

3GSYSCOM Cleanroom Control and Monitoring System

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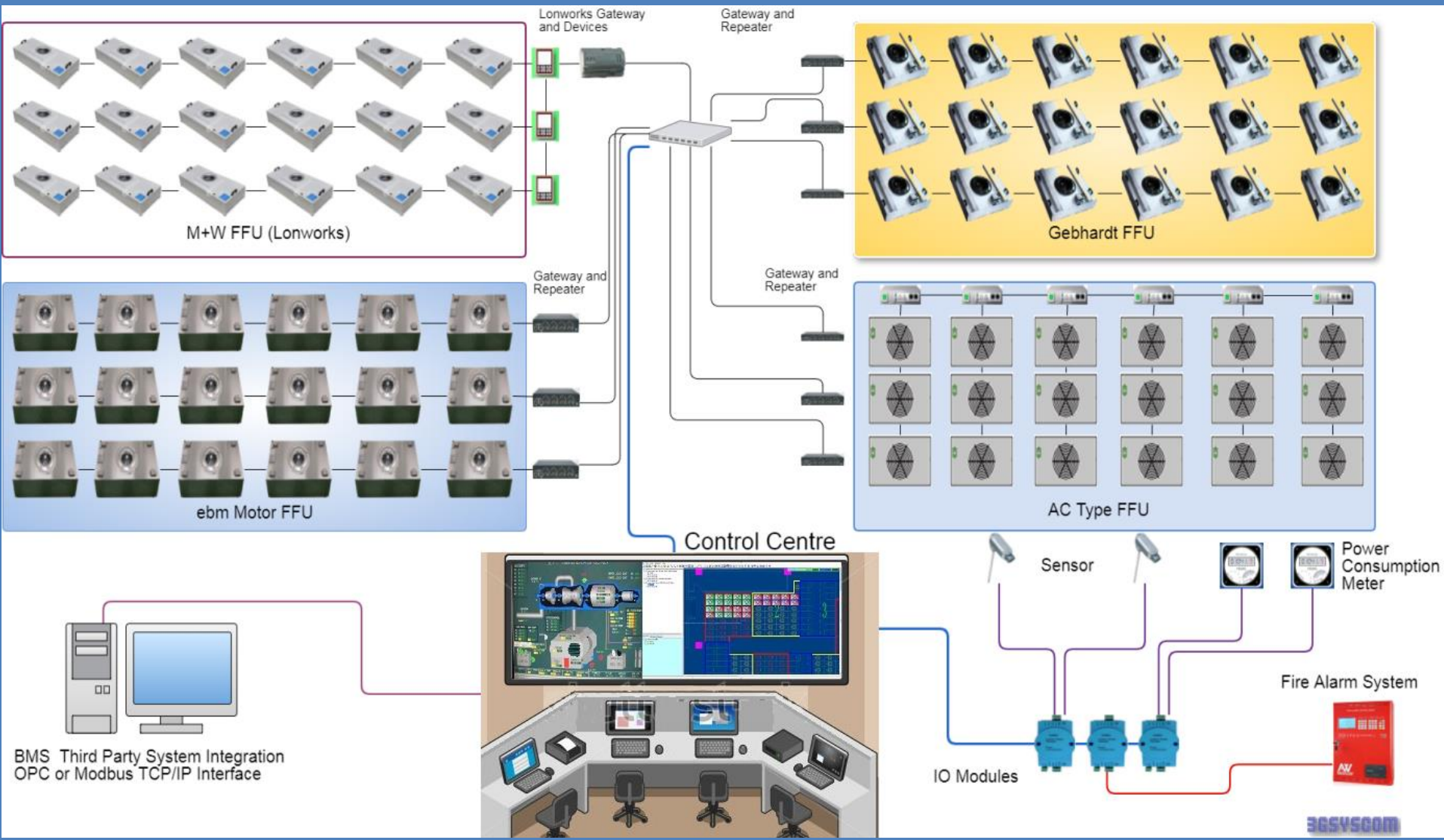
Website: [HTTP://WWW.3GSYS.COM](http://www.3gsys.com)

Online Demo: [HTTP://www.3gsys.com/main.php](http://www.3gsys.com/main.php)

3GSYSCOM FFU SYSTEM Main Features

- Industrial leading software system for control and monitoring cleanroom FFU
- Controls ebm, M+W, Gebhardt, Ziehl abegg and AC Type of FFU;
- Support ebm Bus, Modbus, Lonworks as well as add-in defined protocol;
- Support Velocity sensor, air pressure differential sensor, Alarm IO;
- AutoCAD Vector drawing layout, smooth zoom in without lost drawing quality;
- Free select and control, adjust FFU speed by rpm or Velocity;
- Migrate from eLisa, M+W system without changing existing gateways or any hardware devices.

3GSYSCOM Pte Ltd FFU Control System



System Features

Control and monitor multiple brands of Fan Filter Unit; reserve interface for new motor protocol to be added in

Supported Brands:

- ebm Motor, any vendors FFU use ebm motor;
- Gebhardt FFU, Gbus and Lonworks protocol;
- M+W FFU, Lonworks;
- Envico FFU, Modbus, eLisa Gateway;
- AirCare FFU, Modbus;
- Ziehl-Abegg FFU, Modbus;
- Korea Syswork Motor FFU, Wonbang AC/EC FFU;
- Top-Well FFU;

Built-in sensor integration

Able to connect Velocity Sensor, Pressure differential Sensor, Fire Alarm Sensor as well as any IO signal:

- Any brand of IO module supported Modbus TCP, Advantech, Moxa;
- Dwyer velocity sensor;



Configure up to 256 communication channels or ports

Supported direct USB to RS485 converter, multiple PCI to serial ports card, Ethernet to RS485 server Gateway, Lonworks gateway



System Features

Multiple types of FFU may co-exist in single system, no limitation for number of FFU in a system

Example: for an existing M+W FFU system, ebm Motor FFU can be added or to replace faulty M+W FFU;



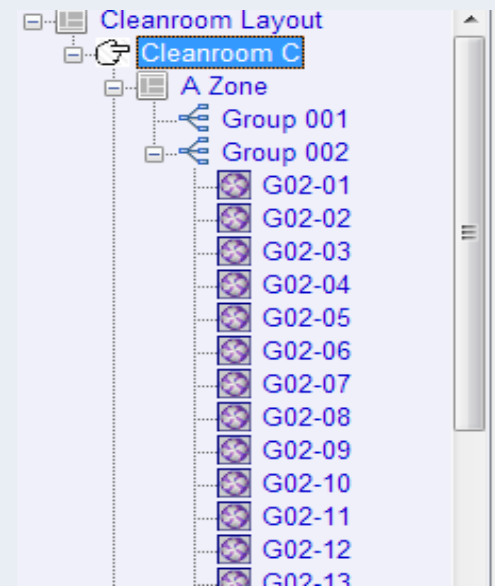
Besides supporting vector drawing layout plans, it also supports common image file formats like JPG, PNG

FFU layout plan Autocad .dwg file exports to vector drawing formats .WMF or .EMF, and imports to system; compared to common picture files, vector drawings retains picture quality when zooming in;

Up to 5 levels in hierarchical tree structure; option to create zone level

Tree Structure

- Overview home page
 - Cleanroom C
 - Zone (Optional)
 - Group XX
 - FFU

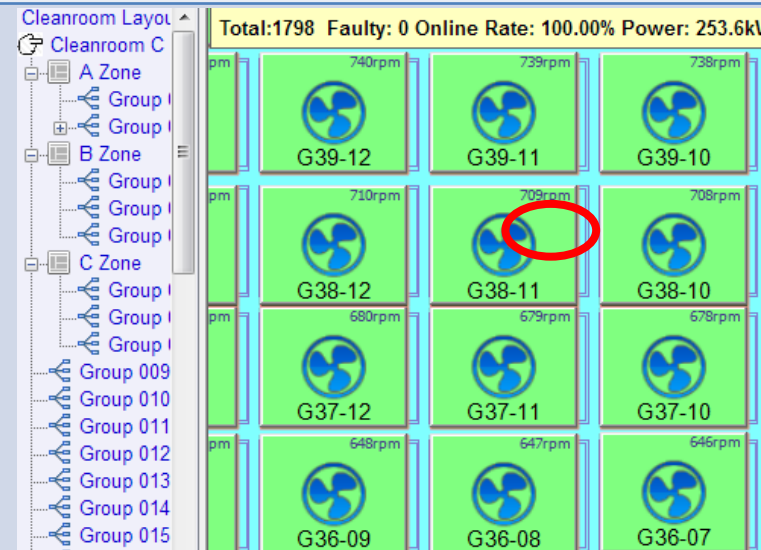


System Features

Rapid response time

Scan FFU status and rpm concurrently: all of configured communication channels or ports can scan their FFU status and speed concurrently; 25,000 FFU, connected to 92 communication channels, responds to rpm change within 10 seconds.

Display real time rpm on individual FFU icon, updates color according to pre-defined color scheme



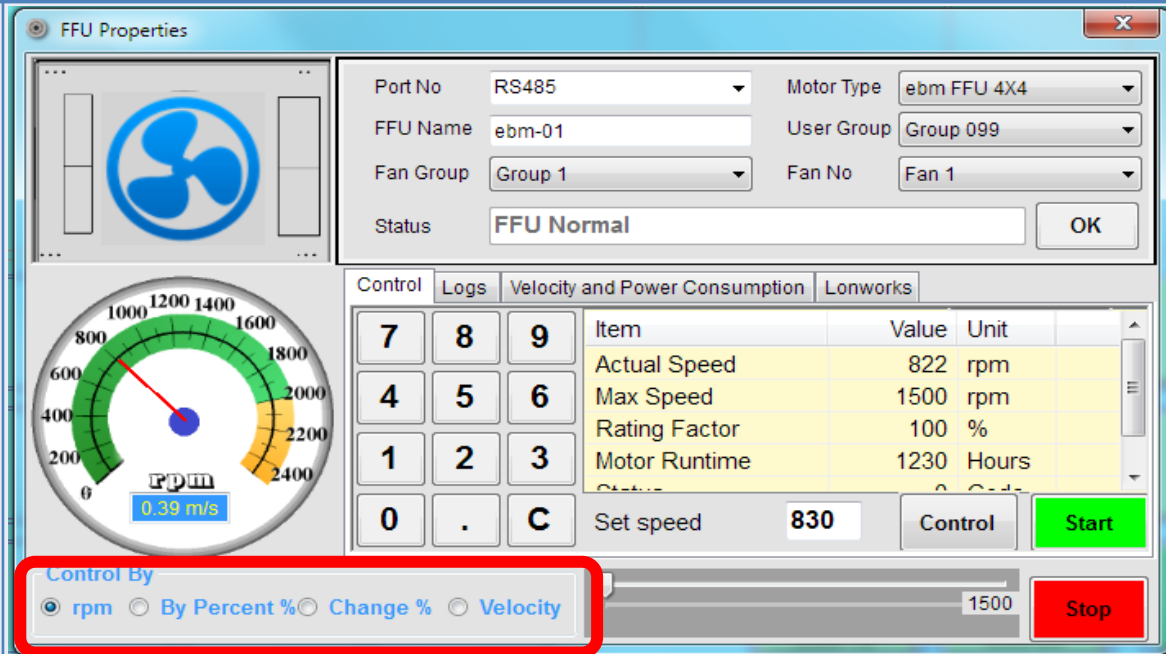
Display power estimated consumption and FFU online rate for individual channels or ports

Total:1798 Faulty: 0 Online Rate: 100.00% Power: 253.6kW					
No	Name	FFUs	Faulty	Online	%
1	FFU PAN B01-P1	116	116		100%
2	FFU PAN B01-P2	120	120		100%
3	FFU PAN B01-P3	116	116		100%
4	FFU PAN B01-P4	29	29		100%
5	FFU PAN B02-P1	234	234		100%
6	FFU PAN B02-P2	240	240		100%
7	FFU PAN B02-P3	236	236		100%
8	FFU PAN B02-P4	134	134		100%
10	FFU PAN B02-P5	202	202		100%
11	FFU PAN B03-P1	248	248		100%
12	FFU PAN B03-P2	247	247		100%
13	FFU PAN B03-P3	178	178		100%

Control FFU

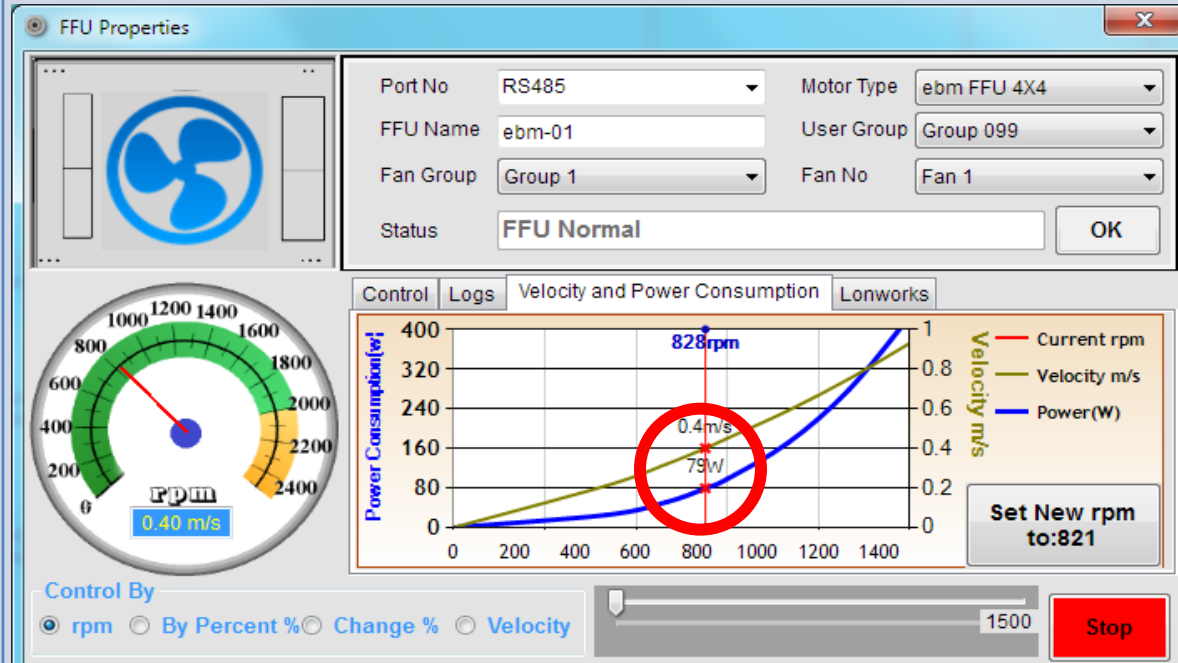
Control individual FFU

- By rpm;
- By Velocity;
- By Change %, increase or decrease %;
- By Percentage, % of Max speed;



Velocity and Power Consumption curves:

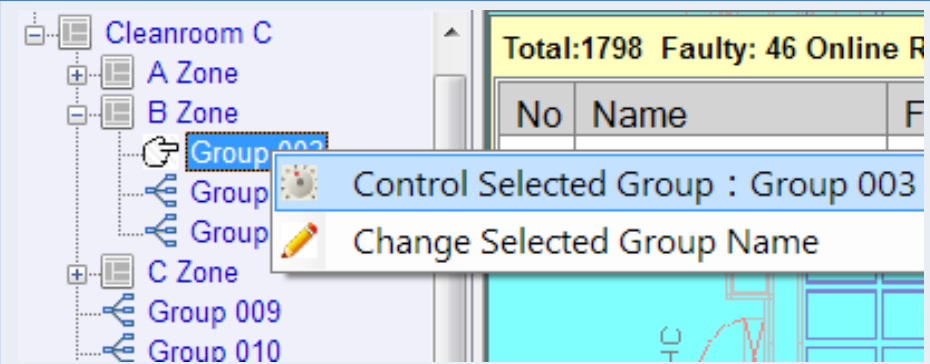
By measuring serial of velocity and power consumption data, use statistical tools to generate velocity and power consumption formula; formula parameters can be set in system options setup page; Click on any point of curve, and click <Set New rpm to :xxxx> to set speed to meet velocity.



Group Control

Control individual Group

Select a Group from left hand side tree view panel, right click shown popup menu, and select <Control Selected Group: Group XXX>



Control Selected FFUs

Press and hold mouse left button, and draw a rectangle to select multiple FFU, double click at selected FFU or right click to shown popup menu, and select <Control Selected FFUs>

- By rpm, Enter new rpm to control selected FFU;
- By Velocity, select control by <Velocity>, and enter set velocity value 0.xx m/s.

ID	FFU Name	Actual rpm	Target rpm	Status	Default...
2...	G08-26	686		FFU Normal	
2...	G08-27	687		FFU Normal	
2...	G08-28	688		FFU Normal	
2...	G08-29	689		FFU Normal	
2...	G08-30	690		FFU Normal	
2...	G09-26	716		FFU Normal	
2...	G09-27	717		FFU Normal	
2...	G09-28	718		FFU Normal	
2...	G09-29	719		FFU Normal	
2...	G09-30	720		FFU Normal	
3...	G10-26	746		FFU Normal	
3...	G10-27	747		FFU Normal	
3...	G10-28	748		FFU Normal	
3...	G10-29	749		FFU Normal	
3...	G10-30	750		FFU Normal	
3...	G11-26	776		FFU Normal	
3...	G11-27	777		FFU Normal	

Control By

☒ By rpm ☐ By Percent % ☐ Change % ☐ Velocity ☐ Default setting

Set Value Speed

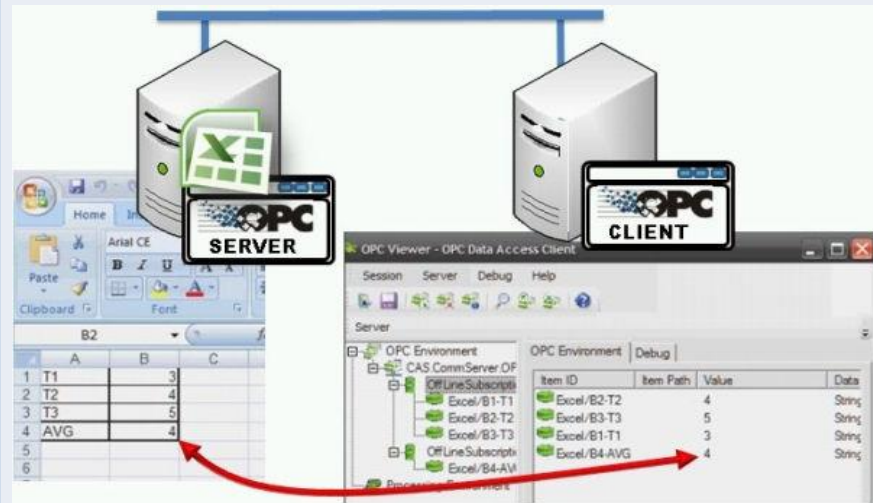
0 1500

Set Default Setpoint

BMS/Third party System Integration

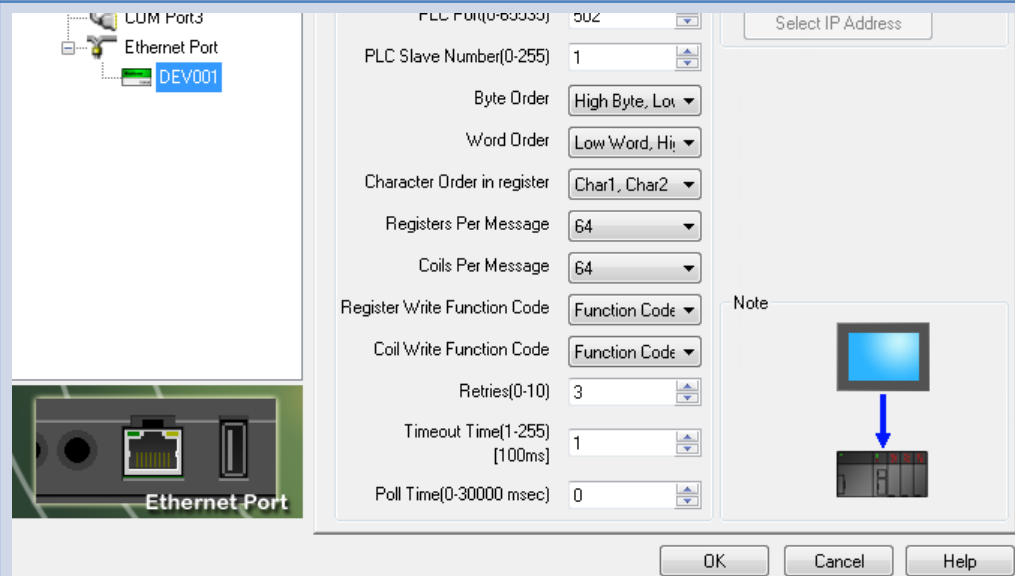
FFU OPC Server

Provide OPC UA server interface for third party system to read FFU status and speed



Modbus TCP/IP

Provide Modbus TCP/IP server for third party system to read FFU status and speed, set FFU speed is an optional feature

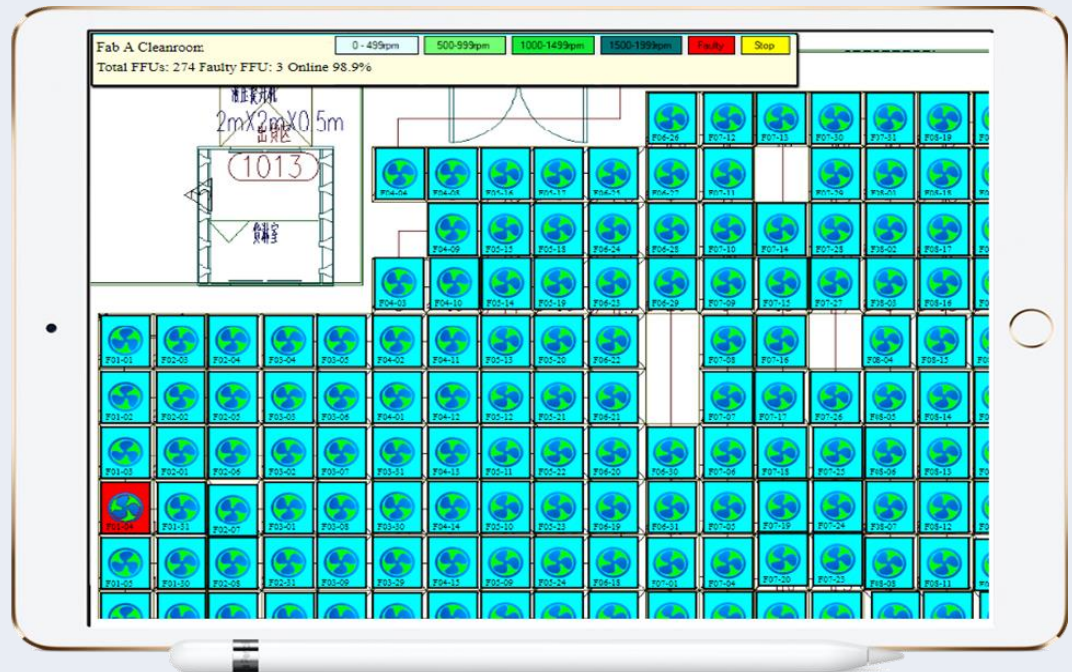


IoT Internet of Things and FFU system on cloud

Run FFU system on cloud or Intranet, check FFU status on iPad or smart phone.

DEMO:

<http://www.3gsys.com/FFUDemo.html>



Cloud backup and restore system, in the case of PC hardware problem, easily restore the whole system to another PC from cloud

Registration and Backup

Project Information

Customer ID: SANDISK
Company Name: Sandisk Penange Pte Ltd
Project: SandiskPIII
License Key: DEMO

Restore Database

Backup History

Backup ID	Backup On	Backup File Name
<input type="checkbox"/> 201801111459	2018/1/11 14:59:00	DataBackup/CSANDISKPSandDiskP:
<input checked="" type="checkbox"/> 201801111501	2018/1/11 15:01:51	DataBackup/CSANDISKPSandDiskP:
<input type="checkbox"/> 201805121100	12/5/2018 11:00:52 AM	DataBackup/CSANDISKPSandDiskP:
<input type="checkbox"/> 201806160933	16/6/2018 9:33:43 AM	DataBackup/CSANDISKPSandDiskP:

Delete Backup

Download Backup **Cloud Backup** **Cancel**

Demo and free trial

Online Demo:

<http://www.3gsys.com/main.php>