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RiverFlow2D in sediment transport of the river during the flood season

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In the past, the theory of sediment transport has been quite complete, and there are many methods currently under study in the verification. This study used unmanned aerial vehicle (UAV) to capture catchments before and after flood season and build a hydrologic station to measure the water level and rainfall to compute flow discharge in the local area. Generate what is needed for the simulation by taking an aerial photography. The digital surface model (DSM) and orthomosaic photo were produced from aerial photos by Pix4DMapper. Combine the aerial and measured data into the simulation by models of RiverFlow2D and SRH2D. Finally, compare the variation of sediment transport of the river during the flood season by QGIS.

The simulated river section is Nansalu that the river surged and the debris flow inundated the village of Namasia District in Kaohsiung City of Taiwan during the typhoon Morakot in August 2009, the follow-up Soil and Water Conservation Bureau process the rectified project.