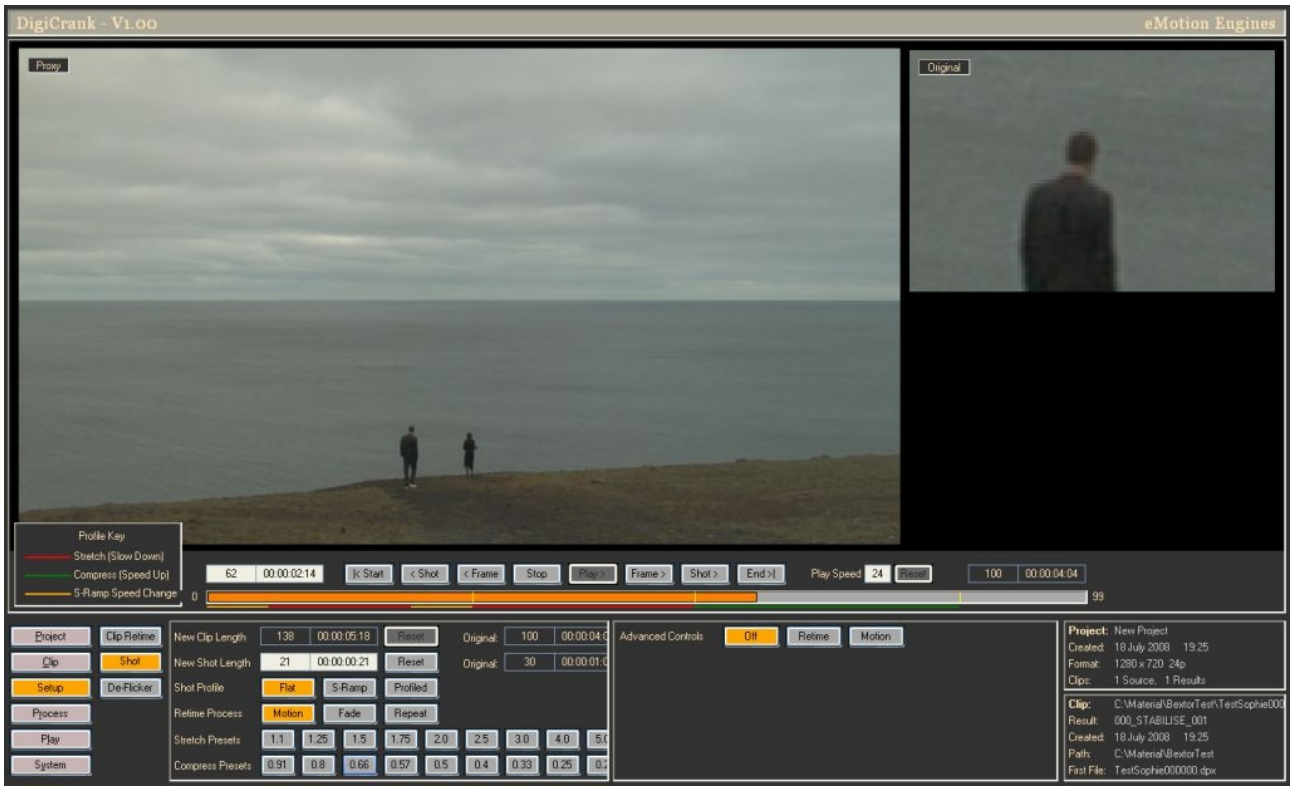
DigiCrank

eMotion ENGINES

Introducing DigiCrank from eMotion Engines – A retiming product based on an Academy award winning motion estimation algorithm, that allows resolution independent over and under cranking of image clips



Electronic acquisition means that we have lost the ability for variable rate capture. Off line editing frequently requires retiming of clips to correctly synchronise to audio material. Multilayer VFX work also requires retiming of background or foreground composites. Image acquisition using multiple still cameras often requires intermediate frames to be computed. eMotion Engines have designed DigiCrank to satisfy these needs.

DigiCrank is a motion estimation based application for the creation of new frames and will allow a clip to be over or under cranked in order to vary a clip length. Creative photography often requires dynamic speed changes and these are implemented in DigiCrank, providing a range of controllable speed profiles, such as S shaped speed ramps, as well as simple linear transformations. Special effects, location shots or close ups in commercials can all now be shot at normal speed and re cranked maintaining the maximum resolution color depth and therefore quality.

The ability to digitally re-crank digital images will bring high-speed cinematography back to the set and away from the slow motion process of Film. This revolutionary process will satisfy the creative desire of the director, allowing him to view content just shot and re cranked on a digital display, slashing production time and costs.

DigiCrank also includes de-flicker for use in view interpolation, typically when multiple still cameras are used, or for removing flicker from old film clips or current material where street lights, neon or other uncontrolled lighting may cause undesirable flicker.

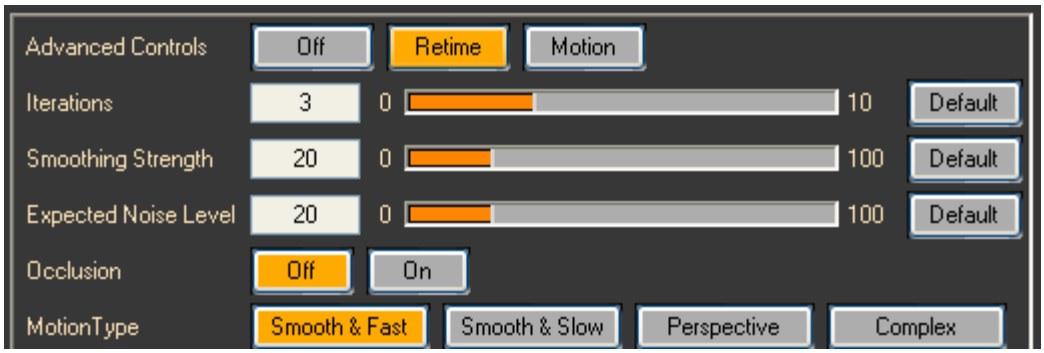
Key features of DigiCrank include

- Slow motion processor – variable frame rate conversion
- De flicker
- Resolution independent SD/HD/2k/4k
- Auto shot detection
- Shot-by-shot or automated clip-based processing
- Re-timing – speed up, slow down, stretch and shrink
- Variable speed profiles

Typical applications include

- Editing
- Compositing
- VFX

The GUI provides highly automated settings, with optimised single button push controls to provide very high quality results. The speed profile applied to clip retiming can be set at the push of a button, with presets available for common duration adjustments. In case more complex retimings are required, additional comprehensive controls are available for fine tuning.



When using these 'Advanced' controls, it is possible to switch between different image processing algorithms, to obtain the best result for the specific material being processed. Detailed help comes with the program to explain the different controls available, and how to use them for best effect, along with examples of the effect of choosing different settings.

At any time the system provides easy comparison of the original and the retimed material. Multiple retimed clips can be created and compared to achieve the best results.

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