

# Remote Fire Control Water Pressure Monitor Platform

- Solutions
- User case



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1 Necessity

2 Solutions

3 Application Details

4 Benefits and User case



FireVisual

# Necessity

## § Important in Fire

- Numerous cases and lessons teach us that whether the fire could be put out successfully in the initial stage mainly depends on normal water supply.

## § Hard to do

- It's difficult to demand patrollers to inspect water pressure in a comprehensible way

## § Labor Cost

- High labor cost
- Its life expectancy will be greatly influenced by unreasonable checking of water supply facility.

## § Saving water and energy

- A large quantity of water will be consumed even if fire control water is not used.

Background

# Necessity

To ensure normal water pressure at each fire control end at any time (in key zone like rooftop standpipe and spray installation);

**A**  
**Valid**

**B**  
**Guarantee**

To prevent excessive pressure in pipeline, which may lead to pipeline break and become hidden danger.

To check leakage and alarm timely: To alarm upon abnormal water pressure change could partially save energy and reduce emission;

**C**  
**Alarm**

**D**  
**Automatic**

To be adopted to test booster pump and handle any difficulty as an auxiliary.

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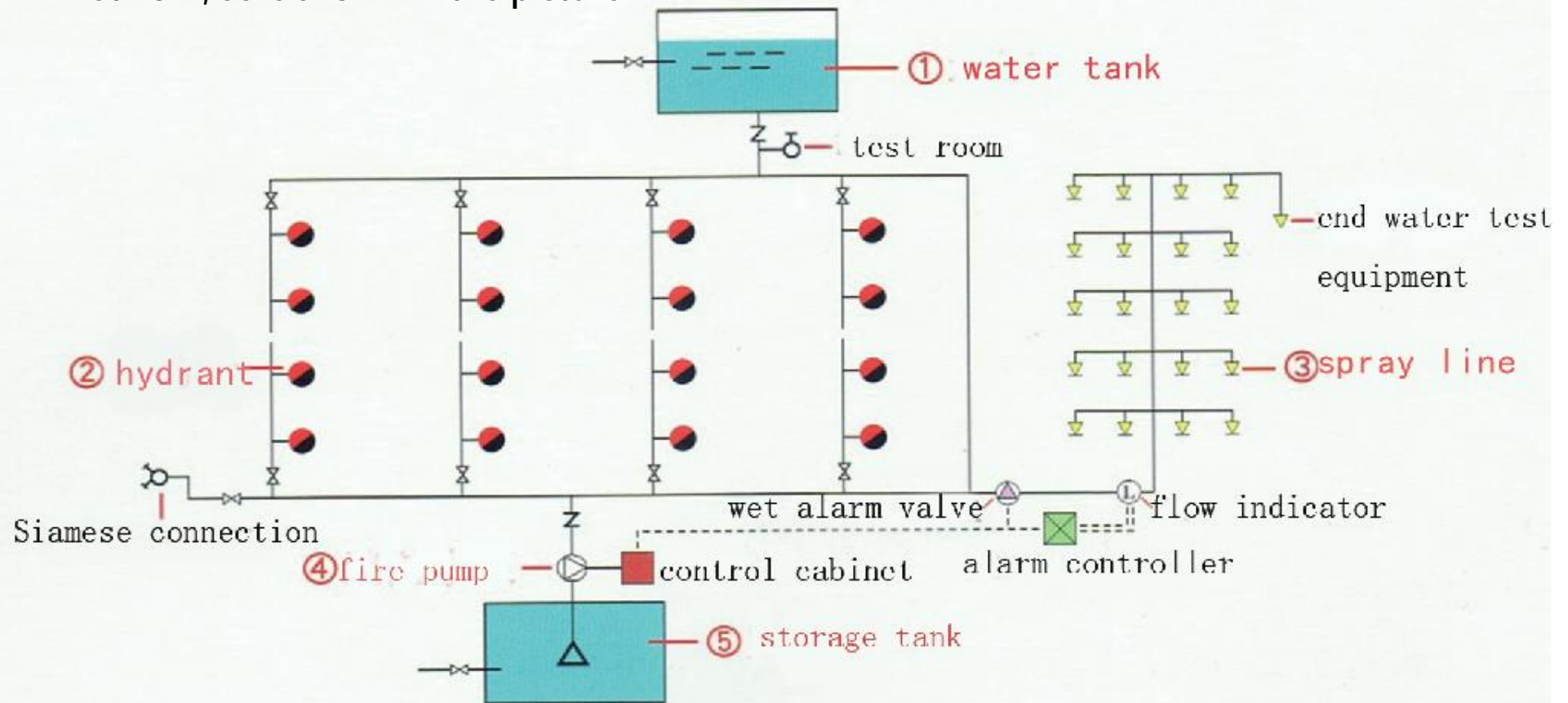
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FireVisual

# Solutions

Though main pump room is set up with regard to fire control water supply, there's great difficulty in ensuring normal water supply at the tail end as a result of excessively complicated water network, as is shown in the picture





# Solutions



Real-time monitor of fire control water pressure, water level, flowing speed and flow to discover abnormal condition of standpipe(hydrant), spray line, fire pump water pressure and water level in water tank and storage tank is performed to guarantee normal fire control water pressure and water level. (Notes: hydrants include those indoors and outdoors and those outdoors are installed differently)

Green:Normal

Red:Too high or Too Lower

Yellow: Fault

Legend Normal Too high Fault

Art Gallery	Laboratory building No.2	Laboratory building No.3	Laboratory building No.4	Laboratory building No.5	Laboratory building No.6
-1F Fire Water ... 3.39M	1F Hydrant 0.22Mpa	3F Hydrant 0.33Mpa	1F Hydrant 0.5Mpa	-1F Hydrant 0.36Mpa	1F Spray 0.75Mpa
1F Hydrant 0.31Mpa			4F Hydrant 0.3Mpa	-1F Spray 0.66Mpa	2F Spray 0.52Mpa
1F Spray 0.44Mpa			7F Hydrant 0.12Mpa	1F Hydrant 0Mpa	
The building No.4	Teaching Building No.1	Teaching Building No.1--续	Teaching Building No.2	Teaching Building No.3	Teaching Building No.4
1F Hydrant 0.2Mpa	-1F Fire Water ... 3.64M	22F Hydrant 0.12Mpa	1F Hydrant 0.36Mpa	12F Hydrant 0.23Mpa	1F Hydrant 0.39Mpa
2F Hydrant 0Mpa	-1F Hydrant 0.82Mpa	22F Spray 0.16Mpa		15F Fire Water... 0M	3F Hydrant 0.25Mpa
3F Hydrant 0.07Mpa	-1F Hydrant 0.82Mpa	25F Fire Water... 1.61M		1F Hydrant 0.31Mpa	
Teaching Building No.5	The building No.6	The building No.5	The building No.8	The Student Center	The building No.7
1F Hydrant 0.3Mpa	2F Hydrant 0.26Mpa	1F Hydrant 0.07Mpa	1F Hydrant 0.37Mpa	1F Hydrant 0.5Mpa	1F Hydrant 0.4Mpa
		3F Hydrant 0.16Mpa	3F Hydrant 0Mpa	2F Hydrant 0.3Mpa	2F Hydrant 0.3Mpa
		6F Hydrant 0.08Mpa	5F Hydrant 0.23Mpa	3F Hydrant 0.15Mpa	

# Solutions

## Map View --Fire control water pressure





# Solutions

Tracesoft

Sensor Installed(Indoor)



Water pressure

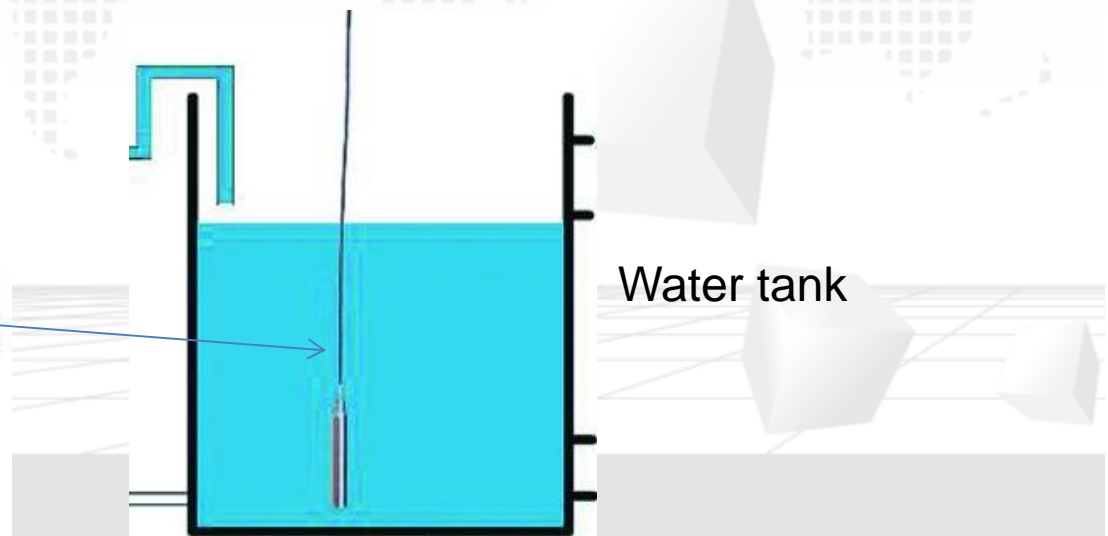
Standpipe



Spray end



Water level



## Solutions

Tracesoft

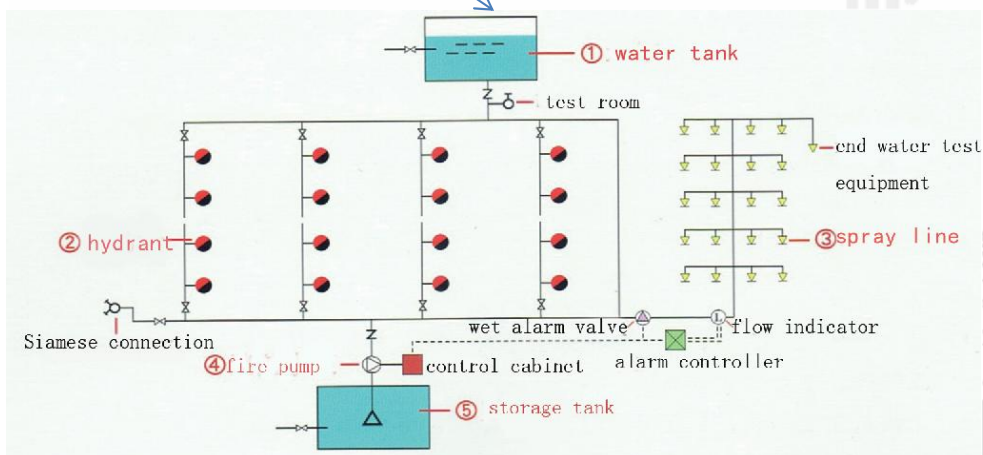
Flexible Design, easily and quickly



One Building or Adjacent Buildings

Indoor Alarm Box

Server



# Solutions

Tracesoft

Installed(Outdoor)



Solar Battery

Alarm Box

Installed Place





- Outdoor Alarm Box





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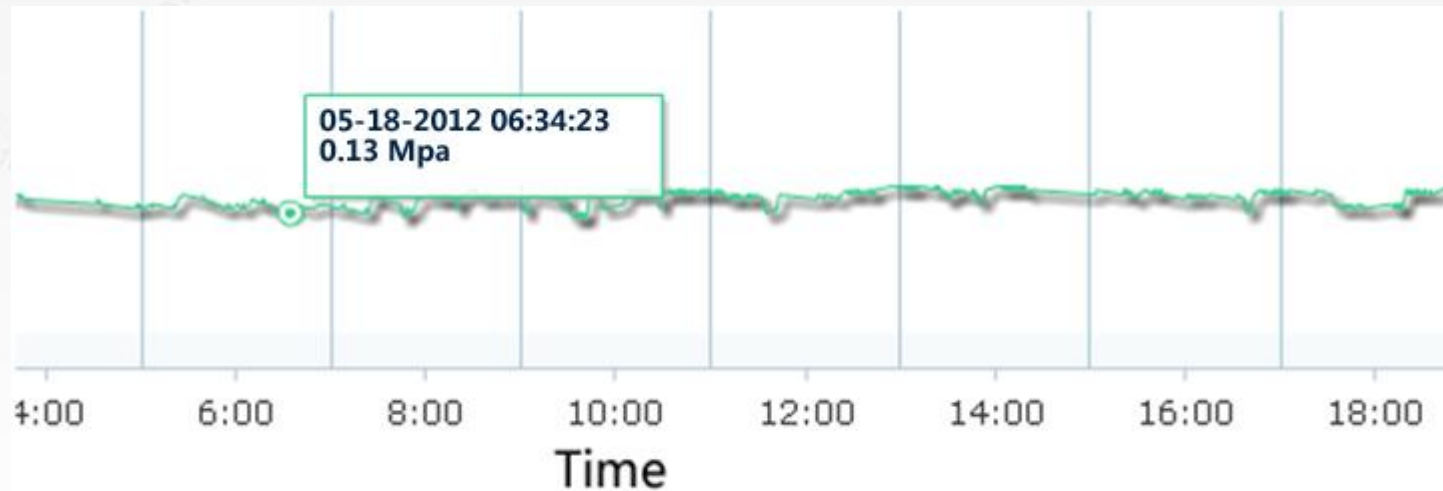
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FireVisual

# Application Details

## Case 1: To discover incorrect connection of domestic water pipe in Southeast University

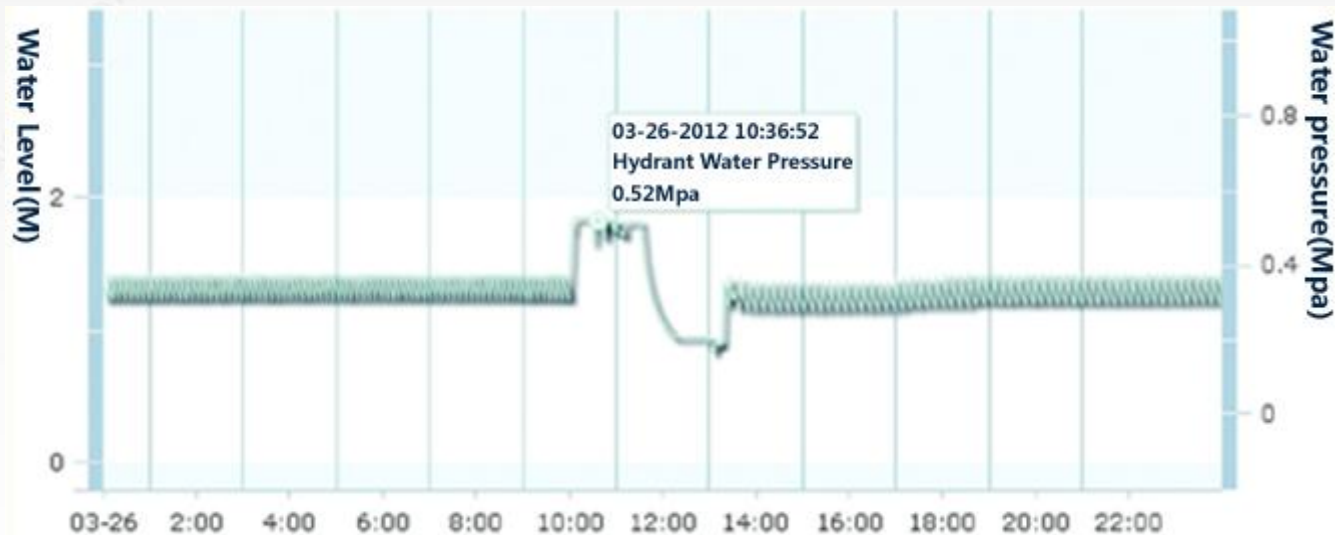


Southeast University gives priority to installation in old buildings built during the period of the Republic of China. In these old buildings fire control and domestic water are supplied by municipal water supply, thus not creating large pressure for water protection pipe.

After the installation is finished, fire control water pressure is always unstable for quite a long time. And as the above picture shows the curve immediately falls the moment the domestic water is used. It's later discovered that domestic water pipe is misconnected to fire control water pipe.

# Application Details

## Case 2: Hangzhou Dianzi University



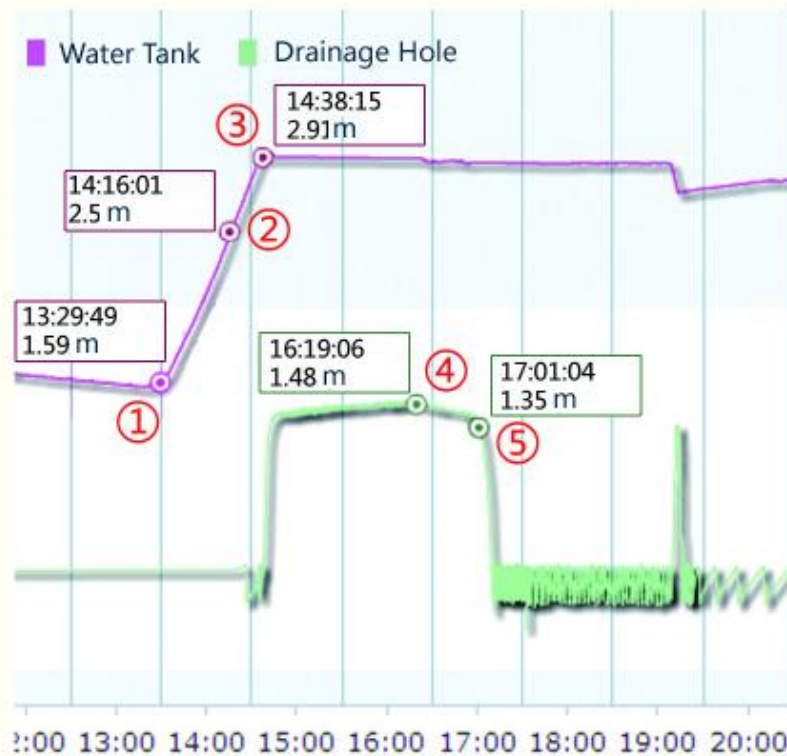
There's something wrong with mechanical watch in stabilized pressure pump in the library, leading to pressure increasing all the time with no way to stop. The platform sounds abnormal alarm and monitoring staff immediately dispatch workers to deal with it.

Alarm for 1 m; it takes 10 m to find out the reason and 10 m to solve the problem.

In the end the problem is solved, successfully avoiding damage that may be brought by pipe bursting.

# Application Details

## Case 3: Ningbo University of Technology

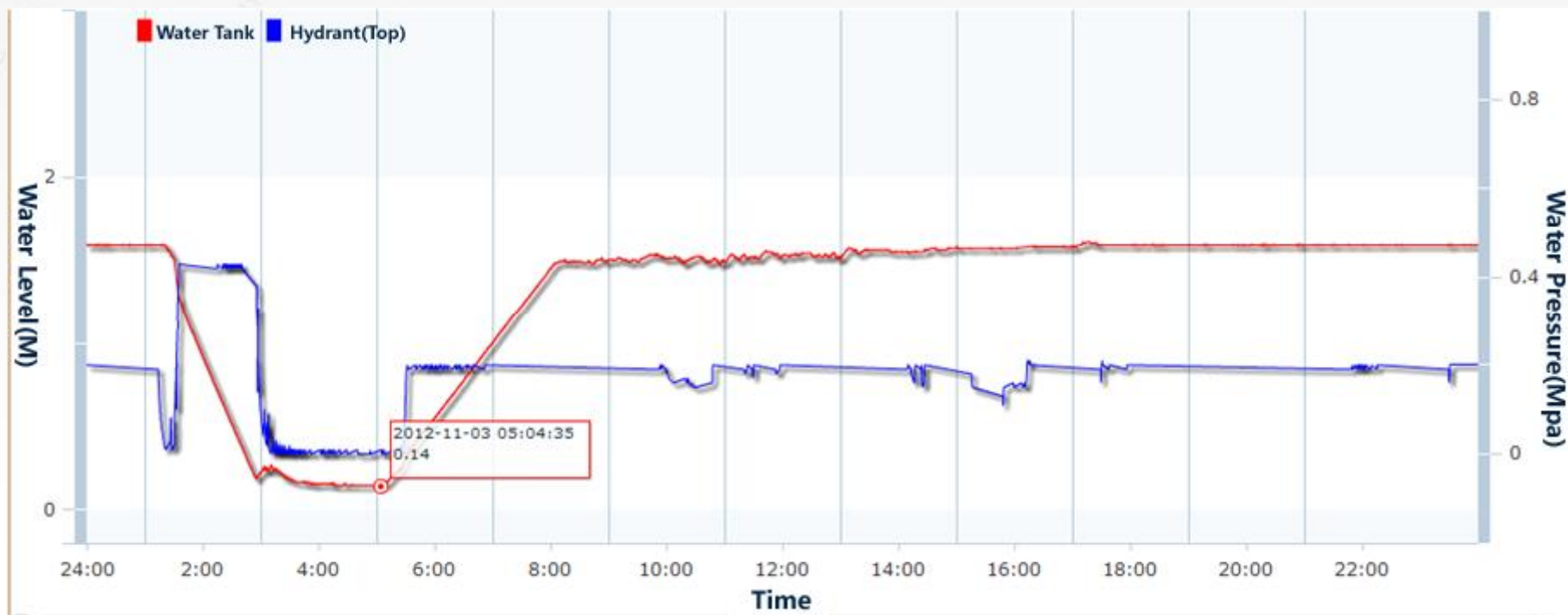


No	Time	Event	remark
1	1:29 p.m.	Fault starting point	
2	2:16 p.m.	Start alarming when water level reaches 2.5 m	Man on duty: the system alarms automatically No man on duty: the system sends text message to alarm
3	2:38 p.m.	Water tank leakage	There had been sufficient time for operators to handle the problem. Thus they have to account for their dereliction of duty.
		Ponding is formed on the ground when the drainage hole fails to drain water after about 10 s.	
4	4:19 p.m.	The drainage hole is 1.48 m deep and water on the ground is 18 cm deep	danger
5	5:01 p.m.	Rush to repair and drain off all water on the ground	Danger removed, for the reason of control valve fault



# Application Details

## Case 4: Nanjing Agricultural University



As is shown in the above picture, at 1:14 a.m. the main pipe pump is switched off owing to dormitory standpipe adopting main pipe water and rooftop tank to supply water. Then the dormitory standpipe water is supplied by rooftop tank, causing tank water exhausted.

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**FireVisual**

# Benefits and User case

Automatic

Visual

Cost saving





see  
something

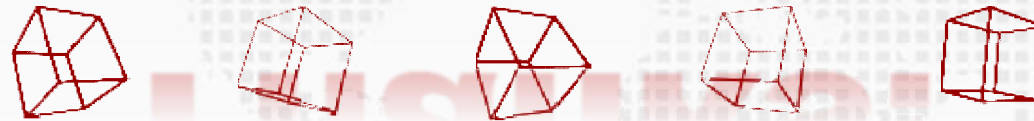
say  
something

Tracesoft





# Thanks!



Lisa Ma  
Marketing  
[lisama8173@gmail.com](mailto:lisama8173@gmail.com)

Colin Qiu  
Sales and Engineering  
[Colin\\_qiu@hotmail.com](mailto:Colin_qiu@hotmail.com)

• **Tracesoft ,LTD.**