Continuous Recording

CONTINUOUS RECORDING APPLICATIONS

- High-speed events that occur in fast succession, including repeated impact studies, where several recordings are required with limited downtime between shots
- Flow dynamics and Cavitation studies, where several samples can be taken throughout a long duration experiment
- Missions that require data redundancy for added security in the event of power loss after the shot
- Unattended operation where the camera receives an external or auto-trigger

SUPPORTED CAMERA MODELS

Continuous recording is a PCC software function, and compatible with any current Phantom camera model

INTRODUCTION

The Continuous Recording function increases the efficiency and security of a high-speed imaging workflow by automatically saving captured Cine files immediately after trigger. The entire RAM buffer or segment can be saved, or a defined number of frames can be set in advance.

When used with Multi-Cine, Continuous Recording can completely eliminate downtime between shots. This is extremely useful for long duration tests where numerous (sometimes several hundred) events are to be captured. This technique is often referred to as "buffer balancing" which allows the top frame rates to be used in combination with tests that last much longer than the camera's limited RAM buffer allows.

Three frames from a turbulent flow wind tunnel test, captured by VEO4K-990

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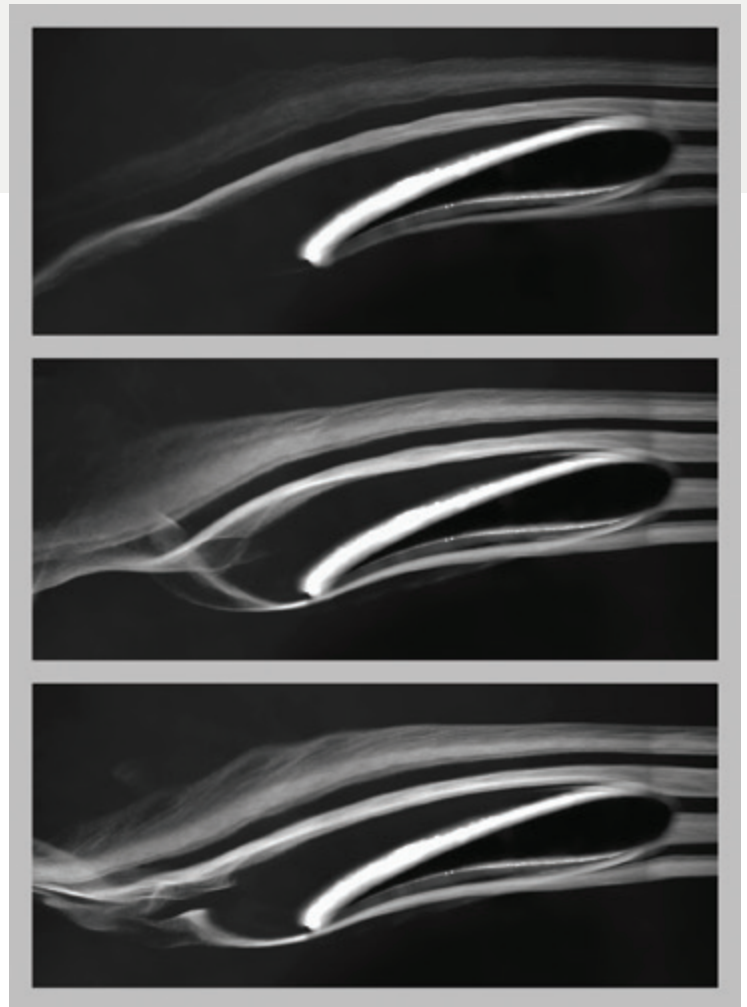
IMPORTANT OPERATIONAL NOTES

- PCC ensures that files will never be overwritten when using Continuous Record. It is a good idea to keep an eye on hard drive space, as that can fill up quickly using this function.
- Earlier versions of PCC included a Calibration Snapshot function in Continuous Recording for DIC. This function has been moved to the Sync Snapshot menu starting with PCC version 3.5.

GENERAL OPERATION

Continuous Recording is driven by PCC software. Cine file name and path must be specified to enable the feature.

1. Set all recording parameters, including Multi-Cine if desired.

2. Specify a Test Name and ensure the 'Save cine number' starts at 0 or number of your choosing. This number increments as files are saved. Naming function found in '**Auto-Name Settings**' menu. (PCC 3.5 and later).

3. Expand the 'Continuous Recording' sub-menu under the 'Live' tab and define the parameters shown below.
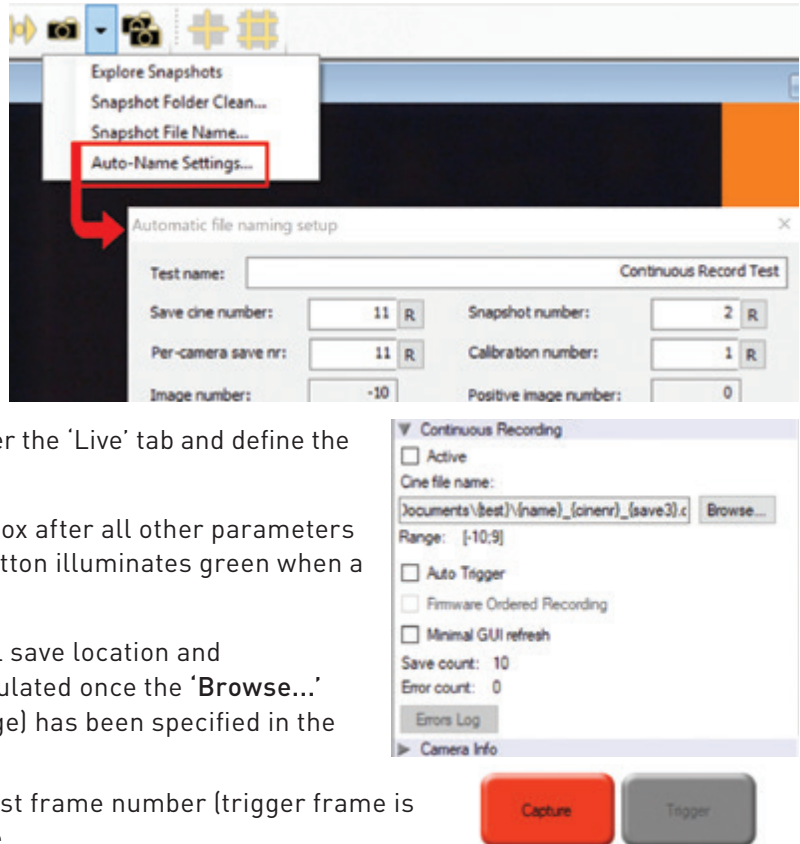
Active – Enables Continuous Recording. Check this box after all other parameters are set. The Capture button grays out and Trigger button illuminates green when a new recording is ready.

Cine File Path & Save Parameters – Displays the full save location and programmed name of the files to be saved. Auto populated once the '**Browse...**' button is selected and information (file type and range) has been specified in the 'Save Cine' dialogue.

Range is specified in the 'Save Cine' dialogue. The first frame number (trigger frame is always 0) and ending with the last frame for each file.

Auto Trigger – PCC will automatically trigger the camera immediately following the saving of the last recorded Cine. Disabled by un-checking the 'Active' box. Note: This is different than Image-Based Auto-Trigger (IBAT).

Firmware Ordered Recording – Reduce the time between takes by erasing a Multi-Cine segment upon save completion immediately making it available for recording again.

Minimal GUI Refresh – Accelerate the save process by disabling progress indicators within the program. Also instructs PCC to stop displaying live images in the Preview panel.

Save Count – Counts the files saved in the current session.

Error Count & Log – Logs any errors in a log file for review later. Reports the number of errors and does not require immediate user intervention.