mek®

Cs-Watch System

Cs-Watch

Operation manual

Version 1.1.3

EN

2024.06.24

Rev.6

1. Introduction

Thank you for purchasing CS-Watch. Read this manual carefully in order to use this software correctly, and understand the following: Learn the basic operation of the personal computer by yourself. Use the personal computer only for this software. Marantz Electronics, Ltd. and the suppliers are not responsible for any damage (including damage and failure of the hardware or other hardware irrespective of ordinary damage, special damage or consequential damage) that may directly or indirectly occur to the customers in connection with the install or use of this software and any claim from a third party.

2. Outline

CS-Watch is an application software that displays PCB production status in real time to communicate to PostgreSQL. To use CS-Watch, you need CS-Center and PostgreSQL. Use this software on the condition that the screen resolution is 1024 x 768 high color (16 bit) or more and Ethernet network interface and TCP/IP communication is available. Set the network adaptor and related devices in advance. A fixed IP address is necessary.

3. System Requirement

The following systems are necessary to execute CS-Watch.
- A computer on which Microsoft Windows XP, 32/64 bit Windows 7 or 8 works fine
- 5 MB or more free hard disc space (this capacity is only for software, not for data)
- 1000Base-T Ethernet Network Interface (TCP/IP Fixed IP Address)
- The administrator authority to install and execute CS-Center.
- Do not install anti-virus software, and connect PC to only private/closed network.

4. Initial Setting and Installation

PC Network Settings

If you install CS-Watch in the other PC than CS-Center, you must set network on the PC. Please refer the PC Network Settings in the manual for CS-Analyzer or CS-Repair.
Remarks: Wireless LAN is unstable, must not to use for Catch System.

Installation of CS-Watch

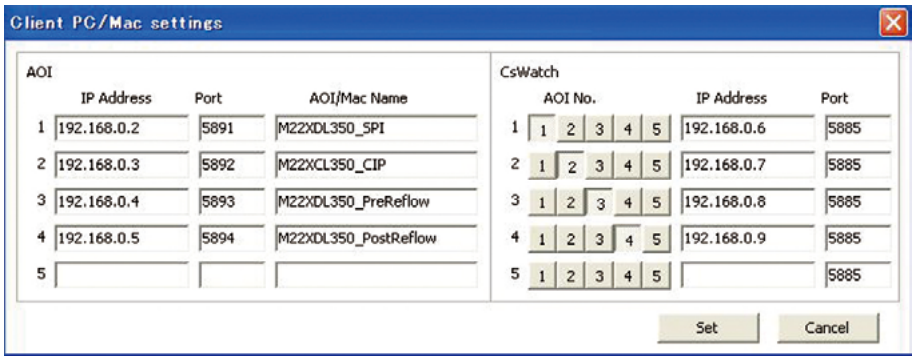
Insert CS-Center installation CD. As Setup window automatically opens, click on Install CsWatch button. Be sure to input company name, name and serial number while installation. If you don't input them, program may not start.

Un-installation of CS-Watch

Select CS-Watch from “Add/Delete Application” on the control panel for un-installation.

Initial Setting of CS-Center

When using CS-Watch, you must input PC information of CS-Watch in CS-Center software. Start CS-Center, go to Address Setting in Settings menu. Set AOI No. that you want to monitor, and IP Address, and port of CS-Watch.



Cs-Watch AOI No.

Select AOI No. from left list.

Cs-Watch IP Address

Input IP Address of PC which CS-Watch is installed.

Cs-Watch Port

Usually, do not need to change the default port number 5885.

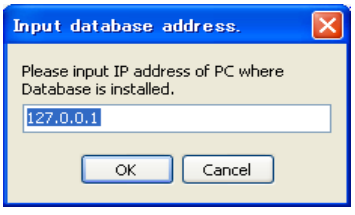
Initial Setting of CS-Watch

Activate CS-Watch

Start CS-Watch, for the first time the software requests to input password. Input **481120**. This password is required only for the first start-up for activation.

Database setting

Set IP address where PostgreSQL is installed. If CS-Watch is installed in the same PC, input 127.0.0.1



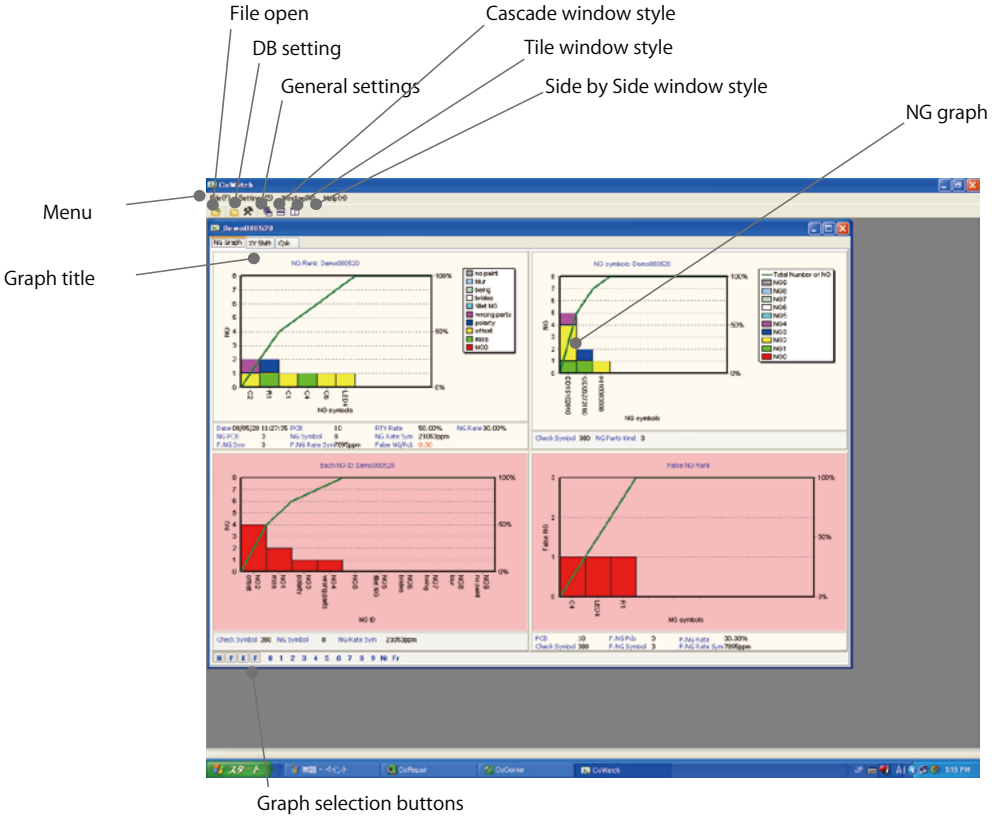
Save settings

Before finishing CS-Watch settings, it is recommended to output setting file. Select **Set Save...** from File menu. Input any name. Your CS-Watch's settings will be exported as a file. Store it in safety place.

5. Function of CS-Watch

Cs-Watch automatically receive the latest inspection data from database. CS-Watch displays statistics of inspection data in real time. NG, False NG, Position shifting statistical graphs are displayed. User can check the current PCB production status. If RTY rate and NG rate gets over the setting limit, CS-Watch makes alert to announce the mis-production.

6. Main Window



Window has a large graph area (you can swith NG Gragh, XY Shift and Cpk by tab), menu and tool buttons.

1. NG Graph tab

Buttons to display graphs (N P K F 0 1 2 3 4 5 6 7 8 9 Nr Fr)

After connecting or selecting data, you can set graphs to display by pressing N P K F 0 1 2 3 4 5 6 7 8 9 Nr Fr buttons. On default, N, P, K and F buttons are automatically on (active). To deactivate, press the buttons again. The graphs are as followings:

N	NG Rank Graph
P	NG per points Graph (or NG per Stamp Graph)
K	NG-ID Graph
F	False NG Rank Graph
0	Detailed Graph for NG-ID 0
1	Detailed Graph for NG-ID 1
2	Detailed Graph for NG-ID 2
3	Detailed Graph for NG-ID 3
4	Detailed Graph for NG-ID 4
5	Detailed Graph for NG-ID 5
6	Detailed Graph for NG-ID 6
7	Detailed Graph for NG-ID 7
8	Detailed Graph for NG-ID 8
9	Detailed Graph for NG-ID 9
Nr	RTY rate and NG rate in Time Graph
Fr	False NG rate in Time Graph

Button N ***Pareto Graph of NG rank***

This totals the number of NG by points and displays in descending order in ppm. NG conditions are displayed at the bottom.

Button P ***Pareto Graph of NG number per Parts Number***

Display per Parts Number by higher NG rate.

*** This can change to "per Stamp Name" from Statistic tab in General Settings.**

Button K ***Pareto Graph of the number of NG by NG-ID***

This totals the number of NG by NG-ID, and displays a graph by NG-ID.

Button F ***Pareto Graph of False NG rank***

This totals the number of false NG by point, and displays in descending order of false calls.

Button 0 ***Detailed Pareto Graph of NG-ID 0***

This totals NG of NG0 by point and displays them in descending order.

Button 1 ***Detailed Pareto Graph of NG-ID 1***

This totals NG of NG1 by point and displays them in descending order.

Button 2 ***Detailed Pareto Graph of NG-ID 2***

This totals NG of NG2 by point and displays them in descending order.

Button 3 ***Detailed Pareto Graph of NG-ID 3***

This totals NG of NG3 by point and displays them in descending order.

Button 4 ***Detailed Pareto Graph of NG-ID 4***

This totals NG of NG4 by point and displays them in descending order.

Button 5 ***Detailed Pareto Graph of NG-ID 5***

This totals NG of NG5 by point and displays them in descending order.

Button 6 ***Detailed Pareto Graph of NG-ID 6***

This totals NG of NG6 by point and displays them in descending order.

Button 7 ***Detailed Pareto Graph of NG-ID 7***

This totals NG of NG7 by point and displays them in descending order.

Button 8 ***Detailed Pareto Graph of NG-ID 8***

This totals NG of NG8 by point and displays them in descending order.

Button 9 ***Detailed Pareto Graph of NG-ID 9***

This totals NG of NG9 by point and displays them in descending order.

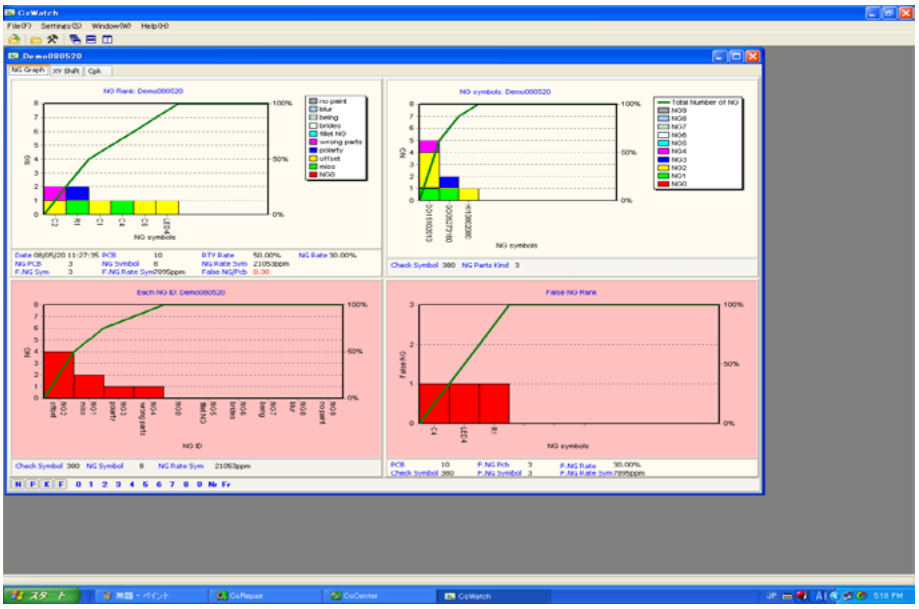
Button Nr ***Time Graph of RTY rate and NG rate***

RTY rate is drawn in green line, NG rate (NGR) is drawn in red line. The limit of OK and NG for each line can be set at Control chart tab in General Settings in Settings menu.

Button Fr ***Time Graph of False NG rate***

False NG rate (FNR) is drawn in yellow line. The limit of OK and NG for each line can be set at Control chart tab in General Settings in Settings menu.

*** If your PCB is panellized PCB (The sheet contains small PCB blocks), you can change NG rank graph to display statistics per block instead of PCB sheet. For detail, please refer to the chapter Menu.**



Graph items

Date -- displays date that CS-Center receives data.
PCB -- displays the number of PCB inspected.
Rolled-Throughput-Yield (RTY) -- displays the rate passed through at inspection.
NG PCB -- display the number of NG PCBs.
NG rate -- display the rate of NG PCBs.
Symbol NG -- displays the number of Reference Designators judged NG.
Symbol NG Rate -- display the rate of Reference Designators judged NG out of total in ppm
Symbol False NG -- display the number of Reference Designators judged False NG
Symbol False NG -- display the rate of Reference Designators judges False NG out of total in ppm..
False NG / PCB -- displays the False NG PCB rate per PCB

Graph view options

Zoom-in: Drag mouse from top left corner to bottom right corner.
To display hidden part, drag the graph by pressing right mouse button.

Unlock Zoom-in: Drag mouse from bottom right corner to top left corner.
Resize: Drag the border line of the graph.
Sub-menu: Click on the graph by pressing right mouse button.

Sub-menu

3D display

This function displays a graph in a three-dimensional form. Every selection of this function changes the graph between the three-dimension display and the regular one.

Point Display

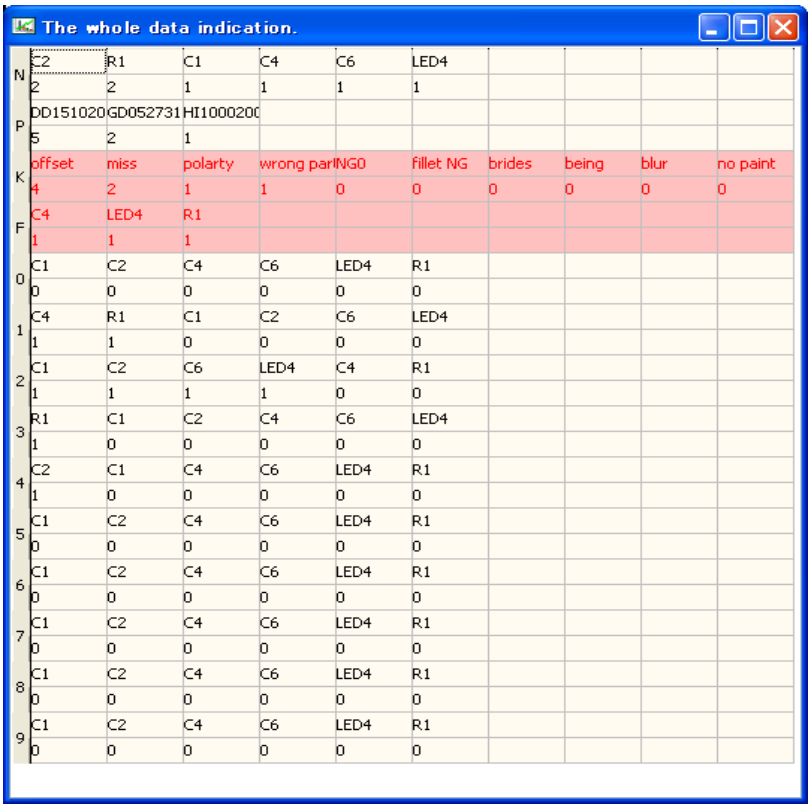
This function displays a box-shaped mark at each point of a graph. This function enables data check even if no line is displayed due to data discontinuity. Every selection of this function turns on/off the display of box-shape marks by turns.

Data Clear

Clear all data that currently displayed.

Display All Data

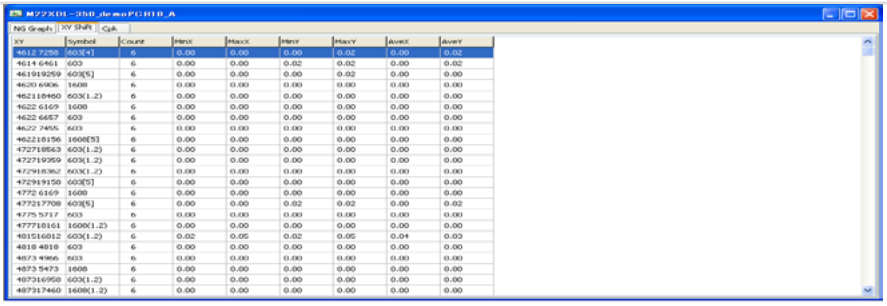
Display data in text.



N	C2	R1	C1	C4	C6	LED4				
	2	2	1	1	1	1				
P	DD151020	GD052731	HI1000200							
	5	2	1							
K	offset	miss	polarty	wrong par	NG0	fillet NG	brides	being	blur	no paint
	4	2	1	1	0	0	0	0	0	0
F	C4	LED4	R1							
	1	1	1							
0	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				
1	C4	R1	C1	C2	C6	LED4				
	1	1	0	0	0	0				
2	C1	C2	C6	LED4	C4	R1				
	1	1	1	1	0	0				
3	R1	C1	C2	C4	C6	LED4				
	1	0	0	0	0	0				
4	C2	C1	C4	C6	LED4	R1				
	1	0	0	0	0	0				
5	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				
6	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				
7	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				
8	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				
9	C1	C2	C4	C6	LED4	R1				
	0	0	0	0	0	0				

2. XY Shift tab

Display statics for XY position shifting of selected data in text format. Sub-menu is displayed by clicking any point of the list with right mouse button. From Sub-menu, you can convert this text data to Scatter diagram, Line Graph X, Line Graph Y and Histogram. The graph is displayed in NG Graph tab area.



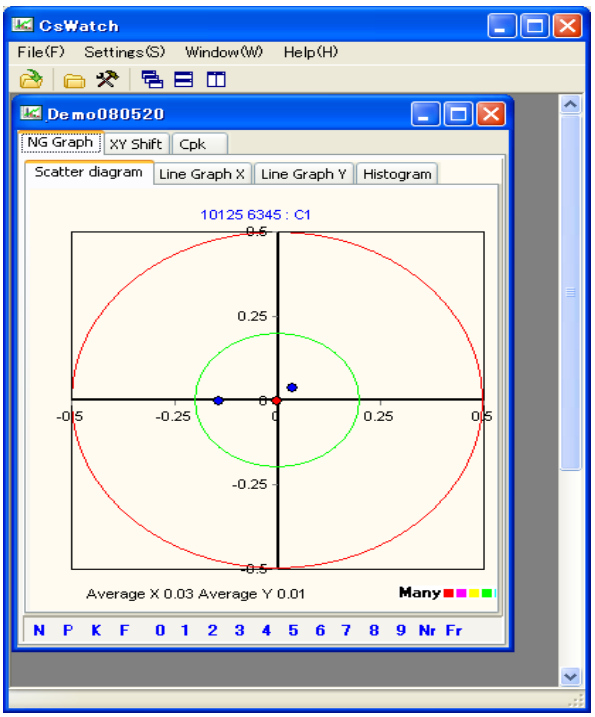
Sub-menu

- **XY Shift Graph**
  Scatter diagram, Line Graph and Histogram can be displayed in NG Graph tab.

- **Data Clear**
  Clear current displayed data. It does not mean to delete data.

- **Display All Data**
  Display NG Graph in text format. New window named 'The whole data indication' pops up.

XY Shift Graph details



- **Scatter diagram**
  It displays the amount of position shifting XY as a scatter diagram, and enables to see the tendency of position shifting. The diagram displays with the colors from green to

red depending on the amount. NG limit is shown as a red circle, and OK limit is shown as a green circle. Maximum scale, X/Y Shift limit to be OK, X/Y Shift limit to be NG and Tolerant range for nearly NG settings are succeeding the value set in General Settings. However, from sub-menu by clicking right mouse, you can change these value applying to only this diagram.

- Sub-menu for Scatter diagram

Save As

This function saves a graph as a JPEG or BMP file. As the “SAVE AS” dialogue is displayed, input the folder and the file name and click the SAVE button.

Graph setting

This sets graph.

Maximum scale

Input the maximum scale value (mm) of XY Shift graph.

X/Y Shift limit to be OK

This sets the shift limit. The value you set is displayed as a green line.

X/Y Shift limit to be NG

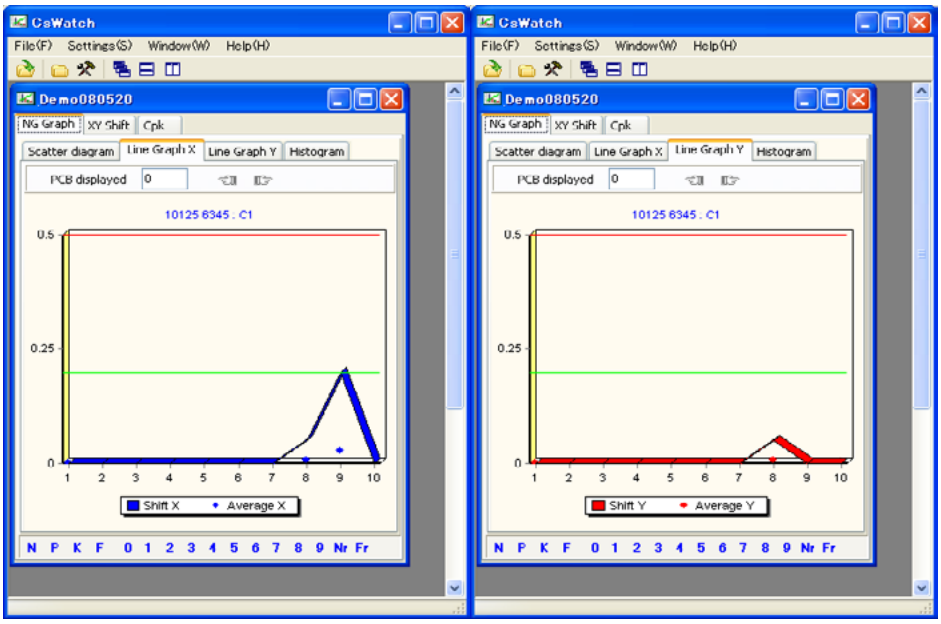
This sets the shift limit. The value you set is displayed as a red line.

Tolerant range for nearly NG

If position shifting amount is over than OK limit but lower than NG limit, then CS-Watch makes alerts. This menu set the % of NG when alerting.

Close

Close XY Shift Graph.



- Line Graph X/Y

This graph displays the amount of position shifting per PCB, X and Y as line graph and average X and Y as points. If the number of PCB displayed on the upper part is 0, all PCB is displayed.If the number displayed is except 0, the number of PCB displayed becomes its value. If the number of PCB is more than that of displayed one, a next and previous buttons on the right are available, and you can display the next page or the previous one. The value of discrepancy NG is displayed as a red line, the value of discrepancy OK is displayed as a green line.

Maximum scale, X/Y Shift limit to be OK, X/Y Shift limit to be NG and Tolerant range for nearly NG settings are succeeding the value set in General Settings. However, from sub-menu by clicking right mouse, you can change these value applying to only this diagram.

- Sub-menu for Line Graph X/Y

Save As

This function saves a graph as a JPEG or BMP file. As the “SAVE AS” dialogue is displayed, input the folder and the file name and click the SAVE button.

3D display

This function displays a graph in a three-dimensional form. Every selection of this function changes the graph between the three-dimension display and the regular one.

Point Display

This function displays an astarisk mark at each point of a graph. This function enables data check even if no line is displayed due to data discontinuity. Every selection of this function turns on/off the display of astarisk marks by turns.

Graph setting

This sets graph.

X/Y Shift limit to be OK

This sets the shift limit. The value you set is displayed as a green line.

X/Y Shift limit to be NG

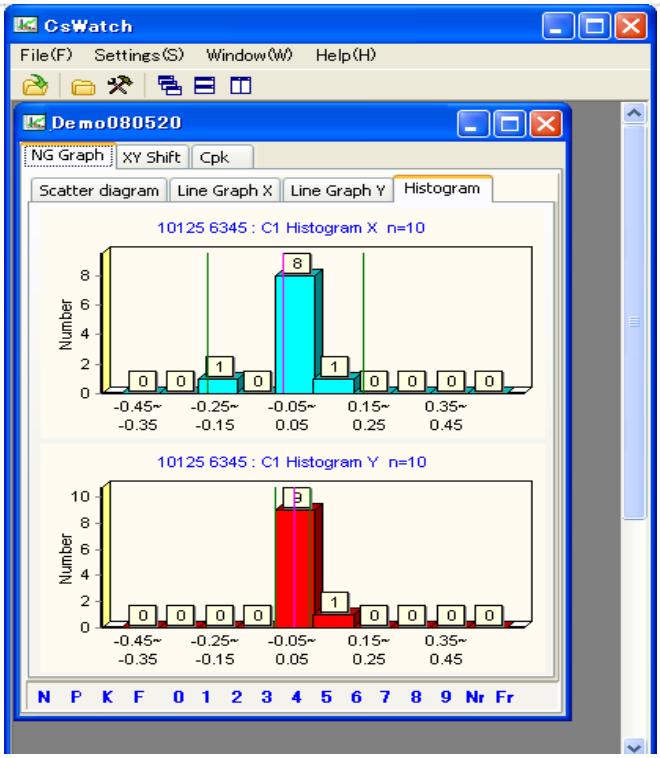
This sets the shift limit. The value you set is displayed as a red line.

Tolerant range for nearly NG

If position shifting amount is over than OK limit but lower than NG limit, then CS-Watch makes alerts. This menu set the % of NG when alerting.

Close

Close XY Shift Graph.



- Histogram

It displays the amount of position shifting as a histogram.
The average is shown as purple line, and 3 sigma is shown as green line.
Maximum scale, X/Y Shift limit to be OK, X/Y Shift limit to be NG and Tolerant range for nearly NG settings are succeeding the value set in General Settings. However, from sub-menu by clicking right mouse, you can change these value applying to only this diagram.

- Sub-menu for Histogram

Save As

This function saves a graph as a JPEG or BMP file. As the “SAVE AS” dialogue is displayed, input the folder and the file name and click the SAVE button.

3D display

This function displays a graph in a three-dimensional form. Every selection of this function changes the graph between the three-dimension display and the regular one.

Graph setting

This sets graph.

Histogram interval

This sets the interval of histogram.

Number of histogram

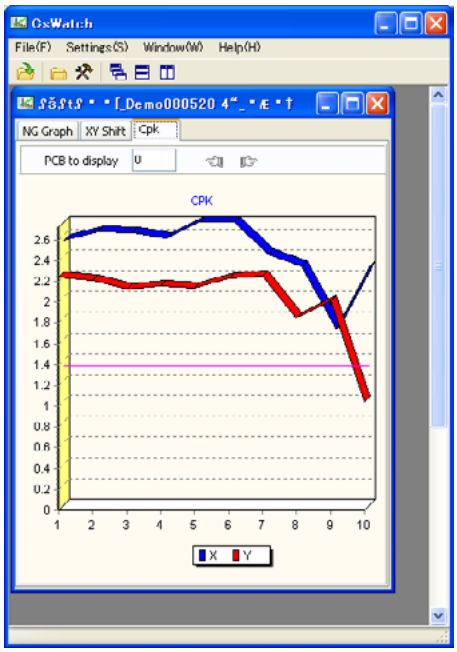
This sets the number of histograms.

Close

Close XY Shift Graph.

3. CPK tab

This calculates process capability index from the amount of discrepancy, and displays X and Y by PCB. The value, CPK1.3, is showed by purple line. If the number of PCB displayed above is 0, all PCB are displayed. If the number is other than 0, the number of PCB being displayed is the value. If the number of PCB exceeds the number being displayed, the next and previous buttons are available, and next or previous page can be displayed.



Graph view options

Please refer to P.6 (Graph view options for NG Graph tab)

Sub-menu

Please refer to P.6 (Sub-menu for NG Graph tab)

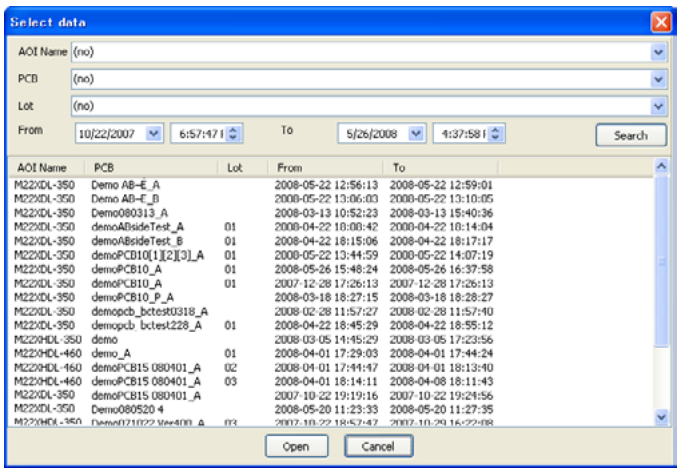
7. Menu

File

The menus related to file.

Open (Select data window)

Window to search and select data to display.
You can sort by PC Name, PCB, Lot number or production period (From To).
By clicking each column, you can re-order data in descending or ascending.



- **PC Name**
  Select target AOI from pull down list.

- **PCB**
  Select target PCB (inspection program name) from pull down list.

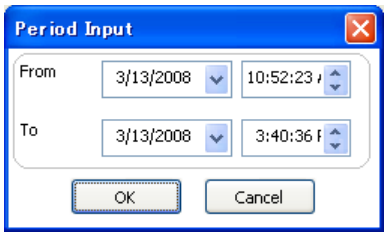
- **Lot**
  Select target Lot number from pull down list.

- **From**
  Sort the starting date and time of production period.

- **To**
  Sort the ending date and time of production period.

- **Search**
  Start sorting regarding setting value of PC Name, PCB, Lot, From and To.

- **Period Input**
  By double-clicking on one of data on the list, you can even sort data by production period which already sorted by PC Name, PCB, Lot, From and To. This is useful when you want to display data of a month or a week.



Set Save

Export setting file. For detail, please refer to the chapter "Back Up & Recover".

Set Load

Import setting file. For detail, please refer to the chapter "Back up & Recover".

Exit

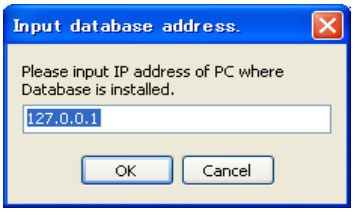
Exit CS-Watch.

Settings

The menus related to setting

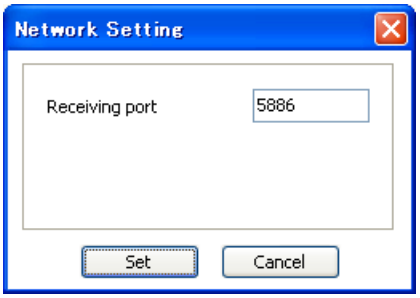
Select Database

Set IP Address where PostgreSQL is installed. If CS-Watch is installed in the same PC as PostgreSQL, input 127.0.0.1



Network

Input the same port number that you set on CS-Center.



General

Set graph view options, warning options and etc.

- Graph

Number of ranks to display

Input the number of display for displaying NG and false information.

Maximum scale value (mm)

Input the maximum scale value (mm) of XY Shift graph.

Histogram interval (mm)

Set interval of histograms

Number of histograms

Input the number of histograms displayed.

Variation lower limit

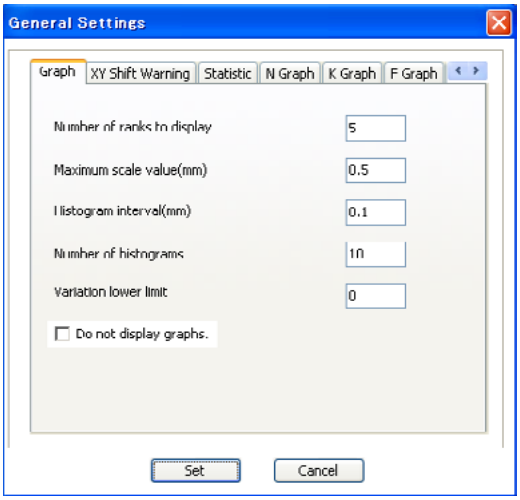
Input the lowest value (%) of Y axis to display.

Display graphs in text in place of graph

Hide graphs and display headders only, use when you handle too many AOI.

Display graphs only when result is over limit

Do not show graphs normally, but show when abnormal.



- XY Shift Warning

X/Y Shift limit to be OK

This sets the shift limit. The value you set is displayed as a green line.

X/Y Shift limit to be NG

This sets the shift limit. The value you set is displayed as a red line.

Tolerant range for nearly NG

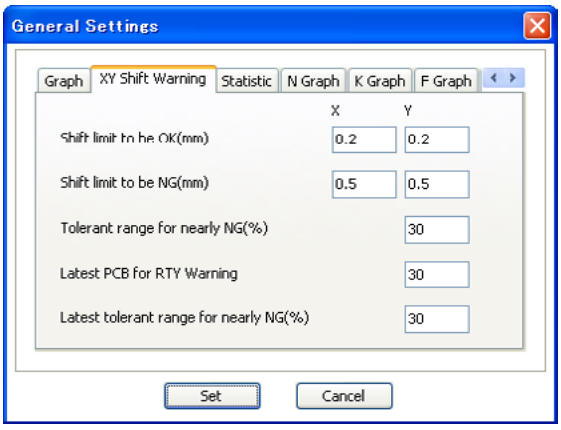
If position shifting amount is over than OK limit but lower than NG limit, then CS-Watch makes alerts. This menu set the % of NG when alerting.

Latest PCB for RTY Warning

PCB numbers to calculate 'Latest tolerant range for nearby NG'. Latest PCB should be smaller than total PCB.

Latest tolerant range for nearly NG (%)

Input the rate of the amount for warning when the amount of shifting is more than the shift limitOK value and less than the shift limit NG value.



- Statistic

PCB for calculation

Input the number of PCB to sum-up. The past PCB from the latest data is the target.

Total days

Input period to calculate.

Do not load data in the past

This sets whether reads data and totals from the past data or not when data is received from database. If there is a check mark, the past data is read and used for statistics. If there is no check mark, only current data is used.

Shift reference target

This selects a type of position shifting amount calculation. XY is totaled by coordinates. Stamps are totaled by stamp.

Do not include Block marks in statistics.

Do not count the inspection result of Block mark stamps. Because they are not related to NG rate or RTY rate.

P button is made a stamp.

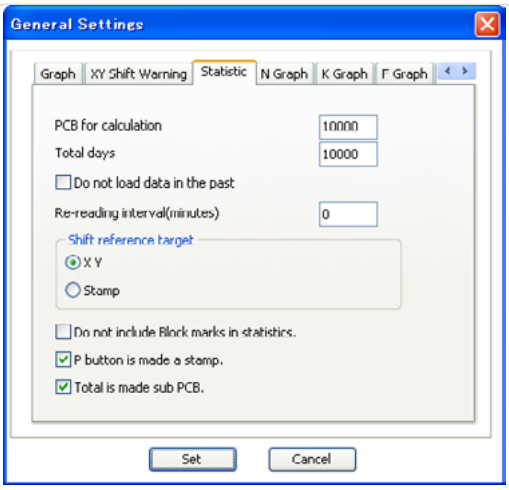
P button's graph (NG per point graph) will be NG Stamp Rank graph when this is on.

Each block is count as one PCB for panellized PCB

If your PCB is panellized PCB (The PCB sheet contains small PCB blocks), you can change NG rank graph to display statistics per block instead of PCB sheet.

Do not include CellAid in statistics.

Do not count the inspection result of CellAid and NewCell stamps. Because they are not related to NG rate or RTY rate.



- N Graph

RTY (%)

Warning color: White if current value is greater than OK value set here.

Warning color: Yellow if current value is less than OK value but greater than NG value set here.

Warning color: Flashing Red if current value is less than NG value set here.

NG (%)

Warning color: White if current value is less than OK value set here.

Warning color: Yellow if current value is greater than OK value but less than NG value set here.

Warning color: Flashing Red if current value is greater than NG value set here.

Maximum value of Y axis is specified

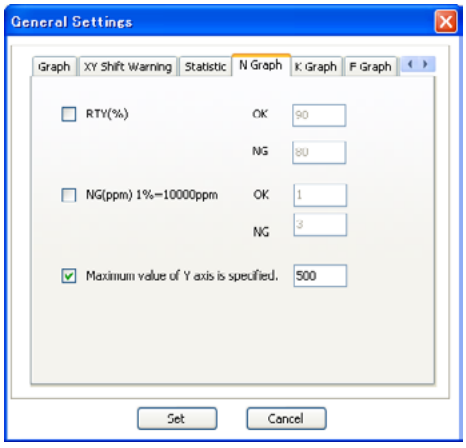
Normally the maximum value of Y axis is number of NG of Ref.Des. When this option is on, you can set the maximum value for easy to see.

Number of NG

Warning color: White if current value is less than OK value set here.

Warning color: Yellow if current value is greater than OK value but less than NG value set here.

Warning color: Flashing Red if current value is greater than NG value set here.



Remarks: To stop Red Flashing, press space key. RTY(%) and NG(%) can be

activated simultaneusly.

- K graph

Max. NG symbols per PCB

Input the permissive NG number of Reference Designator in one PCB. If NG in one PCB is found more than the value you set, a warning appears.

NG rate of symbol (%)

Warning color: White if current value is less than OK value set here.

Warning color: Yellow if current value is greater than OK value but less than NG value set here.

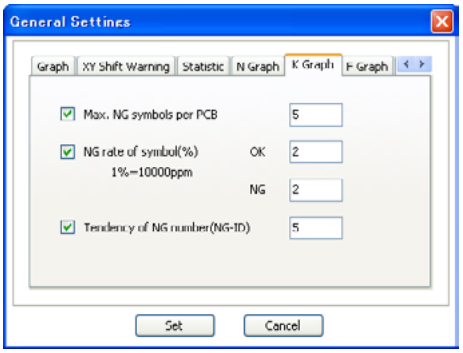
Warning color: Flashing Red if current value is greater than NG value set here.

Remarks: To stop Red Flashing, press space key.

Tendency of NG number (NG-ID)

Alert if the rate of NG points of each NG-ID is lower than the set value here.

Remarks: To stop Red Flashing, press space key.



- F Graph

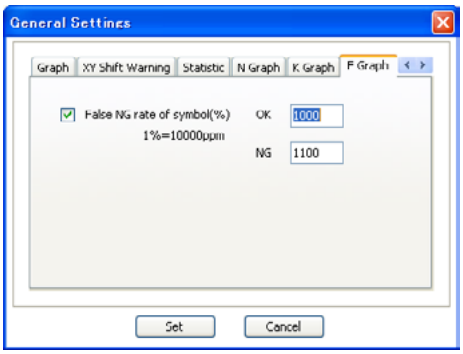
False NG rate of symbol (%)

Warning color: White if current value is less than OK value set here.

Warning color: Yellow if current value is greater than OK value but less than NG value set here.

Warning color: Flashing Red if current value is greater than NG value set here.

Remarks: To stop Red Flashing, press space key.



- **Control chart**

This is the setting window for Nr (RTY graph) and Fr (False NG graph) graphs. Set monitoring period, graph digit and limit to be OK and NG.

Area

Set the unit of X axis in hour.

Interval

Set the time interval to calculate the average per hour.

RTY(%)

Warning color: White if current value is greater than OK value set here.
Warning color: Yellow if current value is less than OK value but greater than NG value set here.
Warning color: Flashing Red if current value is less than NG value set here.

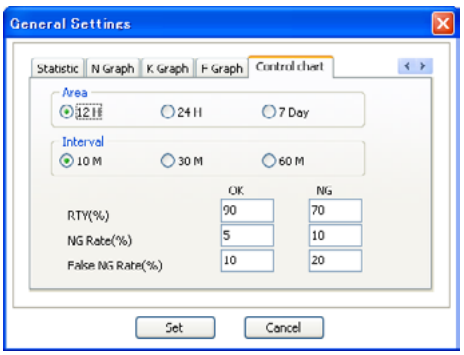
NG Rate(%)

Warning color: White if current value is less than OK value set here.
Warning color: Yellow if current value is greater than OK value but less than NG value set here.
Warning color: Flashing Red if current value is greater than NG value set here.

False NG Rate(%)

Warning color: White if current value is less than OK value set here.
Warning color: Yellow if current value is greater than OK value but less than NG value set here.
Warning color: Flashing Red if current value is greater than NG value set here.

Remarks: To stop Red Flashing, press space key.

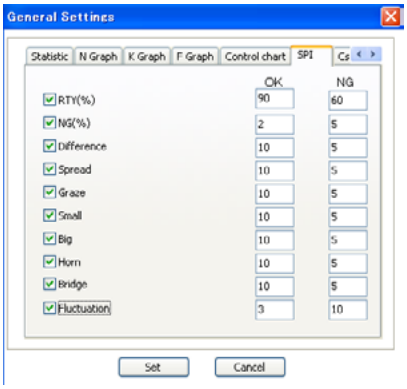


- **SPI**

This is the setting window for observing SPI machines. Check on necessary items and set tolerance.

Warning color: White if current value is greater than OK value set here.
Warning color: Yellow if current value is less than OK value but greater than NG value set here.
Warning color: Flashing Red if current value is less than NG value set here.

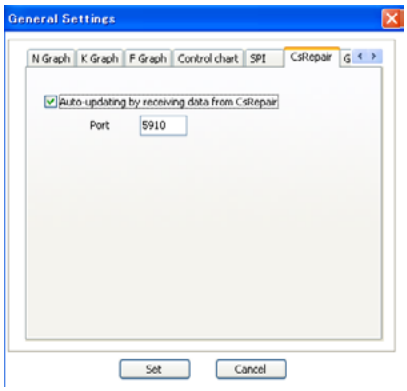
Meaning of each item, please refer manual of SPI machines.



- **CsRepair**

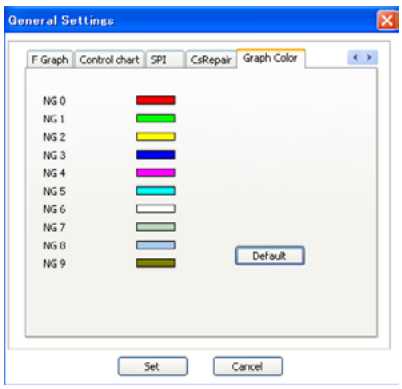
Auto-updating by receiving data from CsRepair

If this is activated, and sending option is also activated on CS-Repair, data for CS-Watch is automatically updated by data after verifying/repairing/classifying on CS-Repair.



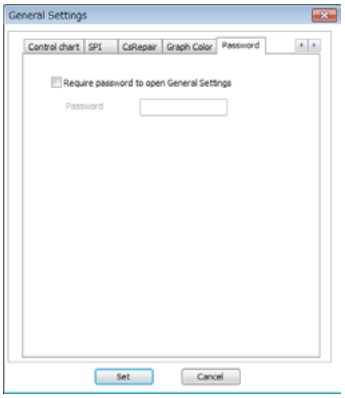
- **Graph Color**

Enable to change graph color, to recover to default color, press Default button.



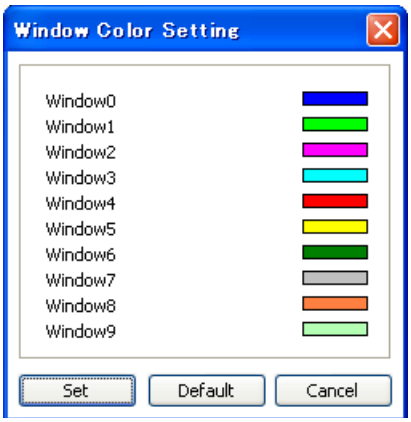
- **Password**

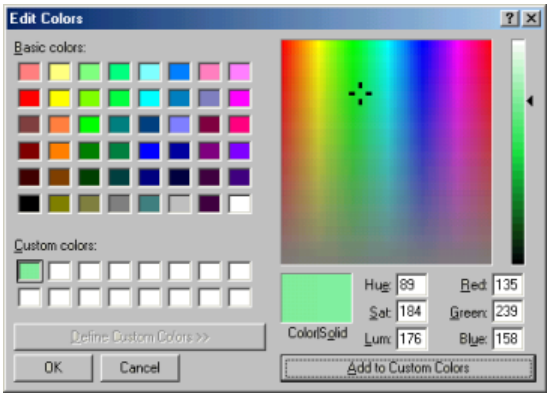
Protect General Settings by password being touched by anyone.
DB Password is normall not used. Only if you assigned other password than postgres1, input the other password here. Otherwise CS-Watch will be refused to connect.



Window Color

When two or more AOIs are connected, the window frames displayed on the screen are colored in order to discriminate each AOI easily. Set the color for each window.

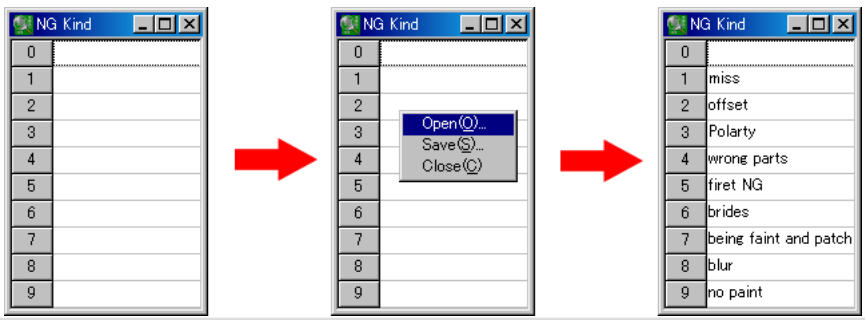




NG Classification ID

The NG ID window is displayed. It serves as a useful reference for input of NG ID from the keyboard when classifying NG in cause or phenomenon. The item can be edited by double-clicking on white columns. To quit from editing, press enter, or click other space.

*** If you export NG-ID file while installing CS-Center, it is the fastest and easist way to load the text file.**



Open

This function loads the contents of an NG kind from the file. As the dialogue is displayed to open the file, select the file where the NG kind is saved and click the button to open. At the start, the file “NGID.TXT” in the folder set by folder setting is loaded. When the NG kind has been changed but not saved, a warning message is displayed.

Save

This function saves the contents of the NG kind in a file. As the dialogue to ask you to name and save the file is displayed, set the folder and name to save the NG kind and click the button to save.

Close

This function closes the NG kind window. When the NG kind has been changed but not saved, a warning message is displayed.

SPI setting

CS-Watch can monitor the third parties SPI machines (CKD corporation and DJTECH Co., Ltd). To monitor, set this window.

PC name: Input Computer name controlling SPI machine
Maker: Select manufacturer/model name of the machine from below list
Folder: Select directory where SPI machine is output data for CS-Center/Watch

Language

There are 4 languages enable to select; Japanese, English, Korean or Chinese.

Window

The menu related to window operation are as follows:

Cascade

Two or more windows are displayed being overlapped with each other.

Tile

Two or more windows are displayed like tiles.

Side by Side

Two or more windows are displayed side by side.

Align icons

This menu is used to arrange the minimized windows.

Help

Help

Display Help menu.

About

Information about CS-Watch.

8. Tool buttons

Open

 Connect to database and display data selecting window. Same as Open in File menu.

Folder

Set IP Address for PC where database is installed. Same as Select Database in Settings menu.

General

Set display view and alerting options. Same as General in Settings menu.

Arrange Windows overwrapping

 Two or more windows are displayed being overlapped with each other.

Arrange Windows like tiles

 Two or more windows are displayed side by side.

Arrange Windows side by side

 Two or more windows are displayed side by side.

9. Back Up & Recover CS-Watch

There is possibiliy that PC suddenly stops working, and you have to urgently run CS-Watch on another PC. For such trouble, you can export settings file and import it to new PC.

Back Up

Select **Set Save...** from File menu. Input any name. Your CS-Watch's settings will be exported as a file. Store it in safety place.

Recover

Select **Set Load...** from File menu. Open *.ini file that you created in Back Up settings file procedure.

10. Troubleshooting

Communication Error

Confirm the following;

1. IP address has been set without overlapping with the other PC.
2. The subnet mask setting is the same in the PC where PostgreSQL is installed.
3. A cross cable is used for direct connection or a straight cable is used for connection with a hub as the cable to connect Macintosh/Windows PCs.
4. There is no X or ? In the control panel, system, and device manager of Windows.

Data not open / not include cumulative data in statistics

In case you can not open data or can not include cumulative data when executing statistics, please confirm followings:

1. Proper IP address of database is set in Select Database menu.
2. Number of 'PCB for calculation' is properly set in Statistics tab of General Settings.

11. Errors

Message	Explanation	Measurement
Incorrect key number Invalid key number entry.	The key number you input is incorrect	Please input correct key number.
Installation failed Please re-install	Failed to install CS-Watch	Please re-try installation.
Printer not installed	Tried to print but printer not found	Please confirm the printer settings.
Invalid value Incorrect value or unexpected value Please input correct value	Incorrect value is input in the field.	Please input appropreate value.
Too many windows are open, could not display more	You can't open more than 16 windows in the display	Window is possible to open maximum 15.
NG ID is modified. Quit without saving?	NG ID is modified but not saved	Click No to save the change, and click YES to abort the change.
NG ID is modified. Quit without saving and continue?	NG ID is modified but not saved and another NG ID file is going to be open.	Click No to save the change and open new file, and click YES to abort the change and open another file.

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