



grass valley
A **BELDEN** BRAND

iTX 2.7 Service Pack 1

Integrated Payout

Release Notes

30 September 2015

www.grassvalley.com

Table of Contents

Table of Contents	2
Introducing iTX 2.7	3
Version v2.7 SP1 (build 3.27.1.242)	3
New Features	3
Fixes	6
Version v2.7 (build 3.27.0.143)	11
New Features	11
Improvements	15
Fixes	16
Accessing the iTX Installer	30
iTX user documentation	31
Supported devices and software	31
External playout devices	31
Third-party applications	32
QA environment and platform	32
Operating systems and other software	32
Other hardware and software	33
iTX software anti-virus qualification	33
Contact Us	33
Copyright and Trademark Notice	33

Introducing iTX 2.7

iTX 2.7 is a cumulative, full-version release of the iTX software, in that it contains all the features and fixes from the initial v2.6 release and supplemental releases since. As such, it can be used for new installations, for upgrading from one major and minor release to another, or for updating the same release stream.

Important: The File Processing Pipeline plug-in for video playback within Output Server 2 is now a licensed feature. To use the File Processing Pipeline plug-in for video playback within Output Server 2, its license credentials must be included on the iTX software key (dongle).

Version v2.7 SP1 (build 3.27.1.242)

New Features

ITX-4131: UMP Socket Disconnect

The UMP driver has been updated so that it polls the SCTE30 and SCTE104 sockets to check for a graceful shutdown of the UMP.

If the UMP shuts down, Output server 2 will become unavailable.

ITX-4118: Incorrect logging of UMP Alive response

Resolved an issue where UMP was logging the incorrect response to a SCTE30/SCTE104 AliveRequest.

ITX-3999: Output Server 2 (UMP) - Cancel Flash button not working

On Output Server 2 channels using the UMP plugin, the Cancel Flash button would not respond.

This issue has been resolved.

ITX-3980: Flag MediaCache Service as unavailable if Cache Share is unavailable

MediaCache Service will now be marked as unavailable if the Cache Share is unavailable.

ITX-3716: UMP Timeout

When using Output Server 2 with the UMP driver, items will fail if a UMP_play_status_data() message has not been received within 5 seconds of the on-air time.

ITX-3715: Caching whilst encoding

iTX now has the ability to cache media that is encoding to the playout server.

ITX-3403: UMP: Modifications to Splice Pre-Roll Adjustment & Activation Time Calculations

This ticket resolves two issues relating the UMP Splicing:

- Previously, the UMP Splice Pre-Roll Adjustment could be positive or negative and affected the activation time of the output splice message.

Now, in a pass through scenario outside of the avail window, this value is not applied to the outgoing message.

- The UMP Splice Latency value is used to account for the latency between the two devices, so the command can be processed without being rejected for being late. This value also affects the pre-roll along side the AS processing, which ensures the timing associated with the command is accurate. However, this value was not being applied outside of the avail window.

Now, in a pass through scenario outside of the avail window, this value is applied to the outgoing message.

ITX-3345: UMP support for long form content synchronization

When restarting a UMP device, clips that were on air would not always resume at the correct point. This was caused by Harmonic not being able to handle play commands for long form content synchronization.

This issue has been resolved, so that Harmonic no longer rejects play commands for re-synchronization of long form content, starting with an offset start of media.

ITX-3285: MediaUtils can now process logs from multiple Delivery Manager endpoints or MediaWatchers

MediaUtils has been updated so that it can process the logs from multiple Delivery Manager endpoints or instances of MediaWatcher, and consolidate them into a single log file.

In addition, ingesting a MOV file will record logs in the MOVParser.log. If a faulty reference MOV file is ingested, any logs in C:\ITXLogs are zipped ready for analysis.

ITX-3035: Desktop clip preview using FPP now supports buffer level detection and auto pause on frame drop

In iTX Desktop, the clip preview has been enhanced with the following features:

- Play button buffer color codes:

When using FPP for media output, the play button on the clip preview changes color depending on buffering levels:

- If buffering is low (< 10%) due to network congestion or disk access, the play button turns red.
- If buffering is not optimal (between 10% > and < 75%) then the play button turns amber.
- If buffer is healthy (> 75%) then the play button turns green.

Note: It is normal for the button color to change from red to amber to green when a clip is loading or after seeking the clip as it buffers up on input.

- Playback stops on frame drop:

If dropped frames are detected at the screen rendering time (DirectX) or SDI output (if enabled), the playback will automatically stop. The user must then click on the Play button to start playback again.

If the playback automatically stops, the Play button may be red and blinking. This indicates the source is not reading fast enough for realtime playback. During this stage, the user is locked out of the transport commands (e.g. to play or to seek the clip) until the Play button turns to amber or green.

If the playback automatically stops when the buffer level is not red, this indicates that it is taking too much CPU or other resources, which is slowing down the processing of the frames.

ITX-3000: UMP Media Cache Quota Feature

An upper limit (in Gb) can now be specified for the size of the Media Cache. This is done using the "-q" startup parameter, which can be configured with the "Server Controller Configuration" application.

Example usage:

1. In the Server Controller Configuration application, select the Media Cache entry and click the Edit button.
2. Enter the values below, replacing those in [] brackets with the appropriate values:

```
-ui -n [MEDIA-CACHE-INSTANCE] -q 200
```

The new -q value sets the Media Cache quota in Gigabytes, and must be specified as a whole number.

ITX-2497: DM Asset Import layout

This release of iTX introduces a new Desktop layout called DM Asset Import, which has the following features:

- Allows operators to import and rename media from Delivery Manager.
- Underlays the two existing asset panels.
- Introduces a new Desktop component for asset import control called WPFAssetImportControl.cs.
- Available only in 1680x1050 resolution.

Fixes

ITX-4223: Taking out of a live event can cause channel to go off air

A customer site reported that if they did a take out of a live event, around 4-5 seconds after taking into it, sometimes this would cause the channel to go off air.

This issue has been resolved.

ITX-2694: Output Server 1 - Restarting inactive channel causes both channel select indicators to turn red on Live Channel Bypass layout

For Output Server 1 channels, on the Live Channel Bypass layout, if the inactive channel was restarted, both channel select indicators would turn red.

To resolve this issue, inactive channels roll under when they are restarted and the Take buttons on the Live Channel Bypass layout now accurately reflect the status of the channels.

ITX-4132: Purge dialog reports 0 bytes recovered

Following a Media Cache purge, the results dialog would report 0 bytes recovered.

This issue has been resolved for Output Server 2.

ITX-4094: TxPlay2 fails to cue XG events because they were in the past

TxPlay2 could fail to cue XG events if they were in the past.

This issue has been resolved by reducing the time spent in cloning the channel's items.

ITX-4080: Duplicate AddLogo/AddGraphic messages following manual takes

A customer site reported an issue with TxPlay whereby duplicate AddLogo and AddGraphic messages were sent following a manual take.

This issue has been resolved.

ITX-4055: Main channel when to black, while backup channel continued to play

A customer site reported that an operator performed a Take Next into an on-hold item, following a live event that had gone over its dummy duration. However, the on-hold item did not take and instead, the main channel went to black, while the backup channel continued to play.

This was caused because the time to air for in-hold items was being miscalculated, pushing them forward by a few seconds.

This issue has now been resolved, so that the time to air for in-hold items is calculated correctly.

ITX-3925: Output Server 2 sends reference of file for both main and edit channels to MediaCache

A customer site reported that Output Server 2 could send the same reference of files for both main and edit channels to MediaCache, resulting in files being purged by mistake.

This issue has been resolved.

ITX-3782: Daughter assets failing to restore when parent asset location is missing

A customer site reported that some daughter assets that had been manually archived would fail to restore to iTX and the following exception would be displayed: "Cannot get parent for Co-Referenced clip name". This was caused by the asset locations being removed from the parent assets.

This issue has been resolved, so that when a daughter clip (with no parent asset location) is restored using the asset key, it restores without causing an exception error.

ITX-3776: After second restore of an asset, audio/video tracks are lost

If an asset was created through an interchange, then the media was restored from an archive, if the asset was restored while it had an iTX location, its audio/video tracks would be lost.

This issue has been resolved.

ITX-3534: Back-to-back live events using the Hard Wired Router service fail

Back-to-back live events using the Hard Wired Router service could sometimes fail.

This issue has been resolved, so that live events using the Hard Wired Router are processed in the same way as any other router.

ITX-3469: Media Cache Service does not always refresh after a purge

When running Output Server 2 in UMP mode with play from cache enabled, the Media Cache service did not always refresh following a purge. A workaround was to restart the Media Cache service.

This issue has been resolved.

ITX-3468: Media Cache Service loses status of items in Media Keep List on restart

A customer site reported an issue with TXPlay2 not knowing when the Media Cache Service had been restarted.

This issue has been resolved. In addition, the media references are resent following a restart.

ITX-3433: SPG files should not be resized

Previously, the Logo editor in iTX Desktop incorrectly allowed you to resize SPG files, when it should only allow you to move the SPG.

Now, SPGs use the default output resolution and do not get scaled. You can move the SPG and the new coordinates will be respected on playout. As soon as you resize it, it will playout using the default position.

ITX-3411: Output Server 2: 'Slave' 'Slave' mode displayed in iTX Desktop

On an Output Server 2 system, if the TX Edit service (which controls the Edit channel) was restarted, in iTX Desktop a main and backup pair would both be displayed as 'Slave' channels.

This issue has been resolved, so that iTX Desktop control is no longer affected when the Edit channel is restarted.

ITX-3410: TXPlay2/Output Server 2 Health Status

OutputServer2 will be flagged as unavailable if the selected plug-in is in error status.

This in turn will flag TXPlay2 as offline and cause a fail over.

ITX-3406: iTX defaults to using Locator mode after upgrading to v2.7

For the initial release of iTX v2.7, a configuration file was included in the installer that forced iTX to operate in Locator mode. For customer sites that operate using Discovery mode, this configuration prevented the Opus service from starting.

This issue has been resolved, so that customers upgrading to this release will be able to use their existing configuration.

ITX-3388: Color configuration for Time Modes only uses colors for Start Minus mode

The colors of schedule items can be changed through the Desktop Engineering Layout, using the Color Configuration dialog. The colors for Time Mode Value Start Plus, End Plus, Start Minus and End Minus could be configured individually, although only one value would be applied (the one chosen for Time Mode Value Start Minus). In addition, user defined event color configuration options could be created, but not deleted.

To resolve these issues, the color configuration options for the Time Mode values have been combined to one entry in the Color Config dialog called 'Time Mode Value Start/End Minus/Plus' and user defined event color configuration options can now be deleted.

Note: If you are upgrading your iTX system, the previous Time Mode color configuration entries will still appear in Color Config. These can be deleted individually or all together (along with any other custom entries) by clicking the 'Default' button.

ITX-3387: DVE/PIP wipe number not honoured in ITXML schedules

Previously if WipeNumber was specified in an ITXML schedule it was not being honored.

This issue has been resolved.

ITX-3354: Join in Progress color configuration results in corrupted text and colors

A customer site reported that after upgrading from iTX 2.2, the color configuration for Join in Progress events resulted in corrupted text and incorrect colors would be displayed.

This issue has been resolved.

ITX-3353: Time codes in Sintec Service output (Program.txt) are recoded in drop frame

Time codes in the Program.txt file from the Sintec Service were being outputted in drop frame format, not non-drop frame.

The Sintec Service has been updated so that the Program.txt contains frame numbers as per non-drop frame rather than drop frame.

ITX-3325: Content Editor duration value for Vertigo trigger type events is incorrect

On the Channel Control layout, the Content Editor Duration value for Vertigo trigger type events was incorrect. Previously the Content Editor would automatically set the Duration value to 5 seconds when an event was selected, regardless of what the actual duration for that event is in TXPlay.

This issue has been resolved.

ITX-3324: External subtitle events do not track the Start Of Media of their parent event

Prior to a clip being restored from an archive, TXPlay would show the clip in-point in the schedule grid as zero. Once the restore job had completed, this would be updated to reflect the actual in-point and the clip would be shown as ready. However, TXPlay was not updating the schedule information it sends the Softel Swift TX application (via the external subtitle driver) after the restore had completed and the in-point for the clip had been updated. This resulted in subtitles not playing from the proper in-point.

Now, external subtitle events track the Start Of Media value of their parent event, resolving this issue.

ITX-3297: Newly-imported BXF schedules lose extended data

A BXF schedule imported for the first time would lose its extended data. A workaround was to import the schedule again.

This issue has been resolved.

ITX-3280: Audio glitch on grouped audio after coming out of an overrunning live event

If a live event with grouped audio overran for more than 5 minutes, an audio glitch could be heard on subsequent video clips. The longer the live event overran, the more pronounced the glitch became.

The audio glitch was happening due to a timeout error in audio grouping, which has now been resolved.

ITX-3253: Changes made using Gang Control View Editor overwrites changes made by other users

Changes made using the Gang Control View Editor could overwrite changes made by other users or remove control from other users, even if they were not editing the same view.

This issue has been resolved.

ITX-3247: PIP failing when using a still as the secondary background

Using a still as a secondary background Picture in Picture (PIP) event would only work once. After which, subsequent calls using stills as the background would fail.

This issue has been resolved, so that the same secondary background PIP can be used as many times as required.

ITX-3047: Search and Replace - As Run User Data

A new option has been added to System Wide Config in iTX Desktop called 'Retain User Data'. This option controls whether or not the As Run log retains the previous item's user data after performing a search and replace (single or multi item). This option is enabled by default.

If the option is disabled, after a search and replace the user data is cleared for the previous item and all of its child items, so that it will not appear in the As Run log.

ITX-2969: Media Watcher ignores default profile for Asset Source Format on import

A customer site reported that Media Watcher would ignore the default profile for the Asset Source Format and therefore apply the wrong format on import. For example, if the default profile for both HD and SD content was set to '16:9 Pass through', on import HD content would be set to 16:9 and 16:9 SD content would always be set to '4:3 Pass through'.

This was because Media Watcher was checking the width of clips in pixels to determine if it was 16:9 or 4:3. Anything less than 720 pixels wide would always be set to 4:3.

To resolve this issue, Media Watcher now uses analysis results to set asset Source Format when importing clips.

ITX-2963: Router events that are not ready remain in a "New" state

Router items in BXF or ITXML schedules that were not ready would stay in a "New" state indefinitely.

This was caused by a problem importing schedules that used names rather than IDs for the matrix router, source and destination for router events.

This issue has been resolved, so that BXF and ITXML schedules containing router events can use either names or IDs for the matrix router, source and destination.

ITX-2932: Secondary live recordings are short, blank or missing

When doing main and backup secondary live recordings, some recordings would be short, blank or missing altogether.

The cause of this issue was that the Encoder service was not receiving an up to date value of frames. As such, some frames from the event to be recorded were being processed by the Encoder before the ID change detection took place, which caused the recording to fail.

This has been resolved by ensuring that the ID change detection (used to start recording) correctly reads the ID of the event to be recorded.

ITX-2899: Invalid error messages related to secondary recording

Previously, if a manual Take out of a live event was performed, ITX would attempt to stop secondary recording, even if no recording was set on the event. This caused spurious error messages to appear in the log.

This issue has been resolved.

ITX-2827: Secondary items are not skipped during a Join-in-Progress

If there is an active Join-in-Progress (JIP) item and either a manual take is performed or a fixed item goes to air, the JIP functionality (and fixed item functionality) causes items in the schedule to be skipped. However, it was found that secondary items were not being skipped.

This issue has been resolved.

ITX-2509: Vertigo events given wrong UUID in BXF As-Run log

Vertigo events in a BXF schedule carry a UUID. This UUID should appear in the As Run log, but a different UUID was being logged.

The correct UUID is now written into the XG event, resolving this issue.

ITX-1256: Reference MOV and MXF assets rejected if not all tracks are registered

Reference MOV or MXF assets which fail to register path details for all track files in OPUS asset information will now be rejected. This prevents assets with no tracks present from attempting to play out.

If failures are due to networking issues while processing the file, then resubmitting the file will allow the registration to succeed.

ITX-426: As Run logs now include details of failures

When a failover occurs between a master and a slave, there was no indication of the failure in the As Run log.

Now, in the event of a failover, a comment is added to the As Run log stating which channel is now the master.

Version v2.7 (build 3.27.0.143)

New Features

ITX-2822: Warning for possible data loss when playlist is 'Saved as'

When a user clicks 'Save as' on the Schedule Control (found in the Channel Control layout) an optional warning message is displayed if any schedule items contain extended metadata. Extended data is metadata that is stored when a schedule is imported, but will be discarded when the schedule items are saved within iTX.

ITX-2710: Regional channel route back END+ time modes

Live RETURN events from the Split Break plugin were scheduled with an END- time mode with a 0 offset and a 1 second duration. This caused the regional channels to route back to the main region 1 second early and lose the last 1 second of the advert break.

Now, live RETURN event from the Split Break plugin are now scheduled with an END+ time mode.

ITX-2701: The Enhanced VANC plugin now populates the iControl GSM Gateway

The iControl GSM Gateway now passes data from the SCTE104 (enhanced VANC) plugin through to iControl, along with the data from the standard VANC plugin. The presence of SCTE104 data can be seen in the Alarms browser of iControl Navigator for the selected channel.

ITX-2685: Output Server 2 - Custom Aspect Ratio Control (ARC) modes

For Output Server 2 channels, iTX now supports the creation of custom Aspect Ratio Control (ARC) modes, which can be mapped to scheduled item field values within iTX Desktop's Engineering layout.

When creating a custom ARC, you can alter the following properties for both the input and the output picture:

- Aspect ratio (4:3 or 16:9)
- Vertical size (0 - 100%)
- Horizontal size (0 - 100%)
- Tilt position (range determined by the vertical size)
- Pan position (range determined by the horizontal size)

The user interface includes real-time previews of both the input and the output pictures, which shows the effect of changing the values.

Once saved, custom ARC modes are then available to all channels within the same iTX domain.

ITX-2580: Output Server 2 now supports 1080p50 and 1080p59 formats

Output Server 2 can now be configured to use the following display formats:

- 1080p50 for the 50hz framerate family
- 1080p59 for the 60hz framerate family

ITX-2560: Output Server 2 - Support for 23.98 Hz and 24.00 Hz frame rate family clips at 1080p or 1080psf

iTX systems operating with Output Server 2 can now be set to the following frame rate families in I/O Device Controller:

- 23.98 Hz
- 24.00 Hz

This allows the following resolutions to be selected in Output Server 2's configuration user interface:

- 1080p 23.98 Hz
- 1080psf 23.98 Hz
- 1080p 24.00 Hz
- 1080pst 24.00 Hz

Note: 50 Hz clips can play on playout servers set to both 23.98 Hz and 24 Hz, 23.98psf clips can play on playout servers set to 24 Hz, and 24psf clips can play on playout servers set to 23.98 Hz

ITX-2539: Output Server 2 - Horizontal/vertical output timing offset can be configured for each output

The Horizontal/Vertical output timing offset can now be configured for each output on the SDI I/O card. This adjustment is performed from within the user interface for the I/O Device Controller service.

ITX-2288: Introducing the Baton QC Service

This release of iTX introduces the new Baton QC Service. This service uses iTX workflows to integrate with the Interra Baton Automated File-based QC Solution to analyze media assets for the purposes of quality control.

Baton uses different test plans for different video formats, for example MOV, MPEG, GXF, LXF, MXF SD and MXF HD, to determine what to analyze. iTX workflows can then trigger the Baton test plans in the following ways:

- On media import, via a Delivery Manager post media import workflow
- Manually, via a Manual Baton QC Action button on the Asset layout of iTX Desktop
- Using media rules on ingest recording (or any other non-Delivery Manager methods of ingest)

The results of a media analysis job can be seen on the asset's Events tab and as reports attached to the Asset as PDF and XML files.

Note:

- The Baton license is required to use the Baton QC Service.

ITX-2231: Delivery Manager CIFS end point has been enhanced to support the import of audio files

Delivery Manager's CIFS end point driver has been enhanced to support the import of audio files. On import Delivery Manager will now also extract the audio metadata from the file including the Music Tags and Bitrates.

No extra configuration is required if an existing CIFS end point is available.

ITX-2220: Output Server 2 - Support for playout servers with dual Corvid LP SDI I/O cards

Output Server 2 now supports playout servers with two Corvid LP SDI I/O cards (such as the first generation Dual Channel iTX Appliance), which allows for dual channel and dual live playout.

As part of this enhancement, TXPlay 2 Config now includes two new playout types:

- Corvid LP + Corvid LP, Dual Channel
- Corvid LP + Corvid LP, Dual Live

The I/O Device Controller's Engineering panel also now includes input and output schematics for playout servers equipped with two Corvid LPs.

ITX-1864: Multi-language subtitle support in BXF traffic schedules

For external subtitles it is now possible to specify which languages should be played in the BXF traffic schedule using macro parameter strings. The first string should be "Language" and the second should be a list of language identifiers, separated by a pipe sign (e.g. "ENG|FRA" for English and French).

Note:

- The 'Use Dedicated Softel driver' option must be checked in TXPlay Config.
- The language option string depends on the external subtitle device and the language definitions it accepts. The languages entered into the string must match the definition on the external subtitle device.

ITX-947: PinPoint pre-filter to restrict channel schedule searches to the current channel

To assist operators to load the correct schedules for the selected channel, a global configuration option has been added to the Channel Config pop-up layout called 'Restrict Asset Search by Channel'.

When this option is enabled, the channel name is added as a pre-filter when loading schedules or segments via the following components:

- The Content Selector for schedules or segments
- The Schedule Management component.

The option to filter by Channel is also available in PinPoint for all Schedule and Segment Asset searches.

ITX-737: Output Server 2 now supports dual live inputs

Output Server 2 now supports dual Live inputs to a single playout server with a single output. This provides the following functionality:

- Switching between back-to-back live events using the Live plugin
- Live-to-live cross fade transitions
- Picture-in-Picture (PiP) effects using two live sources
- Two live inputs can be routed to XG Inside
- Within ITX Desktop, the two live inputs appear on a single channel as program A and program B (PGM A and PGM B on the timeline)

Dual Live can be used on playout servers equipped with the following models of SDI I/O card:

- AJA Corvid 44
- AJA Corvid 88
- Dual AJA Corvid 1 LPs

ITX-713: Delivery Manager Register In Place Endpoint

This release introduces a new system for migrating from a legacy iTXv1.4 system to an iTX 2.x system.

Because the iTX 1.x and iTX 2.x databases differ in structure, it is not possible for customers to simply upgrade to iTX 2.x. A new Delivery Manager endpoint driver called "iTXV1Driver" has been introduced that can perform "register in place" actions between v1.4 and the latest v2.x databases. This means as video and subtitle assets are added to, updated on or deleted from the iTX v1.4 system, the corresponding metadata is added, updated or deleted on an iTX v2.4 system, running in parallel. The media itself remains on a shared media store and so does not need to be transferred, as each database has its own metadata record. The new iTXV1 endpoint can be selected from the Delivery Manager Config.

By using Delivery Manager, the iTXV1 endpoint is able to take advantage of bespoke workflows to manage the metadata transfer and deletion. Users are also able to manually trigger the database synchronization, which ensures all of your existing metadata is migrated to the iTX v2.4 system. This synchronization is done in batches, as not to impact system performance and the process repeats until all of the asset metadata has been migrated. After that, asset metadata additions, updates and deletions are migrated to the iTX v2.4 system as they are performed on the v1.4 system.

Note: At this time the endpoint supports only video and subtitle metadata synchronization.

Improvements

ITX-2496: Delivery Manager asset segmentaion rules

Previously, Delivery Manager automatically re-segmented assets on import using business rules, however, it has become apparent that it is not possible to standardize the model for segment recombination. As such, Delivery Manager has been updated to import assets into iTX using the segmentation rules defined by the format sheets (or equivalent metadata source) on the external delivery device.

As part of this development, for MassTech endpoints, Delivery Manager no longer uses MassTech's "Sundance" segmentation model and instead uses the "Native" model of segmentation. This allows Delivery Manager to treat CatchBlue devices in the same way as the other delivery services.

ITX-2365: Output Server 2 - Picture in Picture (PIP) event creation

On Output Server 2 channels, it was possible to create Picture In Picture (PIP) events by dragging and dropping a primary video event on to a secondary item in the schedule grid. Once these PIPs went to air they could not be removed.

Following feedback from customers, iTX has been updated to disable this method of creating PIPs. If PIPs are required they can still be created using the Event Editor.

ITX-2201: Vantage Job Service - Standard workflow Job Types

The following Job Types have been added to the iTX installer for the Vantage Job Service:

- Vantage Transcode - This job type takes an asset, runs a Vantage Transcode workflow and outputs the transcoded file.
- Vantage Import - This job type takes an asset with an external location and imports the media into the iTX media store, optionally performing transcode jobs in the process.
- Vantage Render - This job type takes a shotlist asset (created in SmartClient) and renders it to a single media file. If the shotlist contains mixed formats or mixed resolution media, then the Vantage Job Service will issue child transcode jobs to normalize the source media.

ITX-2200: Updates to the Vantage Job Service installation and configuration

The installation and configuration of the Vantage Job Service has been updated with the following improvements:

- Standard iTX functionality for 'Save' and 'Close' has been added. The Save button will now flash when changes have been made to the configuration and will only save the current configuration.
- A 'Connection Test' button has been added to check if the provided IP address and Port number are valid.
- The 'Default Store' field can be populated with a list of stores based on what is gathered from the Opus database.
- The 'Default Format' field is populated with list of supported formats
- The fields in the 'Vantage Default Workflows Section' can be populated with workflow names gathered from Vantage Server. Once configured and connected these default to the following new standard Vantage process workflows:
 - Vantage transcode workflow
 - Vantage import workflow
 - Vantage render workflow

Note:

- The Vantage license is required to use the Vantage Job Service.

ITX-1948: Schedule Grid navigation using Home and End buttons

In iTX Desktop, Home and End buttons have been added to the scroll bars of the Schedule Grid in all of its various locations (e.g. Channel Control, iTX MC, Live Channel Bypass). These buttons provide the ability to jump to the top or bottom of the respective window, for improved navigation.

In addition, the Home and End keys can also be used to jump to the top or bottom of whichever window currently has focus (i.e. the one the mouse pointer is hovering over).

Fixes

ITX-3323: Locator service connection and communication issues

The following issues were reported with the iTX Location Service:

- If TXPlay was restarted, the previous instance remained in the Locator Service. This meant iTX Desktop could try to connect to a service that no longer existed. A workaround was to restart the Locator Service.
- iTX Desktop could sometimes fail to connect to a Locator Service, until a backup service had been restarted.
- Location sharing between multiple locators (4) previously used a timestamp (incrementing number) to determine which location was the latest version. However, it was possible for a location to move locators and have its timestamp reset. This caused the other locators to ignore the updates until the location's timestamp reached the value that they had stored.

These issues have now been resolved. As part of this update, changes have been made to the location details passed between locators during synchronization to align the last update time of the location relative to the local locator service. This allows iTX to determine which updates are the most recent.

ITX-3237: Kona 3G SDI I/O cards can fail to play 1080i resolution

Kona 3G SDI I/O cards could fail to play at the 1080i resolution. A workaround was to power down the playout server for a short period of time to allow the card to fully reset.

This issue has been resolved.

ITX-3227: iTX Desktop memory issue - automation grid control grayed out

Memory usage issues in the desktop cause a variety of symptoms. One of the most common is that the automation grid control becomes flat and grey. In this case a memory leak in the Live CG component caused the memory issue, leaking around 1MB per component when switching between channels. This has been addressed.

ITX-3201: Media Watcher - deleting the Location for a clip causes the original in points of the parent to be used

Previously, when using the Media Watcher Diva plugin, deleting the Location for a clip caused the original in points of the parent to be used.

This issue has been resolved, so that now after a clip has been restored, its in points are preserved and used.

ITX-3155: Default Picture-In-Picture window size

The default window size for Picture-In-Picture (PIP) effects has changed from 100x80 to 480x270, which provides greater scaling at different resolutions.

ITX-3148: Output Server 1 - PIPs are created if the user accidentally drops a primary item onto a secondary item

On Output Server 1 channels, it was possible to create Picture In Picture (PIP) events by dragging and dropping a primary video event on to a secondary item in the schedule grid. Once these PIPs went to air they could not be removed. Following feedback from customers, iTX has been updated to disable this method of creating PIPs. If PIPs are required they can still be created using the Event Editor.

ITX-3134: Logos, animations or CGs are not removed if more than 4095 of these asset types have played out

iTX was unable to remove logos, animations or CGs once more than 4095 of these items had played out. The only work around was to restart the Output Server service.

This issue has been resolved so that all of these types of asset clear correctly, regardless of how many have played out.

ITX-3122: Output Server 1 - Sub-channel not returning to main if logo present

On Output Server 1 channels, if a sub-channel item had a secondary item attached (such as a logo), this prevented the sub-channel from returning back to the main channel output when the clip finished.

This issue is now resolved, so that sub-channels with secondary items attached now return to the main channel, as expected.

ITX-3079: Output Server 1 - Items on sub channel #8 do not play out

On Output Server 1 channels, on channels with 8 sub-channels, the 8th sub-channel would not play items out and would error instead.

This issue has been resolved, so that sub-channel #8 now plays out as expected.

ITX-3076: Output Server 1 - Items on regional channels do not appear on the correct timeline track

On Output Server 1 channels with regional sub-channels, each sub channel has a dedicated track on the timeline, but items on a sub channel would not show up on the corresponding sub-channel track. For example, if an item was scheduled to play out on sub channel #1 it would not appear on timeline track "Output:1"

Regional sub-channels now appear on the correct timeline track, resolving this issue.

ITX-2986: Timeout when uploading BXF schedules via the web service

Uploads of large BXF schedules via the web service could timeout before completion.

To resolve this issue, an infinite time out has been added to the BXF message service, which stops the application timing out.

ITX-2979: Output Server 1 - CGs with empty text layers and an animated background cause exception errors

On Output Server 1 channels, schedules containing CG with one empty text layer and an animated background would cause exception errors.

This issue has been resolved, so that CGs with empty text layers and an animated background no longer cause exception errors.

ITX-2939: PinPoint does not allow Metadata filtering in searches

In Pinpoint on iTX Desktop, the Metadata Type filter did not allow searches for assets by metadata type.

This issue has been resolved.

ITX-2875: iTX Master Control secondaries do not obey items in hold.

A customer site reported that secondary events for iTX Master Control could trigger when their primary events were still in manual hold.

To resolve this issue, the Master Control driver now checks that a secondary item is not in hold prior to advancing from 'Cued' to 'Commit'.

ITX-2863: Output Server 2 - Fixed live events freeze if an overrun coincides with a junction

On Output Server 2 channels, if a fixed clip overran into the "commit" window of a fixed live event, the next clip would be skipped and the live would playout. However, if the overrun coincided with the junction between the clips, the live would then freeze.

This issue has been resolved, so that live events now play out as expected.

ITX-2845: Audio assignment errors after restoring from archive

A customer site reported an audio assignment issue when restoring a clip from an archive to a Xor media store. The audio would be mapped correctly on the archive, but the mapping data corrupted on the media store after restoring.

This issue has been resolved.

ITX-2841: Selected Delivery Manager endpoints cannot be manually paused and resumed

Selecting "Pause Selected" or "Resume Selected" from the Delivery Manager Active Endpoints dialog tab did not pause or resume the selected endpoints.

This issue has been resolved, so that endpoints can now be paused and resumed from Delivery Manager's Active Endpoints dialog.

ITX-2807: Output Server 1 - Schedule dates are corrupted when importing OSCs via a bespoke Process Schedule workflow

A customer site reported that when importing multiple OSC schedules into an Output Server 1 channel using a bespoke version of the process schedule workflow, the date for events could be changed to a year in the distant future.

A threading conflict was causing times to get corrupted when importing OSC schedules via the ScheduleProcessingService. This issue has been resolved.

ITX-2770: Items with no ITX location do not display a title in Schedule Grid

If a user dragged a video clip that only had a Diva location from the Video Clip palette into the Schedule Grid, the Title column remained empty until the clip had been restored to the local Isilon or cached to iTX playout server.

To resolve this issue, the titles for non-ITX video clips is now displayed in the Schedule Grid when they are added.

ITX-2769: Zero duration Vertigo events should execute via Trigger mode

Trigger-based Vertigo XG items do not contain any duration information, whilst duration-based scheduling of Vertigo XG events do contain the duration of the event sent to the Vertigo box. As such, Vertigo events scheduled with zero duration were failed, when they should really be set to Trigger mode.

To resolve this issue, iTX has been updated to check for zero timecodes in drop frame and non-drop frame formats so that zero durations are set to Trigger mode.

ITX-2764: Output Server 2 - Fixed option on the Content Selector not respected

On Output Server 2 channels, when an item was added to the schedule from the Content Selector panel with Fixed enabled, the Fixed option would be ignored on playout channels. On edit channels the Fixed option was respected, but the item would be given a start time of 00:00:00:00.

To resolve this issue, Output Server 2 now respects the Fixed option on playout channels and does not erroneously alter the start time for items on edit channels.

ITX-2759: Missing Materials Manager allows duplicate restore jobs for the same asset

Missing Materials Manager could create two jobs for restoring media for the same asset. This could happen if there were two endpoints capable of fulfilling the job. One job was created for the first endpoint, but if that endpoint paused for a period of time, Missing Materials Manager would create a second job for the second endpoint. Both jobs would be processed.

At best this resulted in duplicated effort, but if the second job failed, this could lead to the iTX location being removed from the clip, so that it had to be restored for a third time (during which time, the clip would fail to play).

To resolve this issue, there have been the following updates:

1. Missing Materials Manager: When checking an active job, it first checks that any assigned Delivery Manager endpoint is still available. If it has become unavailable and the material is also present on a different Delivery Manager endpoint, a second job is started. After the second job is started the first job is cancelled.
2. Delivery Manager now only removes the location if the location's URI matches the target location for the Delivery Manager job. If a second job, on a different Delivery Manager endpoint, has been created for restoring the media, Delivery Manager does not delete the location.
3. Delivery Manager Diva driver: On startup, any job in the "Cancelling" state has the copied media file(s) deleted. Earlier attempts to delete these files (e.g. via Media Watcher when the iTX store location was deleted / updated) fail as the delete request would have been for files as shown in the asset's location, however their name on disk is the same name as in the Diva archive, which is different.

ITX-2753: Warning icons do not always open in the Channel Control Schedule Grid

When clicking on warning icons in the Channel Control Schedule Grid, the Warnings dialog did not always appear.

This issue was being caused by the way the "hot spot" for the warning icon was being detected when the column had been resized and has now been resolved.

ITX-2752: Channel icons inconsistently show when changing views

Channel icons in the channel selector randomly failed to appear when changing views.

This issue has now been resolved. In addition, the channel icons also update at run-time if the channel's configuration is changed from another instance of iTX Desktop. When a channel goes offline its icon is hidden.

ITX-2721: Delivery Manager not de-archiving reference files

Delivery Manager would fail to de-archive reference files if the path was the same as an existing folder structure.

Existing media is now restored to the specified file path, resolving this issue.

ITX-2711: Output Server 1 - AFD data for PAL SD channels is corrupted on line 11

A customer site reported that AFD data for their PAL SD channels running on Output Server 1 was getting corrupted on line 11. They were using SMPTE RP186: VLI Data insertion for AFD data in SDI to send the AFD data out.

This AFD data corruption issue has been resolved.

ITX-2709: ITX does not get language tags from non-reference MXF files

ITX would not get language tags from non-reference MXF files under the following circumstances:

- When the clip was imported via Media Watcher
- When the clip was imported via Delivery Manager using MediaUtil Analysis
- When the clip was imported via Delivery Manager using FPP Analysis

To resolve the first two scenarios, iTX now uses Media Info to get the language tags for the audio tracks.

The third scenario, "When the clip was imported via Deliver Manger (using FPP analysis)", requires extended development to resolve and will be addressed in a future release.

ITX-2604: Edits to an on-air schedule during the edit lock out window are saved to the schedule file

A customer site reported that changes made to an on-air schedule were saved to the schedule file in the database, even if they were rejected by the schedule loaded in the on-air Schedule Grid.

To resolve this issue, if a schedule is changed (e.g. in an edit channel) and a new item is added to the lockout zone, the on-air channel will accept the updated schedule, but display a warning in the Schedule Grid to say an attempt was made to edit the schedule within the lockout window and that this edit has been rejected.

ITX-2577: Output Server 2 - Advance schedule buttons on Schedule Grid crash TXPlay2

On Output Server 2 channels, the +1 and +24 advance schedule buttons on the Schedule Grid caused TXPlay2 to terminate.

This issue has been resolved.

ITX-2509: Vertigo events given wrong UUID in BXF As-Run log

Vertigo events in a BXF schedule carry a UUID. This UUID should appear in the As Run log, but a different UUID was being logged.

The correct UUID is now written into the XG event, resolving this issue.

ITX-2502: Output Server 1 - VisionMixer sending frames to XG without resizing them

A customer site reported that on Output Server 1, VisionMixer was sending frames to XG which were not resized. This was because VisionMixer had lost the resizer parameters for the frames in question.

This issue has been resolved by ensuring VisionMixer preserves resizer parameters.

ITX-2465: SGL FlashNet Archive jobs reporting 0% complete

When archiving a clip to an SGL FlashNet Archive, sometimes the Job Reports Progress would show 0% complete for the entire duration of the job, then immediately jump to complete.

To resolve this issue, the job progress percentage now reflects the actual progress.

ITX-2461: Output Server 2 does not allow "clip mode" to be used

When migrating from Output Server 1 to Output Server 2, the "clip mode" SD audio configuration cannot be used and instead a more specific audio configuration is required. This is because Output Server 2 does not allow clip mode to be used, however many sites in North America use clip mode by default. In addition, the standard IMX template provided in ITX for growing files only allows users to assign a group to one track, not the sub-channels, which does not suit sites with non-standard grouping for Stereo, 5.1, DVS and SAP.

To support sites that require this kind of configuration, we have added a new non-standard MXF D-10 Encode Profile to iTX. Encode profiles are imported after installing or upgrading iTX.

ITX-2435: Output Server 1 - Live CG trigger button does not work unless logos and captions are cleared first

On Output Server 1 channels, if you used the Channel Control + Gang Control Dual layout, it was not possible to switch on a Live CG if logos or captions were playing out.

This issue has been resolved.

ITX-2428: Output Server 1 - Using selected item control to skip a break causes the channel to go off air.

On an Output Server 1 channel, if an operator performed a Take on the selected item while the item was in hold, it would not be skipped, causing iTX to attempt to re-cue it. This sometimes resulted in a "Media event failed to cue" error, which could cause the off air slide to be broadcast. The reason channel's might go off air was actually that iTX did not have enough time to uncue the manually held event before it had to cue the next item.

To resolve this issue, hitting Take on a held item now skips the held item and takes the next available item instead.

ITX-2427: Workflow will not issue a new proxy job if one already exists

Workflow would not issue a new proxy job if one already existed, even if that job had a status of Completed.

To resolve this issue, a checkbox called 'Ignore Completed' has been added to the CheckForGenerateProxyJob activity in Workflow Designer. When this checkbox is checked, workflow will issue new jobs even when a completed job exists.

ITX-2380: Output Server 1 - Master and slave go out of sync when a Take Next is performed on the Live Channel Bypass layout

On an Output Server 1 channel, in the Live Channel Bypass layout, if you had Auto Take enabled and switched to a live channel that was in hold, the master and slave channels could go out of sync with each other by 0.5 - 1 second.

This synchronization issue did not occur on manual Takes from the Live Channel Bypass, and has now been resolved when Auto Take is enabled.

ITX-2317: Output Server 1 - Secondary record on sequences fails on Take Next

If a Take Next was done on a sequence with a secondary recording set on it, the recording frequently failed on the backup/slave channel.

Recordings on backup/slave channels now do not fail when a Take Next is performed on a sequence with a secondary recording, resolving this issue.

ITX-2316: BXF import fails when importing multiple files concurrently

The Schedule Processing Service could fail to import BXF schedule files if multiple files were imported at once. The symptoms were that the response file for one or more BXF schedule would contain the error "An item with the same key has already been added".

To resolve this issue, the Schedule Processing Service has been updated to handle multiple simultaneous BXF file imports.

ITX-2312: Simulcast channel fails to reload schedule following Output Server 2 restart

On playout servers running Output Server 2, if the Server Controller for a simulcast channel was shut down and a change was made to the schedule on the leader channel (e.g. a clip was added to or deleted from the schedule), when the Server Controller was restarted, the change would not be retrospectively applied to the simulcast schedule.

To resolve this issue, if a Server Controller for a simulcast channel is shut down and a change is made to the schedule on the leader channel, the change is now automatically applied to the Simulcast schedule when the Server Controller is restarted.

ITX-2296: Time service can stop providing NTP service under heavy load

When large numbers of client applications continuously send NTP requests to the Time Service and not all wait for their responses, the Time Service will receive Windows Sockets "10054" error codes, as per <http://support.microsoft.com/en-gb/kb/263823>. On occasion these error codes would be returned in a way that prevented the Time Service from processing any more NTP requests. An indication of this issue was the logging error message:

"ERROR: 'An existing connection was forcibly closed by the remote host' occurred starting async receive operation."

To resolve this issue, in cases where this occurs, the Time Service NTP server will now be stopped and restarted. The corresponding error messages will now be logged as:

"ERROR: '10054: An existing connection was forcibly closed by the remote host' occurred starting async receive operation - retrying.

NTP Server stopped...

NTP Server started..."

ITX-2275: Output Server 1 - Flash frames when PiP clips are being resized by the enhanced resizer

On an Output Server 1 channel, iTXPlayer would produce a flash frame when PiP clips were being resized by the enhanced resizer. There are two resizers in the code and when switching between resizers, the last frame of the last clip in the resizer would be retained. This would appear as a flash frame during the next use of that resizer.

This issue has been resolved by flushing the resizer frame buffer between each use.

ITX-2270: Output Server 1 - CGs used as basic tickers based on an external data source do not dynamically update

A customer site using iTX's internal CGs to create basic tickers from an external file on an Output Server 1 channel reported that when the linked file was updated, the on-air ticker was not being updated. The only way to update the on-air ticker was to re-cue it.

To resolve this issue, for file-based CGs, iTX now monitors the text file and if a change is detected, iTX updates the on-air CG accordingly.

ITX-2266: Output Server 2 - Taking an uncued item causes playlist to freeze

A customer site reported that on an Output Server 2 channel, playlists could freeze if an item was cued, then an uncued item was taken.

This was caused by the way Output Server 2 was assigning cue slots to items, which could be seen in the Filter Graph of Vy GUI App.

Output Server 2's cue slot usage has been improved to prevent this issue from occurring.

ITX-2189: CG Editor pop-up layout is too small for its contents on 720p displays

On 720p layouts, the CG Editor pop-up layout was too small for its contents, causing components such as name fields to be cropped.

To resolve this issue, the size of the CG Editor pop-up layout has been corrected for 720p layouts.

ITX-2177: Output Server 1 - Audio can go out of sync with the video on soft segmented clips

A customer site reported an issue with audio going out of sync with the video on soft segmented clips on an Output Server 1 channel. The further the operator cued into the media, the more the audio was out of sync.

To resolve this issue, audio synchronisation has been updated for soft segmented clips.

ITX-2147: Output Server 1 - Schedule Restore causes on-air logo to be removed

Sometimes on Output Server 1 channels, when a Schedule Restore/Store Schedule was performed, the on-air logo would be removed.

This issue has been resolved, so the logo will continue to stay on-air for its designated duration.

ITX-2145: In and out points lost following an archive restore

A customer site reported that after an archive restore from a XenData archive, in and out points were lost and the default values were restored.

To resolve this issue, in and out points that were set when the archive was created are now preserved during archive restores.

ITX-2142: Transition duration in Live Event Editor panel does not respect the 'Show DF as Non-DF' option

The transition duration in the Live Event Editor panel was being displayed in seconds and milliseconds (drop frame format) when the Global Config option 'Show DF as Non-DF' was enabled.

This issue has now been resolved, so the Live Event Editor panel displays the duration in seconds and frames (non-drop frame format) if the 'Show DF as Non-DF' option is enabled.

ITX-2126: iTX Desktop hangs trying to update an item in the Video Clip Event Editor

A customer site reported issues with iTX Desktop hanging in the Event Editor panel whilst trying to update a Video Clip item that was being displayed.

This was caused by iTX Desktop trying to retrieve licensing information over the network.

To resolve this issue, the channel licensing information is now loaded and cached in iTX Desktop as soon as the channel connects.

ITX-2121: Output Server 1 - An extra frame is played out at the end of soft partitioned program clips going into junction breaks

A customer site reported noticing on an Output Server 1 channel, an extra frame was played out at the end of soft partitioned program clips going into junction breaks. It was most visible if the content did not have a fade to black effect going into junction break. If there was a sequence break, a frame from next sequence (which is part of the same program) could sometimes be seen.

The frame seeking mechanism for soft partition clips has been updated to eliminate extra frames and resolve this issue.

ITX-2097: iTX Desktop exceptions on start up and shut down

If the Live event plugin configuration (in Engineering>Channel Config) listed a Live event that no longer existed (because it had been deleted), when the iTX Desktop tried to access that channel it would cause an exception and shut down. If the affected channel was the default channel on the Channel Control layout, the iTX Desktop would start up and immediately close.

This issue has been resolved so that the missing Live event is ignored and the channel loads without it.

ITX-2089: Output Server 1 - In 1080i Live event, Line 9 ANC data is being lost except EIA-608/708.

Previously, if VCHIP was applied to a 1080i Live event, Output Server 1 would clear all VANC data on line 9 except CC 608/708.

This functionality has been enhanced, so that all the ANC data found on line 9 that existed before CC 608/708 data will be preserved.

ITX-2062: Output Server 1 fails to create secondary recording

On Output Server 1, when performing a secondary recording of an existing asset, the underlying media would be intermittently deleted.

This issue has now been resolved, so that the underlying media is preserved.

ITX-2051: Output Server 1 restarts when alternating between MOV and MXF payout

When alternating between MOV and MXF payout, Output Server 1 could sometimes restart.

This issue was being caused by a Windows handle leak and has now been resolved.

ITX-2049: Output Server 1 - Vertigo XG Inside events take a few seconds to clear following manual take

On an Output Server 1 channel, for live events with a VertigoXG Inside ticker, if you performed a manual take out of the event, the XG ticker stayed on-air several seconds longer than it should or had to be cleared manually.

To resolve this issue, Vertigo XG secondary events are now immediately cleared when a manual take is issued (truncating their duration) and the subsequent event does not contain a Vertigo XG event.

ITX-2022: External logos to downstream LGK devices not clearing

A customer site reported that external logos using a downstream LGK device were not clearing properly. This was happening on Duration type logos with a delay.

To resolve this issue, external logos with a set time, duration and automation delay will now play out correctly, providing the 'Delay (ms)' field in the External Logo plugin configuration is set to a negative value (otherwise it will be ignored and logos will go to air at their original start time).

ITX-1998: CG text not displaying in the Event Editor and not going to air if the template contained two text fields

If the CG Template contained two text fields but the OSC schedule only specified one of them, the text would not display in the Event Editor and would not go to air. This was because if a schedule did not provide text for a CG caption template text layer, the caption would send a null string to the text renderer, resulting in an exception that prevented the text being displayed.

This issue has been resolved, so that the available text that is displayed.

ITX-1996: CG template animations imported via OSC not honouring In and Out offset

CGs imported via OSC can use settings in the Schedule Import Configuration panel (on the Colossus plug-in) to override the animation of the underlying template. However the Colossus plugin did not allow the user to set In and Out offsets for the animation.

To provide this functionality, the Colossus plugin mapping can now be overridden by specifying the name of the actual CG template (rather than a mapping name). In which case, the original template animation settings will not get overridden by the plugin.

ITX-1992: 'Delete all' can be mistaken for the singular 'Delete' option and results in an immediate save

In iTX Desktop, the 'Delete All' option on the Schedule Grid context menu can be mistaken for the singular 'Delete' option and when clicked it results in an immediate save to the (now empty) schedule.

A new 'Undo Delete All' option has been added to the Schedule Grid context menu. This option is only available after a 'Delete All' has been performed and will disappear if any additional changes are made to the schedule. The warning text for the Delete All option has also been updated to be more explicit about the action being performed and consequences of continuing.

ITX-1987: Output Server 1 - Join-In-Progress (JIP) items were starting at incorrect points

On an Output Server 1 channel, TXPlay wrongly calculated how far to cut into the item you are joining after a JIP operation.

The calculation has been corrected and JIP items now start at the correct in-point.

ITX-1958: Output Server 1 - Caption data is being stripped out during live events

On an Output Server 1 channel, during Join-In-Progress testing a customer site noticed that 608 and 708 caption data was being stripped from the incoming live source.

This issue has been resolved. Now, for 1080i Live events, Output Server 1 CC-608/708 detection has been enhanced to scan all of VANC line 9, instead of just checking the first ANC data packet.

ITX-1952: DIVA restores to media store file paths too long in both Diva Job Provider and when using Delivery Manager workflow

This ticket covers the following related issues:

- The Diva Job Provider uses the file name of the media as the name of the sub-folder in which the file is stored (e.g. a file called "grassvalley_nab2015_promo_reel.mxf" would be in a sub-folder called "grassvalley_nab2015_promo_reel". However, when importing files, this sub-folder creation would be duplicated, which could result in the path being longer than expected (e.g. grassvalley_nab2015_promo_reel/grassvalley_nab2015_promo_reel/grassvalley_nab2015_promo_reel.mxf". This could cause errors that relate to the file path character limits discussed later in this issue.

This issue did not affect Media Watcher, as it does not use sub-folders with the same name as the file they contain.

To resolve this issue, the Diva Job Provider no longer duplicates the sub-folder containing the media.

- Diva has a File Root Path Limit which supports a maximum of 128 characters, but ITX uses the Windows file path limit of 255 characters. Because of this, when a file with a long path (more than 128 characters) was restored, the path would be erroneously truncated, leading to Delivery Manager thinking it was a different file and causing an error. This issue affected both DivaJobProvider and DeliveryManager.

To resolve this issue, Delivery Manager now checks for file paths that may be affected by the Diva File Root Path Limit and recreates the long path name as required.

- The maximum name length used by the Diva Job Provider and MediaWatcher meant that when restoring a file, MediaWatcher was checking the file name length, but wrongly setting the maximum value to 60 characters instead of 64 (the value set by the Asset).

MediaWatcher now sets the maximum value to 64 characters.

ITX-1913: As-Run information is written to As-Run schedule using channel name only

iTX used to write As-Run information to As-Run schedules using the channel name only. e.g. If you were running a schedule named "Sched1" on a channel called "MyChannel" the As-Run information was written to the database in an As-Run schedule named "MyChannel_AsRun"

Now if you run a schedule named "Sched1" on a channel called "MyChannel" the As-Run information is written to the database in an As-Run schedule named "MyChannel_Sched1_AsRun"

Also, As-Run information and empty As-Run schedules that are older than 45 days will be deleted.

ITX-1837: VizRT events do not appear in the playlist

Viz RT events that were present in BXF imported schedules did not appear when the playlist was appended to the channel.

This issue has been resolved so that Viz RT events in imported BXF schedules now appear when appended to the current schedule.

ITX-1800: Output Server 1 - XG graphics remain on-air following a schedule restore

A customer site reported that on an Output Server 1 channel, following a schedule restore, XG graphics that are scheduled to end remained on-air.

This issue has been resolved, so that following a schedule restore XG graphics end as scheduled.

ITX-1789: Output Server 2 - CG text not present on the slave channel when using CG secondary events scheduled via ITXML

A customer site reported an issue on Output Server 2 where CG Text was not present on the backup channel when using CG secondary events that had been imported using an ITXML schedule.

To resolve this issue, when the fields/text for CG events have been specified in the imported .itxml file, those values now are used instead of the values in the asset.

ITX-1647: Output Server 1 - On-air clips with a secondary event cause News Flash to produce an exception when a Take is performed

On an Output Server 1 channel, when using either of the two News Flash methods (Manual Return or Auto Return), when the operator clicked Take on the current on-air clip, an exception error was produced under the following circumstances:

- If the operator had inserted into the on-air schedule by clicking the Prepare button
and
- the current on-air clip had a secondary event.

This issue has been resolved.

ITX-1646: Output Server 1 - Dissolve transitions cause glitches/stuttering when the transition is from a clip into a live event

On an Output Server 1 channel, audio/video could stutter when a Dissolve transition was applied between a clip and a live event.

This would happen if the primary and second events did not have equal audio channels/streams. For example, a primary event (with 4 stereo streams) would wait for audio on its secondary streams from clip (with 1 stereo stream), hence the audio would be delayed, causing the stuttering.

To resolve this issue, iTX will now only mix the streams that are available. For channels with mismatching audio, the available audio is played out as is.

ITX-1565: Vantage Job Service is not using 'Max Jobs' configuration parameter

After changing the value of the Vantage Job Service's 'Max Job' parameter and then restarting the service, the new value would not be picked up.

This issue has been resolved so that this parameter is properly read from the configuration file and used in the service.

ITX-1564: Vantage Job Service - Shotlist metadata is being lost

By default, Vantage sets start timecodes to the in-point of the first shot, not zero. Metadata is recorded from zero, so metadata from before the in-point of the first shot was being lost.

To resolve this issue, metadata from before the in-point is preserved.

ITX-1562: SmartClient allows duplicate metadata keywords to be added to a clip

SmartClient was incorrectly allowing the same metadata keyword to be added to a clip.

Now, when editing metadata keywords, if a keyword or phrase has already been selected it is grayed out in the drop down menu. Child menus of a selected phrase are still available, but a grayed out item cannot be selected.

ITX-1554: Shotlist inherited metadata cannot be edited

During the shotlist creation process, users may need to send the shotlist clip for annotation. The metadata from the source clip is inherited by the shotlist, however the shotlist cannot be annotated.

This issue has been resolved so that shotlist inherited metadata can now be edited.

ITX-1553: Cache Service does not watch for asset changes in other domains

A customer site with a multi-domain environment, reported the Cache Service on the second domain was not watching for asset changes in the first domain.

The Cache Service has been updated and is now checking the other domains. The Media Cache Dearchive option is no longer used in Multi-Domain environments.

ITX-1552: Metadata searches on dates fails if the date is inside summer time

If a date was applied to a clip, a metadata search on that date would not be successful if the date was inside summer time daylight saving months.

This issue has been resolved so that now metadata searches are matched correctly, regardless of daylight saving time.

ITX-1531: Output Server 1 - Secondary records on slave channels often fail when taken manually

On an Output Server 1 channel, secondary live records were often failing on slave channels. This was because the schedule was not being saved immediately after a record was set.

To resolve this issue, the schedule is now automatically saved when a record is set, so that the slave channel will respond when taken manually and perform the secondary record.

ITX-1510: BXF As Run logs missing extended data

A customer site discovered an issue with events reporting that they had extended As Run data, when in fact they did not. This caused the BXF As Run plugin to drop the associated records, resulting in missing values in the As Run logs.

This issue has been resolved by ensuring when extended data is retrieved it is checked to make sure it is not null, before dropping the record. This ensures BXF As Run logs always include the correct information about extended data.

ITX-1326: Channel goes to black during a cut transition

A customer site reported that if a live event overran into a manual event, the channel would go into Hold. While the channel was in Hold, a fixed event that followed the manual event would slip to PGM B on the Timeline and progress towards the "Now Line". If an operator hit Take on the manual event, at the transition between it and the fixed event there would be a period of black that would go to air.

The channel was going to black because of the gap (500ms) between the two clips when overriding an on-air item.

To resolve this issue, this gap has been reduced to 1 frame.

ITX-1056: Track "XG Keyer 0" shows up on timeline as track "V-Chip"

If you clicked on 'Select Tracks' on the timeline and added track 'XG Keyer 0' to the 'Selected Tracks' list, then clicked 'OK', the timeline would display the 'V-Chip' track, not 'XG Keyer 0'.

This issue has been resolved, so the timeline now correctly displays the 'XG Keyer 0' track when it is added to the timeline.

ITX-858: Output Server 2 - Enhanced SCTE104 packet does not get inserted if Preroll time >255 ms

On an Output Server 2 channel, when sending SCTE104 packets, if the pre-roll time was more than 255 ms the packet would not be inserted into the output. This was caused by the DTMF Descriptor's limit of 255 10ths of a second, as both splice requests and DTMF Descriptors shared the same input value on the iTX Desktop interface.

The value is now correctly divided by 100, which resolves the issue between the two increments. The value for the DTMF Descriptor has also been limited to 255, so a value of 25600 or greater will no longer cause an exception.

No changes have been made to the original splice request preroll value, and this now works without interference from the DTMF Descriptor's value.

ITX-389: Live Channel Switching not expressed in BXF As-Run in a discernible way

The As-Run log created by the BXF plugin creates entries for the 'restore automation' and 'bypass automation' when a channel roll under occurs due to main to live switching. However, the log entries did not include meaningful information that enabled the user to identify these events.

To resolve this issue, fields have been added to the As-Run output log that contain event notes including the Title, User Data (which contains the restore/bypass automation label), and the Event Notes. The Event Type was also changed so that these entries are listed as comments.

Accessing the iTX Installer

The iTX 2.7 software is distributed as an iTX Suite zip file, which must be downloaded onto the machine where you want to install the iTX software modules.

To access the iTX Installer:

1. Copy the official release version of the **iTX Suite** zip file (e.g. ITX Suite 2.7 - Build 4.x.x.xx.zip) to a local drive on the machine you want to install the software on. Never attempt to run the iTX Installer from a network share.

2. Unzip the file.

If the computer security settings prevent you unzipping the file:

- a. Right-click the zip file and select **Properties** from the displayed menu commands. The Properties

window appears.

- b. Select the **General** tab in the Properties window and click **Unblock**.
 - c. Click **OK** to close the Properties window.
3. Once the file is unzipped, open the **iTX Suite v2.7** folder.

The folder contains the Setup.exe file which you use to launch the iTX Installer.

The following two subfolders are also included to support the installation, but require no immediate attention:

- o **Drivers**: contains the required device drivers for the SDI video cards that are used with the iTX Output and Encode servers. You must ensure you are using the correct AJA drivers for the version of the Output Server service you have installed. For more information on installing the Output Server service see the iTX System Administrator Guide.
- o **iTX Install**: contains the iTX installation and iTX system files that are required to manage and run the iTX software.

WARNING: Never use or modify the files in the iTX Install folder, except when instructed by our personnel. Always use the Setup.exe file and iTX software module user interfaces to configure and operate iTX. This minimizes the risk of unintentionally damaging the iTX system.

iTX user documentation

A selection of iTX user documentation (including Release Notes and user guides) is now available on the worldwide web via the Support Portal: <http://www2.grassvalley.com/support/details/product/iTX>

The iTX documentation section is password protected, so you must be logged onto the Support Portal to access the iTX user documentation.

If you do not already have an account, click "**Not a support services member yet?**" and complete the online form. Customer Support will issue a user name and password (normally within 1-2 business days).

NOTE: If you require information about installing the Vertigo XG video rendering software components in an iTX system, see the latest Release Notes for the Vertigo Suite. These are also available via the Grass Valley Support Portal.

Supported devices and software

iTX 2.7 can work with a range of devices, including those listed below.

For more details of which firmware versions are supported, contact our Technical Support Services team.

External playout devices

With the appropriate plug-in licenses, iTX 2.7 supports the following devices for on-air control.

External Logo plug-in

- Grass Valley Imagestore 300, HD and 750 models
- Grass Valley LGK-3901 card in a Densité frame

External Subtitle plug-in

- Screen Polistream v2.4.1.2
- Softel Swift TX M-Series 2.01
- Cavena STU v3.1.7

Clarity plug-in

- Pixel Power Clarity graphics system v7.2.7.8

VizRT plug-in

- VizRT graphics system v2.8

iTX Master Control

- Grass Valley Imagestore 750 , v4.5-012
- Grass Valley Imagestore Modular 3901, v4.8
- Grass Valley iMC-Panel-100, v7.2.10.0_ECO_18578 - 2012_10_16
- Grass Valley iMC-Panel-200, v7.2.10.0_ECO_18578 - 2012_10_16
- Grass Valley iMC-Panel-300, v7.2.10.0_ECO_18578 - 2012_10_16

Vertigo XG plug-in

- Vertigo XG Xmedia Suite v4.8 SP7
- XG Inside Xmedia Suite v4.8 SP7 for Output Server 1
- XG Inside Xmedia Suite v5.0 SP1 for Output Server 2

Routers

iTX 2.7 can work with a range of broadcast routers via the following router controllers.

- Grass Valley NVision NV9000 and NVision 920

It can also control the following routers directly.

- Grass Valley Densité HCO

GPI devices

iTX 2.7 supports the following GPI devices.

- Videoframe: VNODE 8x8; VNODE 16x16; VNODE 32x32
- DNF Universal Switch Panels: USP-8; USP-8A; USP-EM-8; USP-SNMP-8; USP-16; USP-EM-16; USP-SNMP-16

External content stores

iTX v2.7 can work with media files on the following types of external storage system.

Devices	Supported functionality
SGL FlashNet Archive (v6.4.13.003)	Searching, restoring, manual archiving and manual restoring.
Front Porch Digital DIVArchive (v6.5.3.5.0)	Restoring, partial restoring; archiving and deleting of media files.
Viz Ardome	Retrieval of media files.
Suitcase TV archive system	Restoring of media files.
Omneon Server	Retrieval of media files, using FTP.
GVG Profile	Retrieval of media files, using FTP.
Masstech MassStore (v 7.5.3)	Restoring, archiving and deleting of media files.

Third-party applications

Currently, iTX supports ENPS versions 5 and 6. MOS Protocol 2.83 is required.

QA environment and platform

This release of iTX has been qualified by our Quality Assurance team using the following third-party software, hardware and operating systems.

Operating systems and other software

iTX Framework Services

- Microsoft Windows Server 2008 R2

iTX Database

- Microsoft Windows Server 2008 R2 running Microsoft SQL Server 2008 Service Pack 3 (version 10.0.5500)

iTX Output Server

- Microsoft Windows 7 Ultimate SP1 (version 6.1 build 7601) for Grass Valley Playout Appliance 1 Servers
- Microsoft Windows Server 2008 R2 for Grass Valley Playout Appliance 2 Servers

iTX Desktop Client

- Microsoft Windows 7 Ultimate SP1 64 bit edition. (version 6.1 build 7601)
- Microsoft Windows 7 Professional SP1 64-bit Edition

Other hardware and software

Video Playout and Ingest Cards

For output or encode servers running Output Server 1 (Pandora):

- AJA Corvid 1 with Drivers 7.4.0.49 FW 20-01-10
- AJA Kona 3G with Drivers 7.4.0.49 FW 04-07-11

For output or encode servers running Output Server 2:

- AJA Corvid 1 with Drivers 12.1.0.107
- AJA Corvid 44 with Drivers 12.1.0.107
- AJA Corvid 88 with Drivers 12.1.0.107
- AJA Kona 3G with Drivers 12.1.0.107

System Time Code Generation

- Adrienne Time Code Card with drivers 1.0.0.7

Video Router and Router Controller

- Nvision NV8576+ router (software version 14.0.0.11)
- Nvision NV9000 router controller (software 6.2.0.1674)

iTX software anti-virus qualification

This version of the iTX software install package was scanned with Sophos Endpoint Security antivirus software version 10.3 SAV update 10.3.13.276 (virus data date 6/23/2015) and found to contain no currently known viruses.

Contact Us

For technical assistance, contact our international support center at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

Copyright and Trademark Notice

Copyright © 2011- 2015, Grass Valley USA, LLC. All rights reserved.

Belden, Belden Sending All The Right Signals and the Belden logo are trademarks or registered trademarks of Belden Inc. or its affiliated companies in the United States and other jurisdictions. Grass Valley and the trademarks listed below are trademarks or registered trademarks of Grass Valley. Belden Inc., Grass Valley, and other parties may also have trademark rights in other terms used herein. Registered trademarks (®) may have been registered in one or more of the following jurisdictions: Australia, Canada, China, Chile, Colombia, European Union, France, Germany, Hong Kong, Japan, New Zealand, Norway, Peru, Russian Federation, Serbia, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, United Kingdom, United States of America, Venezuela and WIPO.