

FR server (FRS) – Face Recognition in a box

FRS-G1



FRS-G2



- ◆ Face Recognition Server is an embedded hardware designed to facilitate the implementation of large scale face recognition systems. Through distributed computing, heavy duty processes such as face detection, location and feature extraction are performed by hardware, thus dramatically reduces the reliance on PC computer servers and eases the burden on the communication network.
- ◆ FRS can be easily connected to existing CCTV cameras for instant upgrade of existing surveillance (CCTV) systems with face recognition function.

Key Features

Superior face recognition capabilities

- ◆ Built-in hardware face detection, location and feature extraction – through distributed computing, major processes are performed by hardware, significantly reduces the consumption on network and PC resources.
- ◆ High facial feature extraction speed

A truly scalable FR solution

- ◆ Facilitates connection of dozens of **WS FR** servers to a single remote PC server, compared to only several channels in conventional face recognition systems.

Supreme Recognition Engine

- ◆ Liveliness detection – deploying advanced **WS FR** algorithms, the system is able to distinguish whether images captured are of a genuine person or a photo.

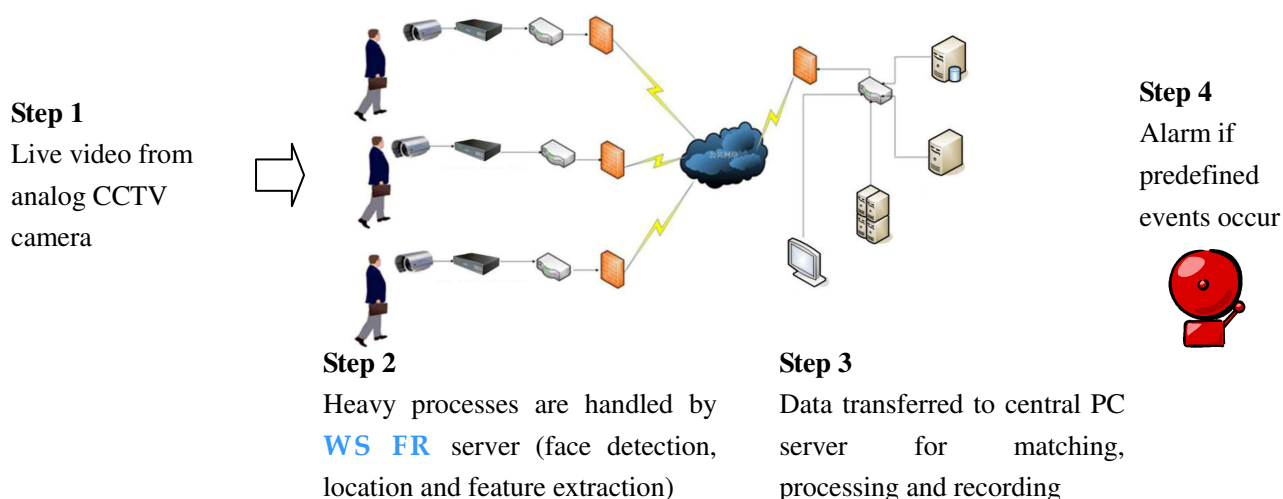
Seamless Integration

- ◆ Internet Protocol (TCP/IP) based communication (from FR servers to central PC)
- ◆ 2 analog video input (including 1 face recognition channel)
- ◆ 1 analog video output – a bypass connection for existing systems/DVR



2 steps easy installation

- ◆ Instant upgrade of analog CCTV to digital surveillance system with face recognition

Typical operation flow of a face recognition system based on WS FR server



Specifications

			
Part No.		FRS-G1	FRS-G2
Parameters	Smallest face size	40×40 px	
	Largest face size	CIF 288×288 px D1 576×576 px	
	simultaneous face capture ¹	5	10
	Capture rate	5-25 fps	
Hardware Interface	Main MCU	TI DM642 600MHz	TI Davinci DM6446
	Memory	64M SDRAM	256M DDR2
	External memory	Nil	SD card, maximum 8G
	Video	2 BNC video signal input 1 output	2 BNC video signal input 2 output
	Sound	Nil	2 BNC audio signal input

¹ The number of simultaneous face image capture and capture rate depends on the environment of camera installation.

			1 output port
	Serial ports	1 RS232/RS485 port	2 RS232 ports 1 RS485 port 1 USB port
	Network interface	1 10/100M Ethernet port	
	General input/output interface	8, 4 input, 4 output	
Video format	Video format	PAL (input/output)	
	Image format	YUV 4:2:2	
	Video processing resolution	CIF 352×288 D1 704×576	
	Capture frame rate	25 fps	
Physical parameters	Working voltage	DC 12V	DC 5V
	Power consumption	< 5W	
	Working temperature	0-55℃	
	Working humidity	15%-90%	
	Equipment measurement	167mm×120mm×35mm	230 mm×190 mm×45mm
	Weight	0.43 kg	1.22kg

Awards for Excellence

The software algorithm used by **WS FR** was awarded the following recognitions:

- ◆ Rated as “performed better than humans” by NIST, the National Laboratory of USA, in the Face Recognition Vendor Test (FRVT) in 2006

“Best Performing Algorithm” by the 17th International Conference on Pattern Recognition, Cambridge, UK in 2004

About Wise Synergy

Wise Synergy Company Limited is a joint-venture company formed between Hong Kong Tsing-Tech Biometrics Co. Ltd. and Beijing Hisign Technology Co. Ltd., dedicated in the development of state-of-the-art face recognition technology.

Contact Us

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