

# z\_\*OBSOLETE\* DLTdataviewer Controls Explained

**\*\*\* OBSOLETE, DO NOT USE \*\*\***

Ty Hedrick thedrick@bio.unc.edu has a series of Quicktime videos available on his webpage describing the use of an older version of the DLTdataviewer.

Digitizing keyboard shortcuts may be found [here](#).

The digitizing controls are seen on the right. This is a description of their features.

**Gamma:** This sliding bar adjusts the luminance of both videos. This change will not be saved between digitizing sessions. It may help make markers more visible.

**Frame offsets:** This will probably not be adjusted. it changes the synchronization of frames, which is generally not desirable.

**Frame number:** Selects the frame number that the videos are on. You can use either the sliding bar or the text window to specify this.

**Current point/Add a point:** The drop down menu selects the point that you are actively digitizing. By default, sequences only have a single point specified. If you are going to be digitizing more than a single point, click 'Add a point' to add additional points. Then, use the drop down menu to select the point that you would like to digitize.

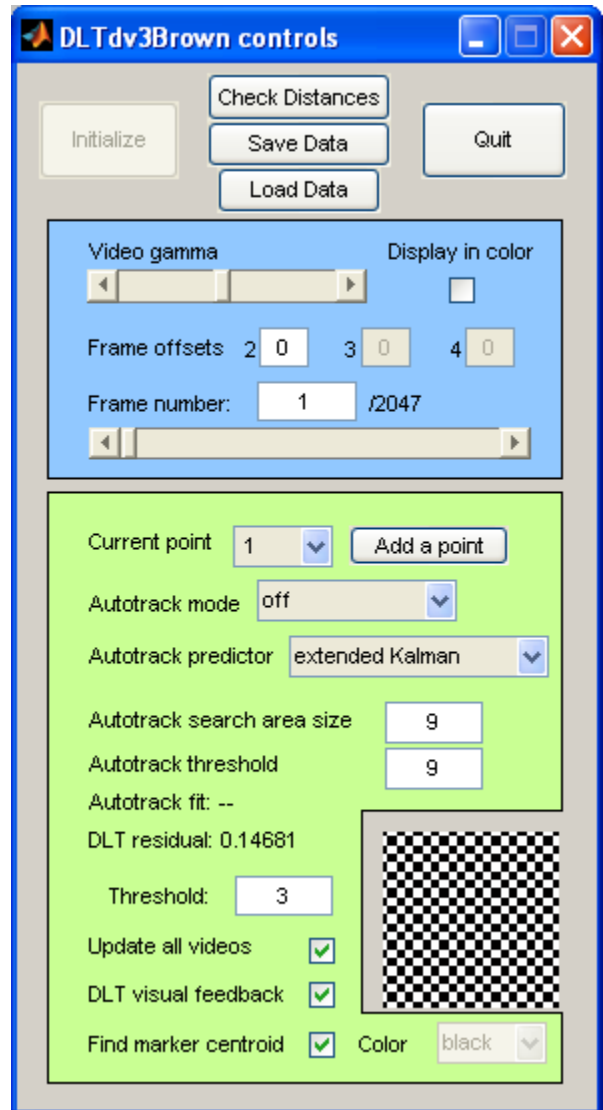
**Autotrack mode:** There are nine options here, off, auto-advance, auto-retreat, semiautomatic, reverse semiautomatic, automatic, reverse automatic, multi, and reverse multi. **When autotracking, you will most likely want to have the centroid finder on.** If the program stops because it can not autotrack a point, you will have to shut the centroid finder off, manually mark the point, and then turn it back on before autotracking again.

- **Off**
- **Auto-advance:** This option will simply mark the point and automatically advance to the next frame.
- **Auto-retreat:** This option will simply mark the point and automatically retreat to the previous frame.
- **Semiautomatic:** This option will mark the point, then advance to the next frame and place the cursor on where it interprets the marker to be on this frame. Pressing "f" will mark the 2nd frame and continue the semiautomatic autotracking process.
- **Reverse Semiautomatic:** This option will mark the point, then retreat to the previous frame and place the cursor on where it interprets the marker to be on this frame. Pressing "b" will mark the 2nd frame and continue the semiautomatic autotracking process.
- **Automatic:** This option will automatically track one point in one video until it is lost by the autotracking procedure. Pressing "x" will stop the autotracking midstream.
- **Reverse Automatic:** This option will automatically track one point in one video in reverse frame order until it is lost by the autotracking procedure. Pressing "x" will stop the autotracking midstream.
- **Multi:** This option will automatically track multiple points simultaneously. (1) Select multi. (2) create and click all of the points you want to track. (3) hold SHIFT and click or middle mouse click anywhere on the image. (4) release the SHIFT key. Pressing "x" will stop the autotracking midstream.
- **Reverse Multi:** This option will automatically track multiple points simultaneously in reverse. (1) Select "reverse multi". (2) create and click all of the points you want to track. (3) hold SHIFT and click or middle mouse click anywhere on the image. (4) release the SHIFT key. Pressing "x" will stop the autotracking midstream.

**Autotrack predictor:** There are four difference options, static point, 1st order poly, double exponential, and extended Kalman. Use static only if you are tracking a point that does not move significantly from frame to frame. Otherwise, the extended Kalman predictor works well.

**Autotrack search area size:** Specifies the size of the search area that the autotracker looks for points. If you are digitizing a point that moves far from frame to frame, you may want to increase this value

**Autotrack threshold:**



**Autotrack fit:** During autotracking, as long as this value is greater than the autotrack threshold, the computer will continue autotracking

**Autotrack search image:** This is the image box on the right that shows a zoom of the area that the autotracking procedure is searching for the marker in.

**DLT residual:** Calculation of the residual value (in pixels) taken from the digitizing of a single point in two camera views. A value of less than 0.8 is considered acceptable for the pig feeding project, and less than 0.4 is ideal.

**DLT visual feedback (checkbox):** Checking this box enables the blue line that predicts where a digitized point will appear on the second video once it has been marked on the first video. It will be slightly curved and should pass through the marker on the second view.

**Find marker centroid (checkbox):** Checking this box enables the marker centroid procedure. This should generally be enabled if the autotracking procedure is engaged.

**Color:** Specifies the type of marker being used. "black" indicates a black marker on a white background (as in xray videos), and "white" indicates a white marker on a black background (as in bat videos).

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