

# Retek® Extract Transform and Load™ 11.0

## Release Notes



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### **Customer Support hours:**

Customer Support is available 7x24x365 via e-mail, phone, and Web access.

Depending on the Support option chosen by a particular client (Standard, Plus, or Premium), the times that certain services are delivered may be restricted. Severity 1 (Critical) issues are addressed on a 7x24 basis and receive continuous attention until resolved, for all clients on active maintenance.

Contact Method	Contact Information
<b>Internet (ROCS)</b>	<a href="http://www.retek.com/support">www.retek.com/support</a> Retek's secure client Web site to update and view issues
<b>E-mail</b>	support@retek.com
<b>Phone</b>	US & Canada: 1-800-61-RETEK (1-800-617-3835) World: +1 612-587-5800 EMEA: 011 44 1223 703 444 Asia Pacific: 61 425 792 927
<b>Mail</b>	Retek Customer Support Retek on the Mall 950 Nicollet Mall Minneapolis, MN 55403

### **When contacting Customer Support, please provide:**

- Product version and program/module name.
- Functional and technical description of the problem (include business impact).
- Detailed step by step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.



## RETL 11.0. Overview

The Retek Extract Transform and Load (RETL) is a high-performance runtime tool useful in parallel processing systems where high volumes of data must be processed quickly. By incorporating RETL into an application, the amount of time required to process data from databases and flat files may be reduced. Increasing the number of processors on Unix servers can scale RETL to handle larger volumes of data.

## RETL 11.0 Functional and technical enhancements

The RETL 11.0 internal release includes significant improvements that enhance the product's configuration management, operations, performance and translation support.

**We do not recommend installing the RETL 11.0 release at client sites until full Retek product certification is complete. Full Integration Test, Performance and backward compatibility certification is underway and will be completed with the RETL 11.1 release of September 30<sup>th</sup>, 2003.**

**We strongly recommend that before any installation or development work is performed, that the RETL 11.0 Programmer's Guide, provided with the release, is read cover to cover. In particular, read and understand Chapter 2 and "Upgrade From A Previous Versions Of RETL" and "Backwards Compatibility Notes" sections as well as the "Known Issues" section of these Release Notes. All products using RETL must be regression and volume tested with the RETL 11.0 tool prior to its production deployment at customer sites.**

Issues identified in the 11.x release and prior releases will be resolved with enhancements and fixes being delivered through RETL 11.1 and subsequent patch releases. No additional releases of RETL 10.x are planned. This upgrade is recommended to take advantage of several improvements.

- **True Platform Independence** - The new architecture of the 11.x releases has been written entirely in Java. As a result, RETL may now run on platforms that previously would have required significant efforts to port to. See the F.A.Q question in the Programmer's Guide "Since RETL has been re-written in Java, can I run RETL on other platforms that have a JRE?" and the Compatibility Matrix for supported platforms. As a direct result of the platform independence, significant RETL resources in platform maintenance will be freed up to develop new features going forward.

- **True Database Independence** - With the 11.x releases, generic 'dbread'/'dbwrite' operators have been introduced. These operators use JDBC-compliant technology to connect to databases in a truly database-independent manner. Additionally, previous 10.x releases were unable to connect to different database types in the same flow. 11.x releases allow full interoperability among different databases in the same flow (e.g. among db2, oracle, teradata all in the same flow). See the F.A.Q question in the Programmer's Guide "With the introduction of RETL 11.x, JDBC technology has been introduced as a mechanism for connecting and reading/writing to databases. Does this mean I can connect to any database (e.g. Sybase, MySQL, Acumate, etc)?"
- **Improved performance** - RETL 11.x releases include a new architecture that optimizes pipeline parallelism by consolidating connected operators into the same pipeline where possible. This reduces the number of threads required, minimizing context switching and thrashing among threads, and thereby allowing a framework that supports improved performance and scalability. Additionally, optimizations have been made in certain operators, namely oraread and export, which have been shown to positively affect performance in comparison to 10.x releases. Internal performance benchmarking between 10.x and 11.x releases has shown 11.x releases to be anywhere from 15%-150% faster.
- **Error handling and debugging** - 11.x releases introduce better flow debugging by giving line and column specific error messages when RETL encounters problems reading an XML flow definition. Additionally, 11.x's exception handling allows for better error handling and debugging.
- **Online Help** - A command-line option has been added to 11.x releases that allow flow developers to view operator syntax and usage via the command-line without having to refer to this document.
- **Simplified installation and configuration** - 11.x releases consolidate code into a single binary rather than the 26 binaries of 10.x release. This considerably eases installation. In addition, there is less environment setup that needs to be done in order to complete an installation.
- **Backwards compatibility with previous releases** - A requirement of 11.x versions is that they be backwardly-compatible with the 10.x versions. However, 11.x versions more strictly enforce valid XML flow interfaces, input schemas, and data fields. In some instances, the 11.x product will find data and/or flow errors that may have previously been unreported. The result may be more discarded or rejected records and/or error messages than previously identified.

<b>OS</b>	<b>Version</b>	<b>Arch</b>	<b>DB</b>	<b>Version</b>	<b>RETL Executable</b>
IBM AIX	64 bit	5.1	Oracle	9.2.0.2	IBM AIX
HP-UX	64 bit	11i	Oracle	9.2.0.2	HP-UX
HP-UX	64 bit	11i	Oracle	9.0.1.4	HP-UX
HP-UX	32 bit	11i	Oracle	8.1.7.4	HP-UX

<b>OS</b>	<b>Version</b>	<b>Arch</b>	<b>DB</b>	<b>Version</b>	<b>RETL Executable</b>
HP-UX	32 bit	11i	NCR TeraData	2r4.2	HP-UX
HP-UX	64 bit	11i	None	None	HP-UX
HP-UX	32 bit	11i	None	None	HP-UX
Sun Solaris	32 bit	5.8	IBM DB2	7.2.3	Sun Solaris
Sun Solaris	64 bit	5.8	Oracle	9.2.0.2	Sun Solaris
Sun Solaris	64 bit	5.8	Oracle	9.0.1.4	Sun Solaris
Sun Solaris	32 bit	5.8	Oracle	9.0.1.4	Sun Solaris
Sun Solaris	32 bit	5.8	Oracle	8.1.7.4	Sun Solaris
Sun Solaris	32 bit	5.8	NCR TeraData	2r4.2	Sun Solaris
Sun Solaris	64 bit	5.8	None	None	Sun Solaris
Sun Solaris	32 bit	5.8	None	None	Sun Solaris

**Notes:**

- Solaris 2.8, Solaris 8 and SunOS 5.8 are the same platform.
- If your current operating system or database is not specified above, please contact Retek Customer Support. The RETL is able to process datasets either directly from RDBMS database tables or from Unix flat file based systems. The RETL stores information about each dataset that describes the data structures (the metadata). The means by which the metadata is supplied is dependent on the data interface operators provided by the RETL and may require use of a schema to ensure that datasets are consistent from the source data to the target data.

## IBM De-Support of AIX 4.3.3

Effective December of 2003, IBM will no longer support the AIX 4.3.3 operating system. As a result, RETL will discontinue support of the operating system once existing AIX 4.3.3 customers have migrated to the supported AIX operating system version, AIX 5.1 (and higher), or another supported operating system. AIX 4.3.3 does not support JRE v1.4. Retek is working with each impacted client regarding this migration.

<b>OS</b>	<b>Version</b>	<b>Arch</b>	<b>DB</b>	<b>Version</b>	<b>RETL Executable</b>
IBM AIX	64 bit	4.3.3	Oracle	9.2	IBM AIX
IBM AIX	64 bit	4.3.3	Oracle	9.0.1	IBM AIX
IBM AIX	32 bit	4.3.3	IBM DB2	7.2.3	IBM AIX
IBM AIX	32 bit	4.3.3	Oracle	8.1.7	IBM AIX
IBM AIX	32 bit	4.3.3	NCR TeraData	2r4.1	IBM AIX
IBM AIX	64 bit	4.3.3	None	None	IBM AIX
IBM AIX	64 bit	4.3.3	None	None	IBM AIX

## RETL 11.0 known issues with resolution

The following issues have been identified:

### General Known Issues of RETL 11.0 and prior releases

- The RETL does not handle arbitrary precision math.
- In the RETL 11.0 or prior releases, carefully check all property names to ensure they exactly match the property name and value spellings noted in the Programmer's Guide. RETL may error on misspelled or unknown properties.
- Bug#510 - DB2 users need to have the db2 database located on the same server as RETL because the port is not configurable.

## Backwards-Compatibility Issues with 10.x versions

- We do not recommend installing the RETL 11.0 release at client sites until full Retek product certification is complete. Full Integration Test, Performance and backward compatibility certification is underway and will be completed with the RETL 11.1 release of September 30<sup>th</sup>, 2003.
- RETL 11.0 does not implement any native database load utilities. As a result, direct loading into the database isn't implemented, but will be added for Oracle and TeraData databases in a near-future release of 11.x. This has a certain performance implication for these operators, but will be resolved shortly.
- Bug#479/#480 - hash and sort operators should use multiple 'key' properties instead of one 'key' property with multiple keyfields. For example, 10.x flows that appeared as follows:

```
<PROPERTY name="key" value="field1 field2"/> should
appear as follows in 11.x:
<PROPERTY name="key" value="field1"/>
<PROPERTY name="key" value="field2"/>
```

This is a backwards-compatibility bug and will be fixed in the next release of 11.x

- Bug#496 - merge operator doesn't support the 'key' property. This is a backwards-compatibility bug and will be fixed in a near-future release of RETL 11.x.
- Bug#513 - database write operators don't implement the allowedrejects property. This functionality will be added in a future release of 11.x
- Bug#514 - database write operators don't reorder fields when writing to the database. For example, if a database being written to has fields B and C, but an incoming RETL record has fields A, B, and C, RETL 11.x will throw an error whereas 10.x versions would adapt properly. This will be fixed in a near future release of RETL 11.x. The workaround is to use fieldmod to drop these fields before writing to the database.

## Known issues specific to RETL 11.0

- Bug #406 - RETL may report the following error when doing an orawrite with createtablemode='recreate':  
Exception in [orawrite:1] : ORA-01008: not all variables bound. The workaround for this is to re-run the flow and the error will go away.
- Bug#416 - The -sSCHEMFILE option is only partially implemented. Currently when the -sSCHEMFILE option is used, only certain operators print their schema information and the RETL datatypes printed out are not valid types. A workaround for not all operators printing their schemas is to insert 'debug' operators before any operators whose schemas need to be known. A workaround for the RETL datatypes would be to remove the incorrect datatypes (such as Field\_Long) and use valid RETL datatypes.

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- Bug#426 - Give a better error message when connecting to the db fails due to incorrect port/hostname settings, or if the database is down.
- Bug#461 - Should give more specific error messages with source of the error pointing all the way down to the record/field.