Methodology of annotating videos and still images and development of the software COVER

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Image footage from Remotely Operated Vehicles (ROVs) or drop-frame cameras are often used to classify geological and biological data in the deep-sea. However, this image footage is coming from different sources (depending on equipment and camera type, etc.) and it is up to the scientists to optimise the results retrieved from these images. One important step in this direction is the standardisation of the analysis of the image material, e.g. using specific annotation software. Several annotation software are available. However, a review of existing software revealed that no software met the requirements within the European fp7-funded project CoralFISH. In this context, IFREMER has developed the software COVER (Customizable Observation Video imagE Record). It allows the user to load navigation files, images and digital videos. A flexible interface is made based on knowledge tables containing information about subjects of interest, such as species, substrate and habitat type and anthropogenic impact. COVER is able to create frame grabs automatically on a certain time and/or distance interval. This program facilitates standardisation of image analysis by using common knowledge tables. Some features of Cover will be introduced into the existing software Adelie (IFREMER).

Here, we will present the different features of the software COVER. We will give an example of an interface using standardised knowledge tables as well.