

RELEASE NOTES

Cleo Transaction Processor Version 4.3.0.10

CD Contents - Windows

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- install.exe - Transaction Processor installer
- README.txt - these release notes
- Java/JRE/1.5.0_11i18n Win 32 - installer for Java version 1.5.0_11i18n
- NET Framework/dotnetfx.exe - installer for Microsoft .NET Framework
- AdminGuide.pdf - configuration and administration guide
- ProgGuide.pdf - programmer's guide
- QuickStart.pdf - instructions for TP installation, licensing, and initial setup
- client/install.exe - TP Client installer
- client/QuickStart.pdf - instructions for TP Client installation and initial setup

Note that the Administration and Programmer's guides are installed in the docs directory under the installation path %TP_HOME%\docs (e.g. C:\Program Files\CleoTP\docs).

CD Contents - Solaris

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- cleoinstall.tp - Transaction Processor install script
- README.txt - these release notes
- eula.txt - license agreement text
- j2r.sh - installer for Java version 1.5_22
- Admin.pdf - configuration and administration guide
- Program.pdf - programmer's guide
- QStart.pdf - instructions for TP installation, licensing, and initial setup
- client/install.tpc - TP Client install script
- client/install.bin - TP Client installer
- client/QStart.pdf - instructions for TP Client installation, and initial setup

CD Contents - Linux

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- cleoinstall.tp - Transaction Processor install script
- README.txt - these release notes
- eula.txt - license agreement text
- java-1.5 - RPM package for Java version 1.5_22
- AdminGuide.pdf - configuration and administration guide
- ProgGuide.pdf - programmer's guide
- QuickStart.pdf - instructions for TP installation, licensing, and initial setup
- client/install.tpc - TP Client install script
- client/install.bin - TP Client installer
- client/QStart.pdf - instructions for TP Client installation, and initial setup

New in Version 4.3.0.10

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- Enhancement added optional tn3270AutoRetry parameter to TP Admin Options. The default is OFF so that code works like 4.3.0.8 in that when TP Service is started all Windows .ZCC files are forced to set Zephyr "AutoReconnect=No". This was recommended by Zephyr for JVM crashes. However, it is different than what TD uses (AutoReconnect=Yes) so that transactions can act differently in TP than TD. And, not sure forcing AutoReconnect=No does prevent JVM crashes ANYWAY. So now can optionally allow TP to act like TD for AutoReconnect of TN3270 connections. This helps in cases where PARKED screen is INITIAL SCREEN so that when transactions go back to Initial Screen they not stuck in HOST_DOWN like could happen with AutoReconnect forced to be off.
- Enhancement to add new API Request "CleoGCoff(Boolean) to optionally turn off TP Client Java Garbage Collection in following RELEASE API request if Boolean argument is TRUE. Implemented for Java, VXML, and XML Connectors. Still to be done, the Web Services Connection scheduled for TP Release 4.3.0.11. This temporarily overrides the CLEOGC_OFF environment variable setting if CLEOGC_OFF environment variable exists and is equal to "OFF" or "off" then if CleoGCoff argument is FALSE, then Java Garbage collection is NOT done.
- Enhancement to add ENVIRONMENT VARIABLE CLEOGC_OFF=off/OFF to turn off TP Client Java Garbage collection in cleanup() method called during RELEASE API Request. Especially on Solaris this can add 5 seconds to RELEASE API Processing done by TP Client. IF CLEOGC_OFF environment variable does not exist or is not equal to "off" or "OFF" then Java Garbage collection is done in RELEASE API request.
- Enhancement to be able to specify Model Type(2, 3, 4, 5, dynamic) in TP Admin CONFIG page.

Fixed in Version 4.3.0.10

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- Fixed problem with NULL POINTER exception when using pools if exception with Lock File for connPool.xml occurs was not returning with error, continued on and caused uncaught NULL POINTER exception. Now error is returned and no NULL POINTER exception occurs(connector.java).
- Fixed problem with getSessionId() being called prematurely, when an error occurs within RESERVE API Request when a POOL is used, only, before session ID is even available. Can cause Lock and NULL POINTER exceptions.

New in Version 4.3.0.8

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- The Cleo Transaction Processor Client Fail Over Monitor now is installed as a Service "Cleo Fail Over Monitor Service".
- The Cleo Transaction Processor Client Fail Over Monitor service can be enabled using the TP Admin "Connection Manager". And the Fail Over Monitor can be configured to run every x seconds, where x is a configuration parameter supplied using the TP Admin "Connection Manager".
- The Cleo Transaction Processor Client Fail Over Monitor service will check all Pool connections, every time it runs, and set the current pool connection status as "In Service", if it's TP Service is running and the TP Client can connect OK, or as "Unavailable" if the TP Client cannot connect to the pool's TP Service.

Previously the Fail Over Monitor was not usable. It would never monitor more than 1 Host Session and it would only monitor a Host Session after a Reserve was made, and not across multiple API requests.

- The Cleo Transaction Processor will now adjust the Session Thread Pool based on the number of Host Sessions. In the past a pool of 300 threads was used. Now if there are 100 - 199 Host Sessions the pool will be 600 threads and if there are 200 or more Host Sessions the pool will be 900 threads.

- The Solaris Transaction Processor interactive command, "tpadmin", that can be run by the "cleo" user to start the Cleo TP Admin, now starts the Cleo TP Admin as a batch job. This allows the Cleo TP Admin to continue to run, when the "cleo" interactive user exits the Solaris system.

Previously the Cleo TP Admin would STOP RUNNING, after being started by and interactive "cleo" user, when that "cleo" user exited the Solaris system. Also, there is a new command "tpadminnobatch" that runs identically to the original "tpadmin" command where no batch job is run.

- The Solaris and Linux Transaction Processor and Transaction Processor Client both have a new command "fomonitor" to start/stop the Cleo Fail Over Monitor Service.

Fixed in Version 4.3.0.8

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- Fixed problem where EMAIL NOTIFICATION was never working for Host_Down Notification.

Now when EMAIL NOTIFICATION is set for Host_Down it works.

- Fixed problem in TP Processor Service where user defined Recovery would always fail, when it was used during TP Service startup if the "login" or "park" transaction failed to get a Host Session PARKED.

The user defined Recovery would fail, even when it actually got the Host Session PARKED, due to a bug in the TP that mistakenly reported a #214 error "Don't have the parkedScreenIDs to perform the PARKED check for the session".

Now User Defined Recovery works if used during initial TP Service startup.

- Fixed problem in TP Processor Service where user defined Recovery would not be run if more than 1 Host Session could not initially login during TP Service start up.

Now User Defined Recovery will be attempted during initial TP Service startup, when > 1 Host Session fails to login initially.

- Fixed intermittent problem in TP Processor Service startup where Null Pointer exceptions could occur while a recovery thread was running. This would result in an LU never being able to get PARKED and be marked in DEACTIVATED state until the TP Service was restarted.

Now Null Pointers do not occur because thread access for repark and login threads are fully synchronized, whereas they were not in the past.

- Fixed problem where TP Admin Configuration Parameter(Time in ASSIGNED State) was always being used with a value of 1, no matter what the parameter was set to.

Now the actual value of "Time in ASSIGNED State" is used.

- Fixed problem where Unix(Solaris and Linux)TP Admin was not modifying the "tnstart.tp" startup script correctly when SPECIFIC LU NAMES for TN3270, or SPECIFIC DEVICE NAMES for TN5250 where configured for a Host.

Now SPECIFIC NAMES are correctly configured and used in Host configurations.

- Fixed problem with Windows "Encrypted Password.exe" program that was not working correctly. The "Encrypted Password.exe" executable can be used to Encrypt the Macro Table so that nowhere within the TP Admin will Macro Values ever appear in CLEAR TEXT, even to the "admin" user.

Now the "Encrypted Password.exe" program works correctly to encrypt the macro table, and allow modification of encrypted macro values.

New in Version 4.3.0.7

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- The Cleo Unix Transaction Processor Service has had several enhancements to speed up processing.

Doing multiple OIA calls with ¼ second timeouts in between eliminated.

The HllapiServer was enhanced to no longer poll(sleep ¼ second in between polls) between reading TP requests.

- Both the Cleo Linux and Solaris Transaction Processor Services have been enhanced to NO LONGER require being owned and run as the "root" user. Now a "cleo" user and "cleo" group MUST be created and the "cleo" user owns all the Linux and Solaris TP Software and the "cleo" user must be used to start/stop/manage the Linux and Solaris software.

- Both the Cleo Linux and Solaris Transaction Processor Services no longer need an ADD ON Package in order to configure a TN3270 Connection to use SSL or NLS. This means that the "nlsconfig" utility no longer is needed.

Fixed in Version 4.3.0.7

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- Fixed problem in Unix TP Processor Service that would continue on to do Login transaction in Recovery process when Hllapi Set Session Parameters failed. Now the Auto Recovery continues until Hllapi errors no longer exist before trying the "login" transaction.

- Fixed problem in TP Client. Only 1 Pool would work. Not able to define multiple pools with Communication Manager Admin tool, even. Now can define multiple pools and TP Client will handle API Requests for TP Connector reservation to Multiple Pools.

New in Version 4.3.0.6

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- The Cleo Linux Transaction Processor Service can now be installed on Redhat Linux Version 5.

- Both the Cleo Linux and Solaris Transaction Processor Services have been enhanced to NO LONGER require being owned and run as the "root" user. Now a "cleo" user and "cleo" group MUST be created and the "cleo" user owns all the Linux and Solaris TP Software and the "cleo" user must be used to start/stop/manage the Linux and Solaris software.

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Fixed in Version 4.3.0.6

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- Fixed problem in Recovery code that would reset the TN3270 interface twice before doing a Power Off/On sequence.

New in Version 4.3.0.5

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- The Cleo Transaction Processor can now be installed on Windows 2008 R2, Windows 7, Vista, in addition to Windows XP and Windows 2003.

Fixed in Version 4.3.0.5

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- Fixed problem installing the Cleo Transaction Processor in the non-default installation Directory of C:\Program Files\CleoTP. When installing in the non-default directory, the Cleo TP ADMIN was not registered correctly in Windows and would not startup correctly at boot time.

New in Version 4.3.0.4

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Fixed in Version 4.3.0.4

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- Fixed problem with Java Tester Hanging when try to do any API request. Java Tester had this problem since the 4.3.0.0 release.
- Fixed a problem with "tpcommand" and "gstat, gstatall" commands. They were causing the CPU Usage to climb to 90% with the Solaris 4.3.0.3 release and then stay at 90% usage. The commands no longer cause a CPU Spike with Solaris.

New in Version 4.3.0.3

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- Added more error log messages to clientlog.log and transaction.log file for API failures, as FATAL errors. That way when API requests fail there will be corresponding Cleo log errors for all types of API request failures.
- Added a copyright.txt file to the ...\CleoTP\conf directory when the TP Client is installed on a system separate from the system that the TP Service is installed on. The copyright.txt file contains the Cleo Version Number of the TP Client.

Fixed in Version 4.3.0.3

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- runTransaction API requests could intermittently fail with erroneous "InvalidFieldName" Exception if using DEBUG log level. That problem has been fixed.
- Added Apache Portable Runtime library to install to eliminate tomcat warning error messages.
- Eliminated extraneous Tomcat log entries when the TP starts up.

New in Version 4.3.0.2

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Fixed in Version 4.3.0.2

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- Fixed a problem with single quotes not surrounding new gethostip and getport VXML options on API requests.

New in Version 4.3.0.1

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- When install the Cleo TP V 4.3.0.1, the Cleo TP configuration file(modified through Cleo TP Admin GUI) and Tanuki Wrapper Configuration files are no longer over written by default files, if these configuration files already exist in the TP_HOME\conf directory.

Fixed in Version 4.3.0.1

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- Fixed a problem with Tanuki Wrapper Licensing if install when there is already an existing Tanuki Wrapper configuration file from an older version of the Cleo TP. Now the install updates the Tanuki Wrapper configuration file to include necessary Licensing information.

New in Version 4.3.0.0

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- License File is new due to a new release of the Cleo TN3270 software(DLL file). License Files from TP V4.2 and less will NOT work on V4.3.0.0.
- Tanuki Wrapper Software, that the Cleo TP runs under, has been updated from Version 3.2.1 to Version 3.3.5.
- Tomcat Software installed with the Cleo TP has been updated from V3 to V6.
- VXML Connector has 2 new values that can be returned in the subdialog from an API Request. The values are the TP Server IP address(gethostip) and port(getport).

Fixed in Version 4.3.0.0

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- Fixed problem with Cleo TN3270 software that could result in a JVM crash.
- Fixed problem with Client Logging that now allows the specification of a full path to the Client Log file.

New in Version 4.2.2.42

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Fixed in Version 4.2.2.42

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- Fixed problems with Host Down Handling. Now recovery is done right away.
- Fixed problems with Auto Recovery that could lead to JVM crashes.
- Fixed problem with VXML connector that could result in slowdown issues, by removing TPConnector pooling.

- Increased throughput in VXML connector by changing runTransaction to parse the results itself rather than call getOutput for each name.
This is (a lot) more efficient.

New in Version 4.2.2.41

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Fixed in Version 4.2.2.41

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- Fixed multiple problems with RECOVERY logic. Now RECOVERY will no longer use up thread resources.
Recovery will always do Power Off/On after User Defined Recovery. Before Recovery would some times fail to run and then never run for a Host Session again, leaving the Host Session OUT OF SERVICE until the TP was restarted.

New in Version 4.2.2.37

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- Changed Client Logging to use log4j (an open source logging java module). No longer used is clientLog.cfg file to setup log level, path, and size of log file. Change requires a new file be distributed in tomcat\bin\log4j.properties).
New log file is now called "clientlog.log" instead of clientTP.log and it is placed in tomcat\logs.

Here is new log4j.properties file

```
log4j.rootLogger = DEBUG, FILE
```

```
log4j.appender.FILE=org.apache.log4j.RollingFileAppender
log4j.appender.FILE.File=../logs/clientlog.log
log4j.appender.FILE.MaxFileSize=10000KB
log4j.appender.FILE.MaxBackupIndex=1
log4j.appender.FILE.layout=org.apache.log4j.PatternLayout
log4j.appender.FILE.layout.ConversionPattern=%m%n
```

You can set

```
log4j.rootLogger = DEBUG, FILE      (Same as DEBUG previously)
                   INFO, FILE      (Same as INFO previously)
                   WARN, FILE      (Same as WARNING previously)
                   ERROR            (Same as CRITICAL
```

previously)

```
                   FATAL, FILE      (Same as FATAL previously,
```

use for NONE also)

DEFAULT IS "FATAL". NOTE: log4j has no NONE mode, closes to it is new FATAL.

Fixed in Version 4.2.2.37

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New in Version 4.2.2.27

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Fixed in Version 4.2.2.27

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- Fixed truncation of FROMHOST fields that contained special characters(eg. "&", "'", etc.).

New in Version 4.2.2.25

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Fixed in Version 4.2.2.25

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- Fixed intermittent Exceptions in TP Server/Client Connector code that could occur when data was being read from the TP Server socket connection. Now Integer.Parse exceptions are handled and appropriate return code made to Application's API request. For the most part -1(IOE IO Exception) or a 0 if getSessionId() or "UNAVAILABLE" if doing any of the getScreen type API requests.
- Fixed intermittent Exception in TP Viewer and TP Command code that could occur when data was being read from TP Server socket connection.

New in Version 4.2.2.24

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- New function of tpmanager added for Windows Version only. New function is "licinstall".

If a new license file has been copied to the directory(under your install Drive)

Program Files\CleoTP\Resources
and name "cleotp.lic". When the "licinstall" function of tpmanager is run, the TN3270 License information will be updated from the new "cleotp.lic" file.

Example:

tpmanager licinstall

The output from the command will either be

For Success

Successfully installed License.

For Failure

License is Invalid.

Fixed in Version 4.2.2.23

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- Cleo TP Admin would get protocol Error when trying to access the Connection Manager.
- Special characters(eg. "&") appearing in From Host fields from the Mainframe would cause truncation of the remainder of the data in the From Host field.

Fixed in Version 4.2.2.22

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- Cleo TP Service and Cleo TP Client will now convert characters in From Host fields from the Mainframe using the values of Java Environment Variables, LANG and file.encoding. This allows for NLS(National Language Support) support for From Host fields from the Mainframe. Previously LANG was ignored and file.encoding always forced the default file.encoding to be used(eg. iso8859-1).

Fixed in Version 4.2.2.12

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- Modified Connector code to LOCK API requests made on the same TP connector to synchronize multiple threads accessing the same TP connector. Applications using multiple threads to access the same TP Connector could result in the TP Server experiencing OutOfMemory errors or IndexOutOfBoundsExceptions. The LOCK mechanism for using the same TP connector from multiple threads prevents these errors. Cleo still recommends that Applications do NOT use multiple threads to access the same TP connector with API requests.

Fixed in Version 4.2.2.8

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- New PASSHIO.dll installed to avoid some JNI Exceptions caused by the lower level TN3270 emulation software.
- When a Host Session is stuck in an ASSIGNED state that exceeds the timeout value, the Host Session is put into a RECOVERY state immediately.
- A NULL POINTER Exception was fixed that would rarely occur when a Host Session was being released, as the result of a RELEASE API Request.
- The Macro Table is now forced to be read into memory every time the TP Service is started, in order to try to avoid a rare problem with the macro table being corrupted in memory.

Fixed in Version 4.2.2.4

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- Created TP Service Java software using JRE 1.5 instead of 1.4. Also, JRE 1.5 now installed with Cleo TP Service software.
- Modified thread pool handling to reduce amount of memory needed by TP so larger heap

can be used and reduce overhead of managing large unneeded thread pool.

- Thread Pool reduced in size to be equal to number of licensed host sessions + 50
Previously the thread pool was always 3000 in size.
- BACKLOG_LIMIT set equal to Thread Pool size. Previously BACKLOG_LIMIT was 5000.
- If the TP stops due to Connection Socket Closed Unexpectedly, error, garbage collection is done. Previously, TP had problems restarted after halting with Connection Socket Closed Unexpectedly error.

New in Version 4.2.2.0

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0000434 - Added a feature for macro values to never be shown in clear text. This feature can be enabled in the TP Admin under "Configuration Options".

Once enabled, use the utility "Password Encryption.exe" located in the /bin folder (default: C:\Program Files\CleoTP\bin) to make changes

to macro values.

Fixed in Version 4.2.2.0

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0000448 - Fixed VXML Connector issues with high CPU usage after sustained heavy load.

0000445 - Fixed XML Connector issues with high CPU usage after sustained heavy load.

0000446 - Fixed an issue with Failover that could cause sockets to be left open for extended periods.

0000385 - Updated low-level protocol that was causing JVM crashes within the JNI interface.

0000372 - Configuration settings should now be preserved after uninstalling the TP.

0000243 - Updated several JNI libraries to release JNI resources better in error situations.

0000329 - VXML Connector now supports the "resetInput" method of the TP API.

0000257 - Updated libraries related to running the TP as a Windows Service

0000253 - Updated the SSL certificates for connection between the calling application (such as the TPC) and the TP.

Fixed in Version 4.2.1.4

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- Fixed several file handle issues that were not being properly cleaned up.

- Added a monitor to the Web Service connector that will remove dead connections

- The clientLog.cfg configuration file will first be looked for in \$TP_HOME/tomcat/conf or /opt/cleotp/tomcat/conf (for UNIX-based systems).

If it can't be found there, then it checks the current running directory. If neither can be found, it will use the default values.

Fixed in Version 4.2.1.3

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- Added getOutputDelimited and getOutputArray to the web services connector, WSConnector

Fixed in Version 4.2.1.2

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- Resolve Hllapi RC=65535 errors (error log message type #157) during TP service shutdown.
- Eliminate erroneous "Invalid number of Cleo TN3270 sessions requested" licensing warnings on shutdown/startup.
- Update cleotp (rpm) to version 6.0.7.18. For more information on the version upgrade, please refer to the Cleo 3270SNA and TN3270 release notes available on the Cleo web site.

Fixed in Version 4.2.1.1

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0000243 - Fixed JVM restarts related to socket allocation when sessions are HOST_DOWN for extended periods.
0000346 - Fixed an unhandled exception when accessing client log files which caused .NET applications to crash
0000347 - Fixed problem When using failover where reserve often returns - 127 when TP services are actually available.
0000349 - Fixed SetFailoverRetryInterval in Java client to actually change the interval at which connections to TP services are checked for availability. Default failover retry interval has been changed to 1 minute.
0000351 - The TP admin. tomcat process is now stopped when removing the TP Client from Linux/Solaris.

New in Version 4.2.1.0

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0000279 - Administrators can now change configuration options, including macro table values, without restarting the TP Service. See the section "Saving Configuration Settings" in the Administration Guide. Trace settings can be changed while the TP is running on Windows only.
0000278 - Added capability to monitor/maintain LU's via a command line interface. The syntax is:

tpcommand <command> <start session> [<end session>]

| FUNCTION | COMMAND |
|------------------|-------------------------------------|
| ----- | ----- |
| GET_STATUS_TABLE | tpcommand 1 |
| DEACTIVATE | tpcommand 2 <session1> [<session2>] |
| ACTIVATE | tpcommand 3 <session1> [<session2>] |
| STOP_SESSION | tpcommand 4 <session1> [<session2>] |
| START_SESSION | tpcommand 5 <session1> [<session2>] |
| GET_STATUS | tpcommand 6 <session1> [<session2>] |
| GET_SCREEN | tpcommand 7 <session> |

See the section "Management Using Command-line Utilities" in the Administration Guide.

0000232 - Added extensive logging to identify TP functions called from TP clients. See the section "Location of Log Files/TP Client Applications" in the Programmer's Guide for details.

0000021 - Terminal screen sizes, mod3 (32x80), mod4 (43x80), and mod5 (27x132), are now supported.

0000332 - Frequency at which the host status of HOST_DOWN sessions is checked is now configurable. Also configurable is whether to issue a session disconnect when attempting to recover a session from HOST_DOWN. Parameters hostStatusFreq (frequency in seconds that TP checks if host is back up), and doPowerOff (0 to not disconnect socket for session when attempting to reconnect to the host) must be added to the cleotp.cfg file in the conf folder where the TP was installed.

Fixed in Version 4.2.1.0

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0000313 - Unexpected screens were previously only written to *.htp files if the file size was less than 19200 bytes. The file size now will grow to 1 meg. Note that these files should be deleted when reaching 1 meg. in size.

0000277 - A field value of null provided to addInput no longer causes null ptr exception.

0000291 - Keyboard macro values corrupted in memory when running transaction.

0000254 - Values entered in Session viewer Dialog box are now validated, preventing an exception.

0000252 - On Linux/Solaris, HLLAPI rc=35 (already online) is now treated as a successful online call by the TP.

0000285 - On Linux/Solaris, HLLAPI return code of 9 (system error) sometimes occurs, previously causing the affected session to be stuck in RECOVERY. In this release the session will be DEACTIVATED and message #369 logged describing the problem.

0000261 - Email notification now works on Linux/Solaris.

0000266 - Pipe character in output field value no longer causes exception in .NET client

0000324 - Log message #373 added to identify when screen was not received from host

0000330 - TP function names can now be used starting with either an upper or lower case letter. For example, both resetInput and ResetInput can be called from an application.

Fixed in Version 4.2.0.1

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0000295 - Web admin passwords now revert to defaults when reinstalling the TP

New in Version 4.2

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Added tn3270/tn5250 SSL support to Windows TP, including TN host setting SSL configuration parameters. A new license is required when upgrading to version 4.2.

Added ability to configure keep-alive capability for host sessions using Windows tn3270 connectivity.
Added another level of security to Web administration. In addition to the user "admin", 5 user-type users are provided. The keyboard macro table cannot be seen by user-type users. See the Administrator's Guide for further information.

Fixed in version 4.1.5.2

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Memory handling has been enhanced to prevent memory errors.
The isConnected() method has been restored to the Transaction Processor Windows API (TPConnector.dll) to prevent application compilation errors. Although available, the method is considered deprecated and will be removed from the API in a later release. It is recommended that references to the method be removed from applications.
30454 - Added the CleoTPStats utility which reports TP session usage to the bin directory. To run it, open a command window and change directory to the installation path %TP_HOME%\bin (e.g. C:\Program Files\CleoTP\bin). Type "cleoTPStats ?" to see the syntax.

Fixed in version 4.1.5.1

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30441 - Corrected problem resulting in exception if pipe (vertical bar) character was returned in an output field value
Corrected input field name validation when log level set at DEBUG. Now checks for field name definitions in all transactions referenced by rule or branch commands in the transaction being run.
Command-line Java tester (tptest) on Solaris/Linux now works when a pool is specified, required to use failover.
30448 - Corrected null pointer exception sometimes seen in Processor when a session goes into HOST_DOWN state.
30449 - Added WARNING log message #367 to indicate a session is being put into RECOVERY because the application released it when not at the PARKED screen, and there is no valid repark transaction defined (<transactionName_park>).
30451 - Added INFO log message #368 stating the Windows onSessionChanged event handler was called.
30453 - Fixed problem where some sessions are stuck in RECOVERY for long periods of time.

New in Version 4.1.5

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During a reserve function call using a pool, failover now occurs to a secondary TP Service when sessions in the requested transaction set are HOST_DOWN.
Windows tn3270 connectivity now offers keep-alive capability for host sessions. Please contact Cleo Tech. Support for information on how to configure this.
All log messages having level WARNING, CRITICAL, or FATAL can be configured to be written to the Windows event log. If many sessions are configured, this can result in large numbers of event logs.

30419 - Implemented failover in the Java TP client (TPConnector).

Fixed in version 4.1.5

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29741 - Stopping and restarting a session from the Admin. Page now causes the transaction set's XML files to be reread. The TP Service no longer has to be restarted for changes to take effect.

30362 - Access Violation Exceptions occurring intermittently have been eliminated.

30341 - When a connection is added, modified, or deleted using the Connection Manager, any .NET application, including the dotNetTester, no longer needs to be restarted to gain knowledge of the changes.

30407 - getCurrentScreen no longer returns name of screen with "||" at the end

30410 - Improved socket error handling between TP client and server

30411 - Time stamps have been added to Windows trace files

30413 - Cannot define more than 1 pool using the Connection Manager

30416 - Changed config. page options to display in seconds instead of milliseconds

30417 - Sessions will not be set to HOST_DOWN or RECOVERING if service is stopping.

30418 - Corrected occasional "Unexpected error occurred" when starting/stopping service.

30421 - The runTransaction function now returns an error if it uses a RESET command which fails.

30422 - The TPConnector.dll library for the .NET TP Client now provides only those functions documented in the Programmer's Guide.

New in version 4.1.3

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If one session in a transaction set becomes HOST_DOWN, all sessions in that transaction set are set to HOST_DOWN. This prevents long timeouts on the reserve and runTransaction functions.

Multiple connection pools are NOT supported. Only one pool, which can contain multiple connections, is recognized by the Connection Manager. For .NET clients using the Connection Manager to provide failover support, 2 new API calls were added:

initializeFailover() - Must be invoked when the client application is started. This starts the failover monitor for the application.

setFailoverRetryInterval(minutes) - Used to change the default retry interval of 10 minutes. The retry interval is the frequency the failover monitor checks the availability of all connections.

A .NET tester is delivered with the TP Client for testing TP functions from the .NET environment. Microsoft's .NET Framework 1.1 must be installed to use the tester, and it cannot be used when SSL is enabled.

Fixed in version 4.1.3

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E-mail notification triggers regarding % of sessions in recovery were removed. Now only 1 email is sent when one or more sessions become HOST_DOWN within a transaction set.

When the log level is DEBUG, input field name validation can result in a return code of -105 (Invalid Field Name) to runTransaction. If the log level is not set to DEBUG, input field name validation will not occur.

New in version 4.1.1

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E-mail notification added

The Transaction Processor can now be configured to send an e-mail notification whenever certain conditions or triggers (i.e. failed recovery attempts, n% of sessions are in recovery, host outage, service is starting, and/or service is stopping) are encountered.

30147 - A user name and password is now required to access the Web Configuration and Administration tool.

30173 - New feature added to record in TD format any unrecognized screens that are encountered while running transactions.

Fixed in version 4.1.1

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30276 - Improved response time for reserve.

New in version 4.1

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Support for exchanging XML documents using https (SSL)

A host setting can now be configured to use SSL when sending/receiving XML documents. A means for testing the connection to the host is provided which allows the administrator to view and accept a certificate received from a secure host.

Client API Support For Web Services and XML

Two additional client APIs have been added - WS connector which provides access to the TP functions through a web service and XML connector which provides access to the TP functions through specially formed XML documents sent over HTTP. These are in addition to the existing VXML, Java, and .NET connectors.

Ability to configure the client connection

A Connection Manager was added to allow for the configuration of the client (API). Configuration options include, but are not limited to IP Address and Port of the Transaction Processor Service. (See also "Support for secure client" and "Failover support added")

Support for secure client

The client (API) can be configured in the Connection Manager to use a secure (SSL) connection whenever communicating with the Transaction Processor Service.

Failover support added

The client (API) can be configured in the Connection Manager to automatically switch over to a secondary Transaction Processor Service if the primary Transaction Processor Service becomes unavailable.
29316 - The connection to the Transaction Processor Service can now be optionally kept open after a release is issued. Additionally, a new instance of the TPConnector is no longer required to issue a reserve after a release has been issued. ***NOTE: Use of the release that does not disconnect is the recommended method to improve performance.***

Fixed in version 4.1

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- 30078 - The XML/HTTP runTransaction function now validates input field names if the log level is set to DEBUG. If an input field name specified when using the addInput function has not been defined (using the Transaction Designer) in the transaction being run, the runTransaction function will return -105, invalid field name.
- 30134 - After the TP service is stopped, the total number of successfully logged out sessions is now reported accurately.
- 30103 - If an XML document transaction refers to a request or response document that has been properly renamed using the TD, the runTransaction function no longer returns -107, Undefined transaction name.
- 30132 - Improved performance when running back-to-back transactions - removed half-second delay.
- 30116 - On UNIX/Linux, running "tptester" when the service has not been started now displays an error message.
- 29895 - If the empty string ("") is specified as a field value to the addInput function, a subsequent runTransaction now returns -106, invalid field value. To clear the contents of a field on a screen, use field value "@F", which can now be sent to any size field.
- 29576 - On UNIX/Linux, can now use session ids 1 - 255.

New in version 4.0

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Support for exchanging XML documents with HTTP hosts

Transaction Processor version 4 includes support for XML transactions (exchanging XML documents) over an HTTP transport. These XML documents are created using Transaction Designer 4. These XML transactions, to HTTP servers, can be run simultaneously with 3270 and 5250 transactions (which can be created using Transaction Designer 3.2).

Ability to configure up to 10 macro values per session

The Web Configuration tool now supports configuration of up to 10 macro values per session. The previous limit was 4 macro values per session. Limit was expanded based on customer feedback. See the "Define Keyboard Macros" section of the Administration Guide.

Ability to start, stop, activate, and deactivate one or more sessions

The Web Administration tool now supports the ability to "stop" sessions, which, in addition to taking the session out of the session pool, causes the logout transaction to be run (not applicable for XML transactions).

The ability to start the session again is also available. This is different from "deactivate" in that deactivating the session takes it out of the pool, but does not otherwise affect the state of the session between the Transaction Processor and the TN host or HTTP server. See the "Session Management" section of the Administration Guide.

The Web Administration tool has been enhanced so that the "deactivate" and "activate" as well as the new "stop" and "start" can be performed on a range of sessions. Previously sessions could only be deactivated one at a time. See the "Session Management" section of the Administration Guide. Session status table now displays host name and transport type

Web Administration tool, with the addition of a new transport type, now displays the name and type of the connection associated with each session. For example, if a 5250 connection named "Cleo_AS400" is used by session #2 and this connection type is TN (for TN5250 or TN3270), the session status table has a new column "Host Server" that will show "Cleo_AS400-TN". Similarly, if an HTTP connection named "XMLServer" is used by session #3, the session status table displays "XMLServer-HTTP". See the "Managing Sessions" section of the Administration Guide.

Screens captured for debug purposes now appended to a file per session

The screen capture feature of the Transaction Processor has been enhanced to use a separate file for each session. Also, the files are appended to so that if multiple screens are captured no data is lost. Previously, all of the active sessions shared a single file for capturing any incoming screens, and the file was overwritten rather than appended to. See the "Appendix B:Trouble Shooting" section in the Administration Guide. Use TD version 3.2 to specify the CAPTURE action for a screen - this tells the TP to write the contents of the screen to the specified file.

Fixed in version 4.0

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29806 - Improved the performance on Linux Enterprise Server 3 and 4. Times to run a transaction have decreased by as much as 90%.

Known Problems - Transaction Processor Version 4.0 and later

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30452 - The configured "timeout" value is not properly honored by the TP when a transaction times out due to an unexpected screen. That is, it takes twice the configured "timeout" value for the TP to return an error when an unexpected screen is received from the host. If the application issues the keepSession function before running the transaction, the "timeout" value is properly honored.

30423 - The value (time in minutes) passed to setFailoverRetryInterval is not validated. If an application passes an invalid integer for the retry time interval, exceptions can result. It is recommended that a value between 1 and 30 be used. The default is 10.

29706 - If a transaction is defined to consist entirely of "ANY" screens, and it is run successfully, getCurrentScreen may return UNRECOGNIZED instead of the name of the current screen (defined to be "ANY"), and the getBaseScreen returns UNRECOGNIZED instead of indicating it is defined to be an "ANY" screen. UNRECOGNIZED is returned only when the possible

screens that could arrive during the transaction have never had identifiers set elsewhere in the transaction set.

WORKAROUND: If a name other than UNRECOGNIZED must be returned for an "ANY" screen, define a "catch-all" transaction that contains screens with identifiers having the same contents as the expected screens that could be encountered. This "catch-all" transaction does not need to be executed, but it does need to be published.

29673 - Settings displayed on Config Page do not always reflect the most recently saved settings. This may be due to incorrect cache settings in the browser.

WORKAROUND: Set the browser to always look for the most current page. Ex. In Internet Explorer, configure the following: Tools | Internet Options | Temporary Internet Files | Settings | Check for newer versions of stored pages | Every visit to the page

29568 - On UNIX/Linux, using a space character in the host setting name causes tn3270 emulators to not start.

29562 - On UNIX/Linux, cannot configure a specific LU name with lower case characters.

28937 - Transactions could fail to run if the same host settings are not used as when the screens were recorded using the Transaction Designer. For example, if TN3270E was specified when running the recorder to capture screens, then it must also be specified when the Configurator is used to specify host settings for the transaction processor.

20136 - Only the model 2 screen size (24 x 80) is currently supported. Models 3-5 are not supported in this release.