

Hydro-STIV_{Portable}

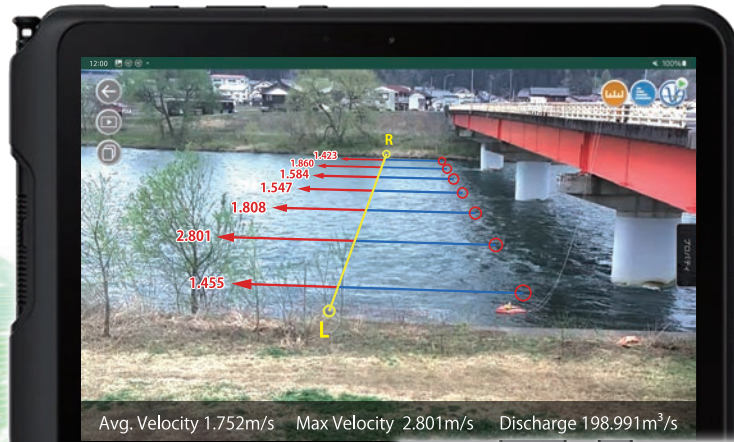
Flow Velocity and Discharge Measurement Device Using Video Images

Flow velocity and discharge measurement using video images

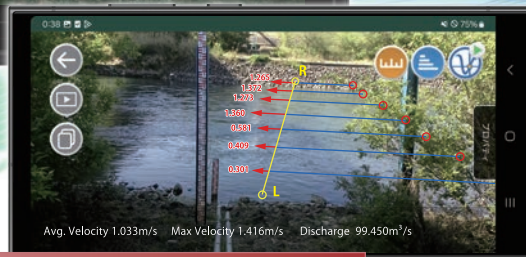
Japanese Patent No. 6910506

NETIS Registered KK-220021-A

Using the latest STIV technology
by Ichiro Fujita
(Professor Emeritus, Kobe University)



Tablet type ※1



Smartphone type



GCP is **not** required

Speedy measurement

Able to confirm results **on site**

High precision
(distance up to 150m※2 wide)

Installed STIV, a video-based flow velocity and discharge measuring system in mobile device

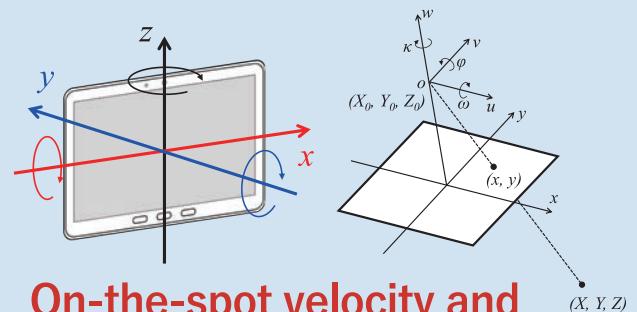
*Complete measurement with a single unit!
Displays flow velocity and discharge instantly on site!!*

Equipped with drone linkage function

New Tech

Utilizes acceleration sensors on the device for easy geometric correction in the field **without the need to set up and survey** ground control points.

From ditch to 150m wide river ※2



On-the-spot velocity and discharge measurement



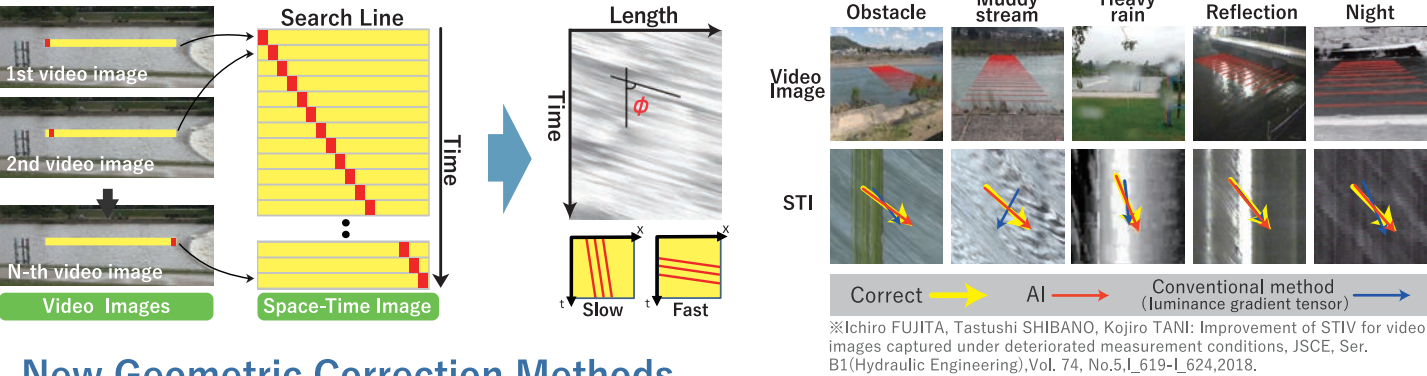
※1 Commercial use tablet with excellent shock resistance, waterproof and dustproof performance compliant with MIL-STD-810H procurement standard of the U.S. Department of Defense

※2 If using a smartphone

The Hydro-STIV Portable is a flow velocity and discharge measurement device that allows to perform the visual velocimetry technique immediately in the field. A single device can perform a number of tasks to measure flow velocity and discharge on the spot because it has all three of the necessary functions for STIV flow velocity measurement: "image capturing," "geometric correction," and "high-precision flow velocity measurement by AI."

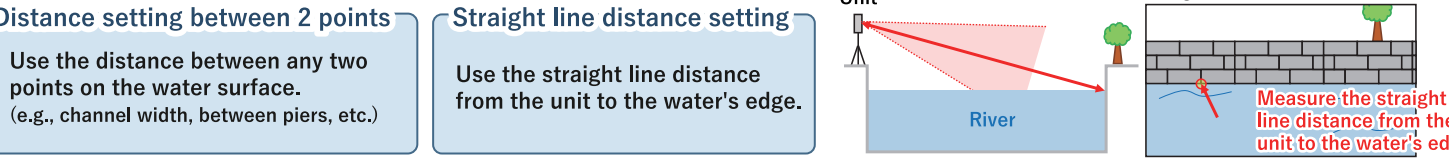
● High-precision measurement with Hydro-STIV

With the most recent STIV and AI technologies installed, it provides measurement precision comparable to that of our Hydro-STIV Cloud service.

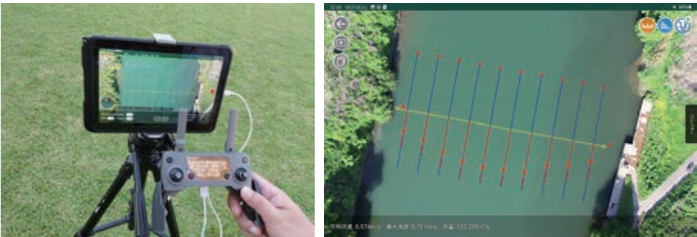


● New Geometric Correction Methods

The use of new technologies eliminates the need for a fixed point while doing geometric rectification. To finish the measurement preparation, just one of the following pieces of information is required.



● Drone linkage function



The Hydro-STIV portable can be linked to a drone to read the drone's video information on the spot to measure flow velocity and discharge. The drone linkage function enables measurements in large rivers and disaster hazardous areas that cannot be taken with the tablet's built-in camera.

※Please check the latest drone operation status on our website.
https://hydrosoken.co.jp/data/img/Hydro_STIV_Portable_droneA4_en.pdf

Device specification

	Tablet type	Smartphone type	Main functions	
Image			Measurement Functions	Flow velocity and discharge measurement using STIV Precise automatic velocity measurement by AI Equipped with drone linkage function Geometric correction by acceleration sensor and gyro sensor High-resolution photography using built-in camera(Full HD) Scale setting by linear distance Scale setting by distance between two points Discharge calculation using velocity area method Correction of velocity outliers
Device name	Galaxy Tab Active4 Pro	Galaxy S24 Ultra	Utility Functions	Video stabilization Cross section data edit Display of velocity on image Report creation File output for Hydro-STIV Cloud
Size (H x W x D)	170.2mm×242.9mm×10.2mm	162.3mm×79.0mm×8.6mm	Measurement specification	
Mass	832g	233g		
Display	10.1inch WUXGA(1,920×1,200)	6.8 inch Quad HD+(3120×1440)	Principle	Image analysis (STIV method)
Battery	7,600mAh (Video playback up to 30 hours)	5,000mAh (Video playback up to 30 hours)	Measuring range	0.1 - 20.0 m/s
S pen	Supported (included)	Supported (included)	Survey lines	1 - 30 lines
CPU	Qualcomm SM7325 (quad-core 2.4Ghz + 1.8Ghz)	Snapdragon 8 Gen 3 Mobile Platform for Galaxy (octa-core 3.39GHz + 3.1GHz + 2.9GHz + 2.2GHz)	Measurable distance	Tablet ~100m Smartphone ~150m
Memory/Storage	4GB/64GB	12GB/256GB	Accuracy : Velocity	±2%~±10% *The closer the distance, the higher the accuracy
Camera	13 MP	200 MP	Accuracy : Discharge	±1%~±5% *The closer the distance, the higher the accuracy
OS	Android	Android		

For product purchases and inquiries, please contact

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