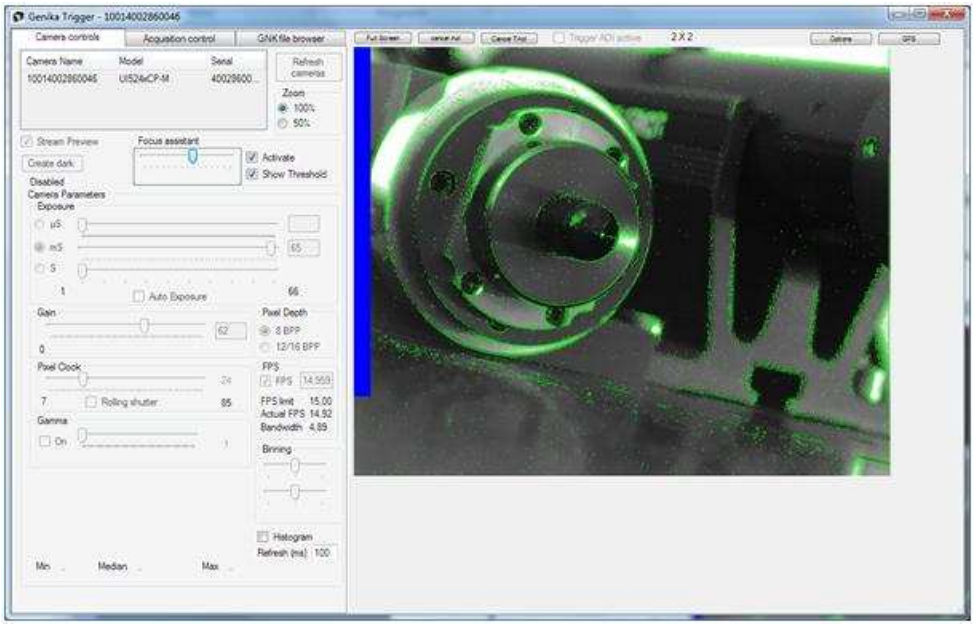
High speed image acquisition for science and biology with on the fly image analysis

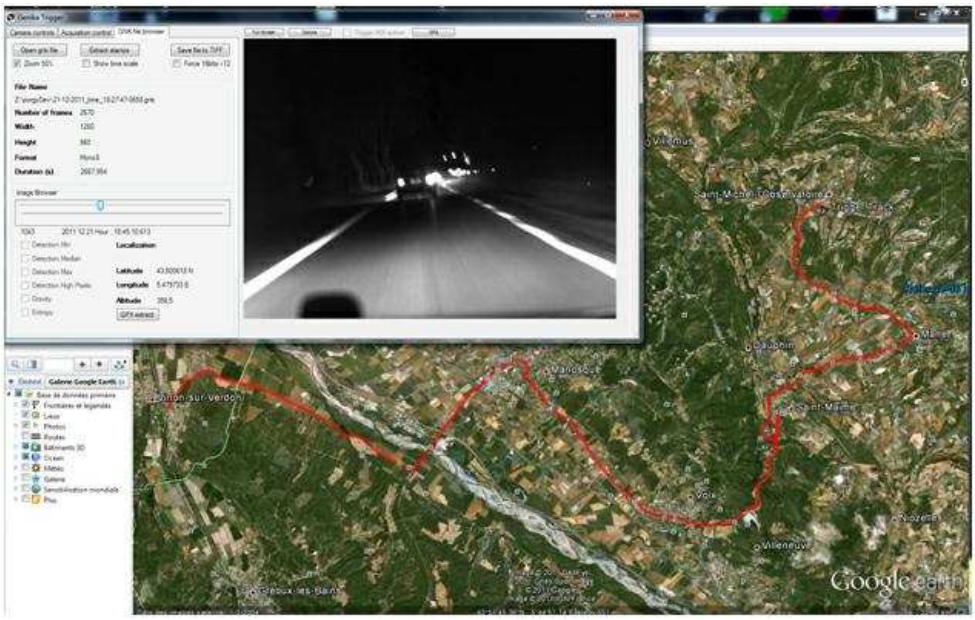
Genika trigger is an image acquisition application that analyses frames on the fly to save only those that are interesting. This unique feature allows long duration runs, spares disk space and reduces the processing hassle.

Frame selection filters are called smart triggers and they perform a real time analysis of the image characteristic such as the histogram, the pixel map variation or movement detection. Airylab also implements specific filters on a case by case basis such as an astronomy photometry performed on stars to detect asteroid transits in front of stars.



Genika Trigger embeds its own crash proof file format that supports frame geo-localization and time stamping. A strict frame loss control along with an extensive in/out trigger supports allow extensive synchronized multi-camera acquisition as required for example for stereoscopic applications.

IDS being very strong in labs and R&D units in Europe, Airylab has decided to support uEye camera in Genika Trigger. Another incentive for this decision was the product line that includes some camera models that have no equivalent such as the 5240 that boasts a very sensitive E2V sensor.



IDS camera integration in Genika Trigger has been a breeze thanks to the uEye SDK. “The IDS SDK is exhaustive and the different camera models are supported seamlessly, which is far from being common along camera suppliers. In addition the documentation is complete for both C++ and .Net environment”, outlines Frédéric Jabet from Airylab. “In fact we even plan to port IDS camera to the astronomical application Genika Astro that requires high sensitivity hardware. The E2V sensor may be a real asset for those low light applications.”

GigE uEye CP camera

Company profile: Airylab

Airylab is a french start-up specialized in optical metrology and imaging applications. The software line includes Genika Trigger for on the fly frame analysis and Genika Astro for astronomical lucky imaging. Genika Astro is used by both professional observatories and amateurs. Genika Astro and Trigger deliver high performance acquisition with a single PC hardware for an overall very low cost and spare labs and SME from any time and money intensive software development.

More case studies are available on our website:
http://www.ids-imaging.com/appRep.php