## GDEEPIT FDDJJS - PC Version -Instructions Spectrum Genius



#### **Advance Notice**

Please click the SpectrumGenius.exe to run the program. If you are the Advanced User, remember to insert the Hard Key before starting.



Windows 8 or 10 User should install the driver first, the driver is attached in the "USB\_Key\_Driver " folder in the CD.

USB\_Key\_Driver

#### **Advance Notice**

 If users don't have any printer, please go to Bullzip website, download and install the PDF Printer by free to start the printing function.



#### 1) Transmit the data of Lighting Passport to the PC

Four ways to transmit the data



### 1-1) For "Apple", transmit the data to the PC



Open the iTunes and make the iDevice connect with the computer, then click the iDevice.



## 1-1) For "Apple", transmit the data to the PC



In the iDevice menu, click the application.

	₽.		é E	Q- 28518
	SEI 안 iPod touch #	(10 MARA 11 BH	RORANI NUK ANA ANA POLL	
0		iPod touch		
		thill Bi Pod touch Islan inn Bill : CCQME29464	HOS 6.1.2 秋田奈幼) Pod 乾燥已經可供使用(原本 6.1.1)・ 秘密 為 Pod 更新最新的軟化 道 建設 使取(一下・ 単数	
HTING PASSPORT		<b>8</b> 6		
At		自動場合 (Clead 將 Pod 上最重要的資料情況別 Kload + の 信息電報	手動展台並開業 手整約 Pod 機会對這部電腦,約25後錄并在這部電腦上 的機合。 	
		○日本編集/10日 「日本編集/10日 「日本編集/10日 「日本編集/10日 王正常成為 王正常成為 王正常成為 王正 王正 王正 王正 王正 王正 王正 王 王 王 王 王 王 王 王 王 王 王 王 王	眉斯的喉侣: 2013/7/16 <sup>™</sup> 午 04:36剧 Klowd	
	BX HK	<b>有</b> 形材文:	17.41 GB 1(7)	
		(		







# 1-1) For "Apple", transmit the data to the PC Click the "SGM" folder, select the data, then click the "Save as".





### 1-2) For "Android", transmit the data to the PC



Choose your smart device and click the "SpectrumGenius" folder, select the data, then save the txt data to the PC folder.



#### 1-2) For "Android", transmit the data to the PC



You can also transfer the measurement data to PC by the SD card of your smart device.





### 1-3) Transmit the data to the PC by " Wifi "



Click the "Wifi Transfer" button and make sure the IP and PORT correct, then select the place which you want to save as.



## 1-3) Transmit the data to the PC by " Wifi "



 Execute SGM App and click "PC Setting" of settings, tap and fill in IP and PORT.

	Back Setting	•		Back PC Setting		Wifi	Transfer ×
	Bluetooth Pairing	>			_	Choose IP	Choose File
	Integration Time	Auto 🗲		P Address		192.168.2.72	C:\
Single Comparison	PC Setting	>	P	ort	5050	FC.2: 5050	Save
	Data Filter	No Filter 🗲		ease use Spectrum Genius PC ve IP/Port ,then input then	ersion ,check n.		
	ID Setting	>				Host name is TWRD02 Host Port is 5050	^
Multiple Knowledge	Capture Images	On 👂					
	GPS Setting	On >				Natica	~
	Temperature & Humidi	ty On≯				1) Please confirm your mobile d 2) Suggest you to temporarily cl	evice and PC are in the same network ose firewall on PC in order to
Continuous Record(s)	Precision Mode	On >				avoid it blocking data transmissi	on. On Off Exit
	SGM Ap	p				S	GPC

# **1-3) Transmit the data to the PC by "Wifi "** After that, click "Record(s)" and tap "Sent To PC" button, then

select the data which you want transfer to the computer.



## 1-3) Transmit the data to the PC by " Wifi "



Click "on" of PC software and tap "Sent To PC" of SGM app again, then the select data will be transferred to the computer folder.

Wifi Transfer 🛛 🗙	Back Becord(s)	Wifi	Transfer ×
Choose IP Choose File	Single Multiple Continuous	Choose IP	Choose File
PORT 5050 Save	<i>i</i> 2014/11/10 11:13:50 <i>i</i> ios	PORT 5050	C:\Spectrum Genius
Host name is TWRD02 Host Port is 5050	2 diata	-single-20160304-09464 create file, name: office 30 094640.txt Done Server Close Notice	40 07 -single-20160304- v
1) Please contirm your mobile device and PC are in the same network     2) Suggest you to temporarily close firewall on PC in order to     avoid it blocking data transmission.     0n     0ff     Exit	Send To PC Cancel	2) Hease confirm your mobile of 2) Suggest you to temporarily cle avoid it blocking data transmissi	ose firewall on PC in order to
- SGPC -	SGM App -	S	GPC -
ACCNICCTO			







#### 2-1) UI Instruction

◆ Users can use the top left buttons to open the data; save as .dat file or Excel file (.csv); setting data filter and parameter; print the report.

Asensetek Spectrum Genius     -       General     CRI     CQS       Special     One Data	Import File (APP Data .txt)
	Open File (Open .csv/.dat)
	Export File (Save as .csv file)
	Save File (Save as .dat file)
	Delete Record O Re-New (Clean all data)
x 0 10 20 50 40 50 60 70 80 90 100 X Vrakeetigth	

#### 2-2) UI Instruction

◆ GPS MAP, if user import the measurement data that is SGM or SGE v2.2.0 and above version, enabling this new feature will be available.





For China user, please select 百度 MAP to show the GPS.

#### 2-3) UI Instruction

\* (12) for Advanced Users only.

In the "Settings" page, users can customize a lot of advanced parameter settings, then get more convenient in analyzing data.



 Add Std. Source : Add the benchmark light source to compare with the measurement data.

 Select CCT Line: Control the display of the Planckian Locus and the Isotemperature Line.

Set Colors of Data: Set the measure data's color of coordinate point and spectrum line.

**(4)** Change Language: Switching the locales.

#### 2-4) UI Instruction

Data Source Display, Spectrum Genius PC version will show the data source information now. And also marked single, multiple and continuous data by blue lines.

G	ene	ral		CRI		S	pecial	
				File Nam	P		×	
	1	E		office 307-multiple-2	0160304-0	0.330	2	0.3632
	2	5		office 307-multiple-2	0160304-0	0.330	5	0.3630
	3	2		office 307-multiple-2	0160304-0	0.349	3	0.3743
	4	2		office 307-multiple-2	0160304-0	0.335	7	0.3656
	5		•	single-20131204-19	2918	0.377	1	0.4181
	6	2		single-20160407-10	4855	0.331	2	0.3487
	7	2		test021501-continue	ous-201602	0.333	1	0.3633
	8	5	8	test021501-continuo	ous-201602	0.332	5	0.3635



#### 2-5) UI Instruction

SETEK

Users can view the different charts by switch.



#### \* ① ② ④ are for Advanced Users only.

#### 2-6) UI Instruction

The small function keys will help users to check the charts by a much convenient way, and save the required chart directly.

*						Asensete	ek Spectrum Genius				- 🛛 🗙				
General	CRI	CQS	CIE_x 0.2914	Cial C	Dne Data	GPS Multi Data CRI(Ra) 79	•)) 0 🕕 🤹	Illuminance()x)	CIE_u' 0.1995	CIE_V 0.4397	<u>λp(nm)</u> 449.0	1	9		Show Coordinate (Show the coordinate on chart)
2	¥145s1-sing	gle-20160217-1359	0.4403	0.4062	2962	100	100	1167	0.2518	0.5227	780.0		NAME OF A		
	# 4145s2-sing	gle-20160217-1503	0.4402	0.4063	2964	100	100	2301	0.2517	0.5227	780.0		5 7	~ ~	Zoom In/Zoom Out
	Max.		0.4425	0.4076	8986	100	100	2301	0.2526	0.5236	780.0	$(\mathfrak{I})$			
	Min.		0.2914	0.2854	2937			1167	0.1995	0.4397	449.0				
	Range		0.1511	0.1222	6049	20	28	1134	0.0531	0.0839	331.0		K N		(Zoom in/out the chart)
<			0.4050	0.5704	4402	30		1002	0.2303	0.5022	>			and the second	
	ANIST		ি দৰ ব	7	CPI	cos 🙆 🗖	5.7 A CIE 102	CTE 1076 0 5.2 3		Manageliand	0 52 0				
0.345 0.340 0.335 0.330 0.325 0.325 0.320 ≻0.315			ł	R1 - R2 - R3 - R4 - R5 - R6 - R7 -		Ra - 73	Rp=72 0.9 0.8 0.7 0.6 >.0.5		1.0 0.9 0.8 0.7 0.6 0.6 0.6			3			Save Image (Save the chart as an image.)
0.310 0.305 0.305 0.295 0.295 0.295	• 1,280 0.290 0;	300 0.310 0.32 ×	20 0.330 0.3	R8 R9 R10- R11- R12- R13- R13- R14- R15- 40 0	10 20 30	40 50 60 70	0.4 0.3 0.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	02 03 04 05 05 07 08 X	0.4 0.3 0.2 0.1 0.0 380 420 46	160 500 540 580 Waveleng	520 660 700 740 780 ch	4	Nor	malized	Normalized (Switch the Normalized or not)
2		Λs		NE	FE	TFK									

#### 2-7) UI Instruction

♦ In the CIE chart, users can use the left mouse button to click the color point to enlarge it; click again, the focal chart will be restored.



#### 2-8) UI Instruction

Likewise, users can enlarge again the CIE chart in the zoom in mode, and click again will be restored.



#### 2-9) UI Instruction

◆ Users can select and check CIE 1931, CIE 1976, C78.377-2008, IEC-SDCM, CRI, CQS, Radar chart, Bar chart.





#### 3-1) New File – load the measuring data

Click "New File" to choose the folder which you "Save as", then select the single, multiple and continuous data (.txt file) you want to

$\underline{(1)}$				
General CRI CQS S	i Y 🕞	Asensetek Spectrum Genius	<u>ت</u>	- 0 ×
		Select Folder	× Asenseik	
ANSI TEC Q	C [05]     PC     PC	Select Al 4456-ungle-2018/27-3159 44545-ungle-2018/27-3159 44545-ungle-2018/27-3159 4456-ungle-2018/27-3158	<ul> <li>Folder Mode</li> <li>File Mode</li> </ul>	Normalized Q. X. Q. 10. 03. 03. 07. 0.
6000 X	0 10 20 30 40 50 60	0 70 60 10 100	52 03 04 05 06 07 08	03 02 01 00 

Standard User can only read one continuous data at most, 10 single and multiple data at most one time.

analyze and click "OK".

When the hard key is working, the red led will light.

#### 3-2) New File – load the measuring data

There are two models to load the measurement data, "File Mode" and "Folder Mode". Users can select measurement txt file directly

	Select Folder	×
		<b>SENSE</b> TEK
C: [windows8_os] ▼ C: [windows8_os] ▼ Sectrum Genius Sample File App110	Select All multiple-20131209-172829.txt single-20131209-172845.txt single-20131209-172845.txt single-20131209-172459.txt single-20131209-172500.txt Exit	<ul> <li>Folder Mode</li> <li>File Mode</li> </ul>

in the Folder Mode; and then Folder Mode will automatically read the txt file of the measurement folder which users copy from the mobile device. 3-3) New File – load the measuring data
 ◆ If the note of App measurement data is filled in, those information could be viewed here. Please noticed the note of multiple or continuous measurement are bonding.



#### 4) General (One Data)

 $\blacklozenge$  Here, you can check the Max., Min., Range and Avg. of CIE\_x, CIE\_y, CIE\_u', CIE\_v', CCT, CRI, Illuminance, λp of measuring data.

<b>8</b>							Asensetek Spectrum Genius – 🖉 💌											
ł		c c				Y	-2			GPS •	») o 🚺	ø, I	. E	)				
Gener	ral	CRI	(	cqs	Spe	ecial	One Da	ta I	Multi Data									
			File Name		CIE_x	CI	ي∎	CCT(K)	CRI	Ra)	Re(thru R1		Illuminance(lx)		CIE_u'	CIE_V λρ	(nm)	
	8	sun-20160	0401-single-2	2016040	40         0.3276         0.3428         571           0.3276         0.3428         571           0.3276         0.3428         571           0.3276         0.3428         571           0.0000         0         0           0.3276         0.3428         571			5715	10	0	100		14541		0.2029 (	).4777 4	56.0	
		Max.			0         0.3276         0.3428         571           0.3276         0.3428         571           0.3276         0.3428         571           0.0000         0.9428         571           0.0000         0.9428         571           0.0000         0.9428         571           0.0000         0.9428         571           0.0000         0.9428         571			5715	10	0	100		14541		0.2029 (	.4777 4	56.0	
		Min.			CIE_X         CIE_Y         CCT           0         0.3276         0.3428         577           0.3276         0.3428         577           0.3276         0.3428         577           0.0000         0.0000         0           0.3276         0.3428         577           0.0000         0.0000         0           0.3276         0.3428         577				10	0	100		14541		0.2029 (	).4777 4	56.0	
		Range			0.3276 0.3428 5711 0.0000 0.0000 0 0.3276 0.3428 5711				0						0.0000 (	0.0000 (	D.O	
		Avg.			0.3276		428	5715	10	0	100		14541		0.2029 (	).4777 4	56.0	
K		ANSI	IEC	9	CRI CRI				cqs 🤅			CIE 1931 CI	E 1976 👤		Norr	nalized 👤	XA	
G	ene	eral		CRI	ri cqs				Sp		oecial		e Data	Mul	ti Data			
					File Name				CIE	_x	C	IE_y	CCT	(K)	CRI	(Ra)		Re(tl
	1	5	*	sun-2(	016040	)1-sin	gle-2016	040	0.3	276	0.	3428	571	5	1	00		
				Max.	Jax.				0.3	276	0.	3428	571	5	1	00		

Planckian Locus and Isotemperature Line can be showed by "Select CCT Line" of Settings page.

	File Name		CIE_x	CIE_y	CCT(K)	CRI(Ra)	Re(thru R1~R15)	Illuminance(Ix)	CIE_u'	CIE_V	λp(nm)
1 🛃	· 💽	sun-20160401-single-2016040	0.3276	0.3428	5715	100	100	14541	0.2029	0.4777	456.0
		Max.	0.3276	0.3428	5715	100	100	14541	0.2029	0.4777	456.0
		Min.	0.3276	0.3428	5715	100	100	14541	0.2029	0.4777	456.0
		Range	0.0000	0.0000	0	0	0	0	0.0000	0.0000	0.0
		Avg.	0.3276	0.3428	5715	100	100	14541	0.2029	0.4777	456.0

## 5) CRI

 Here, you can check the Max., Min., Range and Avg. of R1 to R15 of measuring data.

*							Asensete	k Spectrum Geni	us						- 0 ×							
	1			T	-2		GPS	•)) •	Ø <sub>0</sub>		C											
Gener	al	CRI	cqs	Special	One Data	Multi D	Data															
		File	e Name I			R4					R10		R12	R13 R14	R15							
1	3 💌	sun-2016040	01-single-2016040 9	9.8 99.7	99.6	99.7	99.9	99.7 99.5	99.3	98.5	99.4	99.7	99.5	99.9 99.7	99.7							
		Max.	9	9.8 99.7	99.6	99.7	99.9	99.7 99.5	99.3	98.5	99.4	99.7	99.5	99.9 99.7	99.7							
		Min.	9	9.8 99.7	99.6	99.7	99.9	99.7 99.5	99.3	98.5	99.4	99.7	99.5	99.9 99.7	99.7							
		Range	(	0.0 0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0							
		Avg.	9	5.0 99.7	99.6	55.1	33.5	99.0	59.3	50.5	55.4	33.1	55.5	35.5 99.7	55.1							
_																						
<															>							
		ANSI	IEC 🛛 S	2 🖳	CRI	cos				976	0 52	<b>A</b>		Normalized	<b>9</b> 52 💦							
	_	_	9		_																	
			0.01	000		~ .		0														
Sene	eral	(	CRI	CQS		Speci	al	One Da	ta N	1ulti L	)ata											
			File Na	ame	R1		R2	R3	R	4	R5	R	26	R7	R8	R9	R10	R11	R12	R13	R14	R
							_															
1	E.	🗾 SI	un-20160401-si	ngle-201604	o <u>99</u> .	8	99.7	99.6	99	).7	99.9	99	9.7	99.5	99.3	98.5	99.4	99.7	99.5	99.9	99.7	9
		М	ax.		99.	8	99.7	99.6	99	).7	99.9	99	9.7	99.5	99.3	98.5	99.4	99.7	99.5	99.9	99.7	9
		M	lin		99	8	99.7	996	90	17	99.9	90	97	99.5	99.3	98.5	99.4	99.7	99.5	99.9	99.7	9
		-				-	33.1			-	33.3		-		33.3	50.5	55.4		55.5	55.5	55.1	
			ange		0.0		0.0	0.0	0.	.0	0.0	0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		rv.																				



### 6) CQS

Here, you can check the Max., Min., Range and Avg. of Q1 to
 Q15 of measuring data.

<b>*</b>							A	ensetek Spect	um Genius					- 0 ×								
	}			i 🗖 🗋	Y	-2		GPS ●))	0	<b>\$</b>	C											
Gen	eral	CRI	cqs	Specia	al (	One Data	Multi Data															
			File Name	Q1 Q	22	Q3 Q4								5 Qa								
1	B 💽	sun-2016	60401-single-2016040	99.8 99.6	99.4	99.5 99.0	99.7	99.7 99.8	99.9 99.9	99.8	99.9 99.1	3 100										
		Max.	99.6 99.8 99.8 99.6 99.8 99.8 0.0 0.0 0.0 99.6 99.8 99.8			99.8 99.6	99.4	99.5 99.0	99.7	99.7 99.8	99.9 99.9	99.8	99.9 99.1	3 100								
		Min.		99.8 99.6	99.4	99.5 99.0	99.7	99.7 99.8	99.9 99.9	99.8	99.9 99.	3 100										
		Range 0.0 0.0 0.0 Avg 99.6 99.8 99.8					0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0									
		Avg.		99.6 99	9.8 9.8	99.8 99.6	99.4	99.5 99.0	99.7	99.7 99.8	99.9 99.9	99.8	99.9 99.1	3 100								
¢														>								
		ANSI	IEC			CRI	cos 🤅			776		1	lormalized	९ 🔀 🔁								
Gen	eral		CRI	CC	20	Sr	pecial	One	Data	Multi Data	1											
	er ai		e.u		<u> </u>	-r		0.110	Bratta	intarti b'att												
			File	Name		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Qa	
_																						
1	Ð	1	sun-2016040	1-single-201	6040	99.6	99.8	99.8	99.	6 99.4	99.5	99.6	99.7	99.7	99.8	99.9	99.9	99.8	99.9	99.8	100	
			Max.			99.6	99.8	99.8	99.	6 99.4	99.5	99.6	99.7	99.7	99.8	99.9	99.9	99.8	99.9	99.8	100	
			Min.			99.6	99.8	99.8	99.	6 99.4	99.5	99.6	99.7	99.7	99.8	99.9	99.9	99.8	99.9	99.8	100	
			Min. Range			99.6 0.0	99.8 0.0	99.8 0.0	99. 0.0	6 99.4 0 0.0	99.5 0.0	99.6 0.0	99.7 0.0	99.7 0.0	99.8 0.0	99.9 0.0	99.9 0.0	99.8 0.0	99.9 0.0	99.8 0.0	100 0	
			Min. Range Avg.			99.6 0.0 99.6	99.8 0.0 99.8	99.8 0.0 99.8	99. 0.0 99.	6 99.4 0.0 6 99.4	99.5 0.0 99.5	99.6 0.0 99.6	99.7 0.0 99.7	99.7 0.0 99.7	99.8 0.0 99.8	99.9 0.0 99.9	99.9 0.0 99.9	99.8 0.0 99.8	99.9 0.0 99.9	99.8 0.0 99.8	100 0 100	



#### 7) Special

\* Standard User only can check Qa, λD Purity and PPFD.

GAI BB15

TM-30 Rf

TM-30 Ra

AI BB8

igoplus Here, you can check the Max., Min., Range and Avg. of Qa, λD, Purity, FWHM, PPFD, SP Ratio of measuring data.

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l	1					Y	-2		GPS •1	)。	<b>ö</b> .	<u>.</u> (	D							
Ge	neral	CRI		cqs	Spe	cial	One Data	Multi Data												
		F	ile Name	2	Duv	λd(nm)	Purity(%)	FWHM(nm)	SP ratio	TLCI(Qa)	GAI	PPFD(µmol/III s)	GAI BB8	GAI BB15	TM-30 Rf	TM-30 Rg				
<u> </u>	1 🖽 🜌	sun-20160 Max.	1401-single	-2016040	0.0031	515.3 515.3	2.0	381.0 381.0	2.32	99.99 99.99	93.6 93.6	332.4 332.4	100	100 100	100 100	100 100				
		Min.			0.0031	515.3	2.0	381.0	2.32	99.99	93.6	332.4	100	100	100	100				
		Range Avo.			0.0000	0.0 515.3	0.0	0.0	0.00	0.00	0.0 93.6	0.0	0	0	0	0				
<			_													_				
		ANSI	IEC	ः 9	. 23 6	Δi .	CRI	cos 🤅		< 🖻	CIE 1931	CIE 1976		No	ormalized	2 🔀 🖻	1			
	Gen	eral		CR	I		cqs	1	Speci	al	On	e Data	Multi I	Data						
					File	Name	е	Duv		λd(nm)		Purity(%)	FWH	M(nm)	SP	ratio	TLCI(Qa)	GAI	PPFD(µmol/m²s)	G
	1	E	¥	sun-2	016040	1-single	e-2016040	0.003	1	515.3		2.0	38	1.0	2.	32	99.99	93.6	332.4	
				Max.				0.003	1	515.3		2.0	38	1.0	2.	32	99.99	93.6	332.4	
				Min.				0.003	1	515.3		2.0	38	1.0	2.	32	99.99	93.6	332.4	
				Rang	e			0.000	0	0.0		0.0	(	0.0	0.	00	0.00	0.0	0.0	
				Avg.				0.003	1	515.3		2.0	38	1.0	2.	32	99.99	93.6	332.4	

#### 8) General (Multi Data)

◆ This function can support you to analyze and compare two or more measuring data. In the charts (yellow box), users can not only check the bits at corresponding positions of those data, can

					A	sensetek Spect	rum Genius	;					- 🛛 🗙
			Y	-2		GPS ●))	• 🛈	<b>ø</b> .		)			
General	CRI CQS			One Data	Multi Data								
2	File Name	Duv	λd(nm)	Purity(%)	FWHM(nm)	SP ratio	TLCI(Qa)		PPFD(µmol/m s)	GAI BB8	GAI BB15	TM-30 Rf	TM-30 Rg
🗹 🚺 🗄 🛛	4148c-single-20160217-14232	-0.0108	471.7	20.0	24.1	2.37	55.55	103.0	21.2	99	102	73	98
🗹 🙆 🗄 🚺	4148s1-single-20160217-1423	-0.0003	583.0	52.0	112.0	1.50	99.28	59.0	40.6	103	103	97	102
🗹 💿 🗄 🛯	4148s2-single-20160217-1505	-0.0003	583.0	53.0	162.0	1.49	99.42	58.8	78.3	103	103	97	102
🗹 🖪 🗄 🛽	¥ 4148w-single-20160217-1423(	-0.0014	583.7	53.0	138.0	1.29	77.76	56.1	31.0	102	108	84	99
	Max.	-0.0003	583.7	53.0	162.0	2.37	99.42	103.0	78.3	103	108		102
	Min,	-0.0108	471.7	20.0	24.1	1.29	55.55	56.1	21.2		102		98
	Range	0.0106	112.0	33.0	138.0		43.87	46.9	57.1				
	Avg.	-0.0032	555.4	44.0	109.0	1.66	83.00	69.2	42.8	102	104	88	100
	41101 150	520	7	CDI	505 (F			CTE 1 0 0 1	GTT 1070 0 5 /				0 52 0
_	ANSI IEC		4	CRI	cqs 🕀	✐▙਼⊠		CIE 1931	CIE 1976 👤 🏹		No	ormalized	2 🔀 🖻

also go to "Settings" page to add the custom benchmark light source, and compare with the Lighting Passport measurement data.

\* This function is for Advanced Users only.

#### 9) Normalized and Palette Generators(Multi Data)

 "Normalized" button can switch the normalization display in the spectrum chart of all measuring data; users can also change the

	_			1.152.04		0.000			Sec. and						
8							A	sensetek Specti	rum Geniu	S					- • ×
1 <sup>-tr</sup>	ſ	11		i 🗖	Y	-2		GPS ●)) o	Ð	<b>ø</b> .	. 0	)			
Gener	al	CRI	CQS			One Data									
2		File	Name		λd(nm)	Purity(%)	FWHM(nm)	SP ratio	TLCI(Qa)		PPFD(µmol/111 s)	GAI BB8	GAI BB15		TM-30 Rg
2 0		4148c-single	-20160217-14232	-0.0108	471.7	20.0	24.1	2.37	55.55	103.0	21.2	99	102	73	98
2 2 1	3	4148s1-singi	e-20160217-1423	-0.0003	583.0	52.0	112.0	1.50	99.28	59.0	40.6	103	103	97	102
2 👩 1	3	4148s2-singi	e-20160217-1505	-0.0003	583.0	53.0	162.0	1.49	99.42	58.8	78.3	103	103	97	102
2 🕜	3	4148w-single	-20160217-14230	-0.0014	583.7	53.0	138.0	1.29	77.76	56.1	31.0	102	108	84	99
		Max.		-0.0003	583.7	53.0	162.0	2.37	99.42	103.0	78.3	103	108	97	102
		Min.		-0.0108	471.7	20.0	24.1	1.29	55.55	56.1	21.2	99	102		98
		Range		0.0106	112.0	33.0	138.0		43.87	46.9	57.1				
		Avg.		-0.0032	555.4	44.0	109.0	1.66	83.00	69.2	42.8	102	104	88	100
0.440 0.430 0.420 0.410 0.390 0.380 0.370 0.350 0.350 0.340 0.320 0.310 0.300 0.310 0.300 0.290	•	Î	II	Ð	7 R1 R2 R4 R5 R6 R7 R8 R8 R9 R10 R11 R11 R11 R11 R13 R13 R13 R14			Ra - 92 Rp - 77	^	0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1		Hattee Interest Battee Interest 0 0 0 0 0 0 0 0 0 0 0 0 0	0 9 8 7 6 5 5 4 3 2 2	R	
0.270	0.300	0.320034003	600.3800.4000.42 ×	0 0 440 0 460 0 4	R15	10 20 3	10 40 50 60	70 80 90		0.0 0.1 0	2 0.3 0.4 0.5 0.6 0.7 X	0.8	380 420 460 50	0 540 580 62 Wavelength	0 660 700 740 7

label color of data items in the Settings" page, and the data's spectrum color line will follow the setting change.

#### 10) Open File/ Save File

 After you review the measurement data, You can save this project as ".dat file" (maybe you have multiple measurement

CPS       •)•       CPS       ·)•       ·)•       ·)•       ·	2						Asensetel	k Spectrum Genius				- 6 ×
General       CRI       CQS       Special       One Data       Multi Data         1       E       File Name       CE_x       CE_x       CE_x       CE_x       CE_x       CE_x       CE_x       Agrom         3       E       File State arege 2010277.1959       0.2954       0.9956       79       72       1427       0.1956       0.4397       449.0         3       E       File State arege 2010277.1959       0.4003       0.4002       2.9964       1000       1167       0.2518       0.5227       780.0         4       E       Attack arege 2010277.1958       0.4403       0.4005       2.9964       1000       1000       2.301       0.2527       780.0         4       E       Attack arege 2010277.1958       0.4405       0.4035       2.9964       1000       1000       2.301       0.2525       0.6235       F00.0         4       E       Attack arege 201027.1588       0.4425       0.4075       2.937       17       72       11167       0.1955       0.4337       449.0         5       Attack arege 201027       E       0.4056       0.3764       4462       90       86       1062       0.2389       0.6350       700.0       0.652.5		ŕ			<b>y</b> [	6	GPS	•)) 🛈 💐 其	C L			
Image         CHE_X         CLE_X         Applom1           1         5         # stee-campe-20190217-1337         0.9394         0.9894         9996         79         72         1427         0.1995         0.4397         449.0           2         5         # stee-campe-20190217-1309         0.4402         0.4002         2992         100         100         1167         0.2518         0.5227         780.0           3         5         2         # stee-campe-20190217-1309         0.4402         0.4003         2994         100         100         2201         0.2526         0.5236         601.0           4         5         2         # stee-campe-20190217-1308         0.4402         0.4076         8396         100         100         2201         0.2526         0.5236         601.0           4         max         0.2425         0.4076         8396         100         100         2201         0.2526         0.5236         700.0           4         8         9214         0.2854         2337         79         72         1167         0.995	Gener	ral	CRI CQS	Speci	al One	Data Mul	lti Data					
1       1       15       P       Http://withing.com/doc/11/13/9       0.4397       449.0         2       1	וו		File Name	CIE_x	CIE_y	CCT(K)	CRI(Ra)	Re(thru R1~R15)	Illuminance(lx)	CIE_u'	CIE_V	λp(nm)
2       B:       P:       P:<		6	4145c-single-20160217-13591	0.2914	0.2854	8986	79	72	1427	0.1995	0.4397	449.0
3       B	2	E 🗾	4145s1-single-20160217-1359	0.4403	0.4062	2962	100	100	1167	0.2518	0.5227	780.0
4       B       2445-20962017.1358       0.4425       0.4075       2337       81       74       1834       0.2526       0.5226       6010         Max       0.4425       0.4076       8386       100       100       2301       0.2526       0.5236       780.0         Max       0.2544       0.2844       2837       79       72       1167       0.1995       0.4397       449.0         Range       0.1611       0.1222       6649       20       28       1134       0.0531       0.0899       331.0         Avg       0.4036       0.3764       4462       90       86       1662       0.2399       0.5022       662.5         ANSI       IEC       IEC       IEC       CRI       CQS       IEC       1692       0.239       0.5022       662.5         0.305       0.3764       IEC       <	3	8	4145s2-single-20160217-1503	0.4402	0.4063	2964	100	100	2301	0.2517	0.5227	780.0
Max       0.4425       0.4076       8886       100       100       2301       0.2256       0.5236       780.0         Mon.       0.2844       0.2864       2337       79       72       1167       0.1995       0.4397       449.0         Range       0.1511       0.1222       6049       20       28       1134       0.06511       0.0839       331.0         Avg       0.4035       0.3764       4462       90       86       1652       0.238       0.5022       662.5         ANSI       EC       CRI       COS       CRI       COS       CIE 1931       CIE 1931       CIE 1976       Normalized       Normalized       No       No         0.335<	4	E 🗾	4145w-single-20160217-1358	0.4425	0.4076	2937	81	74	1834	0.2526	0.5236	601.0
Max.         0.2214         0.2854         2337         79         72         1167         0.1995         0.4397         449.0           Renope         0.1511         0.1222         6049         20         28         1134         0.0551         0.0839         331.0           Avg         0.4336         0.3764         4462         90         86         1682         0.2389         0.5622         652.5           ANSI         IEC         CRI         CQS         CRI         CQS         CRI         CIE 1931         CIE 1937         CIE 1937         CIE 1937         O         Normalized         Q         X         C           0.335         0.336         0.3764         4462         90         65         1682         0.2389         0.5022         652.5         X         X         CIE 1931         CIE 1937         CIE 1937         0.9         X<			Max.	0.4425	0.4076	8986	100	100	2301	0.2526	0.5236	780.0
Range       0.1511       0.1222       6649       20       28       1134       0.0531       0.0839       331.0         Avg       0.4036       0.3764       4462       90       66       1662       0.2389       0.5022       652.5         ANSI       EC       EC       CRI       CQS       CQS       CCIE 1931       CIE 1931       CIE 1937       CIE 1937       Normalized       S       C         0.335       0.336       0.4036       0.77       0.602       <			Min.	0.2914	0.2854	2937			1167	0.1995	0.4397	449.0
Avg 0.4036 0.3764 4462 90 66 1662 0.2389 0.5022 652.5 ANSI EC Q X 2 CEL CQS E X 2 CE 1933 CE 1976 Q X 2 Normalized Q X 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2			Range	0.1511	0.1222	6049		28	1134	0.0531	0.0839	331.0
ANSI EC Q X CEI COS CEI X CEI 1931 CE 1976 Q X R Normalized Q X R R C C C C C C C C C C C C C C C C C C C			Avg.	0.4036	0.3764	4462	90	86	1682	0.2389	0.5022	652.5
0285 00 00 00 00 00 00 00 00 00 00 00 00 00	0.345 0.340 0.335 0.330 0.325 0.320 0.315 0.310 0.305 0.300 0.295 0.290 0.285				R1 R2 R4 R5 R7 R7 R10 R10 R10 R11 R12 R13 R14 R15 R14 R15 R14 R15 R14		Ra-73 f			10 09 08 07 07 07 05 05 05 03 02 01 00		

data) by the fourth icon "Save File"; you can open ".dat file" and "excel file" by the second icon "Open file."



**Open File** 



**Save File** 



SENSETEK

You can export the Excel (.csv) form.

1					Asensetek	Spectrum Genius				- 0 ×
-	<b>- B</b> 6 í		<b>T</b> [	Ð	GPS	•)) • 🚺 🖏 🖣	C L			
Genera	I CRI CQS	Speci	al One	e Data Mul	ti Data					
	File Name	CIE_x	CIE_y	CCT(K)	CRI(Ra)	Re(thru R1~R15)	Illuminance(lx)	CIE_u'	CIE_V	λp(nm)
1 E	🗄 📝 4145c-single-20160217-13591	0.2914	0.2854	8986	79	72	1427	0.1995	0.4397	449.0
2 🗄	4145s1-single-20160217-1359	0.4403	0.4062	2962	100	100	1167	0.2518	0.5227	780.0
3 🗄	4145s2-single-20160217-1503	0.4402	0.4063	2964	100	100	2301	0.2517	0.5227	780.0
4 E	4145w-single-20160217-1358	0.4425	0.4076	2937	81	74	1834	0.2526	0.5236	601.0
	Max.	0.4425	0.4076	8986	100	100	2301	0.2526	0.5236	780.0
	Min.	0.2914	0.2854	2937			1167	0.1995	0.4397	449.0
	Range	0.1511	0.1222	6049				0.0531	0.0839	331.0
	Avg.	0.4036	0.3764	4462			1682	0.2389	0.5022	652.5
0.345 0.340 0.335 0.330 0.325 0.320 > 0.325 0.315 0.310 0.305 0.300 0.295			R1 - R2 - R3 - R4 - R5 - R7 - R8 - R10 - R11 - R11 - R12 - R13 -		Ra - 73 R	• 72 09 08 07 06 ∞6 04 03 02		1.0 0.9 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.3 0.3 0.3		
0.290			R14 R15-			0.1		0.0	1	



#### **12-1) Print Report**

SENSETEK

You can print the professional report.

		Asensete	ek Spectrum Genius			- 0 ×
<b>d                                    </b>	i 📑 🍸	GPS GPS	•)) • 🚺 🕸 🗸	Ð		
General CRI CQS	Special	One Data Multi Data				
File Name	CIE_x CIE_y	CCT(K) CRI(Ra)	Re(thru R1~R15)	Illuminance(lx)	CIE_u'	CIE_√ λp(nm)
1 📴 📝 4145c-single-20160217-13591	0.2914 0.2854	8986 79	72	1427	0.1995	0.4397 449.0
2 🛃 📝 4145s1-single-20160217-1359	0.4403 0.4062	2962 100	100	1167	0.2518	0.5227 780.0
3 🛃 📝 4145s2-single-20160217-1503	0.4402 0.4063	3 2964 100	100	2301	0.2517	0.5227 780.0
4 🛃 📝 4145w-single-20160217-1358	0.4425 0.4076	i 2937 81	74	1834	0.2526	0.5236 601.0
Max.	0.4425 0.4076	8986 100	100	2301	0.2526	0.5236 780.0
Min.	0.2914 0.2854	2937 79		1167	0.1995	0.4397 449.0
Range	0.1511 0.1222	2 6049 20	28		0.0531	0.0839 331.0
Avg.	0.4036 0.3764	4462 90	86	1682	0.2389	0.5022 652.5
		CRI CQS	CIE 1931 C			Normalized Y 2
0.346 0.349 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330 0.330	R1 R2 R3 R4 R5 R6 R7 R7 R8 R9 R9	Ra + 79	Re 72 0.9 0.8 0.7 0.6 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6		1.0 0.9 0.8 0.7 0.6 0.6 0.6 0.5 0.5 0.4 0.4 0.4	



140

32-12] 11

#### **Print Report**

A. Product Description Product Name 12WPAR 30 Sample Number Date(YY/MM/DD) 2014/01/01 Manufacturer A Company Tester Jadoy Reviewer Temperature(0\_) 25 Re. Humidity(%) Spectrum Range: 380 - 780 nm. Wavelength Step: 1 nm. -----C. Photometry and Chromaticity CIE\_x 0.2685 Duv CIE y 0.2556 Id(nm) CIE\_u" 0.1942 Purity(96) CIE\_V 0.4160 FWHM(nm) CCT(K) 16384 SP ratio Illuminance(b) 1465 PPFD(umol/sec m^2) -------CIE 1931 Chromaticity Diagram (nm) 441.0 CRI(Ra) 75 Re(thru R1~R15) 69 70 Qa R6 R1 81.3 66.5 R2 74.5 R7 787 R3 64.2 R8 76.3 R4 79.9 R9 18.7 R5 82.2 R10 34.5 ...... Radar Diagram of CRI 26-12: 11-37-18 ... 11---





8-1

12%

-0.0098

472.9

30.0

26.4

2.53

56.00

R11 84.3

R12 50.5

R13 77.9

R14 79.7

J15 80.1

John

Report of Photometry & Chromaticity for Light Source

ASENSE 2226119626月27

#### 12-2) Print Report

GENSETEK

 You can also add the product picture in the reports. \* Advanced User can put their logo on the report.

CRI	1	Print Information					. 8
File Nam				Illuminance(lx)	CIE_u'	CIE_V	λp(nm)
4145c-single-20160			VISENSE	1427	0.1995	0.4397	449.0
¥145s1-single-2016				1167	0.2518	0.5227	780.0
4145s2-single-2016			Select Mode	2301	0.2517	0.5227	780.0
Max	Product Name	12W PAR 30	One Data Print	2301	0.2526	0.5236	780.0
Min.	Contraction of the second		Multiple Data Driet	1167	0.1995	0.4397	449.0
Range	Manutacturer	A Company	Compare Company	1134	0.0531	0.0839	331.0
Avg.	Sample Numbe	8-1	Color Coordinate	1682	0.2389	0.5022	652.5
	Tester :	Jacky	coordinate				>
ANSI IE	Date(YY/MM/D	C2014/01/01	CIE1931 CIE1976	CIE 1976 👤 🔀 🛣		Normalized	2 🔀 🛣
		John					
	Temperaturel	25	Select CCT Standard		1.0		
	Re. Humidity(%	12%	C78.377-2008				
	Traction and the best of		- IEC SDCM		0.8		
·	Product image	e Company Logo	Colors one doe block		₹		
· · · · · · · · · · · · · · · · · · ·	a second		select CRLCQS Diagram		20.0		
	1808	SR ALERCHARDING	CRI in Radar	•	- 0.5		
	- 63 88	Clear Select	CRI in Histogram		E 0.4		
	11월 188		CQS in Radar		0.3		
		27	<ul> <li>COS in Materia</li> </ul>	Second			



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#### 12-3) Print Report

If users want to export the PDF file,
 please download and install the PDF Printer.

(\*Please refer Bullzip website and get a free download.)

In the preview page, please click the
 "Printer Setup" and choose the Bullzip PDF
 Printer as the export printer, then click the
 "Print" to export the PDF file.



Close

#### 13) Data Filter

 You can set up the lower limit and upper limit Here, and the filter will show the irregular data by red.



#### 14) Update

Users can click the "Check Version" button to download the newest version in the start menu, or click the top right "Update" key.



#### 15-1) PC control – Driver install

#### Please use Micro USB cable to connect your Lighting Passport Pro and PC.





 If you are using Windows 8, please follow the link to disable driver signature enforcement.

http://windows.microsoft.com/en-US/windows-8/windows-startup-settingssafe-mode



Right-click"This PC" and click "Properties" to open "System" page.
On the right side, click first item "Device Manager" to open device manager page.

			101		. <b></b>		Sy	ystem
					🛞 🌛 🕤 🕆 🛃 🖌 Control P	'anel → System and Security → Sy	/stem	
1		1	516		File Edit View Tools Help	2		
		Open Manage			Control Panel Home	View basic information Windows edition	about your computer	
		Scan		N	<ul> <li>System protection</li> <li>Advanced system settings</li> </ul>	Windows 8.1 © 2013 Microsoft Corpora Get more features with a n	tion. All rights reserved. www.edition.of Windows	
		Pin to Start Map network drive Disconnect network drive				System Processor: Installed memory (RAM): System type: Pen and Touch:	Intel(R) Pentium(R) CPU 2117U @ 1.80GHz 1.80 GHz 4.00 GB (3.89 GB usable) 64-bit Operating System, x64-based processor No Page or Touch Ionu; is available for this Disclay.	r.
-		Create shortcut Delete	2			Computer name, domain, and	l workgroup settings	
	_	Rename				Computer name:	TWRD02	
		Properties				Full computer name: Computer description:	TWRD02 inin	
		and the second sec				Workgroup:	WORKGROUP	
						Windows activation		

 Click twice"EFM32 USB Composite Device Properties" which is under "Other devices" and then click "Update Driver."





Choose "Browse my computer for driver software" and setup the path to Spectrum Genius file.





When it pops up windows security message, please choose "install this driver software anyway." The installation will be finished in few minutes.

	🚔 Device Manager
	File Action View Help
	a 📓 TWRD02
A Device Manager	Audio inputs and
zza Device withdiger	▶ 🗃 Batteries
	Computer Computer Output Driver Software - Asensetek Lighting Passport (COM3)
	▶ □ Disk drives
A 🚆 TWRDO2	b Sector Display adapters
A dudio inputs and X	▷ ▲ DVD/CD-ROM dr Windows has successfully updated your driver software
	▶ 🕼 Human Interface
Disk drives	▷ 🖙 IDE ATA/ATAPI c
> 🎭 Display adapters	▷ The second
▶ da DVD/CD-ROM dr Installing driver software	▷
v v Windows Security ▲	Memory technology
P ⊆ US products b ≤ Imaging devices Windows can't verify the publisher of this driver software	Asensetek Lighting Passport
Keyboards	Monitors
Memory technole	Retwork adapters
Mice and other p	Ports (COM & LP
Wontors     You shuld check your mainfacturer's website for undated driver software You shuld check your mainfacturer's website for undated driver software	The Assessment of the Assessme
for your device.	
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Print queues	
Department of the second se	Sources
Software devices     and compared software non-order sources may name your compared or security     information.	Sund, video and
► Source and Surger controlle	Scharge controlle
System devices	> System devices
Image: A state of the state	Diversal Senal B
	Close



Open "Settings"
 page and click
 "Update & security."

Settings	5						- 0		
<u>ين</u>	SETTINGS					Find a setting		Q.	
			_			-			
		旦			<u> </u>	Q			
		System	Devices	Network & Internet	Personalization	Accounts			
		Display, notifications, apps. power	Bluetooth, printers, mouse	Wi-Fi, airplane mode, VPN	Background, lock screen, colors	Your account, sync settings, work, family			
					$\frown$				
		<u>e</u>	(L)	Д	$\square$				
		À字	UT .		$\bigcirc$				
		Time & language Speech, region, date	Ease of Access Narrator, magnifier,	Privacy Location, camera	Update & security Windows Update.				
			high contrast		recovery, backup				



 On the right side of page, please click "Recovery" and then click "Restart now." °





#### Click "Troubleshoot."

#### Choose an option



Continue Exit and continue to Windows 10



Turn off your PC



Use a device Use a USB drive, network connection, or Windows recovery DVD

Troubleshoot Reset your PC or see advanced optic



Click "Advanced options" to open the list of choice.

#### Troubleshoot



Reset this PC Lets you choose to keep or remove your files, and then reinstalls Windows.





 Click "Startup Settings" to change Windows startup behavior.

#### Advanced options A



System Restore Use a restore point recorded on your PC to restore Windows







System Image Recovery Recover Windows using a specific system image file



Startup Repair Fix problems that keep Windows from loading

Settings Change settings in your PC's UEFI firmware

**UEEI** Firmware

Startup Settings Change Windows startup behavior



When you enter startup settings page, please click "Restart" and press "7" to disable driver signature enforcement.

#### 

#### Restart to change Windows options such as:

- Enable low-resolution video mode
- Enable debugging mode
- Enable boot logging
- Enable Safe Mode
- Disable driver signature enforcement
- Disable early-launch anti-malware protection
- Disable automatic restart on system failure

Right-click "This PC" and click "Properties" to open "System" page.
On the right side, click first item "Device Manager" to open device manager page.



 ◆ Click twice "USB序列裝置 (COM3)" which is under "Ports (COM & LPT) and click "Update Driver."

SENSETEK





Choose "Browse my computer for driver software", and then click "Let me pick from a list of device drivers on my computer."

 $\times$ 

Cancel

		X			
÷	圓 Update Driver Software - USB 序列映置 (COM4)		÷	☐ Update Driver Software - USB 序列映重 (COM4)	
	How do you want to search for driver software?			Browse for driver software on your computer	
	→ Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.			Search for driver software in this location:  C\Users\MFGOP\Desktop  Include subfolders	Browse
	Browse my computer for driver software Locate and install driver software manually.			→ Let me pick from a list of device drivers on my comput This list will show installed driver software compatible with the device, software in the same category as the device.	ter and all drive
		Cancel			Next

Click "Have Disk..." and then click "Browse" to open the locate file.



Choose "Asensetek Lighting Passport .inf" file and click open and OK.



Please make sure the model appears "Asensetek Lighting Passport, and then click "Next" to start installation.

When it pops up windows security message, click "install this driver software anyway." The installation will be finished in few minutes.

←	៣ Undate Driver Software - USB হয়⊯ছ (COM4)	×	😵 Wir	ndows Security	×
•	Select the device driver you want to install for this hardware.		×	Windows can't verify the publisher of this driver software	
	Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.				
	Show compatible hardware			→ Don't install this driver software You should check your manufacturer's website for updated driver software for your device.	e
	Asensetek Lignting Passport  A This driver is not digitally signed! Have Disk  Tall as why driver signing is incordent			→ Install this driver software anyway Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or so information.	iteal
	Tell me why driver signing is important. Next Cance		⊘ Se	ee details	

#### 16-1) PC control

Click "Search PRO Device" to open the list of Lighting Passport and choose the one you plan to connect.





#### 16-2) PC control



ENSETEK

Click settings to open PC control setting page.
 You can setup integration time, temperature & humidity and precision mode here.



#### 16-3) PC control

 Click "Measure" and "Subtract Background" to start your measurement.



ENSETEK



							Asensetek Spectrum Genius						- •	
			1 1	j 🗖	Y	-2	<b>6</b>	GPS	•)) • 🚺 🕸 🛓	C L				
General		CRI	cqs	Spec	cial	One Data	Multi Data							
		File Name		CIE_x	CIE_	у ССТ(	k) CI	RI(Ra)	Re(thru R1~R15)	Illuminance(lx)	CIE_u'	CIE_V	λp(nm)	
1 🗄				0.3286	0.361	0 5657		72	61	243	0.1969	0.4868	546.0	
		Max.		0.3286	0.361	0 565/		72	61	243	0.1969	0.4868	546.0	
		Min.		0.3286	0.3286 0.3610		2	72	61	243	0.1969	0.4868	546.0	
	Range			0.000 0.000		0 0					0.0000	0.0000	0.0	
		Avg.		0.3286 0.361		0 5652	2			243	0.1969	0.4868	546.0	

