Transcode Manager 2.1

System Requirements

Operating system: Windows 7, Windows 2008 Server, 32-bit or 64-bit versions

Operating system for a Mac (Transcode Engine only): Mac OSX 10.8 or 10.9.

For systems which will run Kayak Engines or the Kayak Workflow Designer:

- A 64-bit OS with a minimum of 6 GB of RAM is **strongly** recommended.
- For Windows 2008 Server the Desktop Experience must be installed on systems which will run the Kayak Workflow Designer.
- For Windows 2008 Server set the Processor Scheduling to "Programs" for good encoding performance.

Transcode Manager Server system: A multi-core CPU and/or faster CPU is recommended for Transcode Manager when you expect a high throughput of files (more than 4 source files per minute), or with many Transcode Engines (resources) to manage (more than 10).

For normal operation do not install Transcode Engine software on the same system as the Transcode Manager Server system (for performance reasons).

Transcode host systems: The speed of the transcode tasks will be directly affected by the speed/number of the host system's CPUs.

UAC (user account control) for Windows 7 and Server 2008
Disable the Windows UAC (user account control) before installing the software. Keep the UAC off when using the software.

Licensing for Version 2

YOU MUST REGISTER YOUR PRODUCT TO OBTAIN YOUR LICENSE.

The Transcode Manager 2 Server uses the Digital Rapids License Server for authorization. You must obtain a Digital Rapids Hasp before you will be able to use the License Server.

Kayak Transcode Engines also use the Digital Rapids License Server for authorization.

Register your product using the Hasp ID to obtain your License Package.

Stream Transcode Engines will continue to use system-based license files or hasps. Contact Digital Rapids Support for information about your Stream Transcode Engine licensing.

When you are upgrading from TM version 2.0 to 2.1:
- You must obtain an updated license package to enable some of the new features.
- As well as upgrading all TM components you must also upgrade your License Server software to License Server version 2.2 in order to use TM 2.1.
- You must load new/updated Kayak Plugins.

Installation / Upgrade Notes

Uninstall previous versions of the License Server and TM:

Uninstall the earlier License Sever version before installing the upgraded version 2.2. Plug in your License Server Hasp (if it is not already plugged in) before you install the License Server software.

You must uninstall any previously installed TM version prior to running the installer for the updated version. (To uninstall use Control Panel > Programs and Features.) Upgrade all TM components (server, agent, console) to the same version.

Known uninstall issue: If you are uninstalling Transcode Manager on a system which has the Console installed, on some systems you may see a "Warning 1910" message telling you that the shortcut cannot be removed. If this occurs you can click ok and safely ignore the warning. (This issue was introduced with a Microsoft update.)

Database Upgrade: Transcode Manager 2.1 uses a revised database schema. This new schema provides more efficient handling of large numbers of assets, to enable it to handle the data from larger transcode farms. The new schema **is not backwards compatible** with earlier versions.

PLEASE BACKUP THE EXISTING DATABASE BEFORE UPGRADING.

If the same database will be used (e.g. Postgres 9.2 both before and after the upgrade):
DO NOT uninstall/re-install the existing database. The TM settings stored in the database will automatically be migrated by the installer to new database tables which use the new schema. Historical job records will NOT be migrated; all historical job records will be deleted automatically by the installer.

If you are changing to a new database as part of your upgrade:
Database Settings Migration has replaced the Data Migration feature. This function migrates TM settings stored in the database (e.g., watch folder settings, group settings, etc.) but not historical job data.

Using Database Settings Migration:
- DO NOT uninstall the source database before the data migration.
- Backup the source database before the data migration.
- Before data migration:
  (a) When upgrading from TM 1.x, stop the DRC Media Manager Server service.
  (b) When upgrading from TM 2.x, stop the DRC Transcode Manager Server service.
  (If you are also upgrading the TM Server, this service may already be stopped.)

Importing Kayak Plugins from a remote repository:
The Transcode Manager Configuration Wizard now has an option to "Import from Repo". If you select this option the default remote repository URL is https://drc-support.digital-rapids.com/kayakrepo, the Digital Rapids Public Repository. When you click the Connect button you will be asked to provide a User Name and Password. The current user name is **drckayak** and the password is **kayak**.

After you connect, select the Remote partition you want to import. For Transcode Manager version 2.1.0 this should be the "Kayak Component Release – 2013-12" partition.

The plugins will be imported to your local Repo's **default** partition. You cannot select another local partition for the import. If you want to use another partition for the newly imported plugins, after the plugins have been imported to the default partition on your local Repo you can do a local sync with your new local partition and the default local partition.

Pushing Plugins from a Repo Partition to Kayak Engines:
Before a Kayak Engine can run it must acquire the Kayak Plugins from the Repository. By default this is
not set to happen automatically. To push plugins from a Repo partition to an Agent:

- Launch the Transcode Manager Console and connect to the Transcode Manager Server.

- On the Agent's tab set the number of Kayak Resources that you want to run on each Agent system by selecting the Agent system and then clicking the "Add Kayak Resources" button.

- On the Groups tab create a New Group (or groups), assign the Repo Partition you want that group to use, and then add the resources that will be used by that group.

- On the Agent's tab select the Agent systems require Kayak Plugins. In the right hand button bar click the "Update Kayak Plugins" button.

- If you would like this to happen automatically in future, then enable the "Periodic Plugins Update" option. This will trigger a check for updated plugins approximately every 5 minutes, and it will initiate a "plugin push" if newer versions are found. However, be aware that this means that plugins that are updated in the Repo will automatically be sent to ***ALL*** Agent systems, and these newer plugins will then be used by all jobs that are run using those plugins.

Note that Kayak Plugins must also be acquired by any system that is running the Kayak Workflow Designer from the Console.

If you will be using QuickTime source files with your Kayak Blueprints then you must install the latest QuickTime player on the Kayak Engine host systems.

Kayak Plugins for Mac OSX Transcode Engines:
Currently Mac OSX Transcode Engines can only be used for ProRes encoding. Only a few plugins are required for ProRes encoding on Mac Transcode Engines. A separate Mac partition should be created for use by the groups that include these Engines and this partition needs to include the following Plugins:

- Common Components   [generic]
- CommonLanguage   [Mac_OS_X]
- CommonMedia   [Mac_OS_X]
- Kayak Server WS Client Plugin [Mac_OS_X]
- KayakCore   [Mac_OS_X]
- KayakDesigner   [generic]
- ProRes Encoder   [Mac_OS_X]
- Remote Graph Execution   [generic]

Firewalls:
Recommended: Turn firewalls off on systems that are being used for Transcode Manager Server and Engines. If this is not possible, then please refer to the Network Ports section of the Transcode Manager User's Guide for a full list of the ports that are used by Transcode Manager services.

Note that some antivirus software blocks the ports that are used by Transcode Manager. Issues have been reported when using ESST Nod32, and other antivirus software may have the same issue. This is not an issue when using Microsoft Security Essentials.

For full installation instructions read the
Transcode Manager User's Guide.

Transcode Manager Change History

Transcode Manager 2.0.2.b32 to 2.1.0.b18

When upgrading as well as upgrading all TM components (server, agent, console) you must upgrade your License Server software to License Server version 2.2. You must also load new/updated Kayak Plugins.

ProRes Encoding on a Mac Engine: Mac Engines can be added to a Transcoding Group to support ProRes encoding. ProRes encoding requires two Engines, a Windows engine (for decoding and pre-processing) and a Mac engine (for ProRes encoding, including wrapping in MOV). ProRes formats supported are 8 and 10-bit 4444, 422 HQ, 422, 422 LT, and 422 Proxy; audio can be up to 32 mono-channel PCM audio tracks.

Media File Inspection: If the media file inspection fails, it will generate an alert, but it will no longer fail the job. For jobs that fail the media file inspection but that still run, the job progress bar and estimated duration will not be displayed for that job.

Server Managed Files: Added a new feature to Find/Replace the specified text for the Label and Full Path.

The dialog that warns you that your Maintenance is about to expire (or that it has expired) now has a check box to enable "Please do not show this warning again". This will only turn off the warning on the local system (the system currently running the TM Console).

Kayak Repo Server and Browser: Updated to version 2 of the Repo. This version allows a single copy of a plugin to be referenced by more than one partition, making the overall storage needs lower when using multiple partitions. However, version 2 is not compatible with version 1. Once the new Repo has been installed, new partitions will need to be created and plugins will need to be imported. Version 1 stored plugins in C:\ProgramData\Digital Rapids\KayakPluginsRepoServer. This folder can be deleted once version 2 has been installed.

The Configuration Wizard now gives you an option to import Kayak Plugins from a remote repository. By default the remote repository URL is the Digital Rapids Public Repo.

Database "Settings Migration": The old "Data Migration" feature has been replaced with a "Settings Migration" feature. The new feature only migrates the TM settings that were stored in the database (such as watch folders, groups, etc.) and does not migrate historical job data.

Database Schema update: Transcode Manager 2.1 uses a revised database schema. This new schema provides more efficient handling of large numbers of assets, to enable it to handle the data from larger transcode farms. The new schema is not backwards compatible with earlier versions.

Database and the Configuration Wizard: Added a Test button to this page, so the user can verify the database's JDBC URL, Username and Password can be used to connect to the database.

The License Server has been upgraded to version 2.2. This version provides improved handling of persistent jobs when using a redundant License Server and Transcode Manager Server configuration.

A new Server Preference has been added: File Inspection Exclude List. Normally file types that are not identified by the File Inspection as video or audio files are not added to the transcode request that is sent to the Kayak Engine. The files types that are on the File Inspection Exclude List will be added to the transcode request even when they are NOT video or audio files. This allows file types such as scc files and xml files to be used as source files even though they are not video or audio files.

The time that jobs take to start before they are considered "stalled" can be configured. This change was made to accommodate jobs that take more than a minute to start. This timeout can be configured in the C:\ProgramData\Digital Rapids\Transcode Manager\conf\global.custom.properties file, by adding following line (with the timeout in seconds): mm.default.resource.task.timeout.seconds=60
NOTE: In previous versions of TM the configuration file was found in a different location and the timeout setting used a different property, so if you configured this previously you will need to configure it again.

The "Move To" function will now work correctly for Smooth Streaming and DASH workflows (which use one level of subfolders in the output). However, it still does not work correctly for HLS (which uses two levels of subfolders in the output).

Transcode Manager 2.0.1.b27 to 2.0.2.b32

TM Server database improvements were made so that many simultaneous tasks will not cause the database to backup (which could eventually lead to a server crash).

Made changes to the file inspection stage of a Kayak Engine job to accommodate some DirectShow file sources.

An updated version of the License Server is available, version 2.1.0.21. This version does not require the hasp to be installed prior to installing the license server software, and the license server service will continue to run without a hasp, it just will not load a license package until a hasp is present.

Transcode Manager 2.0.0.b72 to 2.0.1.b27

If you are upgrading from version 2.0.0 to 2.0.1 you must obtain an updated license package.
As well as upgrading all TM components you must also upgrade your License Server software to License Server version 2.1. You must also load some new/updated Kayak Plugins when you upgrade to TM 2.0.1.

In TM 2.0.1 you can bring unlimited numbers of Kayak Engines online. The number of simultaneous jobs that can be run by the Transcode Manager farm is limited by the "Kayak Transcode Job" feature. The "Kayak Transcode Resource" feature is no longer used. Note that a "Kayak Transcode Job" feature will also be required by the Kayak Workflow Designer when a blueprint is run from the Designer. (However, the Stream Transcode Resource feature will still be used to limit Stream Engines, as previously.)

Added a new function that allows jobs to be submitted to Transcode Manager directly from a Kayak Workflow Designer when using a Transcode Blueprint.

When upgrading from TM 1.x to TM 2.0 the Configuration Wizard's Database Migration tool will now be able to locate the old database in the older /Media Manager/config file location. (Previously it was only looking in the newer /Transcode Manager/config file location, and was unable to find the older database location.)

The time required to complete a media file inspection for Kayak resources has been reduced to a few seconds.

Some file inspections were not returning the file duration. To fix this issue a new Kayak component will be used which will be included in the MediaInfo plugin. When updating to 2.0.1 please add this new plugin to your local Kayak Repo.

Kayak Plugins Repo has been updated and it can now handle larger plugin sync operations.

The Periodic Plugin update option can now be disabled again after it has been enabled.

Repo partitions with long partition names can now be added to Transcode Manager Groups. (Previously this only worked if the partition names were limited to 22 characters.)

The Transcode Manager Console no longer shows milliseconds when reporting a task's Submitted Date.

A Transcode Manager Server alert of "Licensing Unavailable for TM Server" will now show the reason why the license is unavailable (License Revoked or License Expired).

If media file inspection cannot run because it cannot acquire a license, then the task will be re-queued (and the job will not fail).

The Console's Licenses tab now includes an Expiry Date column. If a feature has expired the date will be shown in red text.

If you attempt to install a build which is newer than your maintenance date you will be shown a warning in the Configuration Wizard: You cannot use this version of the TM Server because the date of this version is after your maintenance date expiry. This same warning will be shown in the Console if you attempt to connect to a TM Server when the TM Server build date is newer than your maintenance date.

If a license package is loaded with an updated expiry date the Transcode Manager Server will no longer need to be restarted in order to use the new date.

When using a Primary/Backup TM Server setup, if the Primary Server fails a severe alert will be generated. (Previously the alerts only indicated that the backup server had started.)

When using a Primary/Backup TM Server setup, to allow users to access the Repo on the Backup system when the Primary server is active, a Repo Browser shortcut has been added to the Start menu (in the Digital Rapids > Transcode Manager menu).

The default purge date has been reduced from 180 days to 30 days. Reducing the purge date helps database performance in installations with a large number of transcode resources in use. Note this default value will only be changed for new installs. For an upgrade the value that was set previously will still be used.

The license server/TM interactions have been optimized, so that many more simultaneous requests can be handled. With this optimization larger TM farms will no longer see occasional license denied issues when under heavy load.

The Transcode Manager database was optimized to allow it to handle a larger number of transcode resources. Specifically, when multiple resources were running jobs which produced assets with multiple files, the amount of metadata that was being stored in the Transcode Manager database is now much higher than in previous versions of the product, so without these database optimizations the Transcode Manager Server service could run out of memory and stop.

It is now possible to filter the metadata information stored in the Output Asset using the Blueprint setting "Exclude Metadata For" by specifying the file extension (a space separated list of file extensions, e.g.: jpg mov mp4). This will most commonly be required when creating an Asset which includes numerous thumbnail images. Excluding the metadata for a type of file will reduce the load on the database.

Transcode Manager 1.6.b16 to 2.0.0.b72

Transcode Manager 2.0 supports the new Kayak Engines, while continuing to support Stream Engines.

Transcode Manager 2.0 uses the Digital Rapids License Sever for authorization. You must have a Digital Rapids Hasp in order to use the License Server.

Console Interface Changes:
- The tabs in the interface can be modified (show, hide, move) by right clicking in the tab area. The tabs can be locked, so that they are not moved or closed accidentally.
- Some features that were previously only available as a separate dialog from the menu are now available as part of the tabbed interface.
- The Watch Folders interface has been redesigned so that multiple watch folders can be selected and modified simultaneously.
- The Transcode Tasks interface has been redesigned, combining all of the functionality of the Tasks, Queues and Jobs tab on the Transcode Tasks tab.
- A new Licenses tab has been added to show the status of the licenses that are managed by the Digital Rapids License Server.
- The Kayak Repo Browser can be accessed from the Server menu.
- The Kayak Workflow Designer can be accessed from the Transcode menu.

Supported Database Changes:
- Added support for PostgreSQL 9, and included that database installation and configuration in the Transcode Manager installer.
- Added support for Oracle 11g.
- Added support for Microsoft SQL Server 2008 and 2012.
- Hypersonic is no longer supported. There is a data migration feature included in TM that can migrate data from Hypersonic to one of the other supported databases.
- Database settings can be exported to a file (from the Console use Server > Export Settings) and that file can be imported to restore database settings (from the Console use Server > Import Setttings).

Removed from Transcode Manager Version 2.0:
- The web-start Console is no longer supported, and the Appache Tomcat 6 option has been removed from the installer. When running Transcode Manager 2.0 you can run unlimited regular Console applications.
- The Hypersonic database is no longer supported (see the database section above).
- The previous Asset functionality that was used with Stream Engines is no longer supported. It has been replaced by the newer Kayak Asset functionality.
- Functions that are only used by Broadcast Manager have been removed from the Transcode Manager installer and Console.

Transcode Manager 1.6.b11 to 1.6.b16

On some systems there was an issue when trying to authorize the software using a Hasp. This has been resolved with an update to the drauthkey.dll which is installed by Transcode Manager.

When Transcode Manager starts a task the server waits for 60 seconds for the task's project to start, and if it does not start within this timeout the task fails and it is assigned to another resource. If the project is able to start after that timeout then Transcode Manager will report a "Discovered Running" task, and this can cause problems with failover or with output files overwriting each other (if a non-unique output name was used). This "project start timeout" is now configurable. Setting the timeout to a higher value for very complex projects (with long startup times) or for networks under heavy loads (resulting in slower response times) will eliminate this problem.

To configure the timeout value edit the following file in a text editor such as Notepad:
        C:\Program Files\Digital Rapids\Transcode Manager\conf\global.custom.properties
And add this line:
        mm.resource.task.default.timeout.seconds=

The value is in seconds and the default is 60 seconds. A Transcode Manager server restart is required for the new timeout value to take effect.

Transcode Manager 1.5.b13 to 1.6.b11

The Agent software upgrade feature will now work on systems running Windows XP Professional, Windows 7, Windows 2003 Server and Windows 2008 Server. (Previously it only worked on Windows XP.)

Removed the case sensitivity from Transcode Manager LDAP queries.

Made a change to the Oracle database table so that it no longer is using a reserved word, as that was causing jobs to fail. (This problem was only present in Transcode Manager version 1.5.)

Transcode Manager 1.4.b16 to 1.5.b13

- Dark gray for Console and Agent Monitor is now the default

- Ability to install/uninstall 'other' software packages on the agents using the Console's remote Software Upgrade feature. This is required when installing the Digital Rapids SxS package and the Flux drivers (for Stream 3.3). KNOWN LIMITATIONS:
- The Console's remote Software Upgrade feature only works on systems running Windows XP.
- The initial Flux driver install must be done locally in order to accept the Digital Rapids certificate.

- Asset support. An asset is an xml metadata file along with the media files and other associated files that are reference by the metadata file.

- Added SNMP_Monitoring_in_Media_Manager.pdf file in the Transcode Manager docs folder.

- New feature for FE: Commercial black removal, with duration and threshold parameters as Preferences (requires Stream 3.3 at Transcode Engines)

- Added support for multiple audio files in a Clip (XML and Web Services)
- Added support for audio channel masks (XML and Web Services)

- Added alerts for File Inspection Completed / Failed

- Added support for transcoding Red Camera files

- Auto aspect ratio is now correctly performed for projects that use a group processor/muxer

- Improved the source file inspection process

Transcode Manager 1.4.b14 to 1.4.b16

Bug Fixes
- File inspections were failing (timing out) when a large number of files were dropped into a watch folder simultaneously.
- QC Tasks were resubmitting jobs to the Baton QC server multiple times. (Note this issue did not occur with the Cerify QC server.)

Transcode Manager 1.3.b14 to 1.4.b14

New Features – General

- Transcode Manager communication ports are now constant; this is required for firewall traversal
- Remote upgrades of Stream and Transcode Manager Agent software using Transcode Manager Console
- SNMP Monitoring of the Transcode Manager Server
- TM Console can be launched using a Java Web Start page (that is, use a browser to connect to TM server); to support this feature a Tomcat service has been integrated in the installer
- User security - Added support for locally managed users (in Transcode Manager database) and for LDAP authentication providers; 4 levels of user permission are available; this is an addition to the base-level single username/password available in version 1.3.
- A new "look-and-feel" option is available for the Transcode Manager Console application. The new look is predominantly dark gray (as opposed to the default light gray look). If you would like to use this option please contact Digital Rapids Support.

New Features - Transcode Manager

- Added Quality Control service integration for Transcode Manager; Tektronix Cerify and Interra Systems Baton are the currently supported QC services
- added a server option to control transcode scheduling (default or FIFO Queue)
- Media file inspection is now delegated to Stream on the Agents when Stream 3.0 is installed
- TM scripting hooks now support an additional event type: CUSTOMIZE_PROJECT

Bug Fixes

- Added an Alert for scheduled tasks that never run
- Fixed a slow memory leak in the Console
- Agent and Server will now re-register in case of RMI restart; this will allow the system to recover from a registry restart
- Using a new Stream state for post encode processing; shown in TM UI as "Busy (post-processing)".
- Scheduled jobs purge too early; default changed from 3 to 10 days; also no longer purge a running job
- Improved use of new Stream Kill. Now Fail Resource tasks and Kill encoder take advantage of it.
- RMI registry service is now installed by Transcode Manager too (not just Stream).

Transcode Manager 1.2.b17 to 1.3.b14

New Features - General

- Server/Console security option added. When enabled a Username and Password is required before you can use the Console to connect to the Server. The Config Wizard is used to enable and assign the username and password.
- Resources Tab - Added Resource ID and Device ID as hidden columns for getting the IDs in bulk.
- Added user defined Logos for Resources (mainly used for Live Streaming)
- Added a clock display to the Console application (mainly used for Live Streaming)

New Features - Transcode Manager

- Added Watch Folder source file post move option
- Added the ability to disable/resume a watch folder project
- Added scripting support to Watch Folders. TM FE only.
- After a file has been successfully transcoded, there is now a "move source files" option (prior there was only a "delete source files" option)

Bug Fixes

- Changed the Schedule tab's Pause button to Disable/Resume and added ToolTip
- Improved WatchFolder pre-lock file processing; file must 'stable' for at least 5 seconds (no mod time, or size changes)
- Added resource name to Job failover event, so that when a failover attempt fails you know where it tried.
- Improved MXF file support
- You can now manually type in a schedule date/time for tasks (as opposed to just using arrow keys)
- Source files with a file name that include an ampersand now will successfully transcode.
- Source files with a file name that include UTF-8 coded characters will now successfully transcode (requires Stream 2.5.1.b37 or higher).

Transcode Manager 1.1.b39 to 1.2.b17

New Features

- Agent Monitor - New application installed on agent machines (resources) shows the status of the local system
- Improved handling of server managed files
- Added server side validation ensuring files are readable
- Prevent duplicate filenames (labels) of the same type (e.g., Project)
- Warn about duplicate entries with the same full path
- Warn if not using UNC path. Added Console preference to disable warning.
- Database indexes are now managed by Transcode Manager; external scripts do not need to be applied
- Alert: Added alert for RESOURCE_HUNG
- Alert: Added server warning if message processing queue gets too large
- Can now Open, Copy Path, and Edit from file snapshot dropdowns
- Console Preferences added; support for changing Search Max Hits
- Added ability to automatically purge older records from database; number of days configured in Console (Server/Options); for newly created databases the default is 180 days
- Implemented database garbage collection algorithm
- Added warning windows when you use the Console to connect to a Server that is either unlicensed or has a license that is set to expire on a specific date. If the Server has a license that will expire, the license expiration date will be shown next to server name on main Console window.

- Back border detection and cropping option; individually select border(s) to crop: top, bottom, left, right (FE feature only)
- Auto aspect ratio adjustment feature, including Letterbox/Pillarbox, Crop options (FE feature only)
- Added support of Trimming of individual clips or a clip list through Watch Folder XML file submission and TM WebService API (FE feature only)
- Implemented audio/video format override for Watch Folder and API
- MXF file reading support, requires Stream 2.4.1 b55 (or higher) on TM Server for MXF files
- Added support for Stream 2.4 Group codec. Currently if a group codec profile has multiple outputs the TM console and database will only report on the first output file in the group.
- Alert: Added a "Transcode Task Warning" alert if a transcode task source folder is unreachable.
- Alert: Added alert if transcode tasks are waiting on a group with no online resources
- Alert: Added a "Server Warning" alert if a watch folder is unreachable
- Better transcode task status reporting via task status details field.
- Added server side validation ensuring watch folders are writeable.
- Added "Resubmit File" option to Watch Folder based transcode tasks
- Implemented time estimates of Transcode Task completions even when Queued
- Added ability to add a new Group in Watch Folder edit panel
- Implemented Write-To path for Watch Folders in Console
- Transcode task panel now shows source media information
- Added ability to get the actual Project file from Jobs tab or Transcode Task Details
- Improved transcode time estimates when source duration unknown by using average encode time.

- Improved statistics based on actual job timestamps in case estimated durations are wrong.
- Transcode completion time estimates for Stream project submissions and trimming.
- MP4 file inspection now done through Direct Show instead of QuickTime
- Improved Transcode Task post-processing
- Improved progress reporting of multi-source (clip list) transcodes
- Improved descriptions of transcode codecs
- Added support for transcoding from file sources with no audio (it will be interpreted as silence)

Web Service API

- Implemented Web Service API for Broadcast Manager
- Implemented Web Service API for Transcode Manager
- Documented Web Service API and provided sample code (Visual Studio)

Bug Fixes

- Authorization bits updated; Newer versions of Stream can be used, but the new DRAuthKey.dll must be installed if older versions of Stream are used (2.3 or earlier).
- Increased database connection pool helper threads
- Database connection pool maximum size increased to 8
- Fixed database connection pool settings to eliminate potential Oracle deadlock warnings
- Updated Oracle's JDBC driver from 10.2.0.1 -> 10.2.0.3 for their deadlock fixes
- Config Wizard now automatically increases windows heap space to handle a larger number of encoders (Transcode Engines or Stream Encoders) running on the same system; previous limit was 7 instances on one system.
- Config Wizard - Fixed problem when granting the "Log on as Service Right" to services
- Fixed Agent recovery from a crashed and restarted Stream-server
- Enabled RMI timeouts to handle bad socket closures
- Fixed transcode tasks failing at server startup when a resource appears healthy but agent is not present
- Added error panel when unable to open a file from Console
- Updated hsqldb (Hypersonic) to v1.8.0.8; This should fix a rare hard shutdown database issue

Known Limitations

The Agent Monitor will not be able to communicate with the resources until after you have updated the DRC Services and re-started the services. This is true after any installation or update, including after using the Config Wizard for the initial installation.

If a resource has dual NIC's (Network Interface Controllers) enabled then the resource may display the "failed" status unless the user sets the specific IP address in the config wizard under "system settings".

For Transcode Manager: Do not open the watch folder in Windows Explorer from 2 different machines simultaneously as that will lock some files and prevent transcode tasks from starting/completing.

Each Agent System uses a unique Agent ID that is generated when the DRC Transcode Manager Agent service is run for the first time. If you plan to create a disk image that will be used to setup multiple Agent systems, do NOT create that image after the service has been run, or it will not be unique for each system.

Tasks Fail over with "Discovered Running"
When Transcode Manager starts a task the server waits for 60 seconds for the task's project to start, and if it does not start within this timeout the task fails and it is assigned to another resource. If the project is able to start after that timeout then Transcode Manager will report a "Discovered Running" task.
1. Be sure to set filenames that use an "expression" (for Kayak Engines) or a "system tag" (for Stream Engines) so that files are not overwritten.
2. The "project start timeout" is configurable. Setting the timeout to a higher value for very complex projects (with long startup times) or for networks under heavy loads (resulting in slower response times) will eliminate this problem. For Transcode Manager 2.1, the timeout can be configured in the

> C:\ProgramData\Digital Rapids\Transcode Manager\conf\global.custom.properties file,

by adding following line (with the timeout in seconds, shown as 60 seconds below):

> mm.default.resource.task.timeout.seconds=60

A Transcode Manager server restart is required for the new timeout value to take effect.

NOTE: In previous versions of TM the configuration file was found in a different location and the timeout used a different property, so if you configured this previously you will need to configure it again.

License Server Failover

When the active license server fails at the same time as the primary Transcode Manager server the majority of running Kayak jobs will be unaffected; occasionally a job will failover, and then the failed over job will complete. When this occurs there is a chance that a "discovered running" job will also occur.

When 2 out of 3 license servers are not available the system will not recover immediately when at least one of the license servers comes back on line (for a total of 2 active license servers). In this scenario it will take approximately 7 – 10 minutes for the Transcode Manager Server and agent systems to come back online. If a faster restart time is required then as soon as at least 2 out of 3 license servers are available the Transcode Manager Server system (or systems) and all of the agent systems can be rebooted.

Kayak Engines

As of version 2.0.1 of the software you can bring as many Kayak Engines on line as you like, but the number of simultaneous transcode jobs you will be able to run will be limited by your license. After that limit has been reached additional jobs will be queued (waiting for a license), even though you have Engines which are online and are not busy.

Mac Transcode Engines

You can only run one instance of a ProRes encode component per blueprint. Additional ProRes components will cause the job to fail.

The system drive on the Mac Transcode Engine must have enough free space to temporarily store the entire transcoded output file. (The temp file will be deleted once the job has completed and the file has been moved.)

Stream Engines

The Stream Engine's Commercial Black Removal function is CPU intensive. Transcode Engines running these tasks need to have faster, multi-core CPUs or the task will fail.

When using the Stream Engine's Auto aspect ratio and black border feature of Transcode Manager non-square pixel detection is only supported for the following codecs: WM9, Mpeg2, Mpeg1, Nero Digital AVC, Ateme H.264 (except for output frame adjustment). That is, when the codec being used does not include information about the pixel aspect ratio, then square pixels are assumed.

When using the Stream Engine's auto aspect ratio feature of Transcode Manager, if head and tail files are enabled at the same time, the aspect ratio adjustment is ONLY performed on the source file, and not on the head and tail files. However, the recalculated frame size (from the auto aspect ratio correction) is applied to all clips, including the head and tail clips, which could create a concatenated output with segments with varying aspect ratios between the head, body and tail clips. The only way to avoid this is to create head and tail clips with the same display aspect ratio as the source clips.