



# SensingTEK WSN DataCenter Basic\_v1.1.7.2 User Manual

SensingTEK WSN DataCenter Basic® is the software of communicating monitor and controller. It is applicable for Wireless communication products (ZigBee/High Power) & Sensors.

• RSZ485/COZ485

Available modules

• AIZ100

DIZ100

DOZ100

- RSZ232/COZ232
  THZ100
- EDP100

• SPM111-C

- RTZ232
- COZ100SPM111-U

• COZ101

SensingTEK Co., Ltd 2F, No.6-2, Dusing Rd., Hsinchu Science Park, Hsin-Chu 300, Taiwan, R.O.C. sales@sensingtek.com.tw Tel +886-3-5678066 | Fax +886-3-5678985 www.sensingtek.com

# WSN DataCenter Basic User Manual

## **Directory:**

#### Data Center Features:

- A) Immediate Monitor
- B) Set Alert
- C) Design Layout
- D) Historical Data
- E) Alarm notification
- F) Add to Mail Notice on Ver.1.1.7.2
- G) All connect/disconnect Button
- H) Add SPM111 setting function

#### Remarks:

- ✓ First, connect the Coordinator with PC, and turn Node on.
- ✓ In Transmitting Data Mode, the LED green light is on and the LED red light is flashed.
- ✓ Windows XP or Windows Server 2003 up, need to set Microsoft NET Framework 3.5

# A) Immediate Monitor

#### Step 1: Change User PC IP

- ✓ For Ethernet transmission interface, prior to setting up IP manually, you have to comprehend the following default of wireless coordinator:
- ✓ IP address: 192.168.0.10
- ✓ Subnet mask: 255.255.255.0
- ✓ Set up the server IP address at the 《LAN-Internet Protocol》; and this IP address shall be in the same domain. For instance: IP address is 192.168.0.XXX
- ✓ XXX can be any number between 001~254 (not duplicate to the coordinator's IP address), and not used by any other device.
- Note: If your Coordinator is COZ101, you can omit to do this step.

General	roperties
You can get IP settings assigned this capability. Otherwise, you nee the appropriate IP settings.	automatically if your network supports of to ask your network administrator for atically
Use the following IP address	
IP address:	192.168.0.10
Syphet mask:	200.200.200.0
Default gateway:	
Obtain DNS server address	automatically
Defend DNC serve	n addresses.
Freterred DNS server:	· · ·
Alternate DNS server:	
	Advanced

#### Step 2: Open SensingTEK WSN DataCenter Basic

🌾 SensingTEK WSN DataCenter Basic-	EN - Version 1.1.7.1										- 6 🛛
<u></u>	)									Sens	sing TEK
📑 Monitor 🧧 Chart 🏼 🎁 S	Settings 📓 Layo	out									
	Please Set I	Picture In Tab-"La	ayout"								
	O Layout 1:Unse	t	🔿 Layout 2:U	nset	(	🔿 Layout 3:Uns	et		🔿 Layout 4:Unse	t	
	Node Tag I	D 🔺 Type ID	Data Time	Status	S1 Tag	S1 Value	S1 Unit	S2 Tag	S2 Value	S2 Unit	S3 <sup>-</sup>
	<										>
	Realtime Date	ta 🔘 Node Events	O Sensor Events					🗹 Alarm	Alarm Check	Alarm	Test
								L			

#### Step 3: Add New Coordinator

✓ Click ● "Settings", and press "Add New Coordinator"



#### Step 4: Coordinator Setting

- (a) Ethernet Coordinator (COZ100) Setting
  - ✓ Follow the parameters which are the same value as "Ethernet Settings" of Engineering Tool.
  - ✓ Choose Protocol to "TCP"

SensingTEK WSN DataCenter Basic-EN - Vers	ion 1.1.7.1			
008=00				
Monitor Chart 📆 Settings	👰 Layout			
USER-F555048CAE(192.168.1.10)	Config Coordinator			
	Coordinator ID	1	ID range:1~32767	Setting as Engineering Tool
	Coordinator Tag	Demo		Ethernet Settings
	Protocol		P	Network           DHCP         DHCP IP           IP Address         192.168.0.63
	Remote Port	10063	Port range:1~32767	Subnet Mask 255 255 255 0 Gateway 0.0.0.0
	Remote IP	192.168.0.63		Connection
	Auto-Connect When	Program Start	WSN DataCenter 😿 创对 留定	Protocol TCP Remote Host 0.0.0 Broadcast Local Port 10063 Remote Port 10063 Close XPort Baud rate 115200
	Save	Add	nove Coordinator	Back To Menu
	1			

#### (b) USB Coordinator Setting

- $\checkmark$  Follow the parameters.
- ✓ Choose Protocol to "UART"
- $\checkmark$  COM Port number must the same as user PC.

	B Device Manager	
	File Action View Help	
Ø SensingTEK WSN DataCenter Basic-EN - Version 1.1.7.1	+ → 8 6 6 8 8 3 ≈ 3 8	
Preside TESS DataCester Deside ER - Yenios 1.1.7.1 Monitor Chart Settings Layout Wonitor Chart Settings Layout USER-F555048CAE(127.00 Contribution Coordinator Coordinator ID Pretocol Outrange:1-32767 Baud Rate 115200 Strutegr2125 #35 DataCester Auto-Connect When Program Start Save Add Remove Coordinator	Computer     Computer	
c > c		*

#### Step 5: Connect nodes with devices or put nodes in monitoring place

 $\checkmark$  Switch nodes power on and check nodes which are in communicating mode.

#### Step 6: Start to Monitor

- ✓ Click **0** "Monitor"
- ✓ Choose "Connect"

SensingTEK WSN DataCenter Basic	EN - Version 1.1.7.1										- 8
998×09										Sen	sing TEX
Monitor 🚮 Chart 🥳	Settings 👰 Layout	i i									
Contraction of the second seco	Please Set Pl Connect Document Collapse	cure In Tab-"Layo	ut"								
			O Lawout 2:Ile	rat		O Lawaut 2-lle	e a 1				
	C Layout I.Onset		C Layout 2:00	iset		C Layour 5:00	561		C Layout 4:0115e	•	× -
	Node Tag ID	<ul> <li>Type ID</li> </ul>	Data Time	Status	S1 Tag	S1 Value	S1 Unit	S2 Tag	S2 Value	S2 Unit	\$3
	<u>د</u>										2
« »	💿 Realtime Data	○ Node Events ○	Sensor Events					🗹 Alarm	Alarm Check	Alarm	Test

#### Step 7: Immediate Monitor

 $\checkmark$  Click  $\,\boxplus\,$  , you can see all nodes information which been monitored.

두 SensingTEK WSN DataCenter Basic-EN - Ver	nion 1.1.7.1																		a 🔀
<b>₩</b>																	6	Sensing	TEX
🦉 Monitor 🔤 Chart 🛛 🎆 Settings	👰 Layout																		
USER-F555048CAE(192.168.0.10)           Connected-Demo-1           Table           Table	Please Set Picture In Tab-"Layout"												Layout	I:Unset		2			
	Node Tag	ID	Type ID	Data Time	Status	S1 Tag	S1 Value	S1 Unit	S2 Tag	S2 Value	S2 Unit	S3 Tag	S3 Value	S3 Unit	S4 Tag	S4 Value	S4 Unit	S5 Tag	\$5 V.
	ZB Soil Water	11	ZB Soll W	2010/11/		Batter	2.8	v	Humi	0	%								
	ZB Soil Water	20	ZB Soil W	2010/11/		Batter	2.7	v	Humi	0	%								
	ZB DI	1	ZB DI	2010/11/		DI1	1		DI2	1		DI3	1		D14	1			
	€ ⊙ Realtime	e Data	O Node I	Events	○ Senso	r Events								✓ Alarm	Ala	rm Check	Ala	ırm Tes	×

# B) Set Alert

- ✓ Click **0** "Settings"
- $\checkmark$  2 Select the node which you want
- $\checkmark$  You could change the nodes name or set the alarm values.

SensingTEK WSN DataCenter Basic-EN - Version	1.1.7.1				
○ ○ <b>8</b> ≥ <b>0</b>					Consing TEX
🌉 Monitor 🔤 Chart 🦷 Settings 🞑	Layout				
G USER-F555048CAE(192.168.0.10) Con	nfig Sensor				^
G Connected-Demo-1					
8 29 DI-1	Parents Node ID	11			
- S2-D12	Sensor ID	2			
\$3-DI3 \$34-DI4	Sensor Tag	Humidity			
B Soil Water-11	Mathematics Type	Humidity			
2 S2-Humidity	Unit	%			
2B Soli Water-20	Output Data Max	0			
S2-Humidity	Output Data Min	0			
	Input Data Max	0			
	Input Data Min	0			
	Alarm Max	80	\$		
	Alarm Min	0	95	6	
	Decimal Number	1			
	Support Negative	🔲 Negative Yes		1	
<	Save	Back To Menu			, ×

## C) Design Layout

- ✓ Click "Layout"
- ✓ Press ❷ "Load Picture"



#### **D)** Historical Data

- ✓ Click ●"Chart"
- ✓ Our Choose the period time of Historical Date



✓ You can see and download historical data to PC



## E) Alarm notification

✓ Abnormal signal to reach the standard, the system send out warning after you set the alarm values. Or you will get unusual message by automatic MSN.

🤨 Sennie 👖 K. WSW DataCenter Banic-EN - Veri																-	6 X
															1	Sensing	
Monitor Gart Ve Settings	Layout	i.															
Buser-F555048CAE(192.168.2     Connected-Demo-1     S1-Di1     S2-Di2     S3-Di3     S3-Di3	Events M     DataCenter     Lo     DataCenter     Lo     Disconnected	SN Settings MSN Account Password gin MSN serve Logout	: sensingle Save F	k@hotmal.con	] Messay	ye to I seleng	notmail con	sage Test									
S2-Humidity	WSNSpla	sh.JPG		O La	cout 2:Unset			0	Lavout	Unset			(	Lavou	t 4:Unset		
3							_										>
	Node Tag	ID Ty	peID	Data Time	Status	S1 Tag	S1 Value	S1 Unit	S2 Tag	S2 Value	S2 Unit	S3 Tag	S3 Value	S3 Unit	S4 Tag	S4 Value	S4 U
1 E	IB DI	1 ZB	DI	2010/11/02 18:09:13		DI1	1		D12	1		DI3	1		D14	1	
2	B Soll Water	11 ZB	Soil Water	2010/11/02 18:09:13		Battery Volt	2.8	V	Humidity	70	%			-			
-	<ul> <li>Realtime</li> </ul>	e Data	) Node Ev	vents O Sensor	Events	Date of the					~	V Ala	rm Ali	arm Chec	× ,	Alarm Tes	

# F) Add to Mail Notice on Ver.1.1.7.2

✓ Use version1.1.7.2 "WSN DataCenter Basic" that you can send mail message on the function.

Crana (12) Olde Cater Base 32 CV reason	1.1.7.1 Layout	1															Sensing	2 × TEX
	er tri Email DataCenter E DataCenter E SMTP server User : Pacewood :	arm Imail Aco Imail Nar I	ovad : med w : med Sea S	snaing@k@meil.com meil.com meil.com SessingTEK ****** SSL Connection			Menage Ema		AAA@mail.com     BBB@hutmail.com     CCC@pubosison     Group.bosison     Menage Enail Text     Save									
0.0	/SNSplas	h,JPG			OLa	yout 2:Unset			0	Layout 3	:Unset			0	Layout	4:Unset		19.8
Noc	le Tag	ID	Type ID	Data Time		Status	S1 Tag	S1 Value	S1 Unit	S2 Tag	S2 Value	S2 Unit	S3 Tag	S3 Value	S3 Unit	S4 Tag	S4 Value	S4 U
Z8 0	4	1	ZB DI	2010/11/02	18:27:21		DI1	1		D12	1		D13	1		D14	1	
Z0 S	oil Water	11	ZB Soil Water	2010/11/02	18:27:24		Battery Volt	2.8	V	Humidity	0	%						
28 5	oil Water	20	ZB Soil Water	2010/11/02	18:27:24		Battery Volt	2.8	V	Humidity	0	*						
	Realtime	Data	O Node Ev	ents O	Sensor	Events							🗹 Alar	m Ala	rm Chec	k 🗌	Varm Test	

G) All connect/disconnect Button

Contraction of the second s																			-	a 🗙
448×00																		1	Sensing	2 1123
1 即時監測 🔤 歴史曲線 🎬	AND REAL ROOM	) is set	t II																	
Image: State		.01 N	interest of the second	ns WSN	Dat	ta (	Een 2008/	Sense Field		1										
		A IPG		C	) 編 屠 二 ジ	未設定			0	開催する	103				0	20月11日	未設定			
	<ul> <li>WSNSplat</li> </ul>									Contract of the second of the	Contraction of the second s									
	WSNSplat	10	2.04	Inversality	-	01/21	01/8			0.084	0.3/2-38	00/8		0.445.00	04/8	0.197.00	0.00	0//8	0.0	0.000
	WSNSplat  NULL(2)	ID A	型射 ZB DI	<b>波科時間</b> 2010/11/05 19:08:20	連線状態	S1位置 DI1	S162	51. <b>東</b> 位 S2位 D12	麗 S2編	82單位	S3位置 D13	83%201 8	33 <b>W</b> .( <u>0</u>	S4位置 D14	S4個	84單位	85位置	85 <b>61</b>	85單位	861QB
¢ 3	<ul> <li>○ WSNSplat</li> <li></li> <li></li></ul>	10 m	<u>최왕</u> 28 Di	波和時間 2010/11/05 19:08:20 2010/11/05 19:08:20	2.144.148 2.144.144 2.	S1位题 D11	S100 1	81章位 82位 Di2	1	S2單位	53(2) D13	834	33 <b>11</b> 2 (2	S4位置 DI4	S4@	S4¥10	SSIQ.	8562	85 <b>W</b> fQ Alam Tes	> S602#
メリントの「「「「「」」」、「「」」、「「」、「」、「」、「」、「」、「」、「」、「」、「	○ W3145plac ● 即加42度 28 D1 <	1D1	5/8t ZB Di	深和時間  2010/11/0519:08:20  現記私事件 ○ 会	<del>連線状態</del> ****33 視感測事件	81位屋 DI1	S100 :	51 <b>111(12</b> 5210 DI2	1	S2単位	S302	834	33 <b>11/(</b> 2	S4位置 D14	S4(	S4單位 Alam	SSIQ.	\$54 <b>1</b>	85單位 Alam Tes	86028

# H) SPM111 setting

- ✓ ●Choose the specific SPM111 that you want to set.
- ✓ OClick tab "Settings"
- ✓ ●Click button "Meter Config"
- ✓ ●Pup up the setting windows for SPM111, and click button "Set" when you finish setting.

🌮 Senning TEX: WSN DataCenter Hans-El	K - Version 1.1.13			- 0 ×
008=00	0 0 0			
Monitor Chart 📝 Settin	ngs 🥥 Layout			
😑 🥅 EASON(192.1 2	Contig Node			^
Connected-11-111	0	113		
28 Plug Meter-1	Parents Coordinator ID	-		
R S ZB Plug Meter-99	Node ID	6	Meter Config	
28 Plug Meter-3	Node Tag	28 Plug Meter		
a 🧭 ZB Plug Meter-5		The state and states	Devic ID 1 (1~99)	
	Type ID	Ten Lund means	Sunday ⊙ All O 00 : 00 ~ 24 : 00 (00:00-24:00) ⊙On O Off	
	Unuse Sensor	59	Monday ⊙ All 000 : 00 - 24 : 00 (00:00-24:00) ⊙ On O Off	
			Tuenday ⊗ All 000 : 00 - 24 : 00 (00:00-24:00) ⊗ On O Off	
	Save Save	Add	wednesday ⊙ All O 00 : 00 - 24 : 00 00:00-24:00 ⊙ On O Off	
	14.0.5		Thursday	1.0
	Meter Config		Fiday	
			Saturday	
			Power Rate 0.51 (\$\$\$.\$\$)	
			Time Internal 10 (10x3600) Report Sat Cannol	
	c		A contract of the second se	8
System Start Time:2011/03	/22 18:29 System Work	ing Time:0 Days		
1 月前 🗧 🌔 🕑 🔍 21	Hi. • 🖉 Googl. 🚟 2 Wi. •	😂 5 HL - 🛐 6 ML - 1	(¥.8. №2.4. · 2) 27510. 2) Senis. @ Senis. CB — 9 ( 6.5° è.8.00 ) ).	74-06-26