

Release note for 2.3.3 Release Candidate

Notes

IMPORTANT: All customers must update their btlicense.btl when upgrading to this release, due to the new output licensing system that has been implemented. If you have done this and are still getting an unauthorized system notification, please contact support@blacktrax.ca.

Motive no longer saves .ttp files; all configuration and calibration information are saved to the current session and re-loaded upon next start-up. Configuration and calibration information can be exported into profile XMLs and system calibration CALs for backup and re-loading purposes.

Maximum Residual in Motive now acts as a 'headroom' parameter. Motive will no longer split Stringers when the residual gets too high between cameras, as it now intelligently understands the Stringer's pulsed code as part of the triangulation. When the residual of two cameras exceed the residual set in Motive, the 'bad' camera will automatically contribute less to reconstruction.

Portfolio Manager replaces and improves traditional methods of opening project files. All project files are now opened via the Portfolio Manager, instead of directly opening the .btpj. For existing files, please use the new Import Portfolio option, located in the Portfolio Manager.

Art-Net inputs now start at 0 instead of 1. sACN remains starting at 1.

Beam Collision and Zoom/Iris functions have been reverted to the traditional style of using BTWYG's fixture position as their starting point. This can now be toggled between using BTWYG's position or the calibrated fixture's position for further control over this feature.

The Undo Stack has now been limited to only allow the last 10 steps as selectable at a time. All steps are still viewable, and all steps are still undo/redo-able (in batches of 10).

Apply Options has been removed in this version. 'Send Tracking Information to WYSIWYG' has been added to System Configuration, BTWYG in case BTWYG is not intended to be used.

Trackable Setting's Orientation toggle has been replaced with a new setting in System Configuration, Beacons called 'Process Classic Beacon Orientation'.

For a full list of WYSIWYG R41 Update 1 updates, please refer to WYSIWYG's release notes.

Motive Dongle Date Requirement:

January 4th, 2018

Major changes:

- Additional licensing has been added to limit the number of outputs allowed (all existing systems are set to an unlimited license)
- Motive has been updated to version 2.0 with several major improvements including a new point cloud engine and continuous calibration
- Ability to restrict decimal precision for RTTrPM outputs
- BlackTrax will now ask you to re-assign an RTTrPM output if the NIC is missing
- BTWYG is now based off WYSIWYG R41 Update 1
- Several bug fixes across all three products

Known issues:

- Fullscreen mode does not work correctly with floating widgets

Firmware Package Date:

August 2017

Build Numbers:

BlackTrax: 2.3.3.11317

BTWYG: 2.41.51.208

Motive: 2.0.1.1.38436

Server Version Requirement:

July 2016

Compatible with RTTrP Versions:

6

1.8.3

1.8.7

Features and Fixes:

Bug

- *BlackTrax*
 - *Fixed: BlackTrax would crash if you opened Revert Project and there was a file that was not a .btbak in the Portfolio's Project History folder*
 - *Fixed: Reverting a BlackTrax Project while using a Project that was opened automatically via the 'Open most recent Portfolio' feature would result in BlackTrax saving the Project file in the wrong folder; This would result in save archiving not working, which would eventually lead to Revert Project not working and crash as mentioned above*
 - *Fixed: BlackTrax would get slower and slower the more messages were present in the Messages widget; Messages now auto clears after the 50th message is logged*
 - *Fixed: Fixtures would flash to 100% during Chapter changes between two Chapters that had different Zone settings*
 - *Fixed: Fixtures would fade in and out for Auto Douse and Smooth Pickups based on the Fixture being at 100%, regardless of the console's value (example: a 10 second fade out, with a console value of 50% would only take 5 seconds to complete instead of 10)*
 - *Fixed: Floating widgets would appear overtop Portfolio Manager*

- *Fixed: If BlackTrax attempts to open a corrupted Portfolio, BlackTrax would open into a nonfunctional state; BlackTrax will now report 'Error opening file'*
- *Fixed: Closing a Portfolio didn't fully close the BlackTrax Project*
- *Fixed: BlackTrax would prompt for a save while closing the Main GUI when there was nothing new to save*
- *Fixed: BlackTrax was opening to the last saved view instead of Edit View*
- *Fixed: Portfolios were not being properly linked to their respective files*
- *Fixed: Importing a WYG file using Portfolio Manager would label the WYG file as a BlackTrax Project file instead*
- *Fixed: Fixture Groups were using patch information to ID Fixtures instead of Spot*
- *Fixed: Trackable filter in Live View (Show All, Show By Chapter, etc) would not save its state in the BlackTrax configuration file*
- *Fixed: Small View toggle in Live View would not save state in the BlackTrax configuration file*
- *Fixed: Show by Group in Live View would not always select a group by default*
- *Fixed: In Undo Stack, replace Trackable would not report the Book that the Chapter was in*
- *Fixed: Output Configuration would not restore enabled Rigid Bodies in saved Project files if the file was opened before BTEngine was running/Beacons were present*
- *Fixed: Outputs were not sorted correctly when using a combination of upper and lower case letters*
- *Fixed: CTRL-A would select all Beacons in all tabs in Output Configuration; now only Beacons in the current tab are selected*
- *Fixed: Fixture Calibration would not always update Beacon visible status depending on row selection*
- *Fixed: Fullscreen Mode was not present in the View menu*
- *Fixed: BlackTrax was not installing Motive template files into the Motive directory*
- *Motive*
 - *Fixed: Rare crashes during system calibration*
 - *Fixed: Crash on startup if there was a mouse event*
 - *Fixed: A crash would happen if you removed a subfolder that was set to active*
 - *Fixed: Pressing tab after entering a start play range would crash Motive*
 - *Fixed: Motive would crash if you switch takes while playing back data*
 - *Fixed: Motive would crash if you loaded in a large number of take files*
 - *Fixed: Motive would freeze when you would rapidly toggle the reverse playback button*
 - *Fixed: Issue with a large number of active rays*
 - *Fixed: Possible divide by zero error in the point cloud*
 - *Fixed: Min and Max ray length were not being respected*
 - *Fixed: Application Settings would become blank when loading a ttp file*
 - *Fixed: LED Status for cameras was not being saved/recalled correctly*
 - *Fixed: Scroll wheel would not scroll the camera list in the calibration pane*
 - *Fixed: Distortion grid would not show correctly in reference view*
 - *Fixed: Resetting the ground plane would result in the max residual being reset*

- *Fixed: Setting the ground plane from a recording would not reflect in the 3D space visually*
- *Fixed: Follower Selected and Zoom to Fit Selected was not working in ortho views*
- *Fixed: Save View Image As... was not working correctly for cameras in MJPEG and precision mode*
- *Fixed: Takes that used certain settings in earlier versions of Motive that no longer exist were not loading correctly*
- *Fixed: Multiple pop-ups will appear when dragging in several recorded takes*
- *Fixed: Confirmation for deleting a take file via the Delete key was not taking place*
- *Fixed: Scroll wheel was reversed when scrolling in the timeline*
- *Fixed: Can no longer 'disable' a camera while recording*
- *Fixed: Several small issues with take trimming and re-saving*
- *Fixed: Renaming a take in Windows Explorer would sometimes cause the file not to load in Motive*
- *Fixed: Selecting an empty take while recording would auto-increment the wrong take name*
- *Fixed: Show file location would sometimes open multiple folders*
- *Fixed: Check box state for 'Enable Point Cloud Reconstruction' would be inconsistent when resetting application settings*
- *Fixed: Input monitor in the Sync pane would randomly collapse to nothing*
- *Fixed: Reported build version would be off slightly*
- **BTWYG**
 - *Fixed: Was not possible to visualize more than 24 DMX universes coming from BlackTrax*
 - *Fixed: DWG/DXF Export would produce 'Duplicate Record Name' and fail*
 - *Fixed: Opening exported DWG/DXF files in AutoCAD 2019, AutoCAD would display a Student warning*
 - *Fixed: DMX camera switching wouldn't work if the Shaded View was being updated (fixtures are moving, gobos rotating, etc)*
 - *Fixed: Rotating the isometric view would only use the document origin, and not the user origin if set*
 - *Fixed: Fixed issues where beams would render incorrectly in Shaded View, displaying shadows where there should be none*
 - *Fixed: Animated Smoke would sometimes pause when lighting beams are starting/ending a move*
 - *Fixed: Lighting information in fixture tooltips would be incorrect*
 - *Fixed: Layers could sometimes not be deleted because 'ghost' objects would still be present on the layers*
 - *Fixed: After detaching an object from an Axis in CAD mode, the object could be displayed twice in DESIGN wireframe views*
 - *Fixed: For objects with multiple appearance elements, reflection may be incorrectly ignored*
 - *Fixed: Could not apply Video Subsources to Projectors by pressing OK or Apply*

New Feature

- *BlackTrax*
 - *It is now possible to restrict the precision of an RTTrPM output*
 - *This is found under Advanced in Output Configuration*
 - *By default, we will send 6 decimals of precision (micrometer), but this may be too much information for some third parties, particularly when prediction and smoothing algorithms are used*
 - *You can go down to 2 decimals of precision (centimeter)*
 - *This information is also reflected in the Show Report export as well as the .btoc file*
 - *When a Project is opened on a Server that is missing the saved NICs in Output Configuration (say for example you are opening a file from the Main server on your Backup server), BlackTrax will now ask you what NIC you would like to use for each output*
 - *In addition, when BlackTrax detects an IP change in Windows, Messages will alert you every five minutes to reboot BlackTrax to ensure settings are re-loaded*
- *Motive*
 - *Greatly improved point cloud engine for active markers*
 - *Utilizes the Beacon's pulsed code to help uniquely identify and triangulate a Stringer's location*
 - *Split points are no longer possible as the cameras have a new 'weighing' system to determine location – so long as the Stringer's pulsed code is the same, all cameras will agree that camera **should** be the same point*
 - *Filters more IR noise as the pulsed code is used as part of the triangulation now*
 - *As the pulsed code is used to identify the triangulated stringer, the Residual setting is now used as a 'headroom' parameter*
 - *The greater the Residual, the less emphasis the point cloud will put on a camera that disagrees with the other cameras*
 - *When the active residual becomes too large (approximately 10x the Max Residual) then that camera will no longer contribute to Stringer reconstruction*
 - *Continuous Calibration*
 - *By using the new active point cloud, the system will continuously monitor camera movements and readjust camera calibration accordingly*
 - *This is based on tracking Stringers in the space, which can happen any time during shows or rehearsals*
 - *This allows the system to be calibrated at heights that may be hard to reach with the wand*
 - *Small movements to the cameras can be accounted for (pipe sway, temperature differences day to day, etc)*
 - *The system is not currently capable of re-calibrating cameras if they have been moved dramatically from their current position, or if a new camera has been added to the system; a wanding procedure will still need to take place in these situations*
 - *Status can be monitored in the system log*

- *Continuous Calibration: Evaluating means the system is actively wandering the space using the IR it can see, based on the Max Residual setting*
 - *Once enough samples are collected the system will calibrate the cameras in the background and compare the results to the active calibration; if better it will apply the results to the active system, save the calibration to disk, and report the calibrated residual*
 - *If worse than the active result, it will toss out the calibration and start again*
 - *Max residual is not changed during this process like when wandering*
 - *Two types of Continuous Calibration which can be turned on via Application Settings, Live Reconstruction: Continuous and Continuous + Bumped*
 - **Note:** *It is recommended to leave the cameras in Continuous mode rather than Continuous + Bumped as the later is more aggressive and there is a higher risk of a failed calibration being applied*
 - **Note:** *It is not recommended to leave the system running in Continuous mode while cameras are actively moving, physically moved, or new cameras are added to the system*
 - **Note:** *Please monitor states of Continuous Calibration when enabled; in extremely rare cases due to the above the calibration may return with a failed result that is applied and the user must re-load a previously exported .cal file to restore the calibration*
 - *Active and Passive tracking is now possible at the same time by changing 'Marker Labeling Mode' to 'Active+Passive'*
 - *Found under Application Settings, Live Reconstruction*
 - *Active Marker Labeling has been renamed to 'Active Markers Only'*
 - *Added ability to not persist folders loaded into Motive to save on startup times with large data folders*
- **BTWYG**
 - *New scaling tool in CAD mode allows fast resizing of objects and library items*
 - *Ability to click and drag to resize, scroll using the mouse wheel, or to scale using the command bar by a factor of x (example, typing 2,3,1 will make the object 2x bigger on the X, 3x on the Y, and maintain Z)*
 - *Array tool supports scaling as well*
 - *Selection Sets allows you to group several objects together in CAD mode and select all of them using a Selection Set shortcut (located in the Shortcut bar) – This is the equivalent of Fixture Groups but for objects*
 - *Scattering option has been added to Shaded View to better simulate lighting beams as they deflect and scatter through the air, specifically as they pass by the world camera*
 - *New smoke options*

- *Turbulence allows you to simulate smoke effects with irregular and turbulent flow*
- *Ground Smoke is a new option under Turbulence that simulates smoke and fog effects that stay near the ground (dry ice for example)*
- *NDI support has been added as an option for video input*

Improvement

- *BlackTrax*
 - *Output Configuration will now remember selection when re-opening the widget and during Apply Changes*
 - *Creating a fixture group will now automatically select all Fixtures in that group at the time of creation*
 - *Trackable Groups will now re-size the Live View's drop-down menu depending on name size when Apply Changes is pressed (previously this was limited to the Main GUI rebooting)*
 - *You can now switch between using the calibrated fixture position or the BTWYG fixture position for Beam Collision Zones and Zoom/Iris control*
 - *In a previous release, we made these two features use the calibrated fixture position which although is technically more accurate, results in less consistency between Fixtures, depending on Fixture calibration points taken*
 - *By allowing you to change back to BTWYG's fixture position, you have more control over how Zones and Zoom/Iris features react and have more control over tweaking these results*
 - *By default, both settings are defaulted to using BTWYG's fixture position and both can be found under System Configuration, Fixture Calibration*
 - *Fixture delay now has 1 decimal of precision, so 1.5 seconds is now possible*
 - *Searching for Fixtures has been defaulted to Spot ID in the Library Widget*
 - *When a license check fails while starting up the Main GUI, the 'Open most recent Portfolio' feature is disabled*
 - *Following/Not Following toggle has been removed from the status bar as it was pointless*
 - *Several backend additions for future features*
- *Motive*
 - *Project files (.ttp) have been depreciated in favor of system persistent settings that are automatically saved periodically and when Motive is closed*
 - *This means that when you re-load Motive, it will return to the last used state it was in at the time of closing it*
 - *User settings are now split between the System Calibration file (.cal) and the Profile XML (.xml); both can be exported from the File menu for archivable and backup purposes*
 - *.ttp files from Motive 1.10 or earlier can be loaded into this release, at which point they will be converted into a .xml and .cal file and saved*
 - *It is no longer required to have all cameras be running at the same exposure to enable syncing on the cameras*

- *It is now possible to erase just parts of a camera mask instead of clearing the whole mask; toggle Additive/Subtractive Masking to be able to draw or erase in the existing shapes, or per pixel*
- *Follow selected now remembers what Stringer you have selected*
- *You are no longer able to modify cameras in Edit Mode*
- *Ability to add an additional session folder from the File menu*
- *Additional slower playback speeds have been added when playing back a recording*
- *Further checks are made to prevent entering Edit Mode with no recorded files loaded*
- *Added a frame rate column as an option to the data pane*
- *Improved sorted of fixtures*
- *Hotkey profiles can now be created and toggled between in the Hotkey Manager*
- *Additional hotkeys have been added such as being able to switch between object and video modes of the cameras*
- *Status Log now can be filtered by type*
- *Startup and folder loading speed times have been optimized*
- *Average camera temperature is now reported in the new Status Bar*
- *Additional latency metrics have been added to the new Status Bar*
- *New Notification Area in Motive added and will alert you if Windows is not in High Performance mode in Power Options*
- **BTWYG**
 - *Performance improvements for SketchUp file importing with several textures*
 - *File size improvements for saving uncompressed files that have floorplans in them*
 - *Saving back to a previous version will now be limited to the last four releases of WYSIWYG*
 - *Additional Interfaces has been updated to be able to configure sACN, Art-Net, and RTTrPM inputs directly within BTWYG*
 - *Move tool has been expanded to omit different dimensions (example: entering x,y,10 will move the object to the existing x and y location, but at a height of 10)*
 - *It is now possible to move around isometric view using your mouse wheel; hold CTRL+Mouse Wheel*
 - *Sphere tool has been expanded to support Horizontal, Depth, and Vertical Radius for further shape sizes*
 - *Rotate in Place no longer requires a basepoint selection*
 - *The Distance Tool can now accept coordinates from the Command Line toolbar*
 - *Several improvements to Rigging Point Objects*
 - *New zooming logic for text labels will change to a box when the text becomes too small to read*
 - *Better Mirror Ball beam simulation and performance improvements*
 - *Several library additions*

Design Review

- *BlackTrax*
 - *Licensing system design changes*
 - *Splash Screen will now turn red and display a warning icon and message when a license check fails*
 - *New licensing system added in v2.2.4 has been modified to make use of the splash screen*
 - *Existing licensing system has been upgraded to support the splash screen as well*
 - *Pop up messages will no longer appear for license related issues*
 - *All checkboxes have been updated with a new style and blue hover animation*
 - *Renamed 'Editing' to 'System' in System Configuration*
 - *Unified capitalizations in System Configuration*
 - *Unified spacing and layout between System Configuration tabs*
 - *Updated wording of some Beacon and Frame messages*
 - *Removed copyright years from exe information*
- *Motive*
 - *Re-designed GUI elements*
 - *Application Settings*
 - *Several settings have been shuffled around and a new tab called 'Live Reconstruction' has been added that replaces the Reconstruction Pane*
 - *Data Management Pane*
 - *Easier to read design with several settings moving to the hamburger menu at the top right*
 - *Properties Pane (New)*
 - *Highlights properties of selected object (current take) and allows settings such as reconstruction changes to happen without affecting the live reconstruction settings*
 - *Streaming Pane*
 - *Status Bar*
 - *Status Bar replaces the Timeline Pane*
 - *Actively loaded take is displayed in the status bar*
 - *A new drop-down menu to select various system reporting metrics and clicking one will keep it visible in the status bar; by default active residual is selected*
 - *Graphs Pane*
 - *The graphs section of the Timeline Pane has been replaced with this widget for playback*
 - *About Motive Pane*
 - *Splash Screen*
 - *Alerts of new versions of Motive if connected to the Internet*
 - **Note:** *Please only use specific versions of Motive that are released with BlackTrax to ensure compatibility*
 - *Alerts when dongle is expiring or has expired*
 - **Note:** *This simply means new updates of Motive will not run until you renew your Motive license*

(provided with your BTX Membership) but the current version of Motive will continue to function

- *Active Marker Labeling is now displayed as 'Active' at the top of the 3D View, along a new LIVE/EDIT status*
- *Selection object is now highlighted in 3D View on the bottom right*
- *Simplified camera modes by reducing the number of MJPEG options and making a new sub menu option and removing segment mode in the Camera Pane*
- *Simplified context menus in Camera Pane*
- *Default filename for exported camera images is now more descriptive*
- *Reorganized the view menu and added additional toolbar icons*
- *Cleaned up and improved the icons and actions in the 3D and 2D View Pane*
- *Removed the "Show Missing Rays" option from the 3D View Pane*
- *A new button to show/hide all cameras in 3D View Pane*
- *A new button to clear masking from the Calibration Pane*
- *A cyan circle has been added next to the file you are working with in Edit Mode to indicate if the file needs to be saved to disk*
- *Changed 'Delete' to 'Remove' for Session Folders*
- *Improved sorting of filenames with numerical values in the Data Management pane*
- *Can now change the selection colour of an object*
- *Can now change the colour of active markers*
- *Colours of the GUI have been updated*
- *Changed 'Reconstructed Markers Only' to 'Use Smart Markers' in Application Settings, Live Reconstruction*
- *Tooltips updated*