AMPED FIVE TRAINING

COURSE INFORMATION

Session: Mount Vernon, WA

July 30-August 2, 2019
COURSE: FORENSIC IMAGE AND VIDEO ENHANCEMENT WITH AMPED FIVE

SESSION: Mount Vernon, WA, July 30-Aug 2, 2019

INSTRUCTOR AND CONTACTS
NAME: Blake Sawyer
EMAIL: blake.sawyer@ampedsoftware.com
PHONE: 718-395-9736 (for any logistics or assistance)

LOCATION / LODGING / TRAVEL INFORMATION

Students are responsible for all travel, lodging, and per diem expenses.

TRAINING VENUE
Mount Vernon Police Department
1805 Continental Pl.
Mount Vernon, WA, 98273, USA

NEARBY AIRPORTS
Bellingham International Airport
4255 Mitchell Way
Bellingham, WA 98226

Seattle-Tacoma International Airport
17801 International Blvd
Seattle, WA 9815

Paine Field
3220 100th St SW
Everett, WA 98204

ACCOMMODATION
Candlewood Suites Burlington
1866 S Burlington Blvd
Burlington, WA 98233
Amped Software training courses provide hands-on training on the use of Amped Software products as well as provide insight into the challenges users face in forensic video and digital multimedia evidence processing. Our courses are delivered worldwide, in large groups or private sessions, by experienced trainers.

The purpose of the Amped Software training is to:

- Provide students with the theory and the basics of image processing
- Understand the issues affecting images and videos in an investigative context
- Acquire in-depth knowledge of all software features to solve those issues, including the technical and scientific background behind the implemented techniques
- Learn the workflow that is compatible with forensic needs and constraints to take the proper steps to obtain better results
- Work on real cases and learn to testify on the results

The **Forensic Image and Video Enhancement with Amped FIVE** course is recommended for users who recently purchased Amped FIVE and for those who want to gain hands-on experience from Amped certified trainers. Students will learn the fundamentals of image and video analysis and the issues faced when using digital multimedia evidence in investigations. The course is a mixture of lecture and hands-on with many practical exercises to solve real or simulated cases using Amped FIVE. Students will obtain the knowledge and skills required to properly analyze and process images and videos with a workflow compatible with forensic needs and constraints.
## AGENDA

### DAY 1
- 101 overview
- Theoretical concepts:
  - What is an image
  - What is a video
  - Challenges with CCTVs (disturbances, restoration and enhancement)
  - Handling videos in a forensic setting
- Adjustment filters
- Edit (Geometrical transformations)
- Deinterlace
- Correct Perspective
- Undistort

### DAY 2
- Optical Deblurring
- Blind Deconvolution
- Motion Deblurring
- Non-Linear Deblurring
- Blind Deconvolution
- Turbulence Deblurring
- Verification
- Formats and Codecs
- Select Frames
- Sharpen and Denoise
- Deblocking

### DAY 3
- Measurements
- Channels Extraction
- Fourier Transform
- Selections and Local Stabilization
- Global Stabilization
- Frame Averaging Simple
- Frame Averaging Stabilization
- Perspective Registration
- Perspective Stabilization
- Super Resolution

### DAY 4
- Assistant
- Recap and discussion of most important topics
- Final hands on session – real work casework simulation and discussion
- Customer cases analysis
- Q&A session

### DAY SCHEDULE
- From 9:00 am to 5:00 pm
  - Morning: 9:00 am to around 12:30 pm
  - Lunch: 12:30 pm to 2:00 pm
  - Afternoon: From 2:00 to 5:00

This is the suggested schedule and may be subject to change according to customer requests or needs.
STUDENT PREREQUISITES

- Students should be proficient with the use of Windows computers and be able to install and use software. This class is intended for users of all levels of expertise with Amped FIVE, including those with little or no previous experience. Previous experience with Digital Multimedia Evidence (DME) is recommended, but not required.

- To get the most out of the training, some terms and image theory behind DME is preferred. Resources and information can be found at:
  - [https://github.com/ampedsoftware/digital_video_introduction](https://github.com/ampedsoftware/digital_video_introduction)
  - [https://swgde.org/documents/Current%20Documents/SWGDE%20Technical%20Overview%20of%20Digital%20Video%20Files](https://swgde.org/documents/Current%20Documents/SWGDE%20Technical%20Overview%20of%20Digital%20Video%20Files)

TECHNICAL REQUIREMENTS

- **IMPORTANT:** Each student must have their own laptop or workstation. Any modern Windows PC is capable of running our products, but this is the suggested configuration:
  - Intel Core i5 or faster
  - 8 GB of RAM
  - 1GB of free space on the hard disk for program files
  - Window 7 64-bit or Windows 10 64-bit
  - Full HD (1920x1080) monitor or better
  - There's no specific requirement for the graphic card

- Each student will be provided with a trial version of the software for use during the course

- In addition, students should have full rights/access on their computers, including the ability to install and remove software

A Full HD (1920x1080) projector with HDMI connection or large screen is needed in the training room.

We look forward to seeing you!
TRAINING REGISTRATION FORM

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Please fill this form for each student and send it to sales.na@ampedsoftware.com

The cost of the training is USD 1,500$ per student. Students are responsible for all travel, lodging, and per diem expenses.

Once we receive this form filled, we will send you an invoice with the data you provided.

Note that the registration will only be confirmed by Amped Software after we receive payment in full for the session.

Student Information

Name: ______________________________________________________________

Contact Phone Number: (_____) ______ - ______ Extension ______

Email: ____________________________________________________________

Agency: __________________________________________________________

Billing address: __________________________________________________

____________________________________________________________________________

Date: __________________________ Signature: _______________________

This information will be used to create or update your account on the Amped Support Portal (https://support.ampedsoftware.com), from where you will download your training certificates.