

# DATATON WATCHOUT VERSION 5.3

This version of Dataton WATCHOUT™ brings a few new features along with some bug fixes.

## New Features

- WATCHOUT is now compatible with Windows 8.
- You can now control WATCHOUT display software using the WATCHOUT Remote App running under iOS 6.
- The global vanishing point set in Preferences can now be overridden in image cues, using the cue's anchor point as a local vanishing point instead. This is useful when you want to make images rotate in exactly the same way along X or Y axis regardless of where they're located on stage.
- Turkish and Japanese localizations have been added.

## Bug Fixes

- Masking sometimes worked incorrectly when driving multiple displays from one computer.
- Thumbnails were sometimes displayed in the wrong position in the Stage window preview.
- Photoshop files saved in CMYK color space didn't appear.
- Some MIDI devices could cause a "MIDI Buffer Overflow" error message.
- The "Datapath Vision RGB PRO" capture card didn't work properly or with poor performance.
- The "Remote Access" command could fail with an error message under some circumstances.

# WHAT WAS NEW IN VERSION 5.2

## New Tween Track: Corners

The four corners of an image can be offset individually, allowing images to be accurately mapped onto parts of other images or real-world objects. As the corners are moved, the projection changes accordingly to maintain the correct perspective. While this alters the perceived perspective of the image, the image will remain flat (2D).

## New Media Type: Network Video

This media type is similar to Live Video, except that video is received via the computer network rather than using a capture card. It can be used with network-enabled video cameras, as well as other devices, applications and services capable of

sending video over the network using standard video streaming protocols (RTP and RTSP). The advantage of this method is that it requires no additional hardware installed in the computer and that it adds new kinds of video sources. A possible disadvantage is the noticeable delay incurred by the network stream processing, making it unsuitable for on-camera speaker display (IMAG), or other applications calling for very low latency.

Assuming that you have such a network streaming source available, it can now be incorporated into your presentation like this:

- Choose "Add Network Video" on the Media menu.
- Specify a name for the source, such as the name of a network-attached camera.
- Choose whether the data is sent as a multicast or unicast stream. In general, unicast is preferred. Use multicast only if the video stream will be shown by multiple display computers simultaneously.
- Enter the URI (network address) of the stream. The details here vary with the camera or application sending the stream, so you need to consult the device's documentation. As an example, an AXIS network camera called for the following URI (where the group of digits is the IP address assigned to the camera):

`rtsp://192.168.0.178/axis-media/media.3gp`

- Select "Preview: Live" to see the network video in the production software's Stage window. Generally, use this setting only for initial testing purposes, or when using a multicast stream (see above). For final playback, you're advised to use Thumbnail preview.
- Enter the width and height of the video stream's image, as dictated by the originating device. Click OK.
- Drag the Network Video media item onto a timeline, and program it as any other WATCHOUT media element.

### **New Media Type: DMX512 Recording**

Often, WATCHOUT is used together with lighting systems based on the DMX512 standard. WATCHOUT allows you to control individual DMX512 channels directly. However, when using numerous channels, or moving lights, a dedicated lighting console is generally called for. Once the lighting has been programmed into the console, it's often merely a matter of playing it back in the same way every time. By recording the DMX512 data coming from the console into WATCHOUT, you can simplify such installations by removing the console altogether. WATCHOUT will then play back the lighting cues from this recording in sync with your show.

Assuming that you have a lighting console connected to your network using the ArtNet protocol (may require a DMX512-to-ArtNet adapter), you can record its programming into WATCHOUT as follows:

- Choose "Add DMX512 Recording" on the Media menu.

- Specify a file for storing the recorded DMX512 data. Save this file in/under the folder containing the current show file.
- In the Save dialog box, also specify the ArtNet Universe number used by the lighting console. Only data sent on this universe will be recorded. Click Save.
- Drag this new item from the Media window onto a timeline. Notice that the symbol on the cue is displayed in yellow, indicating that it is ready to be recorded. Place this cue where you want the recording to start, and extend it to cover the duration of the recording.
- Run the timeline along with the lighting console. You may simply start WATCHOUT and cue the console manually. Alternatively, use timecode to synchronize them.
- As the timeline reaches the cue, recording commences, as indicated by the lamp symbol on the cue turning red. Allow the timeline to run for the entire duration of the cue.
- Once recording is complete, the lamp symbol on the cue becomes gray.
- Disconnect the lighting console from the network, or switch it off.
- Play the WATCHOUT timeline again. The recorded DMX512 data will now be played back by the cue. An ArtNet-to-DMX512 adapter is required unless your fixtures/dimmers receive ArtNet directly.
- You can use the Fade tween track of the cue to modulate the intensity of all recorded channels.  
**NOTE:** Do not use this feature if any recorded channels use 16 bit precision.

If you make a mistake during the recording, or simply want to do another take, you can revert the DMX512 recording to its initial, unrecorded state by double-clicking it in the Media window and selecting the "Re-record DMX512 File" checkbox. This dialog box also allows you to play the recording back using a different ArtNet universe than the one used during the initial recording.

### **New Media Type: Text**

This media type makes it possible to add headings and other texts to your WATCHOUT show without having to use an external program, such as Adobe Photoshop®. To add a text to your presentation, follow these steps:

- Choose "Add Text" on the Media menu.
- Specify the width of the desired text. The height will be determined automatically by the amount and format of the text.
- Type your text into the checkerboard area of the window and click OK.

To display the resulting text, drag it onto a timeline and position it on stage, as usual. The text is shown on a transparent background and can be used like any other still image. As the text is rendered on the production computer, you don't need to have the fonts installed on your display computers. To change the text, double-click it in the Media window or Alt-double-click the cue.

Here's a brief overview of the other settings found in the Text media's dialog box:

- The Font menu allows you to choose any font installed on your production computer and apply it to the selected text. Note that you must select some text before you can apply a new font. The same goes for most other settings, as they apply on a per-character basis.
- The Color swatch next to the Font menu specifies the color of the text. Again, first select some text then click the button to choose a color.
- The Font Size menu, in conjunction with the scale factor, determines the size of the text as displayed on screen. For small to medium sized text, keep the scale factor set to 1 and adjust the font size. For very large text, use the scale factor to scale the rendered text while keeping the edited text at a manageable size. The scale factor also governs other dimensions, such as the size of any drop shadow, but does *not* apply to the Width setting.
- The Bold and Italics checkboxes apply the corresponding styles to the selected text.
- The Text Alignment radio buttons align paragraphs to the left, center, right or adjusted on both sides. Although adjusted text isn't shown as such in the dialog box, the rendered text will be adjusted.
- The Indent and Hanging Indent settings indent the selected text by the specified amount. Note that these settings apply to entire paragraphs.
- The Leading and Paragraph Spacing fields control the spacing of lines and paragraphs in the selected text. Use negative numbers to tighten the spacing.
- The Bullets and Numbering checkboxes display a bullet or a paragraph count in front of each selected paragraph. Use the Hanging Indent setting to control the distance between this embellishment and the text itself.
- The Margin settings add additional spacing on both sides of the text, as a percentage of the font size. This may be required to account for certain italicized fonts.
- Click Update to see the result of your changes in the Stage window (assuming the text currently being edited is displayed by an image on stage). Selecting the Auto Update checkbox automatically updates the stage whenever you make changes (this may be time-consuming when rendering large text images - especially when also applying effects).
- The "Optimize For" settings serve the same purpose as for still images, and have the same restrictions (see the WATCHOUT 5 User's Guide for details).
- See below for the various Style-related controls.

## Text Styles

The Text media allows you to define styles which can then be applied across several Text items, thus maintaining a consistent style throughout your presentation.

- Double-click (or add) a Text media item.
- Click the Styles tab.
- A non-editable preview text is displayed in the checkerboard area of the window. If you have typed anything into the Text media item, that text will be used for the preview. Otherwise, a default text sample is shown.
- Change any of the settings (Font, Size, Color, etc) using the controls along the top of the window. The preview area shows the result. Style settings apply to the entire text, so you don't need to select anything before changing settings.
- Click the Add button to create a new, named style based on the current settings, then enter a style name.
- Use the Copy button to copy selected styles to the clipboard. You can then paste them in another show to establish the same set of styles.
- The controls along the bottom of the window allow you to add a drop shadow and emboss effect to the rendered text. Your settings here are reflected in the preview area of the Styles tab (but do not appear in the main editing area of the Text tab).

**NOTE:** Applying a shadow renders the image slightly wider than the specified Width setting in order to make room for the shadow without causing the text to re-flow.

Once a style has been defined in this way, you can apply it using the Style menu on the Text tab. Note that local overrides applied to the text take precedence over style settings. Click the "Reset Text" button to remove all local overrides, setting all the text according to its style. The Set Style button performs the opposite; changing the selected style to match the current text settings.

## **Localization: Chinese**

The WATCHOUT production software can now present its user interface in Chinese. This happens automatically when run under a Chinese version of Windows. It can also be specified explicitly using the following command line option:

-Lang zh

This option can be added to a shortcut used to start the production software. Note that your computer must have been properly configured for "Simplified Chinese", including the corresponding input system and fonts.

## **Other Enhancements and Bug Fixes**

- Increased Display's stage-size-to-resolution ratio to 300%.
- Dynamic Image Server: Improved performance and reliability.
- In some cases, Inputs could fail to trigger Tasks as desired.
- Increased reliability of Datapath VisionRGB capture cards.
- Incorrect rendering of waveform for the "32 bit signed PCM" audio file format.
- Inaccurate timing of audio waveform rendering at some timeline scales.

- Incorrect Stage window preview of images set to "Image Stacking Order: By Z-depth" when used with the "Masked by Displays" preview mode.
- Sound media could play from production computer even if the enclosing layer was disabled.
- Video export could get stuck halfway through with certain combinations of media.
- Video export of QuickTime movies didn't apply Volume tween track properly.
- Video export of QuickTime movies not time accurate.

## WHAT WAS NEW IN VERSION 5.1

This version of Dataton WATCHOUT™ provides a few minor enhancements and a couple of bug fixes.

### Enhancements

- The Move command includes the Z axis.
- The Consolidate command allows you to include all media files, if desired, and not just those actively used in the show.
- A Control cue can explicitly target the Main Timeline.
- Control of Inputs (DMX, MIDI and Generic) is now managed by the display software when production computer isn't online.
- MIDI Show Control is now handled by the display software when production computer isn't online.

### Bug Fixes

- Large images or images extending outside the display don't appear if the display is rotated.
- When using multiple outputs from one display computer, video file playback on other displays than the first sometimes doesn't start smoothly.
- On the Production computer the sound output stops playing if the icon is not visible in the stage window.
- Export of a timeline to a movie file may not complete under some circumstances.
- Stage Tiers not working correctly.
- Didn't accept expressions such as:  $(in3 * 500) - 250$
- Running a single display computer without a network connected (e.g., from serial control or a command file) failed opening the show.
- Creating audio waveforms from long audio files or MP3 files could crash.
- Audio waveform may not be displayed properly immediately after opening a show.
- Audio waveform display failed for WAVE files with floating point data.

- Switching shows without re-starting the production software could cause tween tracks controlled by inputs to behave erratic, flipping back and forth.
- The path to any Preview movie wasn't adjusted properly when transferring the media to another show by copy/paste of cues.
- Playback of multi-channel Wave files wasn't always accurately synchronized.
- Watchdog could time out while caching numerous files during an Online or Update operation, thus making the whole operation fail.

## Installation

Version 5.1 comes with an updated license key driver. Therefore, you must install this version manually on each computer, as WATCHOUT's automatic remote update feature can't update the license key driver.

## WHAT WAS NEW IN VERSION 5

Version 5 of Dataton WATCHOUT brings the most comprehensive set of new features and capabilities added since the product was introduced, significantly expanding its application areas. This document provides a brief overview of the new features. Please refer to the updated "WATCHOUT 5 User's Guide" for full details.

## 3D EFFECTS

Position and rotate all media objects in 3D space. With 3D motion paths, images and video can move freely through space, at your command.

- A depth (Z) coordinate has been added to images and tween points, allowing objects to be positioned at any depth.
- Rotate the Stage window preview to look at it from the top or from the side for easily editing of complex 3D motion paths.
- Rotate objects around X, Y or Z axes, with full control of perspective (focal length).
- Programmable vanishing point, governing the overall perspective of the stage.
- The front-to-back ordering of objects can be controlled by layer order or by Z position, allowing objects to move around each other in 3D space in a natural way.

## STEREOSCOPY

Take the new 3D capabilities all the way to the screen with stereoscopic projection and production workflow, including 3D video playback.

- Projectors can be assigned to left/right channels. Combined with the powerful Stage Tiers, it means you can put stereoscopic image areas anywhere you want.

- Global control of the stereoscopic effect (“eye distance”) makes it easy to adapt the effect to the screen size at hand, for the optimal viewing experience.
- Direct playback of stereoscopic video, including content of virtually any resolution that has been pre-split for playback across any number of projectors.

## ENHANCED LIVE INTERACTION

You can now use inputs in WATCHOUT to control virtually all parameters, enabling you to create fully interactive presentations.

- Use external sensors, touch panels or other input devices to control the 3D-position of images and video on stage, including live sources.
- The same techniques can also be used also for scaling and rotation.
- Any input can be mapped to any axis of control, with programmable scale factors, making the system easy to adapt to a wide range of control sources.
- A new type of Input allows direct control of parameters using the standard WATCHOUT network protocol.

## DYNAMIC IMAGE SERVER

This new WATCHOUT server application provides continuously updated content, streamed into your presentation. A single server can provide multiple images at the same time, accessible from any number of WATCHOUT displays. It acts as a bridge between your WATCHOUT display system and various data sources, rendering live data on the fly.

- Simply drop images into a folder to make them appear instantly in your presentation.
- Enter text straight into your presentation, live as you type. Or create and choose from a list of pre-programmed messages.
- Collect data from RSS feeds (such as the latest CNN news), databases, web services, voting systems, and other sources, presenting the result as attractive typeset text or live graphics.
- Create your own live custom content using standard production tools based on Adobe’s Flash technology.

## MULTIPLE DISPLAYS PER COMPUTER

As computers and graphics hardware become increasingly powerful, WATCHOUT paces, letting you to tap the full potential of your hardware investment.

- Drive up to six displays off one computer (depending on hardware capabilities), all using a single WATCHOUT license.
- Use a single computer to drive both channels of a stereoscopic projector pair.

- Use all outputs together, as part of one large show. Each display can be placed freely on the Stage, and fully supports all the standard capabilities such as display density, rotation and edge blending.
- Combined with the Auxiliary Timeline feature, each display can run its own, separate timeline, allowing for very cost effective multi-display installations.

## OTHER NOTABLE NEW FEATURES AND ENHANCEMENTS

### User Interface

- New infinite scaling technology allows large still images to be scaled down without performance issues.
- The Stage window now shows all content at full resolution, regardless of scale factor.

### Audio

- The audio waveform is displayed in audio cues, making it easy to synchronize images to sound effects or music.
- A new audio balance tween track allows you to pan stereo audio.
- A default audio volume setting provides additional headroom to increase audio volume from its initial level.

### Video Export

- Auxiliary Timelines can now be exported as video.
- Exported video maintains the full resolution of still images.

### Miscellaneous

- A new watchdog feature runs unobtrusively in the background, monitoring your display computers to make sure they keep running as they should.
- High-resolution (16 bit) DMX-512 inputs are supported for smoothest possible integration with lighting consoles.