

Creating a Composite Motion Image with ProAnalyst®

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Abstract

A “Composite Motion Image” is a revolutionary method of creating a single digital image (ie: JPG, BMP, TIFF, etc.) that encapsulates all the motion contained in a video sequence. The pertinent information from the entire video is extracted and then super-imposed onto a master image that is used to show the relationship of moving objects over time. Composite Motion Images are convenient tools for motion visualization. Anybody with a web browser can open a JPG - its smaller size are much easier to work with than a full video.

Note: The video in this example (Figure 1) is 30 frames in length and over 58 MB in size.



1. Load your video into a new ProAnalyst project. Open the **Measurement Window** and select the **Image Filtering** control panel.
2. Apply the “Common: Frame Difference” filter. The “Common: Frame Difference” filter computes and displays the pixel difference between the previous frame and the current frame (Frame 2).

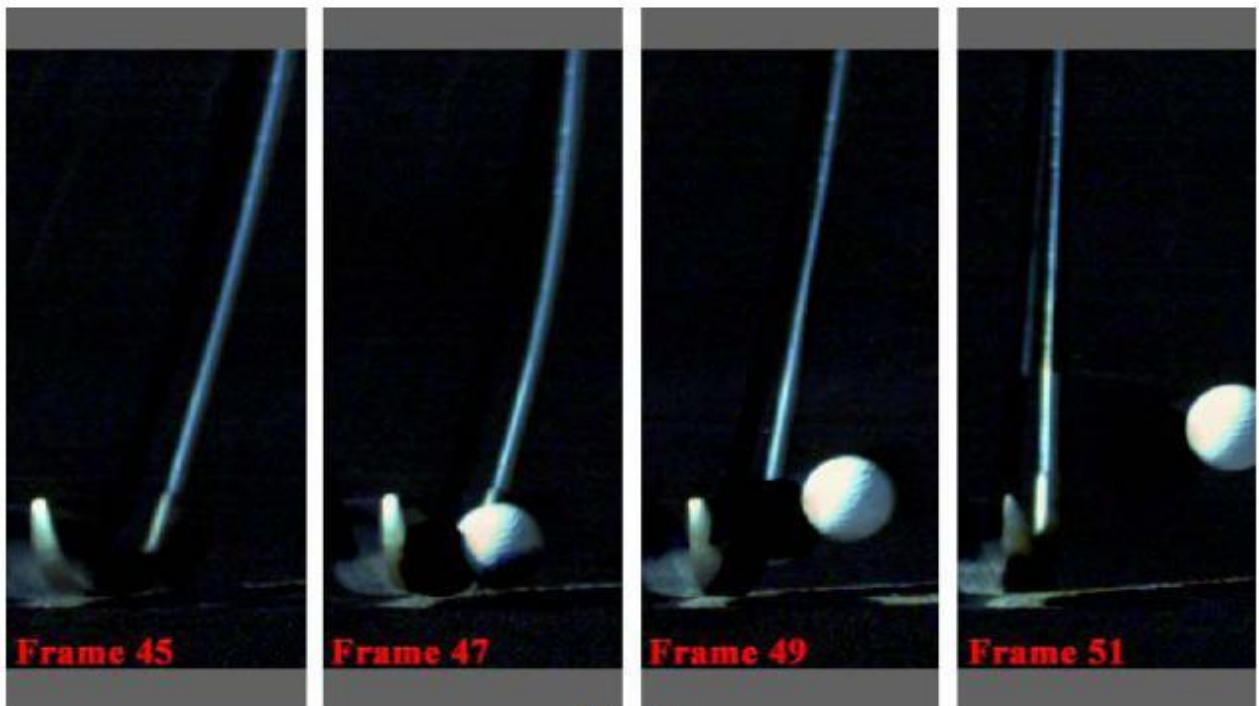


Figure 2:

3. Apply the “**Common: Strobe Effect**” filter and playback the video from the first frame. The “**Common: Strobe Effect**” filter produces an image that is a combination of all previously displayed frames (Figure 3).



Figure 3:

4. To reset the combined image, disable and re-enable the “**Common: Strobe Effect**” filter by clicking on the check box next to this filter in the “**Image Filter List**”.
5. To save the “Composite Motion Image,” select “**File --> Save As...**”.
6. Select a file type from the drop down menu (ie: JPEG, BMP, TIFF, etc.)
7. Select the “**Save Frames**” option, and input “**0**” to “**0**” as a range.
8. Select the “**Save Processed Frames**” option. Your save dialog should resemble Figure 4.

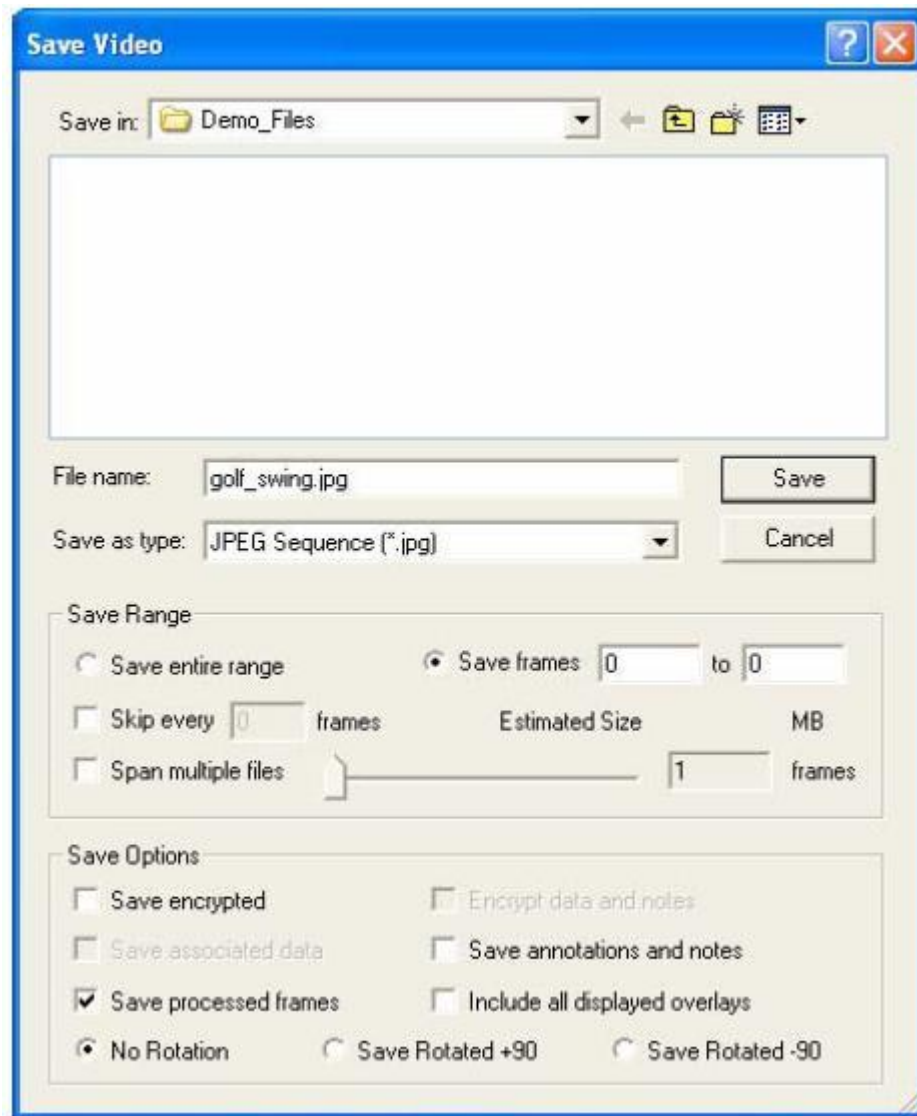


Figure 4:

9. In JPG format, the “Composite Motion Image” is 126 KB in size, as opposed to the over 58 MB of the original video.

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Xcitex Inc.
25 First Street Suite 105
Cambridge, MA 02141 USA

