



# Innovation Day Q2 2024

28 June 2024 (Friday)

12:00 – 17:00pm

**Ocean Room, 1/F, Mandarin Oriental, Macau**

[N.º945, Avenida Dr. Sun Yat Sen, Macau, China](#)

**Opening Up New Frontier of Facility & Security  
Management with AI**

## Technology Partners:

(By alphabetical order)



魔秀智能  
MALLSHOW



## Supporting Associations:

(By alphabetical order)



# Agenda

Time	Programme	Speakers
<b>12:00 - 14:00</b>	<b>Registration, Buffet Lunch &amp; Technology Corner Visit</b>	
14:00 – 14:15	Opening - How Data Centric AI Driven management help you in facility & security management?	<b>Alex Kwan (SQX)</b> <b>Charles Qi (AgileCore)</b>
14:15 - 14:30	Digital Twin Engine - supporting AI operation and maintenance	<b>阎晨 (Qmap)</b>
14:30 - 14:45	Hyper-Realistic AI Digital Employee - Challenges and opportunities in improving your operation.	<b>吴靖仇 (Next Human)</b>
14:45 - 15:00	Electricity Safety and Management Enhancement Solution - The technology & trend, and latest application in occupational safety & other applications	<b>Jack Sun (AgileCore)</b>
<b>15:00 - 15:45</b>	<b>Coffee Break and Technology Corner Visit</b>	
15:45 - 16:00	Security Operation Management - With smart & integrated access control & surveillance system in smart campus, smart construction & smart data centre	<b>Simon Chow (SQX)</b>
16:00 - 16:15	Robots - how it assist in security & facility management.	<b>Eddy Lee (AgileCore)</b>
16:15 - 16:30	Augmented Reality - how it enhance the customer experience in your premise.	<b>Benny Hung (MALLSHOW)</b>
16:30 - 16:50	Panel Discussion – What is the challenges and opportunities of AI application in security & facility operation?	Moderator: - Alex Kwan  Panellist: - Angus Ho - Jack Sun - Harold Lin
<b>16:50 - 17:00</b>	<b>Lucky Draw and Closing</b>	



# Speakers & Panelists

*In the alphabetical order of the family name, and, is subject to final confirmation before the Innovation Day.*



**Mr. Simon Chow**  
Sales Director  
SQX



**Mr. Benny Hung**  
CEO  
MALLSHOW



**Mr. Alex Kwan**  
General Manager  
SQX



**Mr. Eddy Lee**  
CSMO  
AgileCore



**Mr. Charles Qi**  
COO  
AgileCore



**Mr. Jack Sun**  
Advisor (Energy)  
AgileCore



**Mr. Wu Jingchou**  
Founder & CEO  
NextHuman



**Mr. Chen Yan**  
CEO  
QMap

# AI Centric Data Driven Management Platform

- From Proactive to Predictive



## Collect & Store (IT & OT)

- Tailored, Managed Sensors
- Smart MCB
- Credentials
- Video Metadata
- Geospatial Metadata
- Robot
- Sensors, GPS, RFID, Barcode

**Collect**

**Connect**

## Connectivity



- AllGo
- Cellular
- Wired & Wireless
- Bluetooth
- LoraWan
- Zigbee



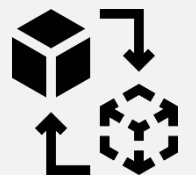
## Interaction

- Visual
- Audio
- Augmented Reality
- AI Chatbot
- Etc..

**Interact**

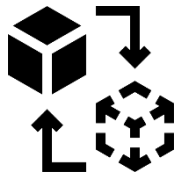
**Process**

## Data Processing



- Video Database
- 3D Modelling
- Digital Twin
- Relationship Database
- Realtime Database
- Data Mining
- Parallel World





# Digital Twin

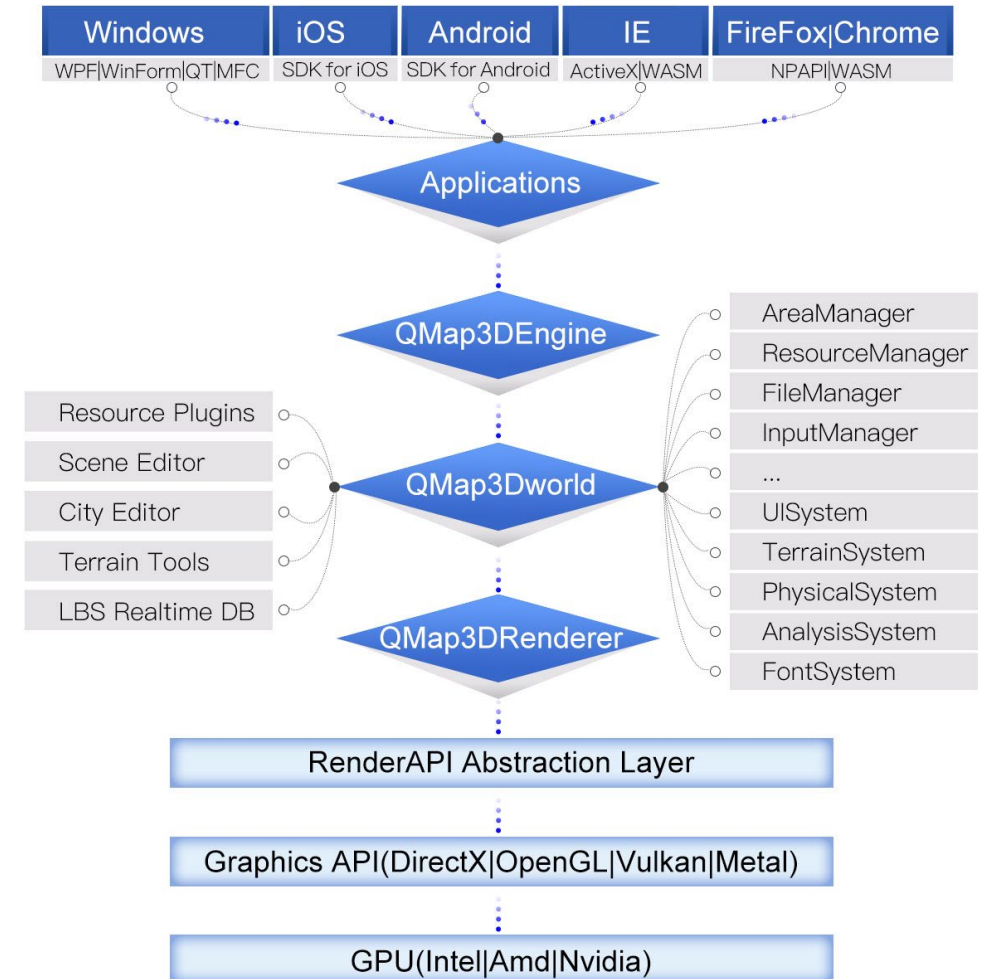


## Web SCADA GIS Expert

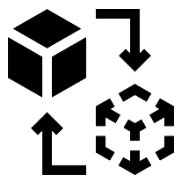
- 100% Independent R&D
  - From backend to display

## Unique Advantage

- Light Weight (60MByte)
- Compatibility
  - GIS + BIM + IOT
  - Revit, FBX, 3DMax, DEM etc..
- Realistic display
- Realtime and scalable
  - 100k / second



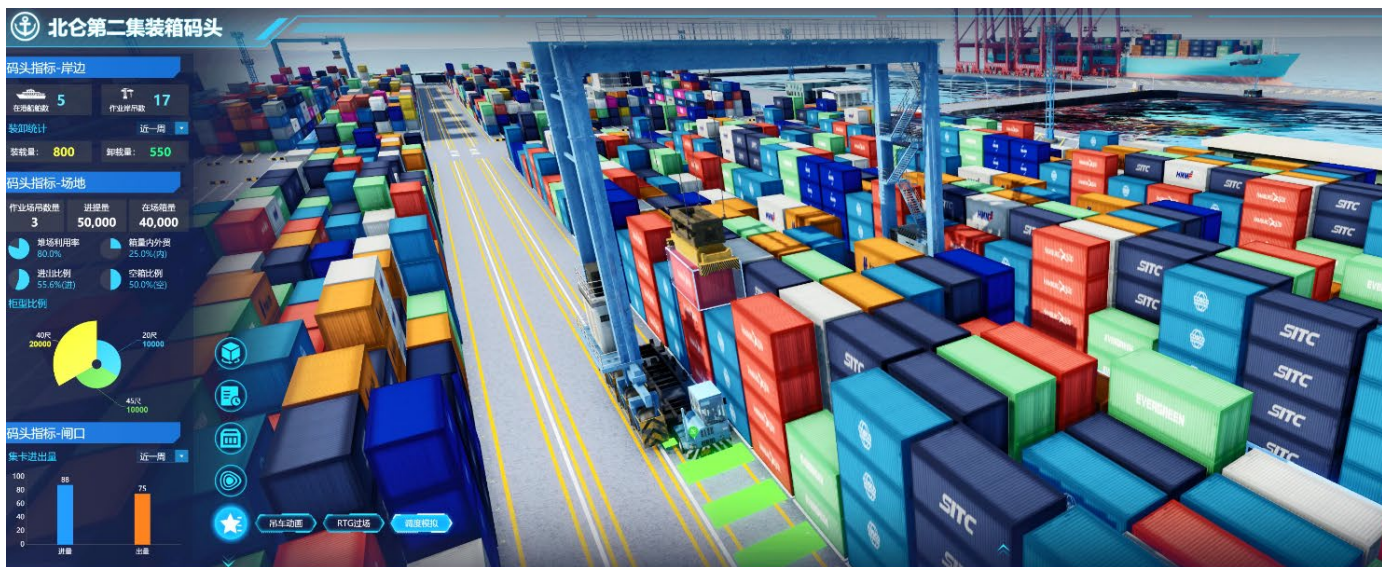




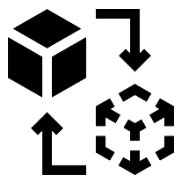
# Scalable Realtime & Citywide



- Citywide 100k plus km2 area coverage
- Supporting 100k plus fast & dynamic object realtime update & display
- Supporting 100k plus light source rendering.





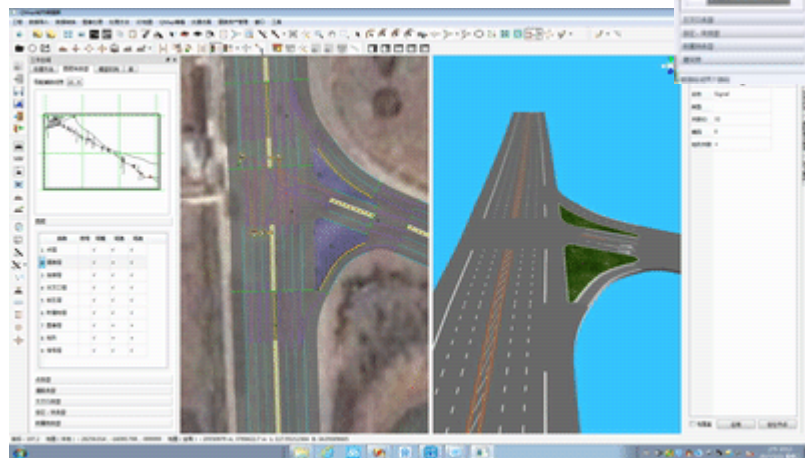
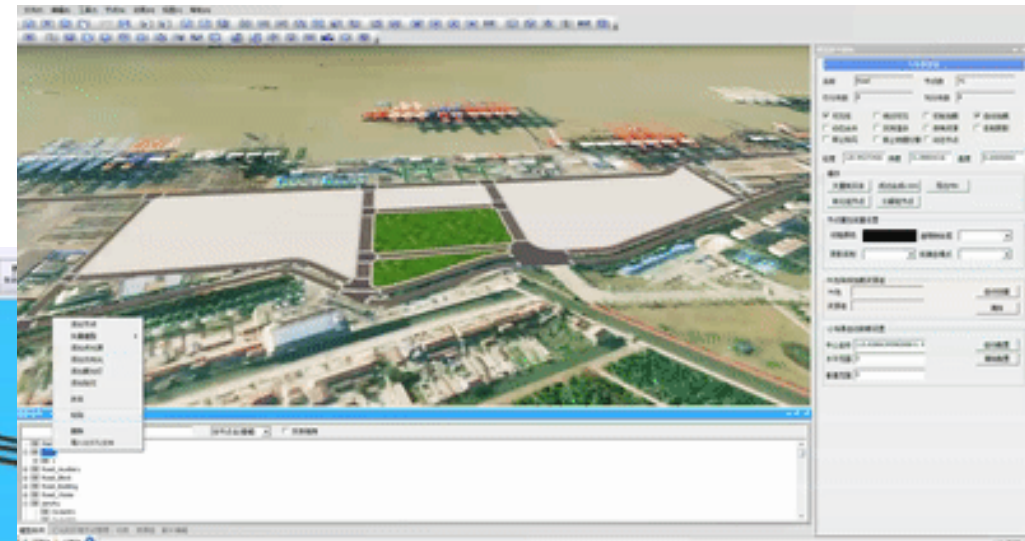
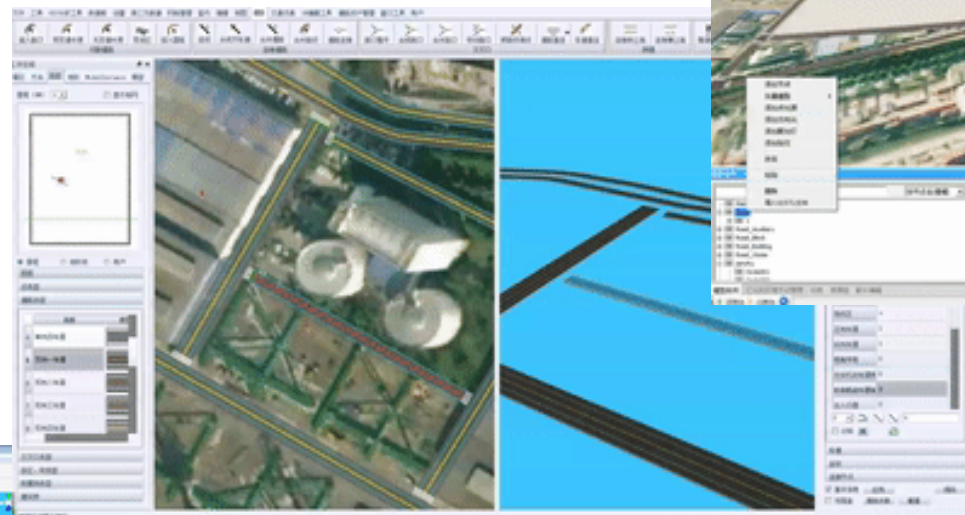
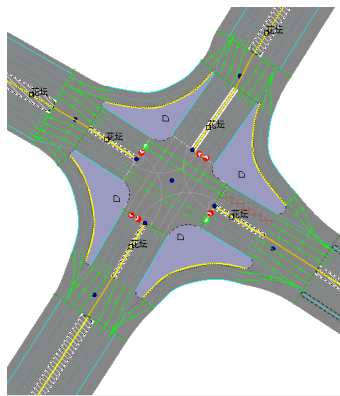


# 3D Model editing



## Quick Editor

- Efficient 3D Modelling
- Different editing model like city, campus, road and rural etc..



## Road Topology

- Based on automatically generated 3D road network models, road topology can be created and edited through parameter settings.
- This includes roads, medians, sidewalks, streetlights, traffic lights, and more.
- The created roads possess complete topological information, enabling the rapid construction of urban transportation networks.





# Hyper Realistic AI Concierge

## Interaction Experience like a human



Personal Interact Languages Training

Real Emotion Expression

Body Languages

Personalize Voice and Environment  
Expression

Support conversational voice and  
face recognition

**AI Concierge**



# Hyper Realistic AI Concierge

## Interaction Experience like a human

### Human voice recognition algorithm

Can effectively lock speakers in noisy public environments

### Facial recognition technology

It allows AI Concierge to recognize people and bring them a familiar and cordial interactive experience

### Scenario based training

Allows AI Concierge to be trained for languages or dialects, and, for scenario.

### Link up to management platform

Link up to live database for productive machine & human interaction.



# Safety Enhancement

## - Electricity Leakage Suppression

### Design with our own R&D team

- Harmonic suppression, to suppress leakage far beyond fatal level

### Suppression performance compared with RCCB

- ~5 times better in response time
- ~8-10 times better in maximum leakage (current)

### Minimize uptime of operation

- In case of circuit fault, equipment can still be in operation.
- Prevent fatality and fire.





# Electricity Leakage Suppression Units



220 Vac



380 Vac

## Leakage Current Capture

- Effectively absorbs the leakage current from electrical appliances to prevent the risk of electric shock and reduce damage to electrical appliances.

## Surge Suppression

- Effectively suppresses the surge current generated by the power grid, captures and suppresses high currents, accelerates grounding discharge, and reduces damage to electrical appliances.

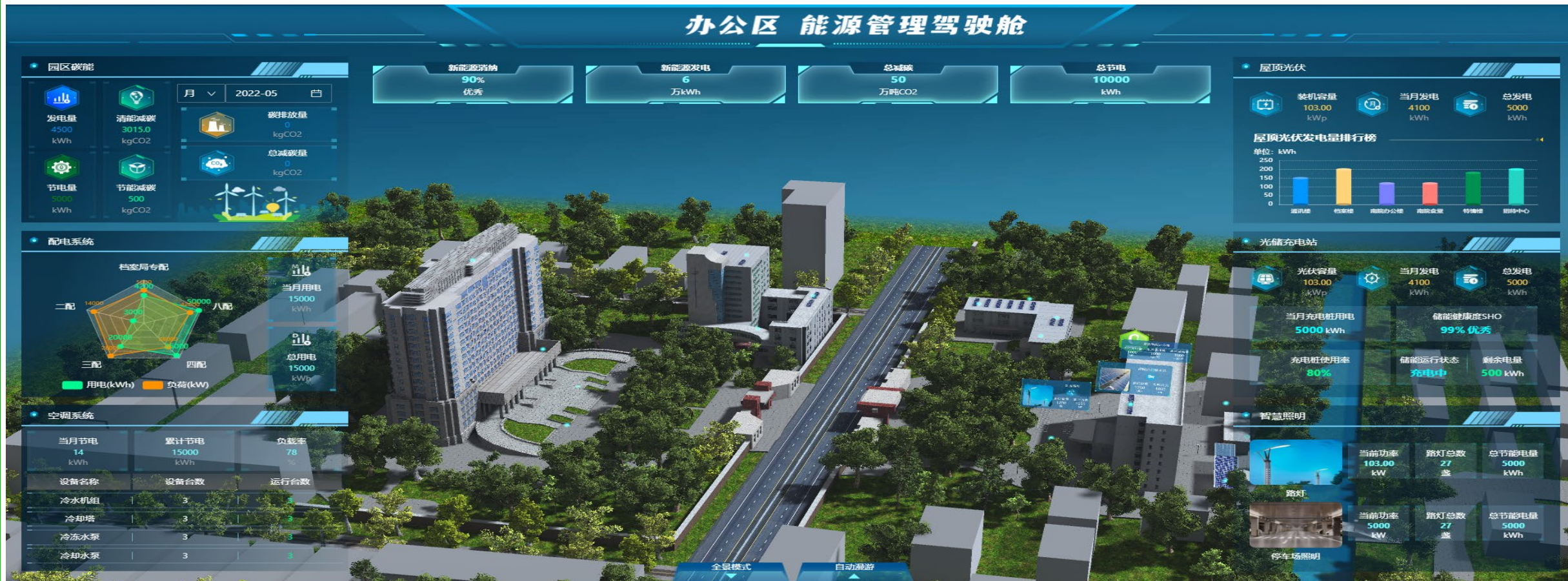
## Electricity Leakage Suppression

- Effectively suppresses the generation of harmonics, electromagnetic waves, and static electricity in the electrical circuit, purifying the power grid environment and reducing energy consumption.

## Load Return Drainage

- When electrical appliances experience leakage due to moisture, it prevents the leakage current from flowing into the water body. Instead, it absorbs the leakage current and redirects it back to the power supply circuit for re-use, thus saving energy. It ensures that electrical appliances continue to function even in emergency situations where they may come into contact with water.

# Energy & Carbon Emission Management



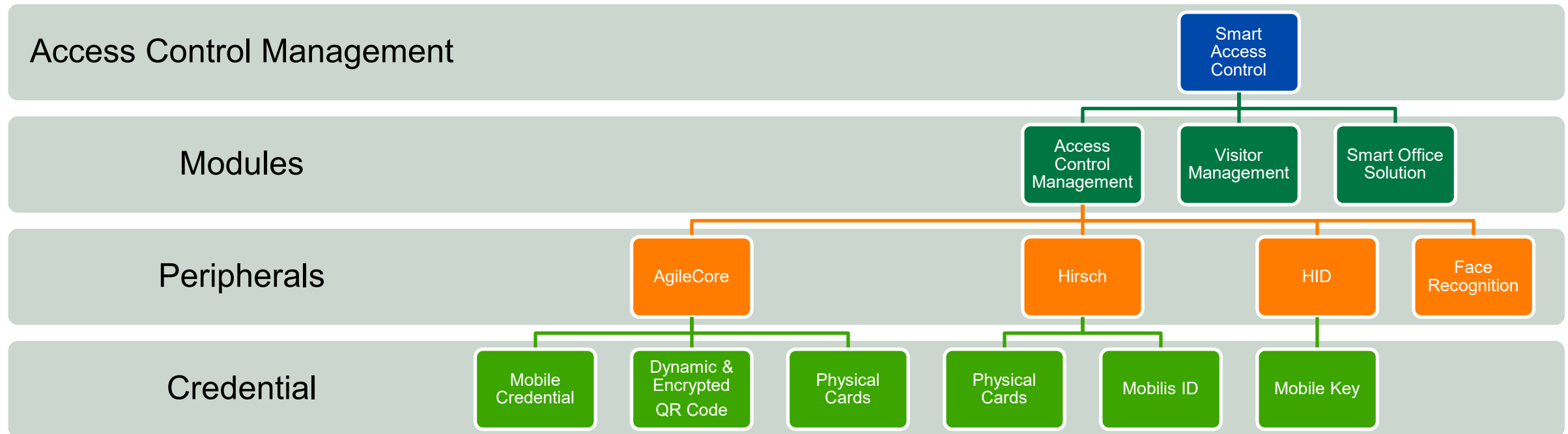
能源数据可视化

分析工作工具化

减碳路径可量化

河南省委办公园区能源管理平台

# Smart Access Control





# All-in-one Reader – VC Series



- ▲ 125kHz, 134,2kHz 13.56MHz
- ▲ Dynamic & Encrypted QR Code
- ▲ Wallet Pass (NFC)
- ▲ Bluetooth (BLE)
- ▲ Many others physical cards
  - Cardax
  - Mifare
  - Deister
  - Isonas
  - Legic
  - IDTeck
  - Sony FeliCa
  - Miro
  - Nedap
  - Calypso
  - Topaz
  - ...



**Finger Vein**



# Reliable & Scalable



## Connectivity

- 20,000+ video channels in single cluster
- Multiple clusters in federation

## Searching

- Petabyte Class Searching in seconds
- 1 Billion+ Picture Searching in seconds
- 10 Million+ Directory Searching in seconds

## Application Resilience

- Application resume within 180 seconds maximum

## Recording Resilience

- Recording failover to other cluster within 10 seconds
- Recording interruption caused by application failure is less than 40 seconds

## Transcoding

- Single server transcoding of 80 channels of 1080p H.265

## Recording Storage

- Single server records 1200 channels of 4Mbps video stream

# AgileCodec

- AgileCore Smart Codec



Standard H.265



Various Smart 265 Codec



AgileCore Smart Codec



**AI Driven Dynamic Analysis to save more than 50% storage**

Original Video



H.265, 4K/1080P

*AI Pixel Level Layering*

**Detailed  
ROI Dynamic  
Analysis**

*Background Filtering with  
accurate object classification*

Moving Object



Static Background



Object & Background  
Fusion for encoding



**Clarity unaffected** to human eye,  
and to video analytics engines.  
**No Video Quality Loss,**  
and is still with **H.265 codec compliance**



# Patrol Management (SaaS)



敏键创新有限公司

公司管理

公司信息

人员管理

考勤管理

区域管理

楼宇管理

公告管理

已安装设备管理

巡检管理

巡检任务管理

巡检事项配置

首页 | 人员管理

人员管理 | 部门管理

+ 添加人员

请选择部门

搜索

头像	姓名	联系电话	性别	人员卡号	部门	出生日期	邮箱	操作
	巡更人员2	19963822647	男	002B0BF2	设备巡检部门	-	-	
	Howe	13925148005	男		测试运维部	-	-	
	维修工人2	1234567	男	002B3326	维修管理部	-	-	
	Antonio	66928069	男		维修管理部	-	-	
	Willie	66861410	男		监控管理部	-	-	

公司信息

人员管理

考勤管理

区域管理

楼宇管理

公告管理

已安装设备管理

巡检管理

巡检任务管理

巡检事项配置

设置

首页 | 巡检管理 | 巡检异常问题

请选择处理时间

地址

图片	点位名称	点位地址	异常内容	巡检人	巡检时间
	澳门办公室	广东省珠海市 香洲区拱北街道办 澳门招商局第一国际商业中心9楼	澳门办公室 门禁巡检 - 进作是否异常	维修工人2	2024-02-26 16:55:53
	Macao office	广东省珠海市 香洲区拱北街道办 澳门招商局第一国际商业中心9楼	Macao office 门禁巡检 - 门禁是否异常	维修工人2	2024-02-26 16:22:13
	Macao office	广东省珠海市 香洲区拱北街道办 澳门招商局第一国际商业中心9楼	Macao office 门禁巡检 - 门禁是否异常	维修工人2	2024-02-26 16:21:10
	Starry Terrace Point C	香港特别行政区 葵青区葵青街 葵青大厦21楼	Starry Terrace Point C 办公区设备是否异常		2024-02-23 12:16:43
	Starry Terrace Point B	香港特别行政区 葵青区葵青街 葵青大厦21楼	Starry Terrace Point B 空调是否正常运行		2024-02-23 10:13:39
	Macau office point B	澳门特别行政区 澳门半岛 大堂区拱北街道办 澳门招商局第一国际商业中心9楼	Macau office point B 垃圾桶垃圾是否清理		2024-02-22 15:09:37
		澳门特别行政区 澳门半岛 大堂区拱北街道办 澳门招商局第一国际商业中心9楼			

巡检异常问题

Macau office point B

澳门招商局第一国际商业中心 9楼 其他区域

巡检人员

Antonio 66928069

2024-02-22 15:09

处理人员

Antonio 66928069

2024-02-22 15:00

异常目标: 办公区环境卫生监督

垃圾桶垃圾是否清理

处理记录

2024-02-22 15:00:45

问题已解决

2024-02-22 15:00:42

取消

16:20

100

敏键创新有限公司

路线详情

CS-小区花坛巡检路径

巡检间隔时间: 5分

未完成

15分

点位

长沙-测试区

距离当前43.6m

业主单位

敏键创新有限公司

管理

AgileCore E-Patrol Manager

13338550222

巡检点位 (3)

鑫远逸园小区1区花坛

未完成

鑫远逸园小区2区花坛

未完成

鑫远逸园3区花坛

未完成

小区花坛巡检

地面是否干净, 是否有落叶未扫, 树木修剪是否整齐, ...

下午4:12 | 4.5K/s

巡检任务统计分析

生成报表

天

周

月

年

2024-03

选择日期

11.3 % 任务完成率

97

11

0

全部任务

已完成

发现异常

巡检任务统计分析

全部任务 97 个, 完成巡检 11 个, 发现异常点 0 个

巡检任务位置分析

# Patrol Robot



 Indoor – Patrol



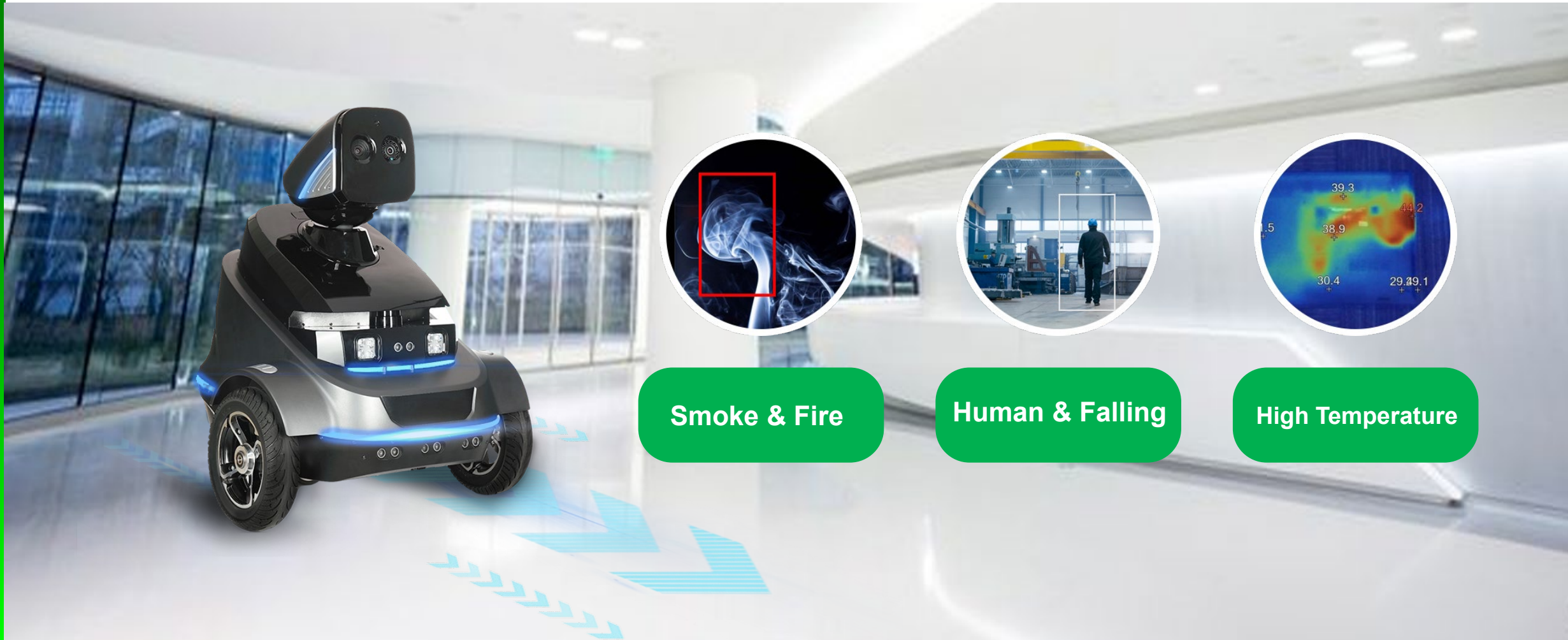
 Outdoor – Patrol (Preview)



# AI Enabled Robot



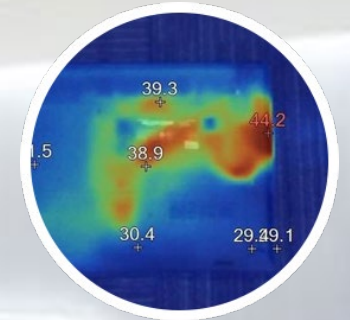
Dual Vision Robot (Thermal and Normal)



Smoke & Fire

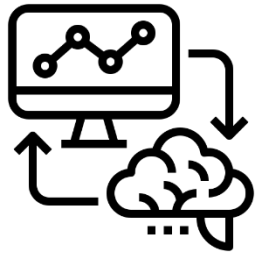


Human & Falling




High Temperature



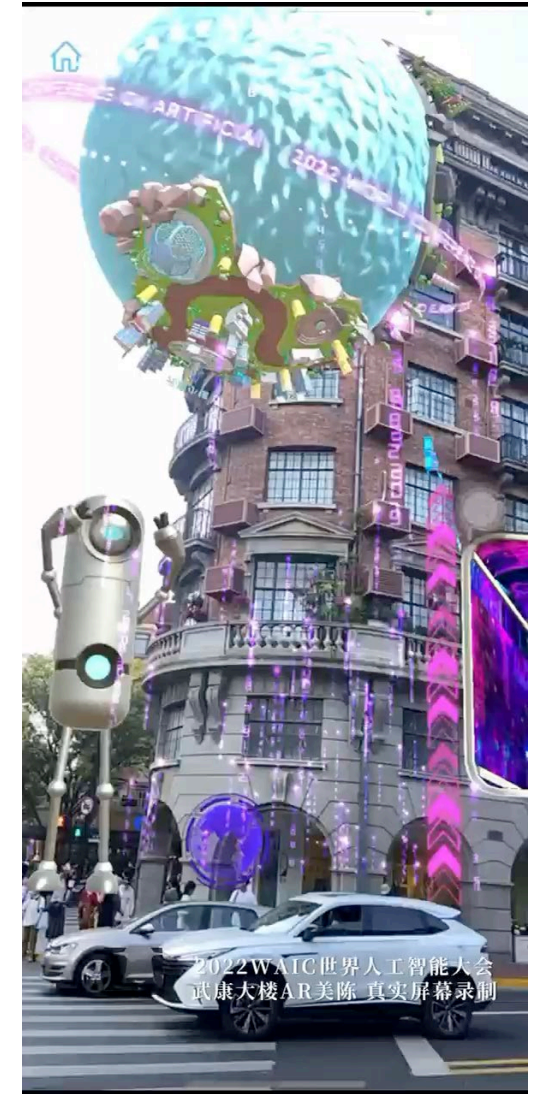
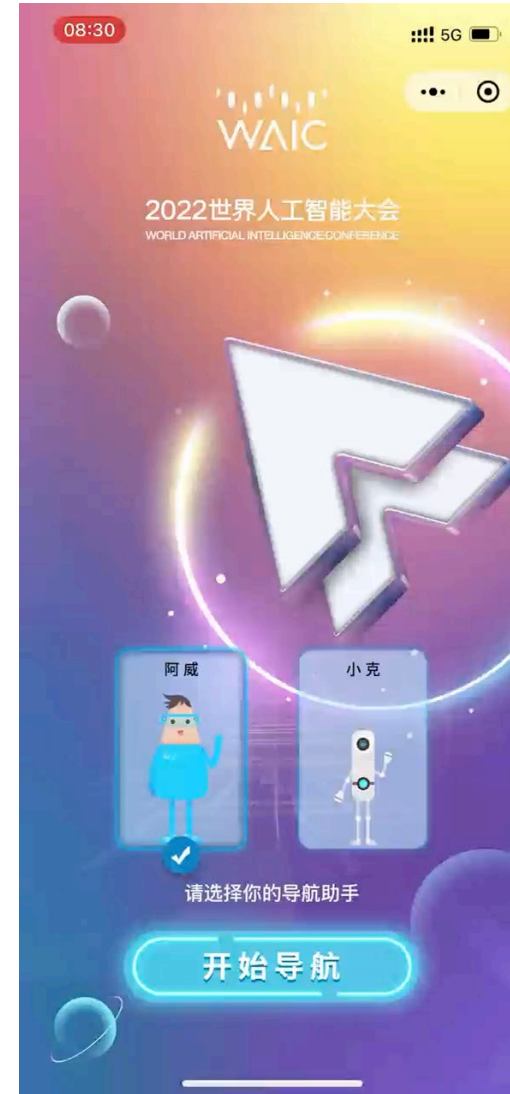



# Visual Based AR Guiding

 NO NEED for other location tracking solution, like Bluetooth or WiFi based RTLS.

 Based on

- Visual characteristic of the scene
- Sensors on smart phones





# Register today!!!

## Looking forward to see you there!!!

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**RSVP / Enquiry:**  
[R-S-V-P@AgileCore.hk](mailto:R-S-V-P@AgileCore.hk)

(Limited Seats, registration will be based on SQX's final confirmation)

Focus  
Open  
Service