Zero Assumed!</p> <p>With this change, running large programs compiled with the <code>-D</code> option and close in size to the value of <code>MAX_OBJ_SIZE</code> may have caused access violations/core dumps.</p> <p>This issue has been resolved.</p>	Error Reporting
UDT-16479	Starting with this release, the <code>-a</code> and <code>-c</code> options have been added to <code>lstt</code> command to assist with debugging LCT problems. For further details please refer to the manual set.	Error Reporting, Shared Memory
UDT-16488	Starting with UniData 8.2.0, the <code>STATUS ()</code> result of the <code>SELECTINDEX</code> command was changed so that a status code of 1 is returned if the index name is missing, and also if no records are selected. This change was made to bring the functionality in line with the documentation.  <p>At this release, a new <code>udtconfig</code> parameter named <code>SELECTINDEX_RTN_STATUS</code> has been provided. When set to 1 (default), this parameter causes the <code>SELECTINDEX</code> command and the <code>STATUS ()</code> result to function the way it did prior to UniData 8.2.0. This means that a return status code of 1 will only mean that no records are selected and will allow applications to give the same result as they did prior to the change in case developers did not realize the mistake in the documentation. If the <code>SELECTINDEX_RTN_STATUS</code> parameter is set to 0, then the new UniData 8.2.0 behavior will be used.</p>	Indexes, U2 Basic

Key	Release Notes	Components
UDT-16490	<p>Prior to UniData 8.2, if you used the construct, <code>READV value FROM file, key, 0 ELSE . . . .</code>, if the key existed, the value was returned as 1. If the key did not exist, the value was returned as 0.</p> <p>Starting with 8.2.0, if the key exists, the value that is returned is the contents of attribute 1 from the record. If the key does not exist the value is returned as null.</p> <p>This change in behavior was not expected and has been returned to the results seen at versions prior to 8.2.0.</p>	U2 Basic
UDT-16497	<p>Windows only. Prior to this release, if a large number of writes occurred during a UniData transaction and indexes were used, the process would produce an exception violation when the <code>TRANSACTION COMMIT</code> or <code>TRANSACTION ABORT</code> command was executed. This issue has been fixed.</p>	Error Reporting, Transaction Logging, Triggers
UDT-16500	<p>Starting with 8.2.0, when updating a UniData file within a Transaction (i.e. <code>TRANSACTION START ... TRANSACTION COMMIT</code>), if the file had an index that was built on a virtual dictionary, users saw the following message: <code>Illegal buffer in U_free_buf()</code>. The index and the file were updated correctly. This issue has been resolved.</p> <p><b>Note:</b> This issue was previously fixed in 8.1.1, and re-emerged again at 8.2.0.</p>	Shared Memory, U2 Basic

Key	Release Notes	Components
UDT-16506	<p>Prior to this release, when writing to a large dynamic file with at least one index and if the indexed value was to be written to an index other than the primary index file (idx001), the process ended unexpectedly with an error similar to the two following examples.</p> <pre>In BP/_TEST at line 8 Index:open part file TESTFILE/idx003 failed(0)  In BP/_TEST at line 8 Index: invalid offset for read: 0  In BP/_TEST at line 8 Index: read node error(0)  In BP/_TEST at line 8 Index: Can not split node  In BP/_TEST at line 8 1:Inserting index value(s) error in U_append_strtuple for file 'TESTFILE', key 'TESTING11', number=259  In BP/_TEST at line 8 Index:open part file TESTFILE/idx002 failed(0)  In BP/_TEST at line 8 Index: invalid offset for read: 1440428032  In BP/_TEST at line 8 Index: read node error(0)  In BP/_TEST at line 8 1:Inserting index value(s) error in U_append_strtuple for file 'TESTFILE', key 'TESTING1111', number=200</pre> <p>This issue has been resolved.</p>	Indexes
UDT-16521	<p>Starting in UniData 8.2.2, the <code>encman -audit</code> command will now report the specific details of audit password policy changes. Prior to this release, the <code>encman -audit</code> command only reported that a password policy change had occurred.</p>	Automatic Data Encryption
UDT-16523	<p>Starting with UniData 8.2.2, the <code>ALL</code> option has been added to the <code>BASIC CLEARCOMMON</code> statement. The <code>ALL</code> option will result in setting the contents of variables in all named common blocks to a value of 0.</p>	U2 Basic
UDT-16525	<p>Prior to this release, long-running <code>odbc</code> query sessions could have crashed with an access violation/coredump. This issue has been fixed.</p>	Error Reporting, UNIRPCD
UDT-16539	<p>Starting with this release, improvements have been made to the error messages produced during an EDA conversion to better understand the error that was encountered.</p>	External Database Access
UDT-16542	<p>Prior to this release, the SQL syntax of <code>LIKE '?'</code> was not supported in all SQL modes. Customers may have seen this as an error with the <code>LINQ.Contains()</code> function. This issue has been resolved.</p>	SQL
UDT-16549	<p>In previous versions, SSL protocols <code>TLSv1.1</code> and <code>TLSv1.2</code> were not available in Python. This issue has been resolved.</p>	Python

Key	Release Notes	Components
UDT-16550	Prior to this release, during EDA reconvert, the request failed at the rename table stage because the table name was too long, leaving tables in the external database inconsistent with the EDA stub file. <code>LIST FILE ALL</code> would fail with the error 'table or view doesn't exist'. This issue has been resolved.	External Database Access
UDT-16564	Previously, converting an EDA file with an index to an SQL Server worked properly the first time; however, during additional conversions, EDA could not run the <code>EDA CONVERT</code> command again on an existing EDA file due to a drop in the SQL Server index failure. This was caused by an incorrect SQL server index reference. This issue has been resolved.	External Database Access
UDT-16567	Starting with this release, the XDEMO account has been updated to version 3.1.4. This includes a fix for repeated calls to the <code>FINDWAREHOUSE_PYFUNC</code> program.	Python
UDT-16572	Starting with UniData 8.2.1, if the guide utility was used against a dynamic file, the following message might have incorrectly displayed:  <pre>warning(development internal): file: UD_SQLTABLES fileno:0 U_O_FFL_BITS[0] doesn't contain U_O_TMP_bits[0].</pre> This issue has been resolved, and a new <code>-nw</code> option has also been added. This option functions the same way as the <code>SUPPRESS_ORPHAN_BLOCK_ERROR</code> environment variable. For example, the <code>has no link</code> warning messages are suppressed from the error log file.	Error Reporting
UDT-16574	Prior to this release, an SQL query on a view returned incorrect results. This issue has been resolved.	SQL
UDT-16575	Starting with 8.2.2, the install scripts now give <code>world</code> permissions to the U2 Logging <code>logs</code> directory and its sub-directories.	Installation
UDT-16576	Starting with UniData 8.2.1, when making a UO.NET call or U2 Toolkit connection that uses the <code>LockRecord</code> function, the <code>udapi_slave</code> process could generate an access violation/coredump. This issue has been resolved.	Error Reporting, UNIRPCD
UDT-16579	Prior to this release, when making an ODBC connection to an account that had a <code>LOGOUT</code> paragraph that performed a BASIC program with a <code>CHAIN</code> command, the <code>udsvrd</code> process would coredump. This issue has been resolved.	Error Reporting, UNIRPCD
UDT-16595	As a result of a fix in the 8.1.2.2022 release, if an attempt was made via VSG to look at Files / Tables or Views on that release, then VSG would have disconnected from the server with an error. This issue has been resolved.	Server Processes
UDT-16599	Starting with this release, in UniBASIC, the <code>setHTTPDefault</code> function's <code>AUTHENTICATE</code> option now allows passwords to contain colons. If the password or realm contains colons, you must use a value mark ( <code>@VM</code> ) to separate all parts, for example:  <pre>jons@VMpassword:with:colons@VMsupport</pre>	U2 Basic

Key	Release Notes	Components
UDT-16604	Prior to this release, if an EDA write failed on the subscriber and <code>RW_IGNORE_ERROR</code> was set to 0, replication would not suspend. This prevented customers from realizing that database updates had been lost. This issue has been resolved.	Replication
UDT-16610	In rare situations, when user processes were exiting, the internal cleanup of memory could have generated a core dump. This was typically seen when large or too many files were used. This issue has been resolved.	Error Reporting
UDT-16611	Starting with 8.2.0, if a program used a <code>WRITEV</code> or <code>FIELDWRITE</code> command resulting in the firing of a trigger that performed an update to another file, then the session could end abnormally. Although only seen and reproduced on Windows, the underlying error could also be experienced in UNIX. This issue has been resolved.	U2 Basic
UDT-16612	Starting with UniData 8.2.1, when running a program in the debugger, running <code>N#</code> with the <code>R</code> option did not repeat the <code>N#</code> command when Enter was pressed. This issue has been resolved.	UniBasic Debugger
UDT-16625	Starting with UniData 8.2.1, when running a program in the debugger, the <code>BP</code> option failed to set a break point. This issue has been resolved.	UniBasic Debugger
UDT-16626	In UniData 8.2.0 and 8.2.1, when using triggers, in some rare cases, processes could have stopped prematurely with <code>illegal buffer in U_free_buf</code> and <code>out of BUF_TYPE</code> errors. This issue has been resolved.	U2 Basic
UDT-16627	Starting with release 8.2.2, a default site-specific root certificate will be deployed during installation to aid the set up of other MV SSL interfaces and components. The certificate can also be added manually via the <code>UPDATE.CER</code> command with the default password: <code>ROcketU2</code> .	Security, SSL
UDT-16631	HP Only. Starting with UniData 8.1.0, support for local functions was added. On HP only, if the program containing local functions was globally cataloged, the process would core dump. This issue has been resolved.	Performance, U2 Basic
UDT-16643	Starting with UniData 8.2, with the addition of the audit logging functionality, when large program stacks were stored in memory, the process might have core dumped. This issue has been resolved.	Error Reporting, U2 Basic
UDT-16644	Prior to this release, performing an ODBC <code>SELECT</code> query with a range of dates using the <code>@date</code> expression in ODBC fails. This issue has been resolved.	SQL
UDT-16646	Linux only. Prior to this release, Python did not support auto-completion. This issue has been resolved.	Python
UDT-16649	Prior to this release, if a user ran a <code>CLEAR-FILE</code> on a dynamic file with 30+ part files, the process would core dump. This issue has been resolved.	Error Reporting, Files
UDT-16651	If large MQI requests are received in UniData, the UniData process could core dump. On Linux, this might show as an <code>invalid free</code> error. This issue has been resolved.	Error Reporting, MQSeries

Key	Release Notes	Components
UDT-16655	Previously, attempting to add a password to an ADE master key generated via <code>SYSGEN</code> incorrectly failed with a message indicating that the master key had changed. This issue has been resolved.	Automatic Data Encryption
UDT-16661	Previously, the path used in <code>pip.exe</code> was a hard-coded absolute path which lead to problems if Python was moved from its default location. It has been changed to a relative path so it can be found even if the default location is changed.	Python
UDT-16667	<p>Prior to this release, the EDA server would look up the <code>libodbc.so</code> file instead of the <code>libodbc.so.1</code> file based on the <code>ODBCPATH</code> environment variable.</p> <ol style="list-style-type: none"> <li>1. It loads the <code>libodbc.so</code> file from the <code>/usr/local/lib</code> by default without the <code>\$ODBCPATH</code> environment variable setting.</li> <li>2. Check the <code>\$ODBCPATH/lib</code> path. If it does exist, it loads the <code>libodbc.so</code> file from that path. Otherwise, the driver will search <code>/usr/local/lib</code>, <code>/usr/lib64</code>, and then <code>/usr/lib</code>.</li> </ol>	External Database Access
UDT-16668	<p>Prior to this release, the EDA driver would not work with Microsoft the ODBC driver for Linux. The EDA COM driver was unable to locate the <code>libodbc.so</code> file in the <code>\$ODBCPATH/lib</code> folder. This issue has been resolved.</p> <p>Now, if the <code>\$ODBCPATH</code> environment variable is not set, the driver will search <code>/usr/local/lib</code>, <code>/usr/lib64</code>, and then <code>/usr/lib</code>.</p> <p>If the <code>\$ODBCPATH</code> environment variable is set, the driver will search <code>\$ODBCPATH/lib</code>, and then <code>\$ODBCPATH</code>.</p>	External Database Access
UDT-16673	Due to recent changes for SQL memory corruption issues (UniData 8.1 tickets UDT-16525 and UDT-15206), calls to the <code>ISMB</code> function (single or multi-byte language check) may have core dumped. This issue has been resolved.	Error Reporting
UDT-16682	<p>Previously, if a secure HTTP connect failed during SSL handshake phase when <code>submitRequest()</code> was run, it was difficult to obtain a detailed error reason. This issue has been resolved by calling <code>getSocketErrorMessage()</code>.</p> <p><b>Note:</b> When <code>submitRequest()</code> is called to send an HTTP request via a secure HTTP connection, and there is an SSL-related error that prevents the request to be sent, <code>submitRequest()</code> returns error code 3, which indicates a generic network error. This error code is not a socket error code and should not be used in <code>getSocketErrorMessage()</code>. Instead, you should pass 0 as the error code to <code>getSocketErrorMessage()</code>.</p>	U2 Basic
UDT-16683	Previously, Replication did not update the subscriber correctly when an individual transaction contained more than 32,767 updates. This issue has been resolved.	Replication



Key	Release Notes	Components
UDT-16684	(Unix Only.) An enhanced UniData Performance Monitoring tool, called <code>udtpm</code> , has been added in this release. This command-line driven monitoring tool provides information about UniData users and system activity. Refer to the Pre-Release Documentation for UniData Performance Monitoring Tool ( <a href="https://my.rocketsoftware.com/RocketCommunity/articles/How_To/Pre-Release-Documentation-for-UniData-Performance-Monitoring-Tool-udtpm">https://my.rocketsoftware.com/RocketCommunity/articles/How_To/Pre-Release-Documentation-for-UniData-Performance-Monitoring-Tool-udtpm</a> ) on the Rocket Community site for additional information.	Performance
UDT-16694	Previously, when using the performance monitor options in the Extensible Administration Tool (XAdmin), no results were shown when connecting to a UniData 8.2.x server. This issue has been resolved.	Performance
UDT-16704	When using <code>CallHTTP</code> to access a server and the response is using chunked encoding, well-formed chunks were expected. If incomplete or ill-formed chunks were received, the database process could crash. This issue has been resolved.	U2 Basic
UDT-16718	Starting in this release, the error message <code>repsys local replication not defined</code> was updated to include the local hostname.	Replication
UDT-16719	Prior to this release, the cleanup daemon could crash when attempting to clean up a dead udt process. If a udt process was terminated while updating replication logs during a transactional database update, the cleanup process might crash when cleaning up the LCT slot for that process. After restarting cleanup, the process would continue to crash when reaching that LCT slot again. The only resolution was to stop and restart UniData. This issue has been resolved.	Replication
UDT-16731	Prior to this release, in rare circumstances when processes were run, invalid addresses pointing to GLM segments might have been left in LCT information. When new users logged in and the LCT information was referenced again, newly run processes failed. These failures prevented additional users from logging in and required a database or server reboot. This issue has been resolved, and the invalid address information is now properly cleared.	Error Reporting
UDT-16739	Prior to this release, on UNIX and Linux systems with command line lengths longer than 16 KB, the UniData <code>psfmt</code> utility core dumped, which caused the <code>showud</code> command to return no results. This issue is now resolved.	Installation, Server Processes
UDT-16742	Starting with UniData 8.2.0, on AIX, HP, and Sun platforms, if UniData BASIC or <code>guide</code> commands were used and the <code>UD.ACCOUNT</code> file entry for the data account only contained one line of data, the process would core dump. This issue has been resolved.	Error Reporting, U2 Basic
UDT-16753	Starting with this release, the Device and Inode fields were removed from the <code>LIST.LOCKS</code> command, as they are invalid for these types of locks. Resolving this issue also ensures the same XAdmin functionality works correctly when clearing locks.	Server Processes

Key	Release Notes	Components
UDT-16758	Prior to this release, if UniData was moved to another server and the Recoverable File System was active, the encman retag process on the failover system corrupted the key store, making it unusable. This issue has been resolved.	Automatic Data Encryption, Recoverable File System
UDT-16761	Prior to this release, when trying to run a BASIC program from Python, the command failed. This issue has been resolved.	Python
UDT-16762	Linux only. Prior to this release, processes would core dump if the <code>readnamefields</code> Python function was used. This issue has been resolved.	Python
UDT-16794	Previously, EDA would only allow the TRANS I-type fields to be mapped to an SQL Server view. Beginning with this release, EDA can now map the SUBR or TRANS data to SQL Server data type fields.	External Database Access
UDT-16797	<p>Prior to this release, when using the EDA <code>Scalar</code> function with the SQL Server <code>UPPER</code> function, it will return the following error:</p> <pre>Create EDA Component failed(1):CREATE VIEW CUSTOMER.CUSTOMER_V( UPCASE_LNAME, ID, FNAME, LNAME, NONCONFORMING_FLAG, UNMAPPED_U2FIELD) AS SELECT CUSTOMER.UPPER(CUSTOMER.LNAME), CUSTOMER.ID, CUSTOMER.FNAME, CUSTOMER.LNAME, CUSTOMER.NONCONFORMING_FLAG, CUSTOMER.UNMAPPED_U2FIELD FROM CUSTOMER.CUSTOMER CUSTOMER</pre> <p>EDA SQL Server Driver: [Microsoft] [SQL Server Native Client 11.0][SQL Server]Cannot find either column "CUSTOMER" or the user-defined function or aggregate "CUSTOMER.UPPER", or the name is ambiguous.</p> <p>Create EDA file components CUSTOMER.CUSTOMER failed.</p> <p>This issue has been resolved.</p>	External Database Access
UDT-16804	In UniData 8.2.0, coding changes were made to ensure files could not exceed their predefined limits. (UDT-12686.) The <code>MAX_LENGTH</code> parameter in the <code>udtconfig</code> file applies only to 32-bit dynamic files, but was also incorrectly applied to 32-bit static files when the 8.2.0 coding changes occurred. This resulted in the <code>CLEAR.FILE</code> command failing if it was applied to a 32-bit static file that was already larger than the size defined by <code>MAX_LENGTH</code> . This issue has been resolved.	Files
UDT-16828	Prior to this release, using the <code>LIST</code> command on an EDA file might core dump if the Whole Record flag was set to Yes and not all fields were mapped. This issue has been resolved.	External Database Access

Key	Release Notes	Components
UDT-16829	<p>Prior to this release, UniData error logs could contain the following error message: <code>msgno = 30147. args = (null)</code>, which was intended to inform users that some memory was double freed. In this release, this message has been improved to be more descriptive.</p> <p>Starting with UniData 8.2.0, two RFS (Recoverable File System) users also reported receiving this message, which has also been resolved with this release.</p>	Error Reporting, Shared Memory
UDT-16838	Changes made to resolve ODBC issues in version 7.3.7.6629 and version 8.2.0 resulted in users experiencing SQL query failures and receiving the following error message: <code>out of BUF_TYPE</code> . Both the original issue (UDT-15206) and this issue have been resolved with this release.	SQL
UDT-16840	AIX only. Starting with UniData 8.2.0, the result of a exponent calculation with two integers did not always return a whole number, which could cause follow-up condition checking to unexpectedly fail. This issue has been resolved.	U2 Basic
UDT-16844	Previously, when executing the <code>EDA.CONVERT</code> command, if a key length was greater than 80 characters, then the process could crash with a core dump. This issue has been resolved.	External Database Access
UDT-16846	<p>Windows only. Starting with UniData 8.2.1, when running the <code>memresize</code> command with the <code>NOPROMPT</code> option, the following occurred:</p> <ul style="list-style-type: none"> <li>-Changes were not made to the file.</li> <li>-An empty <code>c:\udt.errlog</code> file was generated.</li> <li>-The <code>memresize</code> executable crashed with a core dump.</li> </ul> <p>Also, if the <code>NOPROMPT</code> option was not specified, the <code>memresize</code> command did not prompt the user.</p> <p>Both sets of issues have been resolved.</p>	Files
UDT-16849	Starting with this release, the <code>RENAME</code> option has been added to the <code>EDA.CONVERT</code> command. Use this option with the <code>EDA.CONVERT</code> command if it is used against a database file that has I-types pointing to the same file.	External Database Access
UDT-16882	<p>Audit. Starting with this release, improvements have been made to allow for easier tuning of the list of files, users, programs and executables to be included/excluded in the audit configuration. For more information, in UniData 8.2.1, search for UDT-16882 in the Rocket Support Knowledge base or refer to the documentation set.</p> <p>Â</p>	Audit Logging
UDT-16883	Prior to this release, the <code>TRANS_COMMIT_LOG</code> file was not correctly updated if the file pointers pointed to a remotely replicated file and the account in which the transaction was run was not replicated. This issue has been resolved.	Replication, Transaction Logging, U2 Basic
UDT-16890	Starting with UniData 8.2.0, when the <code>glm_tool</code> utility was used and option 1 was selected to show the map of locks, a core dump would occur in UNIX and an exception violation displayed in Windows if more than one active read waiter was present. This issue has been resolved.	Locking

Key	Release Notes	Components
UDT-16915	The <code>udtdiag</code> script for UNIX and Linux platforms has been updated to version 5.2.1 in this release.	Support Tools
UDT-16919	Prior to this release, if you were using the <code>glm_tool</code> option to show the 'Holding Transactions and Waiting Queues for a Given Lock' the prompts displayed when asking for the <code>fid.ino</code> and <code>fid.dno</code> were in the reverse order. This issue has been resolved.	Locking
UDT-16930	(Windows only.) Beginning at this release, the <code>CALLC</code> pointer type has been updated to 64-bit to match 64-bit UniData builds. To use this variable type, custom applications must be recompiled in 64-bit mode.	U2 Basic
UDT-16932	Starting with 8.2.1, if the recoverable file system (RFS) was active and the last attribute in an RFS file was indexed, the associated index would become corrupted when a record was created or updated via the <code>WRITE</code> statement. This issue has been resolved.	Indexes, Recoverable File System
UDT-16933	Starting with 8.2.2, the OpenSSL libraries that UniData comes supplied with have been upgraded to version 1.1.1b.	Security
UDT-16937	Audit. Prior to this release, when using the <code>DELETE</code> command at ECL, the records and filename were not populated in the auditing records. This issue is has been resolved. As part of this change starting with this release, the <code>DELETE</code> command at ECL event was changed to be tracked by the <code>DAT.QUERY.COMMAND</code> event type instead of the previously used <code>SYS.COMMAND</code> event type.	Audit Logging
UDT-16942	Prior to this release, if an index had a <code>NO.DUP</code> constraint on a subscribing system with replication, the replication writer process might have incorrectly failed to update the file with a message similar to the following:  <pre>Tue Oct 23 11:18:36 2018; RW report: RW(2, 8978778):RW violated nodup constrain(0, 0); (LSN=35797828)Insert on PIECE.LOCATION('53CF84D5-B910-176F-F876- DFA1B8562DEA') is canceled.</pre> This issue has been resolved.	Replication
UDT-16944	Starting with 8.2.1, if the <code>@TRANSACTION.ID</code> grew to a certain size, the <code>@LEVEL</code> variable became damaged, which subsequently corrupted the value returned via <code>SYSTEM(16)</code> . This issue has been resolved.	U2 Basic
UDT-16949	The <code>USE.PYTHON.DICT</code> program was added at UDT 8.2.1 in the XDEMO account. The location of the file was incorrectly placed in the XDBP file. Starting with this release, this program is now called <code>USE_PYTHON_DICT</code> and is in the PBP directory.	XDEMO

Key	Release Notes	Components
UDT-16956	<p>Prior to this release, <code>WRITE</code> commands written to a log file would not be logged via Audit Logging if the following occurred:</p> <ul style="list-style-type: none"> <li>▪ The file had an update trigger.</li> <li>▪ The <code>WRITE</code> command came from a subroutine and not a parent program.</li> <li>▪ There was a <code>READ</code> command (of any kind, from any file) in the trigger routine.</li> <li>▪ The trigger called a subroutine.</li> </ul> <p>This issue has been resolved.</p>	Audit Logging
UDT-16964	<p>Prior to this release, when users attempted to use the <code>memresize</code> utility and UniData could not locate the partition information for the temporary resize area in its list of file systems (<code>sm -F</code>), it displayed a message similar to the following: <code>Warning: Nov 30 04:37:27, Can't find the partition (-9223371860761116672) information in shared memory.</code> Starting with this release, this message has been improved to be more helpful to administrators.</p>	Files
UDT-16974	<p>When indexes overflow and the RFS (Recoverable File System) is used, memory structures are swapped in and out to allow for additional data. During the swap, the index is locked. Prior to this release, in rare situations, duplicate locks caused the database to hang during the checkpoint phase. Starting with this release, changes were made to prevent duplicate locks, and the subsequent hang, from occurring.</p>	Recoverable File System
UDT-16975	<p>Previously, if audit logging was enabled against a non-existing file and the UniBasic <code>DELETE</code> command was used, the process would crash. This issue has been resolved.</p>	Audit Logging
UDT-16982	<p>Prior to this release, if Automatic Data Encryption (ADE) was active, data was copied from an unencrypted file to an encrypted file, and both files had indexes, users received a message similar to the following when they attempted to write to the encrypted file:</p> <pre>In BP/_TEST at line 10 Index: invalid 'nkeys' (772330356) of node 16384.  In BP/_TEST at line 10 1:Inserting index value(s) error in U_append_strtuple for file 'MYFILE', key 'A:DEFG:DEFG', number=7.</pre> <p>This issue has been resolved.</p>	Automatic Data Encryption, Indexes
UDT-17001	<p>The UniData <code>smm</code> process cycles every minute by default. Prior to this release, if this cycle was delayed beyond 60 seconds, users received a message similar to the following: <code>mm set U_smm_check_flag to 1. seconds passed since last check: 61.</code> Starting with this release, users will only receive this message if the interval time, plus 10%, has been reached.</p>	Server Processes

Key	Release Notes	Components
UDT-17011	Starting with UniData v8.2.1, build 9114 (UDT-16956), changes were made to better support triggers with auditing. Updates and deletes were correctly tracked in the audit logs, but new data records that included trigger executions were not. This issue has been resolved.	Audit Logging
UDT-17024	Starting with UniData 8.1.0, if an NFA file was opened into a <i>COMMON</i> variable and then subsequently the file was not closed before logging out of UniData, an error message similar to the following would display on logout"  In at line 1, Your NFA server has gone down, errno is 9.  This issue has been resolved	Network File Access
UDT-17029	Starting with UniData 8.2.0, if the <i>udtconfig</i> parameters <i>MAX_CAPT_LEVEL</i> and/or <i>MAX_RETN_LEVEL</i> were set higher than a value of 2, any processes performing an EXECUTE command in a subroutine could core dump. This issue has been resolved.	U2 Basic
UDT-17039	Starting with UniData 8.2.0, if a BCI (Basic Call Interface) variable was used within a named common area, the memory being used by that variable may have been incorrectly doubly released upon completion of the UniData session. On Windows this may have produced a minidump. This issue has been resolved.	Error Reporting
UDT-17055	Starting with UniData 8.2.0, UniData on UNIX or Linux switched from being statically linked to dynamically linked. If external C programs were added via CALLC functionality and the return type was a pointer, double, float or char, symbol errors similar to the following could occur:  Could not load program udsrvd: rtld: 0712-001 Symbol U_ltoa was referenced from module /disk1/ud82/work/libu2callc.so(), but a runtime definition of the symbol was not found.  rtld: 0712-002 fatal error: exiting.  Additional symbols that could be referenced in the above error include U_dtoa, U_ftoa and U_getzeroret. This issue has been resolved by properly defining the noted symbols.	UDT- Linking
UDT-17060	Windows only. Starting with UniData 8.1.2 build 2001 or 8.2.0, if the P command was used in the UniData debugger and it was not a dual terminal debugging session, the process would generate an access violation and disconnect the session. Previously, if this situation occurred, users would have received an appropriate error message. This issue has been resolved.	Debug Tools

Key	Release Notes	Components
UDT-17073	Starting in September 2018, our source code was moved to a Git repository. One result of this move was that some empty and unnecessary <code>.keep</code> files were incorrectly shipped with the products. This issue has been resolved.	Build
UDT-17074	Starting with UniData 8.2.0, the <code>udtmon</code> utility failed to report the correct values for the <code>File I/O</code> option. This issue has been resolved.	Performance, Support Tools
UDT-17078	AIX only. Starting with UniData 8.1.0, if the same UniBasic variable was used as both a string and a file pointer in an <code>OPEN</code> statement, the file could not be opened. This issue has been resolved.	U2 Basic
UDT-17079	Starting with UniData 8.2.0, if the <code>OSBREAD</code> statement read a file whose length was an exact multiple of the block length being used, then the <code>OSBREAD</code> statement would take one extra iteration than was necessary to detect the end of the file. This issue has been resolved.	U2 Basic
UDT-17080	Starting with UniData 8.2.0, the <code>SCHEMA_LIST_USERS</code> API may have returned the following error message:  In C:\U2\ud82\sys\CTLG\s\SCHEMA_LIST_USERS at line 49 Unable to read definition for routine <code>U_get_list_user</code> from VOC.  In C:\U2\ud82\sys\CTLG\s\SCHEMA_LIST_USERS at line 49 C function <code>U_get_list_user</code> not found  This issue has been resolved.	API
UDT-17085	Starting with UniData 8.2.1, when using <code>NFA</code> and the <code>READVU</code> UniBasic command, the full data record was returned rather than the field number specified. This issue has been fixed.	Network File Access
UDT-17097	Windows Only. Starting with UniData 8.1, the telnet server would not always display the message <code>Licenced # of users has been reached</code> back to the Telnet Client. This issue has been resolved.	Telnet
UDT-17102	Starting with this release, the <code>udtsetup</code> script has been updated to version 1.3.0.	Installation
UDT-17114	Starting with UniData 8.2.0, changes were made in UDT-15324 to the error handling of the <code>OSBREAD</code> statement to be consistent with other statements. If the <code>OSBREAD</code> statement is positioned past the end of the file, then the <code>ON ERROR</code> clause of the statement is taken, <code>STATUS ()</code> is set to a new value of 5 and the variable used to contain the result of the <code>OSBREAD</code> statement would not be changed. Prior to 8.2.0, if the <code>OSBREAD</code> was positioned past the end of the file then the result variable would almost certainly return an empty string. A new <code>UDT.OPTION 124</code> has been added to revert to the prior behaviour to allow old code to function without modification.	U2 Basic
UDT-17116	Starting with this release, the <code>CT</code> and <code>CP</code> commands have been enhanced to allow the use of quoted record ids primarily to allow for record ids with spaces.	ECL Tools

Key	Release Notes	Components
UDT-17135	In a previous release, if the return information of the <i>SUBROUTINE</i> parameters is not set for the new record value, the old record value remains in the field and the file overwrites itself with the old value in the transaction. This issue has been resolved.	Triggers
UDT-17146	Audit. Prior to this release, if a <code>BEFORE</code> or <code>AFTER UPDATE TRIGGER</code> is used and the <code>WRITE</code> of the record was performed in a UniBasic subroutine, then no write action would be recorded in the audit log. This issue has been resolved.	Audit Logging
UDT-17147	Audit. Prior to this release, if a <code>AFTER DELETE TRIGGER</code> is used and the <code>DELETE</code> of the record was performed in a UniBasic subroutine, then no delete action would be recorded in the audit log. This issue has been resolved.	Audit Logging
UDT- UDT-17149	Linux only. Prior to this release, running the <code>RESIZE CONCURRENT</code> command could produce an intermittent error with a message similar to the following: <code>glibc detected *** /disk1/ud82/bin/udt: free(): invalid pointer: 0x00000000 14eb730 ***</code> . The issue has been resolved.	Files
UDT-17150	HPUX / Linux only. Prior to this release, if a file was resized from 32-bit to 64-bit, a false error message similar to <code>Thu May 9 05:20:45 2019; cwd=/disk1/614824/TESTRESIZE 1:blk check error in U_read_hash_gblk for file 'TEST-RESIZE', key '198', number=33198</code> could be produced and a subsequent 'guide' of the file would report no errors. This issue has been resolved.	Files



Key	Release Notes	Components
UDT-17159	<p>Prior to this release, if a record was deleted from a dynamic WHOLEFILE and the block was in level two overflow, a message similar to the following could be produced:</p> <pre>In BP/_UDT-17159 at line 15 1:movlen error in U_arrange_block for file 'JDSTEST', key '', number=616  In BP/_UDT-17159 at line 15 1:movlen error in U_delete_record for file 'JDSTEST', key '', number=616  In BP/_UDT-17159 at line 15 1:movlen error in delete_from_group for file 'JDSTEST', key 'MEMBER#000000115627#UPD#SEC', number=616</pre> <p>The file would then be broken and need repairing, running guide against the file would produce errors such as:</p> <pre>JDSTEST File Integrity: Group 3848, block 12773 bytes used 201 and bytes left 790 are inconsistent Group 3848, block 12773 is pointed to by multiple links Warning: The 2395th block of file has no link. Warning: The 2557th block of file has no link. Warning: The 3644th block of file has no link. Warning: The 10946th block of file has no link. Warning: The 11314th block of file has no link. Warning: The 14856th block of file has no link. Files processed: 1 Errors encountered: 2</pre>	Files
UDT-17169	Starting with 8.2.2, the udsrsvd.d file is now included for Unix and Linux platforms.	Server Processes
UDT-17174	Audit. Prior to this release, the UniBasic statements SELECT and SELECTINDEX would have been incorrectly tracked if the file had a DAT.BASIC.READ event set against it. This issue has been resolved.	Audit Logging

Key	Release Notes	Components
UDT-17630	Starting with this release, support for RHEL/CentOS 8 has been added. You must install the 64-bit versions of the <code>libnsl</code> (not <code>libnsl2</code> ) and <code>ncurses-compat-libs</code> files for UniData to install on RHEL/CentOS 8. If these packages are not found, an error displays when the installation/upgrade scripts are executed.	OS
UDT-17636	In a previous release, when using <code>udtmon</code> with option <code>configuration</code> <code>graphic scale</code> and default <code>graphic scale file</code> , the <code>udtmon</code> session core dumps. The problem reported on AIX and Linux for UniData 8.1.2 and 8.2.1. This issue has been resolved.	Server Processes
UDT-17638	Starting with this release, the bundled version of Python included with UniData has been upgraded to version 3.7.	Python
UDT-17652	Replication. Prior to this release, repeated field level updates of the same record could result in the record not being correctly updated on the subscriber. This problem has been resolved.	Replication
UDT-17666	Starting with v8.2, the <code>PP</code> command in the UniBasic debugger was not working correctly.	UniBasic Debugger
UDT-17669	In versions 8.2.1.9119 and 8.2.1.9120, a <code>DELETE</code> command issued against a file that was EDA mapped as a subscribing object of a single server replication may not have succeeded which caused the <code>udsub</code> process to die.	External Database Access, Replication
UDT-17672	Prior to this release, if the <code>NEWPCODE</code> failed, no error was produced which left no way to detect an error. Starting with this release, if <code>NEWPCODE</code> fails it will produce the following message:  <pre>NEWPCODE BP\missingprogram errno=2: No such file or directory Can not access program BP\missingprogram</pre>	U2 Basic
UDT-17676	Prior to this release, when trying to run a program compiled on very old versions of UniData, a message similar to the following would be produced:  <pre>File BP_UDT-17676-TEST was compiled using a compiler version prior to 2.0 and cannot run in a higher environment.</pre> This message has now been expanded to include:  <pre>Please re-compile the program and then try again.</pre> On Windows only, the compiled code would have been left locked and you would have been unable to delete that code or recompile until UniData was restarted. This is has also been fixed as part of this release.	U2 Basic
UDT-17679	Starting with 8.2.0, The <code>SCHEMA_DISPLAY_SCHEMA</code> Schema API retrieves the <code>ColumnNullableFlag</code> data from the <code>UD_SQLTABLES</code> tables, but returned an incorrect result. This issue has been resolved.	Schema API

Key	Release Notes	Components
UDT-17680	<p>For AIX only, when using the <i>OPENSSL_FIPS</i> environment variable, using the openssl command shipped with UniData would cause this error:</p> <pre>1152921504606846944:error:2D06B06F:FIPS routines:FIPS_check_incore_fingerprint:fingerprint does not match:fips.c:232:</pre> <p>This issue is now resolved. Due to this change, the OpenSSL version shipped with UniData on AIX is now 1.0.2p-fips.</p>	SSL
UDT-17681	Prior to this release, the counts produced within the <i>File I/O</i> option of the <i>udtmon</i> tool were being double-counted.	Performance, Support Tools
UDT-17683	<p>Prior to this release, the entire replication dynamic object table was searched sequentially. Since the replication object table is scanned on the first I/O to a replicated file to obtain information on the file, a sequential search could negatively impact performance when the dynamic object table was very large.</p> <p>This issue has been resolved. The structure of the dynamic object table was modified to significantly improve the time to access information about the replicated file.</p>	Replication
UDT-17694	Starting with 8.2.1, if a replication subscriber was promoted to a failed-over publisher and the existing sessions had not been disconnected from the failed-over publisher prior to the fail-over, then the compilation of a UniBasic program would not have been replicated to the failed-over subscriber.	Recoverable File System, Replication
UDT-17715	Previously, using <i>WRITEV</i> inside while inside a transaction did not complete if the record had been locked and deleted and <i>STATUS ()</i> failed to report the error. This issue is has been resolved.	U2 Basic
UDT-17717	Beginning with this release, the <i>PATCH</i> method has been added to the <i>BASIC CallHTTP</i> functionality. The <i>PATCH</i> method provides the ability to modify an existing HTTP resource as compared to the <i>PUT</i> method, which only allows a complete replacement of a document.	U2 Basic, Call HTTP
UDT-17718	Windows only. Starting with this release, if a <i>udsrvd</i> ODBC process crashes with an access violation, a <i>minidump</i> result file is produced.	Error Reporting
UDT-17721	Starting with UniData 8.1.0, when multiple indexes were created on a dynamic file, the process could core dump. This issue has been resolved.	Indexes
UDT-17722	Starting with UniData 8.1.2, during an EDA conversion operation, a core dump could occur in the EDA Oracle driver when the Oracle API <i>OCIStmtExecute ()</i> function was called. Users saw the RPC Call Error: The RPC failed, possibly the server process exited abnormally. The EDA Oracle driver has been fixed, resolving this issue.	External Database Access
UDT-17724	AIX Only. Starting with UniData 8.2.0, the <i>udtmon</i> process may have core dumped when showing the second set of results. This issue has been resolved.	Support Tools

Key	Release Notes	Components
UDT-17725	Starting with UniData 8.1, the performance of the UniBasic DIM array = "" statement on HP/UX, AIX and Solaris showed a performance degradation from versions 7.2/7.3 of UniData. Although only measurable with repeated iterations (in the tens of thousands) of the command, with this modification, some of that performance degradation has been corrected.	Performance, U2 Basic
UDT-17728	Windows Only. Starting with 8.2, the Help>About of confprod would report the wrong version. This issue has been resolved.	Licensing
UDT-17731	Starting with this release, the environment variables SSL_CERT_DIR and SSL_CERT_FILE have been added to work with the Python SSL module to set the directory location and file name of CA certificates should they not be in the default locations. (For example SSL_CERT_FILE=/etc/pki/tls/cert.pem SSL_CERT_DIR=/etc/pki/tls/certs)	Python
UDT-17733	Before this release, only the BASIC FILEINFO function provided a lot of information about an open file, but u2py did not provide a way to achieve this. Now, the u2py.File.fileinfo function can provide a lot of information about an open file.	Python
UDT-17734	Beginning with this release, the PORT.STATUS command in UD shell and port.status system command support reporting level 1 python call stack for the CALL.STACK option.	Python
UDT-17735	Beginning at this release, the RUNPY command in a UD shell supports command line passing of arguments.	Python
UDT-17738	Previously, the current account directory was used as location to store temporary files when capturing the output in u2py.Command.run function. This has now been changed to the value of TMP in udtconfig.	Python
UDT-17741	Previously, a Python upgrade issue may have occurred if the old Python home existed in the new destination path. This issue has been resolved. Â Â	Python
UDT-17745	Starting with this release, the name and path attributes of a file have been added to the u2py.File object.	Python
UDT-17750	Prior to this release, the options used with the BASIC command on a publisher were not carried through to the subscriber with U2 Replication. This issue has been resolved.	Replication, U2 Basic, Compile/Catalog Tool
UDT-17762	Prior to this release, after exiting a UniData session, the following error message could be produced:  unfree buffer in sbr_merge.c at 675	Files

Key	Release Notes	Components
UDT-17770	<p>Beginning with this release, UniData provides the ability to upgrade to a newer minor revision level of OpenSSL without the requirement of a new UniData version. An environment variable can be used to define the location of the new OpenSSL library or a file in <code>udthome</code> can define the location. The location defined by either method will become effective when UniData is started.</p> <p>A <code>VERSION ALL</code> enhancement has been added to display the version of the OpenSSL library that is currently in use. The <code>-v</code> option has also been added to <code>showconf</code> to do the same.</p> <p>This functionality is not available on AIX. On AIX the new OpenSSL libraries would replace the UniData supplied libraries in <code>udthome/bin</code>.</p>	SSL
UDT-17776	<p>Audit. Prior to this release, if the <code>TRANS</code> or <code>CONV(Tfile; a; n; n)</code> functionality was used to read information from a secondary file, the read of the secondary file was not tracked in Auditing. This issue has been resolved.</p>	Audit Logging
UDT-17795	<p>Audit. Prior to this release, if a <code>BEFORE</code> or <code>AFTER UPDATE TRIGGER</code> were used and a subsequent <code>WRITE</code> of a record was performed in the UniBasic trigger subroutine, then no write action would be recorded in the audit log. This issue has been resolved.</p>	Audit Logging
UDT-17800	<p>Replication. Starting with this release, the performance of the <code>LIST.REPLICATION.FILE</code> command has been improved when a large number of files are tracked in U2 Replication.</p>	Replication
UDT-17801	<p>Audit. Prior to this release, the timeout for audit to successfully start was hard-coded as 60 seconds and if exceeded would lead to UniData failing to start. If other components such as replication or the RFS took longer than 60 seconds to start this would have also resulted in the Audit timeout being breached.</p> <p>Starting with this release, a new <code>udtconfig</code> parameter called <code>AUDIT_STARTUP_TIMEOUT</code> is available to change the default 60 seconds to a different whole seconds value. If this situation occurs, the <code>AUDIT_STARTUP_TIMEOUT</code> value should be increased. The message in the UniData startup logs would be similar to:</p> <pre>Fri Jan 10 09:11:31 2020; Error: SMM has not yet completed the startup process and the Audit setup could not start as it has reached the timeout (the default is 60 seconds), please increase the parameter AUDIT_STARTUP_TIMEOUT to allow for the longer startup time of SMM</pre>	Audit Logging, Replication
UDT-17815	<p>Replication. Starting with this release, improvements have been made to decrease the amount of time it takes to load the replication object table on UniData startup.</p>	Replication
UDT-17819	<p>Beginning in version 8.2.0, if any <code>Z_</code> or <code>Y_</code> prefixed temporary files remained in the <code>PH</code> directory and were inaccessible by the next process that attempted to reuse them, the process would core dump. This issue has been resolved and a warning message is now given.</p>	Error Reporting, U2 Basic

Key	Release Notes	Components
UDT-17823	Replication. Prior to this release, if an attempt to replicate the <code>TRANS_COMMIT_LOG</code> file was made, it would only be replicated if the primary file reference was under the control of the account level group in which the transaction was started. This issue has been fixed.	Replication
UDT-17824	Audit. Prior to this release, if a <code>DAT.BASIC.WRITE</code> Event was logged and multi-level triggers were used and the writes were performed within those trigger subroutines, the auditing records associated with those writes were not logged. This issue has been fixed.	Audit Logging
UDT-17836	Audit. Prior to this release, if audit consolidation was enabled and multi-level triggers were used, the processes performing audited actions would terminate abnormally. This issue has been fixed.	Audit Logging, Error Reporting
UDT-17849	Starting with UniData 8.1.0, if the <code>BUILD.INDEX</code> command was used with a virtual dictionary using the <code>SUBR</code> function and the called subroutine attempted to repeatedly open the file that the index is being built on, the file would fail to open in the subroutine. This issue has been resolved.	Indexes, Recoverable File System
UDT-17854	Previously, when the <code>repconfig</code> file was incorrectly configured with a combination of account names and account paths, the error message generated did not clearly identify why U2 Replication would not start. At the current release, the error messages now clearly identify the cause of the failure.	Replication
UDT-17855	Beginning in this release, UniData EDA supports MySQL on Windows.	External Database Access
UDT-17856	Beginning in this release, UniData EDA supports MySQL on Linux.	External Database Access
UDT-17857	Beginning with this release, UniData EDA supports PostgreSQL on Linux.	External Database Access
UDT-17858	Beginning in this release, UniData EDA supports PostgreSQL on Windows platforms.	External Database Access
UDT-17912	As a result of the changes made for UDT-17666 in version 8.2.1.9121, the Debugger <code>PL</code> command stopped working. This issue has been resolved.	UniBasic Debugger
UDT-17913	Prior to this release, when a parent process spawned a child process (for example, via the <code>PHANTOM</code> command), the open file handles of the parent process were inherited by the child process. This then consumed the available file handles and could lead to the child process failing because there were no available file handles (even though the child process had not itself opened these files). This issue has been resolved.	ECL Tools, U2 Basic
UDT-17968	Beginning with 11.2.5.4842, a Replication configuration consisting of FILE level groups only may have caused commands like <code>CREATE.FILE</code> and <code>DELETE.FILE</code> to terminate unexpectedly. Additionally, the same type of configuration may have caused <code>uvrepmanager</code> to terminate during UniVerse startup. Both issues have been resolved with the current release.	Replication

Key	Release Notes	Components
UDT-17971	Linux only. Beginning with this release, the UniData install process will insert the line <code>/usr/lib64</code> at the beginning of the <code>/etc/ld.so.conf.d/UniData.conf</code> file. This will avoid problems resulting from OS level commands using libraries in <code>udthome/bin</code> .	SSL
UDT-17979	Beginning with this release, the new <code>TCL REINIT.PYTHON</code> command has been added to control the re-initialization of the Python environment. The available options to the command are <code>ON/OFF/STATUS</code> . The default value is <code>ON</code> . The <code>STATUS</code> option shows the current setting.	Python
UDT-17980	Beginning with this release, the <code>USE_PYTHON_DICT</code> example BASIC program has been added to the XDEMO account.	Python, U2 Basic
UDT-17981	Previously, the XDEMO example program <code>FINDWAREHOUSE_PYFUNC</code> did not return any data. It now returns information indicating the program is deprecated due to the link it used no longer being available. However, the program and Python code are still available for review.	Python, XDEMO
UDT-17982	Beginning with this release, for both publisher and subscribers, the <code>DATA VOC</code> file will always be loaded into the account-level group if one exists. This will override configuring a <code>FILE=DATA VOC</code> phrase in a file-level group. This change ensures that <code>VOC</code> file updates will be replicated in the correct group.	Replication
UDT-17995	Previously, the command failed when trying to <code>RUN</code> a BASIC program from Python. This issue has been resolved.	Python
UDT-18032	Prior to this release, if the <code>Too many constants</code> message was encountered when attempting to compile a large program, the program would not be compiled. This was because hard-coded limits were reached with UniData. As a result, on AIX, the <code>mchinfo</code> executable would core dump. This issue has been resolved.	U2 Basic
UDT-18033	Starting in version 8.2.1, if a process timed-out due to the inactivity period defined by the <code>TIMEOUT</code> command, and if the <code>Press Any Key To Continue</code> message was encountered in the <code>LOGOUT</code> paragraph, the process would core dump. This issue has been resolved.	Error Reporting
UDT-18035	Starting with 8.2.0, if a <code>SELECT</code> statement that was too long was used in an <code>EXECUTE</code> statement in UniBasic with a <code>RETURNING</code> clause would cause the program to terminate and abort. This issue has been resolved.	Query
UDT-18038	Due to changes made for UDT-17776 in UniData 8.2.1.9123, the use of a <code>TRANS</code> or <code>OCONV (Tfile)</code> with Audit could result in a process core dumping. This issue has been resolved.	Audit Logging
UDT-18057	Beginning with this release, the performance of <code>u2py</code> has been improved when reading and writing UniData files.	Python, Performance
UDT-18059	Prior to this release, the permissions on the <code>TRANS_COMMIT_LOG</code> file could have changed when upgrading UniData which could result in the file being no longer accessible for some users. This issue has been resolved.	Installation, Replication

Key	Release Notes	Components
UDT-10865	UniData provides an option to backup the current installation directory and registry entries during an upgrade, and creates a backup directory where the <code>UDRestore</code> executable is placed. Prior to this release the restore option failed. This issue has been resolved.	Installation
UDT-18069	Prior to this release, the <code>DECRYPT . INDEX</code> , <code>DELETE . INDEX</code> and <code>DELETE . FILE</code> commands would not remove encrypted index information from the <code>KEYSTORE</code> if the index was related to a dynamic file. As a result, correcting the now orphaned <code>KEYSTORE</code> entries required performing a cumbersome process. This issue has been resolved.	Automatic Data Encryption
UDT-18093	Starting with 8.2.0, if a <code>udcs</code> process used a UniBasic Subroutine to <code>CALL Python</code> the process would abort. This issue has been resolved.	Python
UDT-18102	Starting with this release, changes were made to support the EDA Data Verification Tool that is part of the EDA Schema Manger.	External Database Access
UDT-18183	Windows Only. Starting with 8.2.0, if a user was configured with an alternative <code>UDTHOME</code> in the <code>UDTnet</code> Users space, then the alternative <code>UDTHOME</code> was not set correctly when using the Secure Telnet Server. This issue has been resolved.	Security, Telnet, U2 Basic
UDT-18194	Prior to this release, using the <code>uv_repadmin reconfig</code> command could result in <code>invalid log sequence errors</code> . This could happen under the following specific conditions. The <code>reconfig</code> command was run on the publisher, the replication configuration included multiple subscribers, and one of the subscribers was in a suspended state at the time of the <code>reconfig</code> operation. This issue has been resolved with the current release.	Replication
UDT-18212	Prior to this release, when using the UniBasic <code>CALCULATE</code> function, the session could result in a <code>minidump/core dump</code> . This could happen if a process selected a large number of records and then repeatedly ran the <code>CALCULATE</code> function. This issue has been resolved.	Error Reporting
UDT-18251	UDT-16930 that was included in 8.2.1 build 9114 to correct a problem with 64bit pointers in <code>CALLC</code> inadvertently introduced a problem the <code>char</code> pointer variables being passed. This issue has been resolved.	Third-party Libraries

## UniData 8.2.1

The following customer issues were fixed and enhancements were made in UniData 8.2.1.

### Build 9101

July 2017



Key	Release Notes	Components
UDT-8877	The UniData replication log files have been updated to use a consistent date format throughout. The log files will now use the format <code>Fri Jun 09 15:27:12 2017</code> . This will improve consistency throughout the logs and improve their ability to be parsed by scripts.	Replication
UDT-11773	Windows only. Beginning at 8.2.1, a command line tool is available for SSL configuration on GitHub. It can be downloaded from: <a href="https://github.com/RocketSoftware/Certificate-management-Tool">https://github.com/RocketSoftware/Certificate-management-Tool</a>	SSL, Support Tools
UDT-13087	Windows only. Prior to this release, the UniData services had to run as a local system account. Starting at this release, you can run the UniData services as a Network Service account, Local Service account, domain, or local user account with administrator privileges in addition to the local system account.	Installation, Server Processes
UDT-13202	The ability to update U2 Data Replication cross-group transactions asynchronously on the subscriber has been added at this release.	Performance, Replication
UDT-14961	U2 Data Replication now supports field-level updates. This will improve the speed and efficiency of replication, as only updated fields need to be replicated to the subscriber instead of entire records. For more information about how to use field-level replication, see <i>U2 Data Replication User Guide, Administering UniData on Windows and UNIX Platforms</i> , and <i>UniBasic Commands Reference</i> .	Performance, Recoverable File System, Replication, U2 Basic
UDT-15086	Prior to 8.2.1, if GUIDE reported a <code>file has no link</code> error and a fix was attempted with <code>dumpgroup</code> and <code>fixgroup</code> utilities, the problem was not fixed. Starting at this release, the file has no link message and is now classified as a warning.	Files - Corruption, Files - Dynamic, Files - Resizing
UDT-15102	Prior to this release, the use of the <code>BASIC MQPUT ()</code> and <code>MQGET ()</code> functions could have leaked memory. This could cause UniData processes to grow in size when these functions were used repeatedly during the same UniData session. The functions <code>MQOPEN ()</code> and <code>MQINQ ()</code> were also impacted to some degree. All of these memory leak issues have been resolved.	MQSeries
UDT-15110	Prior to this release, in the event that the <code>RESIZE CONCURRENT</code> command failed or was interrupted on a multi-level file, the <code>RESTORE / CONTINUE</code> options of the verb would fail. This issue has been resolved.	Files - Resizing
UDT-15487	As part of the U2 Audit Logging enhancements made at this release, data events for client connections to the server (such as InterCall, UO.NET, etc.) are logged. These data events include <code>DAT.CLIENT.DELETE</code> , <code>DAT.CLIENT.READ</code> , and <code>DAT.CLIENT.WRITE</code> .	Audit Logging
UDT-15554	Prior to this release, any new updates generated while U2 Data Replication deferred updates were being synced were also replicated to the subscriber. This caused problems where users required a hard cut-off time. Starting at this release, U2 Data Replication is synced to the point when the initial sync command is issued. Any new updates after the sync command will not be sent to subscriber during this time. This is true for both a manual sync by the user or scheduled sync defined by <code>SYNCINTERVAL</code> .	Replication

Key	Release Notes	Components
UDT-15556	Prior to this release, the maximum size of the shared memory replication buffer for a single replication group was limited to 2GB. That limit has been removed starting at this release.	Server Processes
UDT-15651	Windows only. Prior to this release, NFA users may have experienced an NFA server crash when the accumulated memory used by the NFA service ( <code>udnfa.exe</code> ) exceeded 4GB. This issue has been resolved.	Network File Access
UDT-15686	Starting at this release, the Windows <code>udtdiag</code> script has been updated to version 4.2.0.	Support Tools
UDT-15926	Beginning at UniData 8.1.2, when performing a failover operation from publisher to subscriber, U2 Data Replication may have failed to apply all pending updates to the subscriber. If updates had reached the subscriber (Sub Got) but had not yet been loaded into the replication buffer (Sub Available), these updates were lost during the failover operation. The number of updates that were not applied and were lost is the delta between the 'Sub Available' and 'Sub Got' LSN counts and this applied to each replication group. This situation may have occurred in situations where the subscriber system was overloaded and not keeping up with the publisher. Using the new Delayed Standby replication feature could have exacerbated this situation and made it more likely to occur.  <b>Note:</b> Note: The LSN counts are viewable in the XAdmin Replication Status screen or via the <code>reptool</code> command-line tool. This issue has been resolved.	Replication
UDT-15929	Previously, if the EDA Schema Manager could not connect to an external database when running a conversion, it returned an error message similar to the following:  <code>Map Schema XXX failed on lex check.</code>  The new message that displays is:  <code>EDA SQL Server Driver: [Microsoft] [SQL Server Native Client 11.0][SQL Server]Login failed for user 'sa'. Map Schema _CURRENT_MAP_SCHEMA_ failed on lex check.</code>	External Database Access
UDT-15945	At UniData 8.2.0, a warning message was added to the product when NFILES was dynamically changed if it was below the allowed image. This message should have appeared only in <code>smm</code> logging; however, it was also being displayed to the screen multiple times. At this release, the message has been changed and will only be displayed once in the logs. The new message displays similar to the following:  <code>Warning: NFILES defined in udtdconfig is larger than the system allowed number of concurrent open files. It was internally changed to 249. You should either raise the system limit or reduce NFILES. After the change you must restart UniData.</code>	Server Processes
UDT-16000	An issue was discovered in which the <code>RELEASE</code> command did not release the file lock when using NFA. This has been corrected.	Network File Access

Key	Release Notes	Components
UDT-16019	Windows only. Previously, in trial versions of UniData, a not authorized message displayed when a value was modified in confprod, but the message was not logged in the <code>smm.errlog</code> file. This has been corrected so that the message is added to the <code>smm.log</code> and <code>smm.errlog</code> files.	Licensing
UDT-16025	Previously, when EDA tried to convert data files located outside of the current data account, the following error occurred:  In <code>/disk1/srcman/alpha/ud82_170123_105023/sys/CTLG/e/EDAMAPSUB</code> at line 1017 'dfiles/MS.MEMBER' does not exist in VOC file. Open source file failed.  Beginning at 8.2.1, this issue is fixed and EDA supports multi-level file conversion.	External Database Access
UDT-16085	At this release, the <code>udtdiag</code> script for UNIX and Linux platforms has been updated to version 5.1.3.	Support Tools
UDT-16090	Prior to this release, problems were encountered when the Base64-encoded feature was used to save a <code>.jpg</code> file to a UniData dynamic file included in U2 Data Replication with Data Compression enabled. This issue is resolved at this release. It is recommend that you do not enable Data Compression for <code>.jpg</code> files when using U2 Data Replication, as you will not see any performance benefits.	Replication, UNIRPCD
UDT-16140	Previously, when EDA converted a TRANS field, if there was no reference then the server-side process core dumped. This issue has been corrected.	External Database Access
UDT-16159	Previously, when EDA converted a TRANS field to SQL Server, it failed to create a view and an error message was displayed. This has been corrected.	External Database Access
UDT-16167	Prior to this release, the performance monitor option of reptool failed to clear its previous results when starting a subsequent monitor period. This issue has been fixed.	Replication
UDT-16172	Windows only. Prior to this release, U2 Data Replication could fail to start or failover when there were more than 111 groups being replicated. This issue has been fixed.	Replication
UDT-16185	Previously, if the <code>confcmd -m</code> command was used to set the master key or master key passwords with the content of a file, but the file name was not prefixed with the at symbol (@), the utility would use the text of the file path as the key or password instead of the contents of the file. Starting at this release, the <code>confcmd</code> utility now performs a check to see if the supplied key or password is actually a file on the system. If it is, a warning is displayed and the user is offered the option to abort the operation.	Automatic Data Encryption
UDT-16188	A new <code>udtconfig</code> tunable named <code>MAX_REP_GROUPS</code> has been added to specify the maximum number of replication groups that are allowed at startup. This ensures that the system can meet the UniData semaphore needs for large numbers of replication groups when both RFS and replication are enabled. The default value is 512.	Recoverable File System, Replication

Key	Release Notes	Components
UDT-16189	Previously, if replication was enabled but had not started when a user logged in, the user could change records before replication started, leading to lost updates on the subscriber. To prevent this, a new option has been added so that a user cannot log in until the Replication Manager is fully started if replication is enabled.	Replication
UDT-16207	UNIX and Linux only. <code>udtsetup</code> has been updated to version 1.2.4.	Installation
UDT-16216	An issue was discovered in which RFS recovery would hang for a very long time during startud after a crash and recovery. This issue was due to a faulty Before Image log record and has been resolved.	Recoverable File System
UDT-16217	Beginning at 8.2.1, the minimum SSL protocol was set to TLSv1 and SSLv3 was turned off by default. However, the ability to enable this protocol was not working. That issue has been resolved. SSLv3 can now be added to the <code>udtconfig SSL_PROTOCOLS</code> parameter or the Windows <code>SSL_PROTOCOL</code> registry key. It can also be enabled via the <code>inetd.conf/xinetd.conf</code> capabilities on UNIX or Linux.	Security, SSL, Telnet
UDT-16241	Previously, during the <code>failover -back -verbose</code> on the original publisher, if there were a large number of logs, <code>ud_repadm failover -back -verbose</code> sometimes finished before all the updates were applied. This has been fixed so that it now handles <code>failover -back -verbose</code> timeout.	Replication
UDT-16260	Windows 10 Creator Edition and subsequent Windows 10 releases only. Prior to this release, Telnet clients would not be able to run DOS commands through PCPERFORM or the '!' (bang) prefix at ECL. This issue is now resolved.	ECL Tools, Telnet
UDT-16276	Windows only. Prior to this release, when using the UniBasic <code>CALCULATE</code> function, the session could result in a core dump. This could happen if a process selected a large number of records and then ran the <code>CALCULATE</code> function. This issue has been fixed.	Error Reporting - Crash
UDT-16283	Windows only. On previous releases, when starting a UniData session from a Console session via the command prompt, if a PHANTOM process was launched, the PHANTOM process would also be terminated when the UniData session was terminated, even if the PHANTOM process had not completed. This issue has been resolved.	Server Processes
UDT-16290	Starting at this release on UNIX/Linux, an example replication exception action script named <code>except_script_example</code> is included in the UniData <code>bin</code> directory.	Installation, Replication
UDT-16291	Starting at UniData 8.1.0, users were unable to set a breakpoint against a globally cataloged program in the UniData Debugger. This issue has been resolved.	UniBasic Debugger
UDT-16295	Prior to this release, RFS could crash and users would see a message similar to the following:  <code>U_snd_msg: msglen[6266] exceeds limit</code>  This was due to a problem with large index keys exceeding 2K. This issue has been resolved.	Recoverable File System

Key	Release Notes	Components
UDT-16296	Prior to this release, a BASIC program that contained a <code>SETINDEX</code> statement could cause RFS to crash because of a problem with large index keys (above 2K). This issue has been resolved.	Recoverable File System
UDT-16311	Previously, if an administrator specified a non-existent directory when trying to start up a UniData database with U2 Data Replication enabled, an error message displayed indicating that the Replication Manager could not be started and to check the <code>rm.errlog</code> file. This error message has been updated to include additional information to make it more useful to the user.	Error Reporting, Replication
UDT-16314	Prior to this release, if <code>udtelnetsd</code> was unable to set a write lock on the <code>utmp</code> file, which is a special non-text data file in the <code>/var/run/utmp</code> directory on Linux systems that records all logins and logouts from the system, the <code>udtelnetsd</code> process might have hung while holding a read lock on <code>utmp</code> . This behavior would cause all subsequent login attempts to hang until the <code>udtelnetsd</code> process was removed. This issue has been resolved. For more information about the <code>utmp</code> file, refer to the <code>utmp</code> man page in Linux.	Telnet
UDT-16316	Linux only. Beginning at 8.1.0, the <code>OCNV Z</code> function zero suppress option did not work for the MR and ML codes. This issue has been resolved.	U2 Basic
UDT-16317	Windows only. Beginning in 8.1.2, the silent installation option did not work due to missing paths. This has been corrected and the silent installation now works as expected.	Installation
UDT-16319	An issue was reported in which some records were not converted correctly during EDA conversion from UniData files to SQL Server, with only a single record converted instead of all records. This was due to a limit on the number of associations in the map file. This limit has been removed. However, users should be aware that if they convert more than 10 tables and do not set the whole record flag, they should not run the <code>LIST</code> or <code>SELECT</code> commands in UniData. This is because all of the associations are multivalued tables that must be joined to run the commands. These commands will take a very long time to run and may cause the session to become unresponsive.	External Database Access
UDT-16330	Previously, a core dump would sometimes occur in a session when executing multiple <code>LIST DICT</code> commands in a row due to memory corruption. This has been fixed.	Error Reporting - Crash
UDT-16350	Starting at 8.1.0, if an <code>AFTER</code> event trigger was used within a transaction, the session would report an error or abort. This problem has been fixed.	Triggers
UDT-16379	Previously, if a user attempted to load a globally cataloged program with a Windows-restricted file name and that program did not exist, the <code>sbcsc</code> process would become unresponsive. This issue has been fixed.	U2 Basic

## UniData 8.2.0

The following customer issues were fixed and enhancements were made in UniData 8.2.0.

## Important news at this release

- UniData 8.2.0 was a controlled release and only available on the Linux platform.
- Starting at this release, the `makeudt` tool has been deprecated. For more information, see the release notes for [UDT-15885](#) and [UDT-15796](#).

### Build 9004

February 2017

Key	Release Notes	Components
UDT-804	<p>Beginning at this release, when a UniBasic program is compiled using the <code>-D</code> option, a new INCLUDE file stack is also produced. This will be utilized during the program's execution to report the included program name and line location in the following format:</p> <pre>In BP_MAIN.PROG at line 2, BP\INCLUDE1 at line 4, BP\INCLUDE2 at line 1 WARNING: UNINITIALIZED VARIABLE USED! Zero Assumed!</pre>	U2 Basic - Compile/ Catalog Tool
UDT-843	Prior to this release, problems were encountered when using the object updates report option of the U2 Data Replication <code>reptool</code> command on the subscriber. An RPC disconnect would happen for the relevant replication group. This issue has been fixed at the current release.	Replication
UDT-896	Starting at this release, if a program is compiled with the <code>-D</code> option and the <code>V</code> option is used in the debugger, the debugger will step through any included code items.	UniBasic Debugger
UDT-3413	Prior to this release, the <code>memresize</code> command would fail when the disk partition was greater than 1 terabyte. This issue has been resolved.	Files - Resizing
UDT-3971	Beginning at this release, new ECL commands have been added to enhance the existing TANDEM functionality. These commands are <code>ENABLE.TANDEM</code> , <code>DISABLE.TANDEM</code> , and <code>GET.TANDEM.STATUS</code> . In addition to the new commands, a new <code>udtconfig</code> tuneable has been added ( <code>TANDEM_FLAG</code> ) to control the default behavior of these commands. For more details on these commands and the tuneable, see the <i>UniData Commands Reference</i> manual and the <i>Administering UniData on UNIX and Windows Platforms</i> manual.	Automatic Data Encryption
UDT-4080	Starting at UniData 8.2.0, U2 Audit Logging functionality has been added. U2 Audit Logging is a component of UniData security. UniData databases are composed of data objects and system programs, which are resources to the U2 Audit Logging subsystem. When UniData accesses a resource, it triggers an audit event and an audit log record may be generated, depending on the audit configuration. For more information about audit logging capabilities, see the U2 Audit Logging chapter in the <i>UniData Security Features</i> manual.	Audit Logging
UDT-4168	Prior to this release, running a UniQuery <code>SELECT</code> command using the <code>SAMPLE</code> option while using an active select list may have resulted in the prior list remaining active after the execution of the command. This issue has been resolved.	Query

Key	Release Notes	Components
UDT-8138	Beginning at 8.2.0, file triggers can be maintained by users if they are members of the group(s) defined by the TRIGGER_ADMIN configurable. Previously, only the file owner or those with administration privileges could maintain the triggers. For more information, see the <i>Administering UniData on Windows and UNIX Platforms</i> guide.	Security, Triggers
UDT-8519	<p>Prior to this release, building an index with line feed characters in the data caused BUILD.INDEX to fail with an error; however, no error message displayed. Starting at this release, an error message similar to the following is displayed if the index build fails because of line feed characters in the data:</p> <pre>&gt; BUILD.INDEX CD_VENDOR_MASTER TAX_ID One "*" represents 1000 records Invalid character CHAR(10) (line delimiter for udtSORT) found in indexed key: @ID = (1*19066) Indexed field name = (TAX_ID) Indexed key value =( VTJTYWx0ZWSjWoiItCx03WvZ7PyJ438YSEDDFoVadfg= ) Errors encountered in index building process. Index build abandoned.</pre>	Error Reporting, Indexes
UDT-9227	Prior to this release, users may have experienced VCATALOG failures if used repeatedly. This issue is resolved.	U2 Basic - Compile/Catalog Tool
UDT-9327	Prior to this release, U2 Data Replication for UniData evaluated every file pointer in the VOC file of an account even if the group was defined as a FILE level replication. This could cause a time-out and increase overhead. Starting with this release, FILE level replication groups have been limited to look only at specific files that have been referenced.	Replication
UDT-9599	<p>Prior to this release, when an invalid target was supplied to the ud_repadmin tool, the tool would report inconsistent error messages. Beginning at this release, if an invalid target is specified, ud_repadmin will report the error as follows:</p> <ul style="list-style-type: none"> <li>▪ If an invalid target (for example, nosuchtarget) is specified, the following error message is reported: <pre>Unable to access "nosuchtarget": No such replication.</pre> </li> <li>▪ If an invalid target (for example, nosuchtarget) is specified along with other valid targets, the error message still reports but since other valid targets do exist, it proceeds to execute the corresponding commands and reports "Command succeeded!" if the command works, as shown: <pre># ud_repadmin suspend -verbose nosuchtarget primary Unable to access "nosuchtarget": No such replication. Command succeeded!</pre> </li> </ul> <p>This issue is fixed.</p>	Replication



Key	Release Notes	Components
UDT-9770	Starting at this release, an enhancement has been made to External Database Access to improve the speed of inserting data to the Oracle data store. The SQL statements have been modified to check for the existence of a record before issuing a delete statement.	External Database Access
UDT-9964	Windows only. Prior to this release, messaging in the <code>udtsort.errlog</code> file used only UNIX newlines. This made it difficult to view in Notepad. Starting at this release, Windows carriage returns and new lines are used so that the file displays properly in Notepad.	Error Reporting
UDT-10218	Prior to this release, the <code>STATUS ()</code> function in BASIC would erroneously return 0 even if the <code>SELECTINDEX</code> was unsuccessful. Now, the <code>STATUS ()</code> function will correctly return a value of 1 if the key is not found or no values are returned.	Indexes, U2 Basic
UDT-10666	Prior to this release, when Automatic Data Encryption (ADE) commands failed while using a UO.NET or UniObjects for Java connection, no error message would be displayed or returned. This issue is resolved.	Automatic Data Encryption, Server Processes
UDT-10668	Windows only. Prior to this release, the <code>ENCRYPT . FILE</code> and <code>DECRYPT . FILE</code> commands would fail when using a UO or UO.NET connection. This issue has been resolved.	Automatic Data Encryption, Server Processes
UDT-12439	Prior to this release, the <code>CAPTURING</code> or <code>RETURNING</code> clause of the <code>EXECUTE</code> or <code>PCPERFORM</code> command would generate a <code>Y_###. . .</code> or <code>Z_###. . .</code> file in the <code>_PH_</code> directory even if no results were returned. On various file systems, especially on AIX JFS2 partitions, this could lead to bottlenecks due to the limit of simultaneous file creations allowed within the file system. Starting at UniData 8.2.0, these files are now only created if the <code>CAPTURING</code> or <code>RETURNING</code> clause returns more than 1,024 bytes or an OS-level command is called.	Performance
UDT-12911	Prior to this release, when running the <code>FILE . STAT</code> command against a dynamic file, the results failed to show the actual file size. This issue has been resolved.	Files - Resizing
UDT-13082	Starting at this release, a new replication type of Delayed Standby has been introduced. This provides the capability to define a standby U2 Data Replication subscriber to always be a defined period of time behind the publisher. For more details, see the <i>U2 Data Replication User Guide</i> .	Replication
UDT-13357	Prior to this release, if the size of the replication object table exceeded the data size of the kernel, the <code>repmanager</code> would fail to start and users would see a message relating to not enough space. This message has now been expanded to suggest which parameter needs changing and will be similar to the following:  <pre>getopt: Not enough space Please check system ulimit settings, current data size is 1000 kbytes.</pre>	Replication
UDT-13398	Starting at this release, the grammar used in the <code>CONVERT . SQL</code> command has been changed for zero count messages. For example: 0 files have been converted.	Error Reporting



Key	Release Notes	Components
UDT-13408	Starting at this release, the field delimiter used by <code>udtsort</code> is configurable via the <code>SORT_FLD_DELIMITER</code> configurable in the <code>udtconfig</code> file. Its default value is 127, which was the hard-coded value prior to this release. The allowed values are 0 to 255.	Indexes
UDT-13595	Prior to this release, the UniBasic <code>ENCODE ()</code> function, when used to decode Base64-encoded data according to RFC 4648, would return a result of 0 indicating success; however, the output was actually null. This issue is now fixed.	U2 Basic
UDT-13656	<p>While <code>RESIZE</code> is not a replicated command within U2 Data Replication, it can be used with some limitations (see the <i>U2 Data Replication User Guide</i>). Beginning at this release, a check has been added to the <code>RESIZE</code> and <code>MEMRESIZE</code> commands to see if a file is actively being replicated by checking the replication status for the file. If the file is being replicated, users will see a message similar to the following:</p> <pre>Replication is running, can not RESIZE 'REPTESTML10,L5' file, please suspend replication first or use CONCURRENT option</pre> <p>This issue has been resolved.</p>	Files - Resizing, Replication
UDT-13671	Prior to this release, the EDA data source connection test would return a success message if the <code>_PH_</code> folder VOC entry was not present, even if the connection actually failed. This issue has been fixed.	External Database Access

Key	Release Notes	Components
UDT-13674	<p>Due to an internal coding error within the RFS (Recoverable File System) and HASH-TYPE 1 file access, a very large file that was originally created as a non-recoverable file with existing records will hash differently when converted to a recoverable file. This will result in the inability to access some items in the file. A guide utility run against this file will show errors such as:</p> <pre>Group 2097152, block 5, record number 0 = "PH01YZx&gt;&lt;&lt;RiRN0026876" is in wrong group, key length 21, hash value 0</pre> <p>This will only occur if the modulo of the file exceeds <math>2^{24}</math> (~ 16M). These errors can be corrected by converting the file back to a non-recoverable file before any updates are applied, or by resizing the file while it is recoverable. These actions will reorganize the items in the conforming groups.</p> <p>If the file was originally created as a recoverable file or records were only loaded into the group after the conversion to recoverable, then the problem will not be evident. If the file is converted to non-recoverable, errors similar to the example described above will occur.</p> <p>A utility (<code>scanfor_RFS_hash_prob</code>) has been created to detect this situation before doing an upgrade so that preparations can be made to fix the file after the upgrade. We have also introduced an optional <code>UD73_RFS_HASH_COMPAT</code> tuneable to return the hashing results back to prior to the fix. For more details on this issue, refer to Rocket U2 Support for more details.</p>	Recoverable File System
UDT-13703	Windows only. Prior to this release, when UniData was uninstalled, it failed to remove the UDTBIN value from the Windows <code>PATH</code> variable. This issue has been resolved.	Installation
UDT-13810	Windows only. Prior to this release, <code>memresize</code> failed to correctly evaluate drive letters or paths if passed via an argument such as <code>TMPPATH</code> . This issue has been resolved.	Files - Resizing
UDT-13992	Prior to this release, the error messages for the <code>MQGETERROR()</code> function were hard-coded. Starting at this release, the <code>MQI_ErrMsg</code> text file has been added and is now used by the function.	MQSeries
UDT-14073	Prior to this release, the <code>stopud</code> command did not ensure that all its shared object libraries were released. This issue has been resolved.	Build
UDT-14094	Windows only. Starting at the UniData 8.1.1 release, the Windows <code>udtdiag</code> script has been updated to version 3.03.	Support Tools
UDT-14141	Prior to this release, mapping date fields in EDA could return an invalid data type error. To resolve this issue, support has been added for the <code>DATE</code> , <code>TIME</code> , and <code>DATETIME</code> data types.	External Database Access
UDT-14174	Prior to this release, if the MaximumAge password policy was set to 0 (for example, if it was set to never expire), UniData incorrectly displayed a warning message that the password was about to expire. This issue has been resolved.	Automatic Data Encryption

Key	Release Notes	Components
UDT-14203	Beginning at 8.1.0, the port number generated in the address of the <code>dbgterm</code> utility may have been miscalculated. This would then lead to the value not being recognized as a valid port number in a subsequent <code>ECL DEBUGLINE . ATT</code> command. This issue has been resolved.	Debug Tools
UDT-14229	Starting at this release, you can retrieve the hostname using the UniBasic <code>SYSTEM</code> function with the 9013 option: <code>SYSTEM (9013)</code> .	U2 Basic
UDT-14235	Prior to this release, the schema used when converting files in EDA was case insensitive in relation to record keys. This would result in records being overwritten if only the case of the keys differed. For example, <code>CNCLCD*m</code> would be overwritten by <code>CNCLCD*M</code> . This issue has been resolved.	External Database Access
UDT-14355	<p>The Federal Information Processing Standard (FIPS) Publication 140-2 is a United States Federal Government computer security standard used to accredit cryptographic modules. FIPS 140-2 support is essential for a software product to be eligible for procurement by U.S. Federal Government agencies, as well as other government and non-government entities. With FIPS 140-2 support, you can:</p> <ul style="list-style-type: none"> <li>▪ Configure UniData 8.2.0 to run in FIPS mode by modifying the <code>udtconfig</code> file, utilizing TCL commands, or the Windows Registry.</li> <li>▪ Convert certain persistent data, such as SCRs and SPLs, to be able to run under the FIPS mode.</li> </ul> <p>For more information about FIPS 140-2 support, see the chapter about FIPS 140-2 support in the <i>Security Features Guide</i>.</p>	SSL
UDT-14379	Starting at this release, a new demonstration account called XDEMO has been added to the product and can be found under the UniData home directory.	Installation, Python
UDT-14471	Beginning at this release, if either the <code>udapi_server</code> or <code>udapi_slave</code> process encounters a hang condition because they are unable to write to their associated pipe channels, an error message will be sent to the Windows event log and the processes will exit.	UNIRPCD
UDT-14480	Prior to this release, XAdmin users were unable to add pattern match exclusions into the <code>repconfig</code> definition file. This issue has been resolved.	XTOOLSUB
UDT-14542	The licensing parameters available via the <code>confcmd</code> command are now included in the help information for the tool. They can be seen with the <code>confcmd -h</code> command. This tool was first available in UniData 7.2.0.	Installation
UDT-14669	Prior to this release, if the final line in a U2 Basic program was a comment line (for example, if the line started with an asterisk (*), exclamation point (!), or REM statement) and the line did not terminate with a CHAR(10), the program would not be compiled. This issue has been resolved.	U2 Basic
UDT-14681	Beginning at 8.1.0, when creating an SCR via a subroutine call from a master program, the new security protocol options would fail the second time the subroutine was called from the master program. This issue has been resolved.	SSL, U2 Basic

Key	Release Notes	Components
UDT-14708	Prior to this release, some U2 Data Replication users experienced a replication performance problem that resulted in U2 Data Replication being unable to catch up to U2 database updates during peak loads. This could have also resulted in U2 Data Replication becoming disabled or even failing. Replication pacing has been implemented to alleviate this problem. See the <i>U2 Data Replication User Guide</i> for further information on this feature.	Performance, Replication
UDT-14924	Prior to this release, the <code>@LEVEL</code> variable was incorrectly decremented when <code>UDT.OPTIONS 41</code> was set to ON. This issue has been resolved.	U2 Basic
UDT-14954	Windows only. Prior to this release, an internal coding error may have prevented the use of the Telnet and Secure Telnet services or for both ports to be disabled. This issue has been resolved.	Installation, Telnet
UDT-14994	Prior to this release, an error would have been produced when writing to decrypted fields using the <code>WRITEV</code> command. This issue has been resolved.	Automatic Data Encryption
UDT-14998	Windows only. Prior to this release, an internal failure to release file handles may have resulted in a failure to clean up replication logs completely. This issue has been resolved.	Replication
UDT-15001	The root certificate store included with this release was updated as of March 7, 2016.	Build, SSL
UDT-15027	As part of the U2 Data Replication enhancements added at this release, the replication manager daemon has been updated to verify that there is only one group name defined in the <code>repconfig</code> file GROUP phrase. If two or more groups are defined with the same name during startup, the replication manager and UniData fail to start. If attempted during a reconfiguration, <code>ud_repadmin reconfig -verbose</code> displays an error and U2 Data Replication uses the previous configuration. In both cases, an error is logged to the <code>rm.log</code> and <code>rm.errlog</code> files.	Replication
UDT-15032	Starting at this release, changes were made to the server-side programs supporting the Extensible Administration Tool (XAdmin) for the new replication pacing function using XAdmin version 4.3.0 or later.	Replication
UDT-15061	Beginning at 8.2.0, the type property has been added to the <code>UDOSetProperty()</code> function, which allows users to set the data type for the function. To use this property, enter 3 to set the type as a number, or enter 4 to set the type as a string. Note that this parameter is only valid if the value parameter is a string constant; otherwise, the type parameter is ignored.	U2 Basic - U2 Dynamic Objects
UDT-15067	At UniData 8.1.0, the <code>NUSERS</code> default was increased to 256; however, the related <code>N_GLM_GLOBAL_BUCKET</code> parameter was not increased. Starting at this release, the default value for the <code>N_GLM_GLOBAL_BUCKET</code> parameter has been increased to 769.	Installation
UDT-15089	Starting at UniData 8.2.0, the SSL libraries have been updated to use OpenSSL release 1.0.2h.	SSL
UDT-15103	After upgrading to 8.1.1, tables that were previously normalized with views and working from ODBC would return errors due to a linking problem. This issue has been fixed.	Schema API

Key	Release Notes	Components
UDT-15105	Starting at 8.1.0, an internal error caused the UniBasic extensions components that utilize an SSL connection to fail if the connection was being made through a proxy server. This problem has been fixed.	SSL, U2 Basic - CallHTTP
UDT-15112	Prior to this release, if a process opened more files than the number defined by the NFILES configurable in <code>udtconfig</code> and files were then subsequently rotated out of the rotating file pool, there was the potential for header information to be written to the wrong UniData file. This issue has been resolved.	Files - Corruption, Files - Dynamic
UDT-15113	Prior to this release, if a <code>RESIZE CONCURRENT</code> command was being run on a multi-level file and another session attempted to update the file, incorrect file corruption messages would appear in that session and could result in the session aborting. This issue has been resolved.	Files - Corruption, Files - Dynamic, Files - Resizing
UDT-15115	Prior to this release, the <code>RESIZE</code> command would not work on a subscribed multi-level file. This issue has been resolved.	Files - Resizing, Replication
UDT-15125	Prior to this release, users running a PHANTOM process with RFS enabled could experience an "unfree buffer" error message repeated multiple times in the <code>_PH_</code> output record. This could result in very large <code>_PH_</code> records and could also result in using all the space in a file system. This issue has been resolved.	Recoverable File System, Shared Memory
UDT-15126	Starting at this release, an enhancement was made to UniBasic to control the mark character where the <code>REMOVE</code> statement and function will stop. This is done by the use of the <code>@REMOVE.ATTRIBUTE @variable</code> . For more details, refer to the <i>UniBasic Commands Reference</i> manual.	U2 Basic
UDT-15132	Starting at this release, the <code>EDA . CONVERT</code> command has been enhanced to check whether U2 Data Replication is active. If U2 Data Replication is active, the <code>EDA . CONVERT</code> command will terminate and a message will be displayed to the user indicating U2 Data Replication should be suspended before performing the operation, and that a sync operation should be performed after the <code>EDA . CONVERT</code> command completes.	External Database Access, Replication
UDT-15148	UNIX only. Starting at UniData 8.1.0, if the <code>createSecurityContext ()</code> BASIC function was used from a globally cataloged program on UNIX, a memory or segmentation fault occurred resulting in the process aborting. This issue has been resolved.	U2 Basic - CallHTTP
UDT-15150	Starting at this release, <code>-add</code> and <code>-remove</code> options were added to the <code>credman</code> tool to allow users to add or remove entries from the members list for a given token.	SSL
UDT-15168	At 8.1.1, in the EDA Schema Manager, an error related to password length could occur when changing the password of an EDA data source. This issue has been resolved.	Automatic Data Encryption, External Database Access
UDT-15169	Starting at this release, the EDA SQL Server driver support has been extended to SQL Server 2005 and greater, although when setting up an EDA ODBC DSN with the SQL Server client only the SQL Server Native Client x.x driver is supported, not the default SQL Server driver.	External Database Access

Key	Release Notes	Components
UDT-15173	Starting at this release, a new configurable has been introduced into U2 Data Replication called <code>RW_QUEUESZ</code> . This is used with the new intelligent write queue mechanism to reduce or eliminate the locking conflict previously experienced when updating the same record repeatedly on the subscriber. For more details, see the <i>U2 Data Replication User Guide</i> .	Performance, Replication
UDT-15181	Starting at this release, an account-based licensing error message has been updated. When the seat count is missing for an account, the ID of the account is listed. The message that displays is similar to the following:  <pre>Error (line 2): Connection Pooling seat count is missing for account "AR"</pre>	Licensing
UDT-15186	UNIX only. Prior to this release, if the UniRPC daemon failed to start, a generic message was displayed. Starting at this release, warnings are displayed for the following events: <ul style="list-style-type: none"> <li>▪ The <code>/etc/services</code> file does not contain the <code>uvrpc</code> entry</li> <li>▪ The Unishared path is invalid or empty (including paths that contain spaces at the end of the directory path)</li> <li>▪ The <code>unirpcservices</code> file is empty</li> </ul>	UNIRPCD
UDT-15190	Prior to this release, a problem was discovered where a replication writer process did not attach itself to the locking queue correctly if it was unable to gain the lock immediately. This could result in severe performance issues because the replication writer process would immediately retry to get the lock and block other replication writer processes. This problem has now been resolved.	Locking, Performance, Replication

Key	Release Notes	Components
UDT-15195	<p>UNIX only. Starting at this release, in order to avoid dynamic library errors when running UniData default shell scripts, the UniData bin location has been added to the <i>LD_LIBRARY_PATH</i> variable. On AIX, the <i>LIBPATH</i> variable is now set, and on HP the <i>SHLIB_PATH</i> variable is set. These modified environment variables are only active during the running of the scripts noted. After the scripts exit, the pre-existing values for these variables will return.</p> <p>The scripts changed were:</p> <ul style="list-style-type: none"> <li>▪ startud</li> <li>▪ stopud</li> <li>▪ startunirpcd</li> <li>▪ stopunirpcd</li> <li>▪ showud</li> <li>▪ udtinstall/updatesys</li> <li>▪ udtdiag (v5.00)</li> <li>▪ udtinfo</li> <li>▪ udipcrm</li> <li>▪ updatercs.sh</li> </ul> <p>In the stopud, startud, stopunirpcd, and startunirpcd scripts, the UniData bin path is added to the end of the pre-existing variable values. Otherwise, for the remaining scripts noted, the UniData bin path value is added to the start of the variables.</p>	Installation
UDT-15206	<p>Prior to this release, the error message warning: <code>get_rest_blks, grp_hd_buff is null</code> may have been reported in the <code>sm.log</code> file and caused RFS to crash when certain ODBC queries were run from MS Access or SQL Server. This issue has been resolved.</p>	Recoverable File System
UDT-15208	<p>Prior to this release, problems existed when using the XDOM functionality to create an XML document with a default namespace. When a new node was added with a default namespace, the namespace was incorrectly added as <code>xmlns=""</code>. This issue has been resolved.</p>	U2 Basic - XDOM API
UDT-15212	<p>Starting at 8.1.0, if an attempt was made to use the <code>UDOWrite</code> function to produce XML, it would cause the program to abort and produce a core file or segmentation violation. This issue has been resolved.</p>	U2 Basic - U2 Dynamic Objects
UDT-15215	<p>Prior to this release, it was found that <code>udapi_server</code> processes may have indefinitely waited for <code>udapi_slave</code> resources to be released. This resulted in high CPU usage during the exiting process. Internal code changes have been made to avoid this situation.</p>	UNIRPCD

Key	Release Notes	Components
UDT-15218	UniData has upgraded its XML libraries to ICU 4.9.1.2, Xerces 3.1.1, and Xqilla 2.3.0. In addition, the <code>XDOMLocate</code> function has been enhanced, and the <code>XDOMLength</code> , <code>XDOMItem</code> , <code>XDOMGetElementByID</code> , <code>XDOMGetElementsByName</code> , <code>XDOMGetElementByTag</code> , <code>XDOMGetChildNodes</code> , and <code>XDOMQuery</code> functions have been added. For more information, see the <i>UniBasic Commands Reference</i> .	U2 Basic - XDOM API
UDT-15230	Windows only. Starting at this release, the PDB files for UniData are installed to the symbols directory created under the UniData <code>bin</code> directory.	Installation
UDT-15231	Prior to this release, a problem handling special characters caused the UniBasic <code>UDOWrite</code> function to produce incorrect results. This issue has been resolved by adding the ability to properly handle special characters such as the greater than sign (>), less than sign (<), quotation marks ("), single quotation marks ('), and ampersands (&).	U2 Basic - U2 Dynamic Objects
UDT-15240	Prior to this release, the <code>updatevoc</code> utility only added records relating to new commands or enhanced features. Base verbs like LIST, SORT, SELECT, etc. were not added if they were missing. Starting at this release, all default verbs will be added by the utility if the commands are missing.	ECL Tools, XDEMO
UDT-15281	Prior to this release, UniData files could become corrupted where MQ messages were incorrectly written into the UniData file. This could happen if the MQ connection was closed unexpectedly and the application continued to attempt to write messages to the connection. Under these conditions, the messages could be written mistakenly written to a UniData file. This issue has been resolved.	MQSeries
UDT-15290	Windows only. Prior to this release, if the <code>ITYPE</code> function was used in UniBasic and the dictionary being evaluated contained an N reference to another dictionary, this would result in the <code>ITYPE</code> function failing with a virtual attribute error. This issue has been resolved.	Query, U2 Basic
UDT-15294	Starting at this release, the data buffer for EDA has been increased from 1K to 8K. This enhancement reduces the need for multiple <code>SQLGetData</code> function calls and increases overall EDA system performance.	External Database Access
UDT-15302	Windows only. Starting at this release, U2 logging has been extended to allow specific and separate logging of the Kerberos S4U component.	Error Reporting
UDT-15323	Beginning at this release, a new <code>HMAC</code> function has been added to UniBasic to allow compliance with the RFC 2104 standards. For more information, refer to the <i>UniBasic Commands Reference</i> manual.	U2 Basic
UDT-15324	Prior to this release, the <code>OSBREAD</code> command may have failed to locate the EOF (End of File) condition if an attempt was made to read from a position that exceeded the file size limit. This issue has been resolved.	U2 Basic



Key	Release Notes	Components
UDT-15331	When I-Type values were being referenced in UniQuery commands, a core dump may have happened causing heap and shared memory corruption. In turn, this could have caused other unrelated processes on the system to crash. This issue has been fixed.	Error Reporting - Crash
UDT-15332	Prior to this release, the DROUND function may have incorrectly returned a 0 even if the number set in an INPUT or EXTRACT statement appeared to be an integer. This issue has been resolved.	U2 Basic
UDT-15337	Prior to this release, if multiple encryption keys were used to encrypt multiple fields, it would lead subsequent attempts to create/build indexes to fail when using one of the previously declared keys. This issue has been fixed.	Automatic Data Encryption
UDT-15370	Starting at this release, the default answer to Transferring the Master Key in <code>udtinstall</code> , <code>updatesys</code> , and <code>udtsetup</code> on UNIX/Linux has been changed from No to Yes.	Installation
UDT-15380	Starting at this release, support has been added for query parameters to be passed within a URL for GET, POST, PUT, and DELETE methods. For example, <code>http://webserver/?ID=xxxx&amp;NAME=smith</code> . For more information about these query parameters, see the <i>UniData UniBasic Extensions</i> manual.	U2 Basic - CallHTTP
UDT-15385	Prior to this release, the <code>fixfile</code> utility had problems processing more than 100 groups at a time if the number of corrupted groups was excessive. This caused the application to stop. The problem has been corrected by adding a limitation feature with the ability for override. For more details, see the <code>fixfile</code> details in the <i>UniData Commands Reference</i> guide.	Files - Corruption
UDT-15387	Starting at 8.1.0 the <code>deleteuser</code> command may have caused UniData to hang intermittently. Diagnostic capabilities have been added in order to allow further tracing of this situation. Contact the Rocket Support team for more information.	Other
UDT-15388	Prior to this release, the replication writer ( <code>udrw</code> ) process was failing to bypass the <code>logout proc / paragraph</code> , which may have resulted in unexpected interaction with the application environment. This issue has been resolved.	Replication
UDT-15392	Beginning at this release, EDA support has been extended to include the Oracle client version 12.1.	External Database Access
UDT-15406	When using <code>CALLC</code> , the client session could abort with an access violation. This issue started at 8.1.0 and is now resolved.	Error Reporting - Crash

Key	Release Notes	Components
UDT-15414	<p>Some users experienced a replication checksum error when replication was suspended between byte-swapped machines, for example, if AIX was the publisher and Windows the subscriber. This occurred when replication was suspended and records were added to the publisher, and then the <code>ud_repadmin sync</code> command was executed. When this happened, replication would fail to sync with a checksum error on the subscriber similar to the following:</p> <pre>Fri Jan 06 03:44:15 2017 Subscribing Group demo_acct_G0 started suspending. Fri Jan 06 03:44:15 package received by subscriber has wrong checksum(2255)!</pre> <p>This issue has been resolved.</p>	Replication
UDT-15425	<p>Beginning at this release, the logging levels for the EDA Common driver, the EDA Oracle driver, the EDA SQL Server driver, and the EDA DB2 driver can now be set to values between 0 and 8. The <code>\$UDTHOME/logs/eda.errlog</code> file has been introduced to collect information about server-side EDA errors. For more information, refer to the <i>External Database Access</i> manual.</p>	External Database Access
UDT-15432	<p>Starting at 8.1.0, the <code>deleteuser</code> command may have failed to remove non-interactive processes such as a phantom or <code>udcs</code> connections without any notification of the failure. This problem has been resolved.</p>	Licensing, Support Tools
UDT-15433	<p>Beginning at 8.2.0, the <code>guide_51</code> tool has been removed from UniData.</p>	Files - Corruption
UDT-15435	<p>Prior to this release, whenever a <code>ud_repadmin report</code> command was issued, an unnecessary error message similar to the following was generated into the replication event logging file <code>rm.log</code>:</p> <pre>Mon Oct 6 16:05:45 2015: Request DBA Report to ALL received</pre> <p>Beginning at this release, the event will no longer be recorded in the <code>rm.log</code> file.</p>	Replication

Key	Release Notes	Components
UDT-15444	<p>Starting at 8.1.0, if a record was moved from one "over..." file to another "over..." file in a 32-bit Recoverable Dynamic file, it would result in an RFS crash and users would see a message in sm.log similar to the following:</p> <pre> U_____Report Error_____ Funcname: U_append_strtuple...Syscall: stack empty...U_Errno: 1... Filename: /livedata01/PSDATA/PSTRCON.LD2 ... Key: P*033575*1194459810*17688... Number: 399272U_sbr_addr error in U_tm_wrtrec U_am_os_open(), fname=/livedata01/PSDATA/PSTRCON.LD2/dat051 errno:2 TM[239]:U_am_os_open return error: afid:2713, sub_nth:0x32, aborted Sat Jun 4 21:09:44 SM checked: tm (udtno = 239, pid = 15575, udtuid = 184, udtgid = 101, cur_request = 5 ): Sat Jun 4 21:09:44 Stopped because of Sat Jun 4 21:09:44 IOT instructionSat Jun 4 21:09:44 - core dumped Sat Jun 4 21:09:44 Sat Jun 4 21:09:44 ----- System Crashed at Jun 04 2016 21:09:44 ----- Sat Jun 4 21:09:44 All possible CM &amp; TMs &amp; AIMGLOGs &amp; BIMGLOGs killed Dumping the system buffer to "/rfs_log/dump/rfs.dump1".....Done. </pre> <p>This issue has been resolved.</p>	Recoverable File System
UDT-15450	<p>Starting at 8.1.0, adding records to a 32-bit Recoverable Dynamic file could result in an RFS crash and and users would see a message in the sm.log similar to the following:</p> <pre> U_am_os_open(), fname=/disk1/ud81/demo/TESTDYN/dat043 errno:2 TM[1]:U_am_os_open return error: afid:4, sub_nth:0x2a, aborted Fri Jun 10 02:14:15 SM checked: tm (udtno = 1, pid = 8913146, udtuid = 0, udtgid = 0, cur_request = 5 ): Fri Jun 10 02:14:15 Stopped because of Fri Jun 10 02:14:15 IOT instructionFri Ju n 10 02:14:15 - core dumpedFri Jun 10 02:14:15 Fri Jun 10 02:14:15 ----- System Crashed at Jun 10 2016 02:14:15 ----- Fri Jun 10 02:14:15 All possible CM &amp; TMs &amp; AIMGLOGs &amp; BIMGLOGs killed Dumping the system buffer to "/disk1/ud81/bin/rfs.dump".....Done. </pre> <p>This issue has been resolved.</p>	Recoverable File System

Key	Release Notes	Components
UDT-15453	<p>Windows only. Beginning at this release, configurable diagnostics have been added to allow users to examine the acquisition and release of the internal control semaphores that are used to protect key internal memory structures within UniData. In order to turn on these traces, create two files, <code>udt.cfg</code> and <code>mchinfo.cfg</code>, in the <code>\$UDTHOME\logs\config</code> directory with the following contents:</p> <pre>logging=true handler = LogFile LogFile.filename=&lt;execname&gt;&lt;pid&gt;&lt;time&gt;.txt LogFile.type += DEBUG10 LogFile.module=MUTEX LogFile.field=PROCID   TIME LogFile.fileisize=100 LogFile.flush = true</pre> <p>The results of these traces will then be placed in the <code>\$UDTHOME\logs\output</code> directory.</p> <p>To disable this logging, remove the two <code>.cfg</code> files and restart any affected <code>udt</code> or <code>mchinfo.cfg</code> processes.</p>	Licensing, Support Tools
UDT-15454	<p>Windows only. Prior to this release, if a <code>CLEARFILE</code> or <code>CLEAR.FILE</code> command was issued from within UniBasic against a Dynamic File with more than one over file, the command would fail with a message similar to:</p> <pre>In BP\_CLEARIT at line n errno=13: Permission denied In BP\_CLEARIT at line n Deleting dynamic file DYNTEST\over002 error</pre> <p>This issue has been resolved.</p>	U2 Basic
UDT-15456	<p>UNIX/Linux only. Starting at this release, the values of the environment variables <code>LANG</code>, <code>PATH</code>, <code>ENV</code>, <code>LD_LIBRARY_PATH</code>, <code>LIBPATH</code> (AIX), and <code>SHLIB_PATH</code> (HP) are logged in the <code>startud.log</code> file during UniData startup.</p>	Server Processes
UDT-15460	<p>Linux only. Prior to this release, when using BCI or EDA and attempted to connect with Microsoft SQL Server ODBC driver, the process could have failed and a core file may have been produced. This issue has been resolved.</p>	Basic Call Interface, External Database Access
UDT-15462	<p>Prior to this release, setting the <code>N_PARTFILE</code> parameter too low with the RFS enabled could have led to dynamic file corruption. The internal algorithm that determines the default size of this configurable has been changed to avoid this situation. This issue has been resolved.</p>	Files - Dynamic, Recoverable File System
UDT-15484	<p>Prior to this release, a problem occurred when making an ODBC query against UniData that caused in-memory configuration settings to be overwritten with new data, causing UniData to crash. Any <code>ipclogs</code> generated at the time of the crash showed the corrupted values in the in-memory configuration. This issue has been resolved.</p>	Shared Memory

Key	Release Notes	Components
UDT-15485	Windows only. Starting at 8.1.0, users saw a function sequence error message when re-converting an EDA schema with SQL Server 2014, and experienced some data loss. This issue has been resolved.	External Database Access
UDT-15492	<p>Windows only. Starting at this release, an enhancement has been made so that UniData can be installed as a non-administrator alongside this the previous restriction of needing to be an administrator for the following commands or executables has been removed:</p> <pre>CLEAR.LOCKS, clearq, confprod, CONVERT.SQL, CREATE.TRIGGER, dbpause, dbresume, encman, DELETE.ENCRYPTION.KEY, DELETE.ENCRYPTION.WALLET, DELETE.TRIGGER, deleteuser, fixtbl, uslog_install, MAX.USER, MIGRATE.SQL, newhome, newversion, SET.TIME, SETLINE, smmtrace, startud, stopud, stopudt, SUPERCLEAR.LOCKS, udfile, udkill, utlangconfig, UNSET.LINE, us_admin, WALLET.REMOVE.KEY</pre> <p>This is done by utilizing the UDTADMIN_GROUP Registry key which is located under the main UniData Registry key (e.g. HKEY_LOCAL_MACHINE\SOFTWARE\Rocket Software\UniData\8.2).</p> <p>The Registry key contains the Group Name to which users can be added to be considered an administrator of UniData. This functionality does not override any Windows Administrator permission checks, as some of the commands still require that level of permission based on how they are used, and as such, will still result in an error.</p>	Installation, Security
UDT-15498	Prior to this release, some users found that the DATE . FORMAT command did not work as expected when run with the EXECUTE command in the UOLOGIN program. In order to get the command to work as expected, a single line text file called UOLoginCommand can now be placed in the \$UDTBIN directory to ensure these commands function as expected.	Server Processes, U2 Basic
UDT-15513	<p>Starting at 8.1.0 and in new installations, files that previously replicated successfully stopped replicating due to a problem with the replication writer processes and the rotating file pool. When this problem is encountered, the rm.log file contains an Open file failed message along with an error code of 24 similar to the following:</p> <pre>RW(0, 28042):RW Open file failed(0, 24); (LSN=149740389)Insert on CASH.DEPOSITS('11121~1') is canceled</pre> <p>This problem is now resolved.</p>	Replication

Key	Release Notes	Components
UDT-15523	<p>Prior to this release, there was a problem where logins were not blocked during UniData RFS Recovery and users saw the following message:</p> <pre>TM can only be started by SM</pre> <p>This issue has been resolved.</p>	Recoverable File System
UDT-15527	<p>Prior to this release, the UniData <code>TM</code> process did not set the <code>SIGTERM</code> handler correctly, which caused UniData to crash when RFS was enabled and the <code>TM</code> received a <code>SIGTERM</code> signal. This issue has been resolved.</p>	Recoverable File System
UDT-15532	<p>Prior to this release, the <code>RESTORE</code> option of the <code>RESIZE CONCURRENT</code> command failed when used on a multilevel file that was also a subscribing object. This issue has been fixed.</p>	Files - Resizing, Replication
UDT-15533	<p>Prior to this release, problems may have been encountered converting the EDA data type to the external database data type. This issue has been resolved.</p>	External Database Access
UDT-15557	<p>Linux only. Prior to this release, non-conforming records produced after an EDA conversion via the Microsoft SQL Server ODBC would fail to display correctly when edited using ECL. In order to resolve the issue, the <code>DRIVERNAME</code> configurable has been modified to allow definitions of <code>MSODBC</code> and <code>EASYSOFT</code> (the defaults). For more details on how to set these values, refer to the <i>External Database Access</i> manual.</p>	External Database Access
UDT-15569	<p>Windows only. In prior versions, if a UniData session was timed out as a result of the setting of the <code>TIMEOUT</code> command, the session might have terminated with an access violation. This issue is resolved.</p>	ECL Tools, U2 Basic
UDT-15570	<p>Starting at this release, an enhancement has been made to UniData that will decrease the time it takes to recursively extract attribute-level values from an array. Nearly all UniData applications will benefit from improved performance without making any changes to their application.</p>	U2 Basic, Performance
UDT-15571	<p>Prior to this release, when UniData detected that the value of <code>NFILES</code> exceeded the maximum number of simultaneous open files at the operating system, the value was reduced without warning. Beginning at this release, when the <code>NFILES</code> value is changed a warning message is added to the <code>smm.errlog</code>.</p>	Error Reporting
UDT-15572	<p>Prior to this release, users experienced lengthy delays when starting the <code>REPLLOGGER</code> utility, leading some to believe the utility stalled. This delay has been removed.</p>	Replication
UDT-15607	<p>Prior to this release, the <code>UPCASE ()</code> command and <code>MCU</code> conversion would not convert the default UniData mark characters (i.e., ASCII 252 to 255). This created a problem for string handling for when using several common Scandinavian and Germanic characters. Beginning at this release, <code>UDT.OPTIONS 122</code> has been introduced. If this option is set to <code>ON</code> then the previously unconverted characters will be converted. The default value for this option is <code>OFF</code>.</p>	U2 Basic
UDT-15609	<p>Prior to this release, the creation of EDA components may have failed if users attempted to verify the metadata for the EDA Map Schema. This issue has been resolved.</p>	External Database Access

Key	Release Notes	Components
UDT-15615	Prior to this release, users may have encountered a segmentation fault error when using the <code>XDOMGetNodeType</code> function within UniBasic. This issue has been resolved.	U2 Basic - XDOM API
UDT-15641	Prior to this release, if attempting to verifying an EDA MAP after an EDA conversion command, EDA would incorrectly drop the existing Oracle tables. If an attempt was made to list the EDA file, the following error message would be displayed:  <code>tables or view does not exist</code>  This issue did not affect DB2 or SQL Server and is now resolved.	External Database Access
UDT-15644	Prior to this release, EDA connections to Oracle that attempted to rollback a transaction would fail to remove any created tables during the transaction. This issue has been resolved.	External Database Access
UDT-15721	Prior to this release, the replication writer processes ( <code>udrw</code> ) could have attempted to update the database files before the RFS recovery was complete, leading to the potential corruption of the files. If this was encountered, a message similar to the following would have been included in the <code>sm.log</code> file:  <code>TM can only be started by SM</code>  This issue has been fixed.	Recoverable File System, Replication
UDT-15756	Windows only. Starting at this release, support to allow the XAdmin tool to change the registry entries for <code>SSL_PROTOCOLS</code> and <code>SSL_OPTIONS</code> for the UniData Telnet Services has been added. For more details on these registry entries, refer to the <i>Administering UniData on Windows and UNIX Platforms</i> and <i>Security Features</i> manuals.	SSL, Telnet
UDT-15759	Prior to this release, it was possible that when creating common, running the <code>DELETECOMMON</code> command and then updating common again may have caused a process to abort and produce a core file or access violation. This issue has been resolved.	Error Reporting - Crash, U2 Basic
UDT-15780	Prior to this release, the Host field in a callHTTP request may have been duplicated when using HTTP version 1.1, resulting in a failure of the request. This issue is resolved.	U2 Basic - CallHTTP
UDT-15796	UNIX/Linux only. Starting at this release, the <code>makeudt</code> command is deprecated. In order to allow programs to be linked to UniData, see <i>Chapter 8: Dynamic Linking, CallBasic, and CALLC (UNIX only)</i> in the <i>Developing UniBasic Applications</i> manual. This issue is linked with <a href="#">UDT-15885</a> .	UDT Linking
UDT-15810	Windows only. Prior to this release, file handles were not correctly released when a Telnet session invoked from <code>udtelnetd</code> exited. This would result in a steadily increasing open file handle count for the <code>udtelnetd</code> process, potentially exhausting the system threshold for allowed file handles. This issue has been fixed.	Telnet
UDT-15831	Windows only. Prior to this release, the <code>listuser</code> process would have inadvertently listed internal tool processes and/or UniData services. This problem has been resolved.	ECL Tools, Replication

Key	Release Notes	Components
UDT-15832	<p>When running <code>guide_ndx</code>, level 2 or 3, during the logical checking stage, a temporary file is used. Prior to this release, if that temporary file exceeded 2 GB then the <code>GUIDE_XERROR.LIS</code> file would report:</p> <pre>Error while seeking /disk1/tmp/K03_24125 (Invalid argument)</pre> <p>Starting at this release, changes have been made to allow <code>guide_ndx</code> to handle larger temporary files. The issue is resolved.</p>	Indexes
UDT-15853	<p>UNIX/Linux only. Starting at this release, the <code>udtinstall</code> and <code>updatesys</code> commands will attempt to find the existing UniData serial number in use and display that as the default value in the installation/upgrade prompt.</p>	Installation
UDT-15863	<p>Beginning at 8.1.1, the <code>XMAPClose()</code> function in UniBasic failed to release the memory created via the <code>XMAPCreate()</code> function, resulting in a memory leak. This issue has been resolved.</p>	U2 Basic - XDOM API
UDT-15885	<p>Starting at this release, the <code>makeudt</code> tool has been deprecated, as the requirement to build the a new <code>udt</code> executable to link your C routines has been removed. The process that should now be followed to link your C routines is:</p> <ol style="list-style-type: none"> <li>1. Create a makefile using <code>base.mk</code> as a template.</li> <li>2. Add the <code>.o</code> files corresponding to your <code>.c</code> files to the <code>UDT_OBJS</code> and <code>NFASVR_OBJS</code> variables in the makefile you created.</li> <li>3. Build using the following command: <code>% make -f yourmakefile all</code></li> <li>4. Shut down UniData and copy the <code>libu2callc.so</code> and <code>libu2callc_nfasvr.so</code> files to the <code>UDTBIN</code> directory.</li> </ol> <p>For more information about linking your C routines, see the <i>Administering UniData on Windows and UNIX Platforms</i> and the <i>Developing UniBasic Applications</i> manuals. This issue is linked to <a href="#">UDT-15796</a>.</p>	Uni Call Interface
UDT-15889	<p>Windows only. Starting at UniData 8.1.0, NFA connections to or from a Windows server would not work. This issue is now resolved.</p>	Network File Access
UDT-15911	<p>Prior to this release, the <code>UDTHOME/sys/LANGGRP</code> file on UNIX systems only supported the C locale. Starting at this release, more locales have been added to avoid issues when starting or entering UniData with other locale settings.</p>	Installation
UDT-16042	<p>Prior to this release, customizations made to the UniData <code>LOG_OVRFLO</code> and <code>REP_LOG_PATH</code> configurables may have been lost when the UniData upgrade <code>udtsetup</code> process was used. This problem has been resolved.</p>	Installation
UDT-16099	<p>At this release, the <code>udtsetup</code> script has been updated to version 1.2.3.</p>	Installation



# Notices

## Edition

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# Corporate information

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

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