

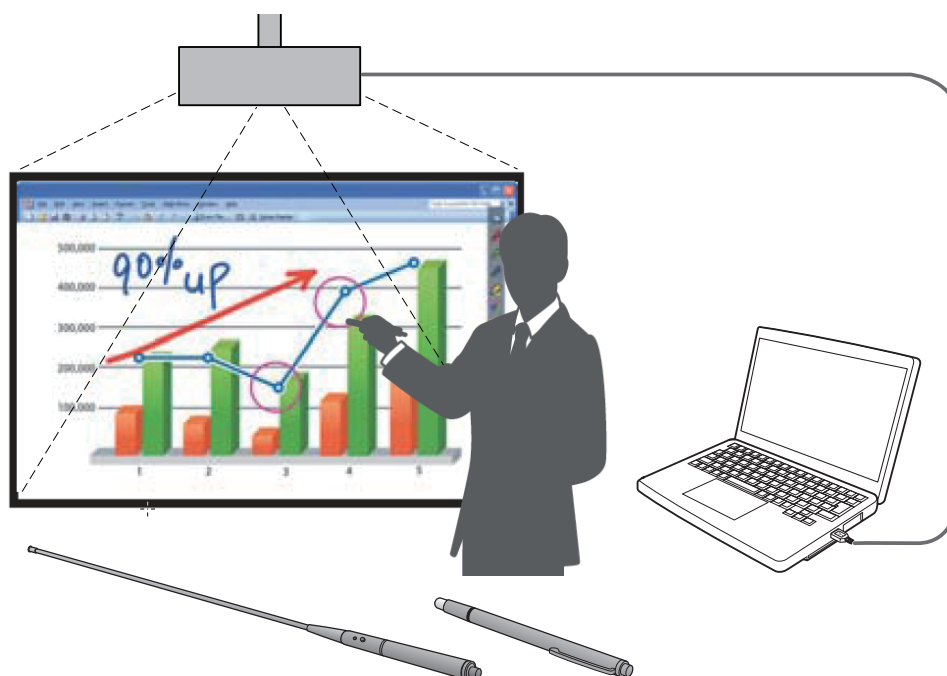
# Panasonic®

## Operating Instructions

### Interactive Software

### LightPen3

Windows / Mac OS



Thank you for purchasing this Panasonic Product.

■ Before operating this product, please read these instructions carefully.

ENGLISH

TQBH0307

# Contents

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## Note

The illustrations and screenshots in this manual may be different from those on your computer.

### Term

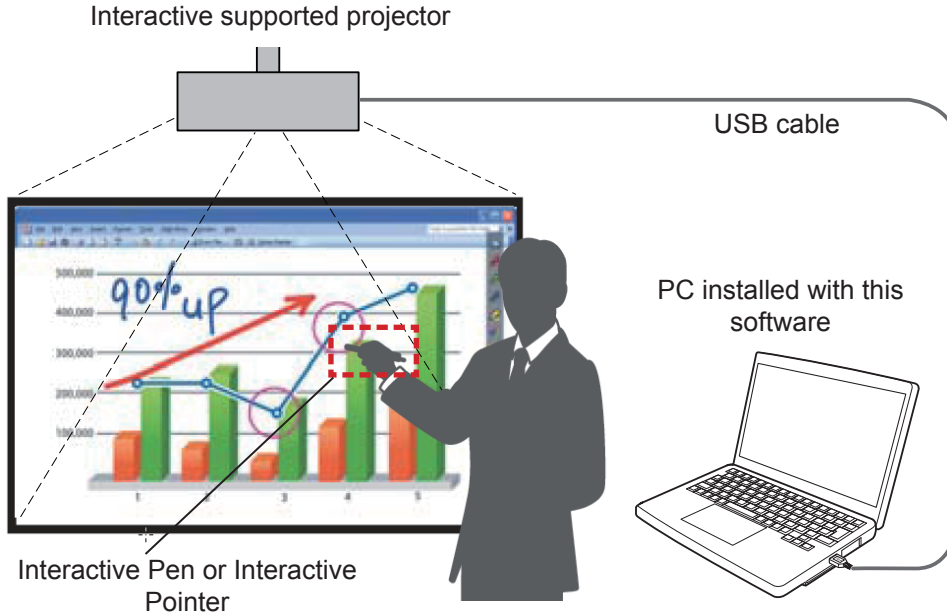
- In these instructions, the "Interactive Pen" and the "Interactive Pointer" accessories are referred to as the "Pen" and "Pointer".

# Introduction

These instructions are for "LightPen3" software of the Interactive function.

## ■ Features

This software enables you to write or draw on the projection screen under circumstances such as schools, educational events or meetings with the Interactive Pen or the Interactive Pointer.



### ● Mouse function

- You can use the Pen or the Pointer as a PC mouse on the projection screen.

### ● Pen function

- You can use the Pen or the Pointer to draw directly on the projection screen and save it in the PC.

### ● Dual Pen function (For Windows only)

- When 2 Pens or 2 Pointers are in use together, you can draw on the projection screens.

### ● PowerPoint Tool bar function (For Windows only)

- During the PowerPoint slide show mode, you can use the Pen or the Pointer to draw directly on the projection screen and save it in the PC.

## ■ The Contents of the CD-ROM

The following table contents are included in the "LightPen3" CD-ROM.

	SPDriver	LightPen3 Software
For Windows	○	○
For Mac OS	○	○
For Linux	○	×

### Note

- LightPen3 Software (Drawing application) dedicated for Linux is not included in the CD-ROM contents and the "Pen function" does not work. You can use the Pen or the Pointer as a PC mouse function on the projection screen.

# For Windows

## System requirements

In order for the SPDriver and the LightPen3 software to work properly, the computer system must meet the following requirements.

OS	Microsoft Windows XP 32 bit, Windows Vista 32 bit Windows 7 32/64 bit, Windows 8 32/64 bit
Software library	Microsoft .NET Framework 2.0 is required.
CPU	Intel Core 2 Duo 2.0 GHz or more (dedicated GPU is recommended)
Memory	2 GB or more
Free space on the hard disk	100 MB or more

### Note

- Please notice that it is not guaranteed of the proper operations for system requirements other than the above mentioned requirements or for the self-made computers.
- If the USB port monitor software is working, the LightPen3 software or the SPDriver software may not work properly. In this case, please exit the monitor software before using the LightPen3 software or the SPDriver software.

**Even all the requirements are met, there is not guaranteed operations for all computers.**

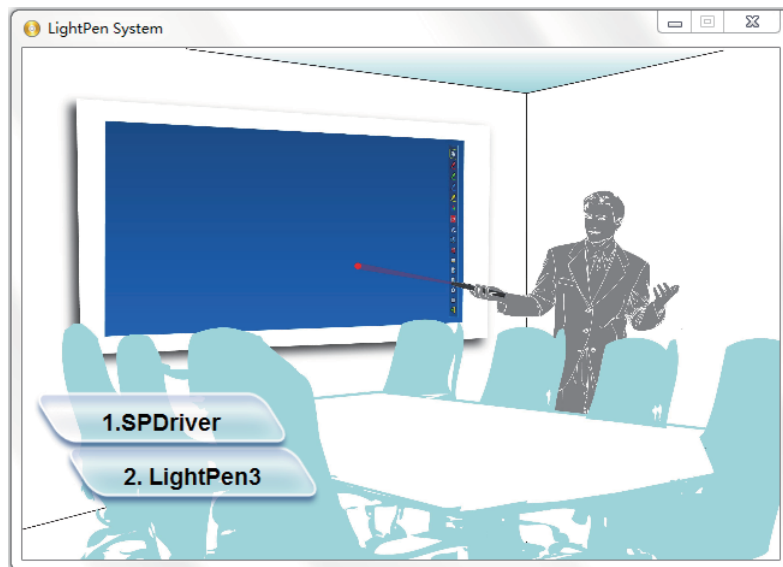
✂ Screen images used in these instructions are subject to change without notice.

### Note

- For Windows system, do not use the supplied CD-ROM. Connect the computer to the projector via a USB cable, installation screen of "SPDriver" will appear automatically and follow the installation instructions on the screen.
- For Windows 8 system, select "Desktop" from the tile displaying of the startup screen and perform the installation.

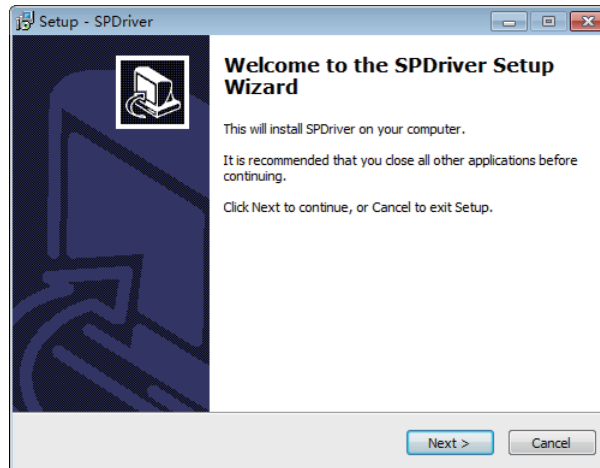
## Installation of the Driver and Software

- 1) **Insert the software recorded CD-ROM into the CD drive.**
- 2) **Double click the "setup.exe" in the "WIN" folder.**
  - Initial image displays.

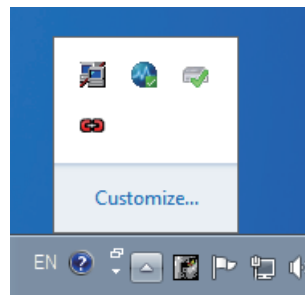


- 3) **Click "1.SPDriver".**
- 4) **Start Installation and follow the on-screen instructions.**

- The following image displays.

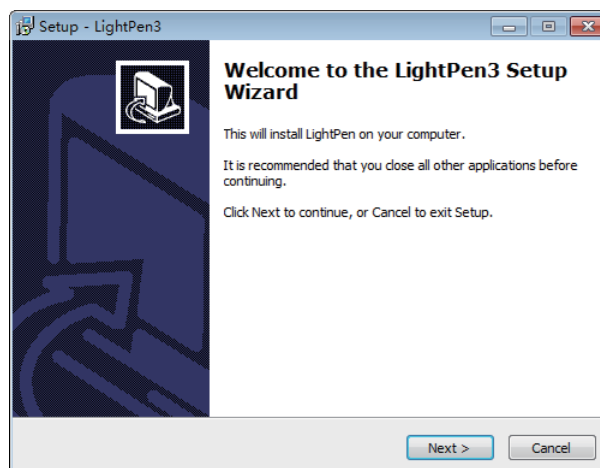


- 5) SPDriver icon (red) will be created on the taskbar when installation finished.



- 6) Click "2.LightPen3" on the initial image in the previous page.  
7) Start Installation and follow the on-screen instructions.

- The following image displays.



- 8) Shortcut icon will be created on the desktop when installation finished.



### Note

- Download the latest versions of "LightPen3" software from the following URL.  
<http://panasonic.net/avc/projector/>
- The LightPen3 software may not work properly for some computers.

## For Windows (continued)

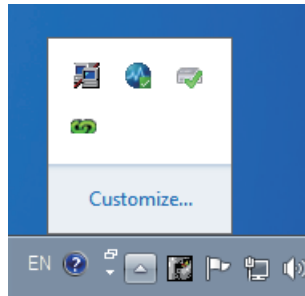
### Interactive functions initial settings

First, carry out the calibration for the projector sensor to accurately recognize the position of the projected screen.

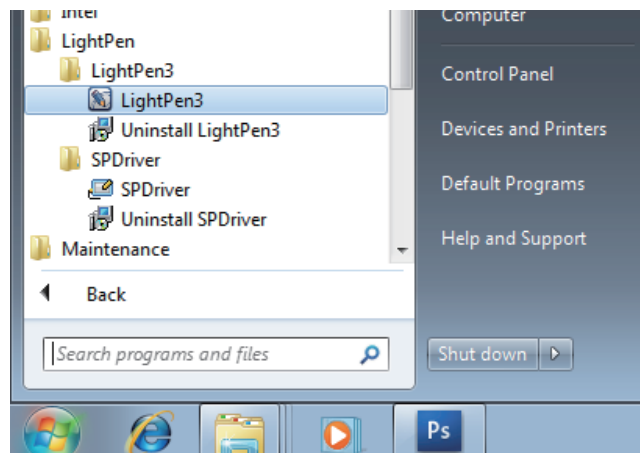
#### ■ Start the Software

##### 1) Connect the computer to the projector via a USB cable.

- The SPDriver icon in the taskbar turns from red into green.

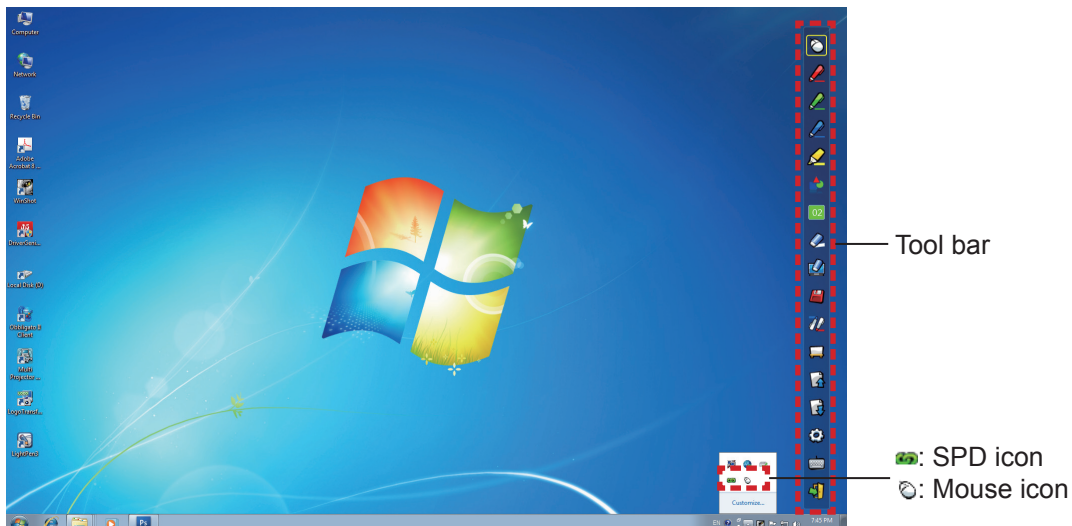


##### 2) Click "Start"→"All Programs"→"LightPen"→"LightPen3"→"LightPen3" from the desktop.



##### Or double click the shortcut icon of "LightPen3" from the desktop.

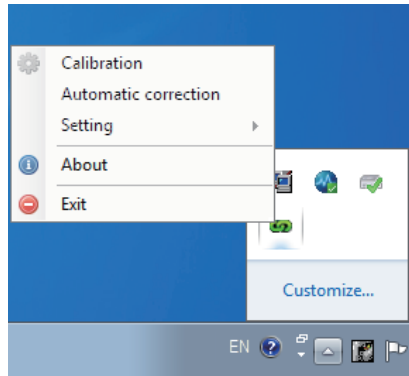
- Tool bar appears on the right of the screen.



### ■ Select the operation mode of cursor

3) Click the "SPDriver" icon on the taskbar and select "Mouse" or "Touch" from the pop-up "Mode management".

<b>Mouse</b>	Cursor acts as a computer mouse.
<b>Touch</b>	Mode for touch display, and available for dual touch.



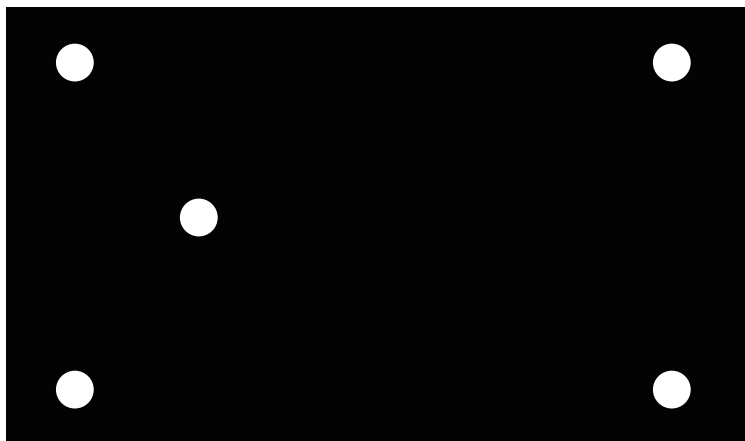
#### Note

- Windows 7 support "Touch" mode and "Mouse" mode. Windows 8 only supports "Touch" mode. Windows XP and Windows Vista only support "Mouse" mode.

### ■ Perform the Calibration of the camera

4) Click the "SPDriver" icon on the taskbar and select "Auto Calibration" from the pop-up menu.

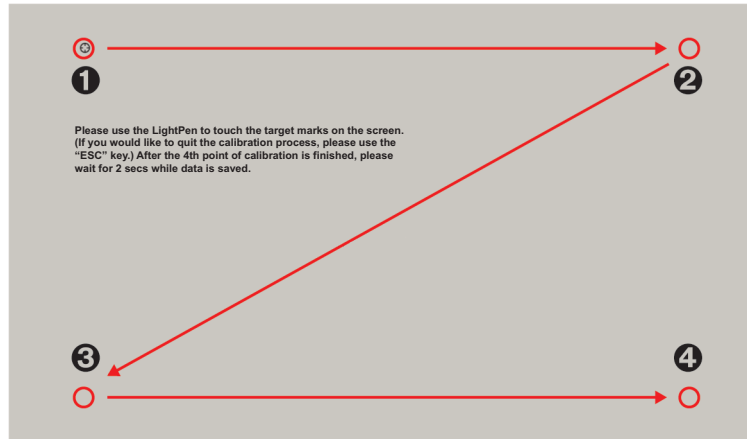
- Display the auto calibration screen and perform the auto adjustment. During the adjustment, do not block the projection image with any object or figure.



- If auto calibration fails, a confirmation screen for manual calibration will appear and select "Confirm" or "Cancel" to continue.
- Select "Cancel" to perform the auto calibration again.
- Before performing the auto calibration again, please check the following situations.
  1. Turn off the lights to darken the surroundings and reduce the reflection of external light to the projection screen.
  2. Readjust the focus again.
- Select "Confirm" to display the manual calibration screen.
- Click the "SPDriver" icon on the taskbar and select the pop-up "Setting (Manual)" to display the manual calibration screen.

## For Windows (continued)

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### 3) Press the target mark ❶ in the screen with the Pen.

- Each time you press the target mark, the moving order is ❶ → ❷ → ❸ → ❹.

### 4) Press the target mark ❷ → ❸ → ❹.

- The "Please wait..." message appears, and after completing the process the message will disappear.

#### Attention

- When carrying out the "Auto Calibration", make sure to project image onto a smooth screen.
- If the projector detects the resolution be modified, the message "Resolution changed, please modify" will display, please carry out the Calibration again.

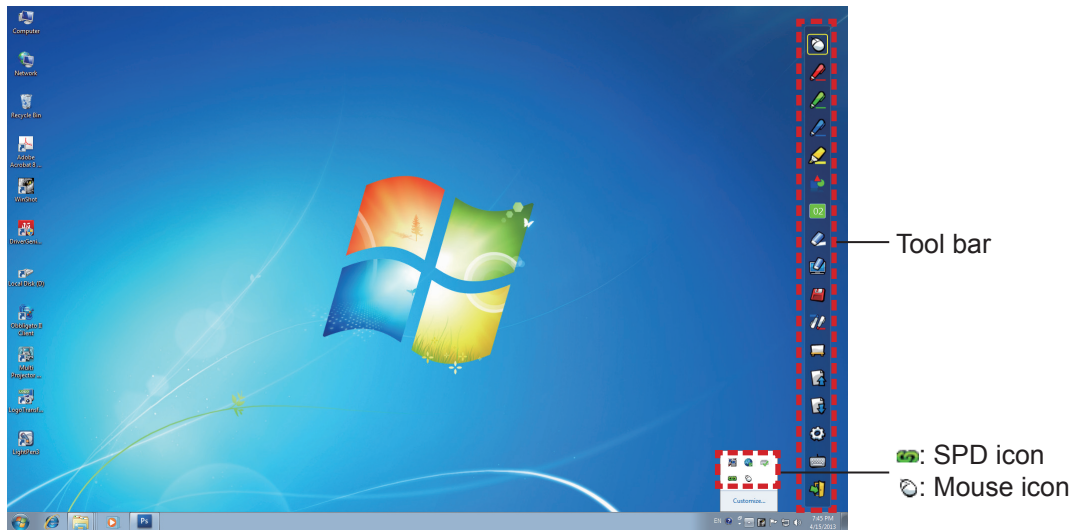
#### Note

- When the position of the screen and the projector is fixed, there is no need for calibration again next time if you use the same computer at the same resolution.



## How to use the Interactive functions

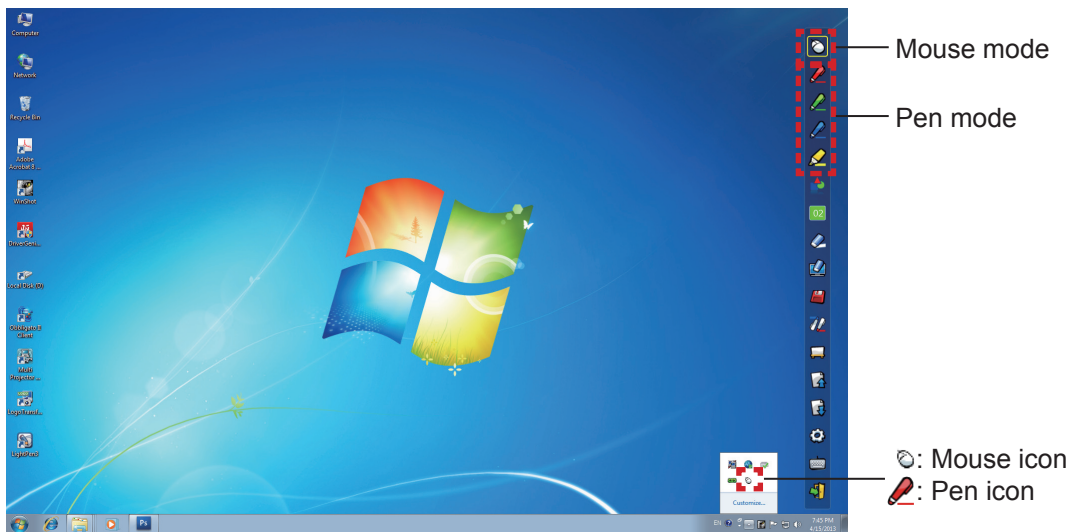
### ■ Tool bar functions



Icon	Name	Description	Page
	Mouse	To perform as a PC mouse.	-
	Red pen	To draw as a red pen.	-
	Green pen	To draw as a green pen.	-
	Blue pen	To draw as a blue pen.	-
	Marker pen	To draw as a half-transparent yellow pen.	-
	Shape tool	To draw a circle, a square, a triangle or a straight line.	11
	Line thickness and color change tool	To change the color and the thickness of the Pen.	11
	Eraser	To partially erase the pictures or lines.	-
	Erase all	To erase all the pictures and lines.	-
	Save	To save the displaying screen to the computer.	-
	Dual Pen	To draw a picture in the "Full-screen mode" or "Divided-screen mode" with the 2 Pens.	11
	Whiteboard tool	To change the background to the whiteboard mode.	13
	Previous page	To return to the previous page.	-
	Next page	To go to the next page.	-
	Editing tool	To edit the drawn pictures or lines.	14
	On-Screen Keyboard	To display the On-Screen Keyboard.	15
	Exit	To exit LightPen3.	17

## For Windows (continued)

### ■ For "Mouse mode" and "Pen mode"



#### ● Mouse mode

The "Mouse mode" is active immediately after Startup. Use a Pen or a Pointer to move the mouse cursor.

- When using the Pen, press the tip of the Pen to the screen as the use of a normal pen.
- When using the Pointer (Optional accessories), press and hold down the button during use. During mouse mode, press and hold the Pointer button or the tip of the Pen for about 2-3 seconds to do right-click.

#### ● Pen mode

Select the Pen icon (Red pen/Green pen/Blue pen/Marker pen) from the tool bar and draw a line with a Pen or a Pointer. You can set the thickness and the color of the line.

- When using the Pen, press the tip of the Pen to the screen to draw a line as the use of a normal pen.
- When using the Pointer, press and hold down the button to draw a line.

#### Note

- Press the icon on the taskbar to switch the "Mouse mode" or the "Pen mode".

### ■ Position changing and Displaying / Hiding of the tool bar



You can change the position of the tool bar, or switch the displaying / hiding of the tool bar.

- If you use the Pen or the Pointer to click a little space left to the projection screen edge, the tool bar will move to the left.
- To move the tool bar below the screen and display it horizontally, use the Pen or the Pointer to click a little space below the projection screen edge.
- If you use the Pen or the Pointer to click a little space right to the projection screen edge, the tool bar will move to the right.
- To switch the displaying or hiding of the tool bar, use the Pen or the Pointer to click a little space outside of the projection screen with the tool bar side.

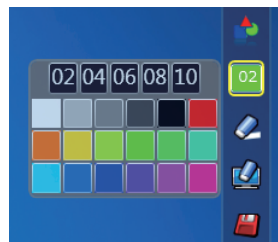
### ■ Shape tool

Click the "Shape tool" icon  to display the following menu and select the shape you want to draw.



### ■ Line thickness and color change tool

Click the "Line thickness and color change tool" icon  to display the following menu and choose the thickness or color of the line.





### ■ Dual Pen tool

Click the "Dual Pen tool" icon  to display the following menu and select the mode you want to draw.

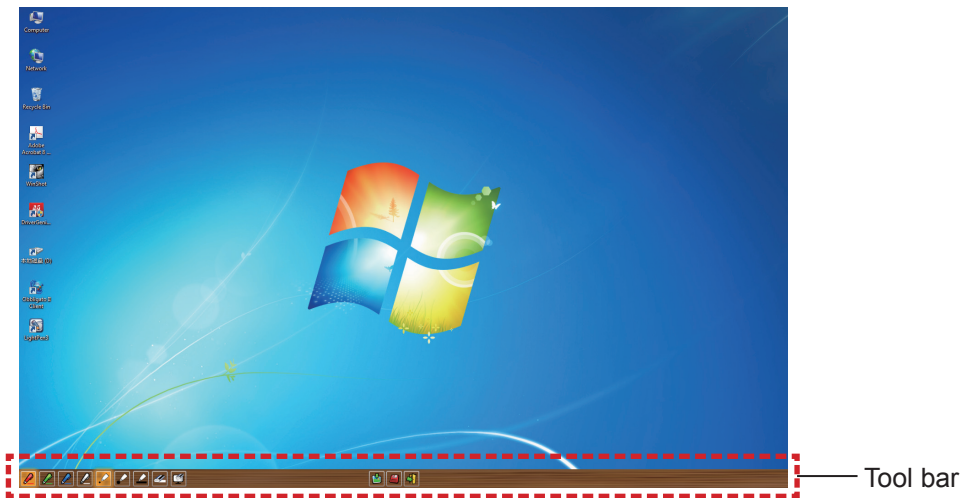


#### ● Functions of Dual Pen

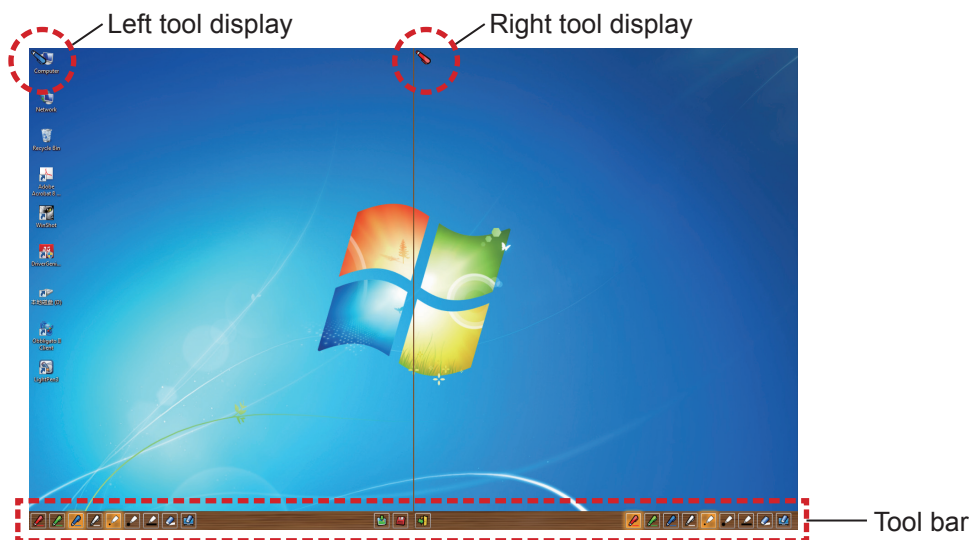
Icon	Name	Description
	<b>Full-screen mode</b>	To draw on the entire screen with two same color Pens.
	<b>Divided-screen mode</b>	To draw on the equally-divided screen with two same or different color Pens.

## For Windows (continued)

**Full-screen mode**





**Divided-screen mode**



● **Function of the tool bar for dual Pen**






Icon	Name	Description
	<b>Red Pen</b>	To draw with a red pen.
	<b>Green Pen</b>	To draw with a green pen.
	<b>Blue Pen</b>	To draw with a blue pen.
	<b>White Pen</b>	To draw with a white pen.
	<b>Thin circular stroke</b>	To draw with a thin circular stroke.
	<b>Thick circular stroke</b>	To draw with a round thick stroke.
	<b>Square stroke</b>	To draw with a square stroke.
	<b>Eraser</b>	To partially erase the pictures and lines.
	<b>Erase all</b>	To erase all the pictures and lines.
	<b>Wallpaper select tool</b>	To change the background to any wallpaper.


	<b>Save</b>	To save the displaying screen to your computer.
	<b>Exit</b>	To exit "Full-screen mode" or "Divided-screen mode".

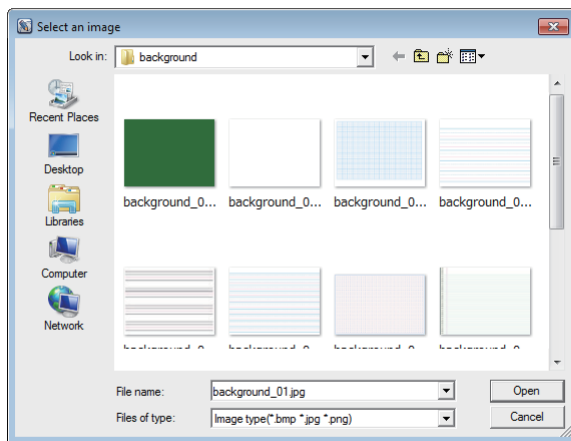
### Note

- You can draw with a combination of the color and thickness of the Pen. In the tool bar, the background of the color and thickness of the selected Pen displays bright.
- In the "Divided-screen mode", the selected mode (the color of the Pen, Eraser, Erase all) will be displayed at the top left screen with certain icons.

### Whiteboard tool



Select the "Whiteboard tool"  icon to make the wallpaper of the PC screen white. The  (previous page) and the  (next page) icons are replaced by the  (wallpaper selection) and the  (white wallpaper) icons.

- Select the  icon to open the following window where you can choose the wallpaper that you want to use.



Related  
whiteboard tools












- Select the  icon to change the wallpaper to white.
- To exit the Whiteboard mode, select the  icon.

## For Windows (continued)

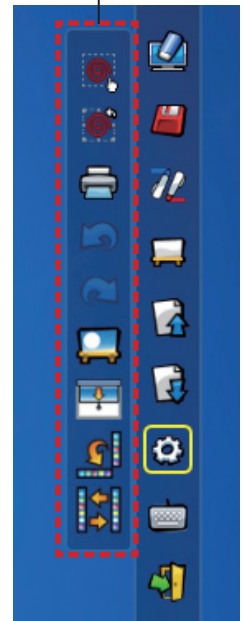
### ■ Editing tool

Select the  icon to display the following "Editing tool" bar and select the necessary functions of the editing work.

#### ● Functions of Editing bar

Icon	Name	Description
	<b>Object selecting, moving, scaling</b>	To select, to move, to scale the object that you draw.
	<b>Object rotating</b>	To rotate the object that you draw.
	<b>Print</b>	To print the screen you drew.
	<b>Undo</b>	To return to the last action.
	<b>Undo canceling</b>	To cancel the returning of the last action.
	<b>Spotlight</b>	To display the part you want to emphasize.
	<b>Curtain</b>	To cover the part you want to hide.
	<b>Vertical and horizontal shifting</b>	To array the tool bar vertically or horizontally.
	<b>Left and right shifting</b>	To move the tool bar left or right.


Editing tool bar

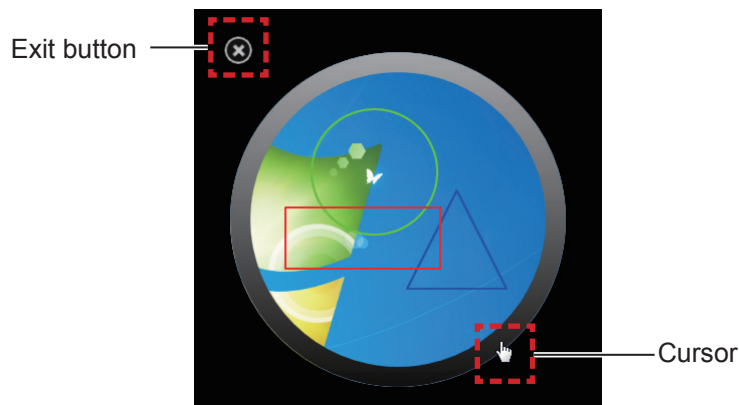


#### Note

- Select the drawn object first and start to rotate with the "Object rotation" function. If you do not select the object, a message "Select the picture first" will display.

#### ● Spotlight mode


Select the  icon to display the below spotlight image.

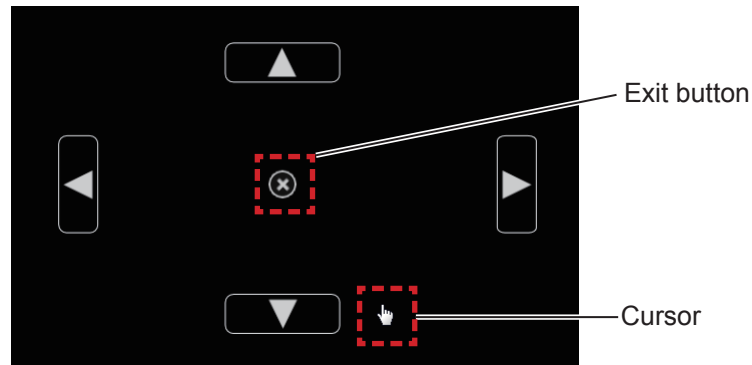


When the cursor becomes a cross, you can change the position of the spotlight and drag.  
 When the cursor becomes a hand, you can change the size of the spotlight and drag.  
 When you finish viewing the spotlight, press the exit button on the top left to exit.



### ● Curtain mode

Select the  icon to change the entire screen to black.




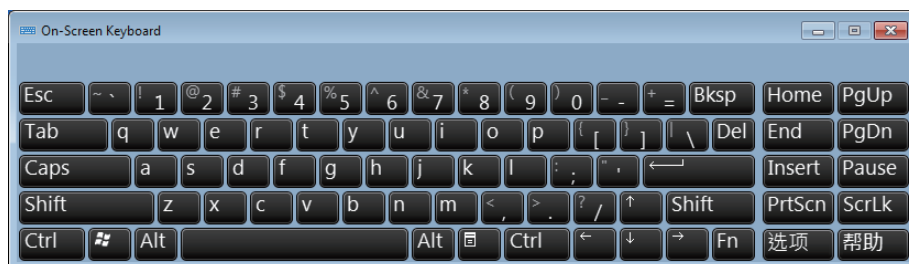
Place the cursor on the up, down, left or right button and the cursor will change to an arrow, drag the arrows to adjust the black curtain size.

When the cursor become a hand, you can drag it to move the black curtain.

When you finish viewing the curtain, press the button in the center to exit.

### ■ On-screen keyboard

Select the  icon to display the below On-Screen Keyboard. You can write text to a document via the "Mouse mode".

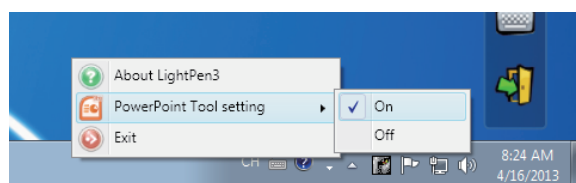


#### Note

- When using the On-screen keyboard in Windows 7, please make sure to set the security level of User Accounts to "Never notify". For changing the security level, click "Start" -> "Control Panel" -> "User Accounts" -> "User Account Control Settings".

### How to use the PowerPoint Tool

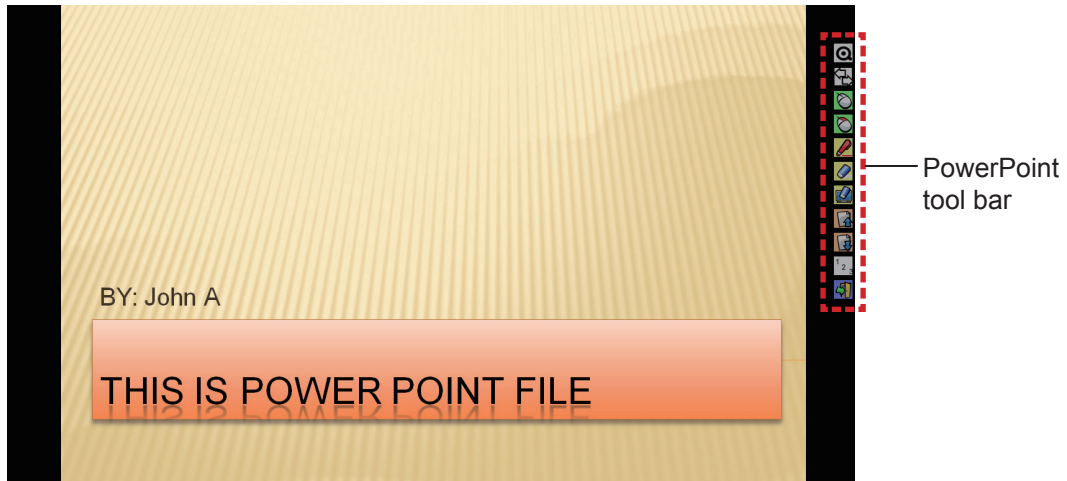
1) Click the mouse icon in the taskbar and set the "PowerPoint Tool setting" to [On].



2) Start projection of the PowerPoint file with the "Slide Show Mode".

- The PowerPoint Tool appears on the right side of the screen and you can draw during the slide.

## For Windows (continued)



### ● Functions of the PowerPoint Tool bar

Icon	Name	Description
	<b>Tool bar minimize</b>	To switch displaying / hiding of the other icons.
	<b>Tool bar position change</b>	To move the tool bar to the left or right.
	<b>Mouse</b>	To perform the mouse mode.
	<b>Mouse right button</b>	To perform as the right button of the mouse.
	<b>Red Pen</b>	To draw with a red pen.
	<b>Eraser</b>	To partially erase the pictures or lines.
	<b>Erase all</b>	To erase all the pictures or lines.
	<b>Previous page</b>	To return to the previous page.
	<b>Next page</b>	To go to the next page.
	<b>Page selecting</b>	To select the page you want to project from the list of slide show page.
	<b>Exit</b>	To exit the slide show mode.

#### Note

- When you exit "Slide show mode", the PowerPoint Tool will automatically disappear.
- The PowerPoint Tool does not support PowerPoint 2002.





### To exit the Software and Driver



#### ■ If you want to exit the LightPen3 from the tool bar

Select the  icon (exit icon) from the tool bar.

#### ■ If you want to exit the LightPen3 from the taskbar

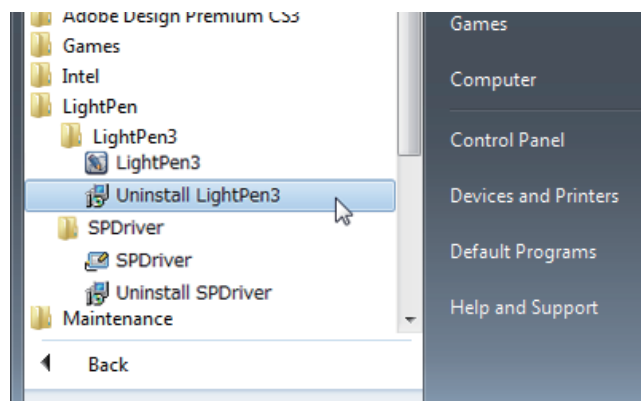
Click the  icon (Mouse icon) from the taskbar and select  Exit .

#### ■ To exit SPDriver

Click the  icon (SPD icon) from the taskbar and select  Exit .

### To uninstall the Software and Driver

#### 1) Select "Start" → "All Programs" → "LightPen" → "LightPen3" → "Uninstall LightPen3" on the desktop.



#### 2) Follow the uninstallation steps on the screen.

#### 3) Select "Start" → "All Programs" → "LightPen" → "SPDriver" → "Uninstall SPDriver" on the desktop.

#### 4) Follow the uninstallation steps on the screen.

# For Mac OS

## System requirements

In order for the SPDriver and the LightPen3 software to work properly, the computer system must meet the following requirements.

OS	Mac OS X v10.5 ~ v10.8
CPU	Intel processor
Memory	2 GB or more
Free space on the hard disk	100 MB or more

### Note

- Please notice that it is not guaranteed of the proper operations for system requirements other than the above mentioned requirements or for the self-made computers.
- The LightPen3 software may not work properly depending on the Mac OS version. In this case, please update to the latest version of Mac OS version before using the LightPen3 software. [For example: Please update from v10.7.2 to v10.7.5.]

**Even all the requirements are meet, there is not guaranteed operations for all computers.**

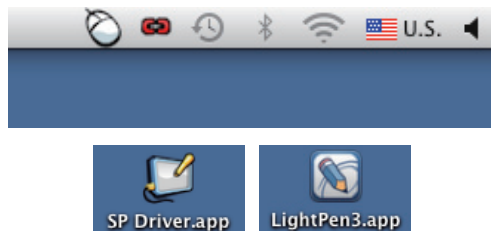
※ Screen images used in these instructions are subject to change without notice.

## Installation of the Driver and Software

1) Insert the software recorded CD-ROM into the CD drive.

2) Open the "MAC" folder, copy the "SP Driver.app" and "LightPen3.app" onto your desktop.

- The "SP Driver icon" (red) appears in the task bar and the "SP Driver.app" and "LightPen3.app" icons appear on the desktop as below pictures shown.



3) Take the CD-ROM out from the CD drive.

### Attention

- Please do not start the software directly from the CD-ROM.

### Note

- Download the latest versions of "LightPen3" software from the following URL.  
<http://panasonic.net/avc/projector/>

## Interactive function initial settings

First, carry out the calibration for the projector sensor to accurately recognize the position of the projected screen.

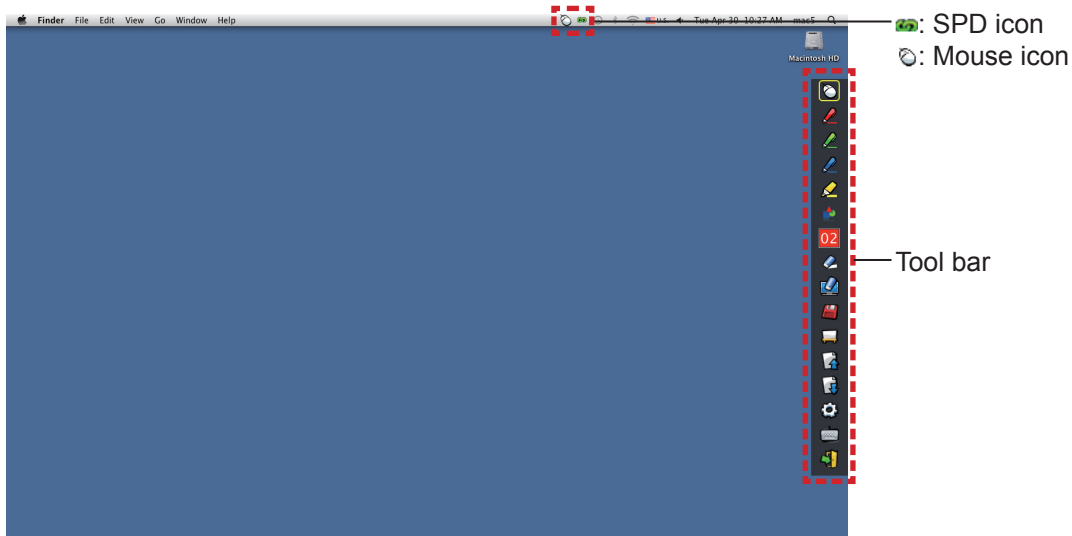
### ■ Start the Software

1) Connect the computer and the projector via a USB cable.

- The SPDriver icon in the taskbar turns from red into green.

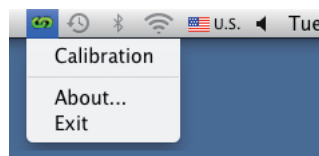
2) Double click the "LightPen3.app" on the desktop.

- Tool bar appears at the right of the screen.



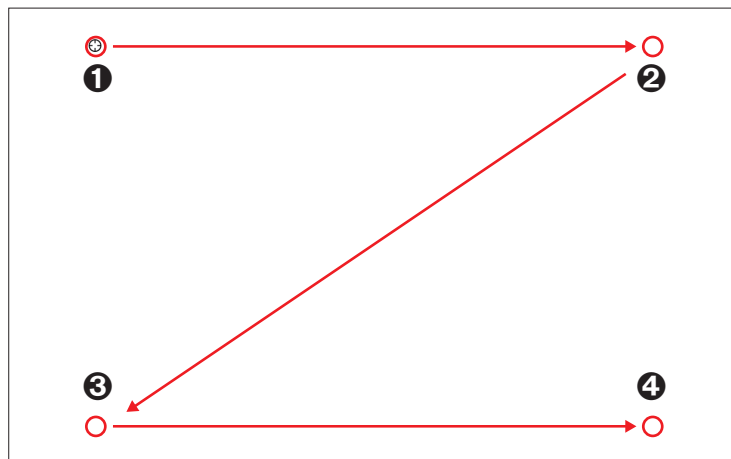
### ■ Perform the Calibration of the camera

3) Click the "SPDriver" icon on the taskbar.



4) Select the pop-up "Calibration".

- Manual calibration screen displays.



5) Press the target mark ① in the screen with the Pen.

- Each time you press the target mark, the moving order is ① → ② → ③ → ④.

6) Press the target mark ② → ③ → ④.

- The "Please wait..." message appears, and after completing the process the message will disappear.

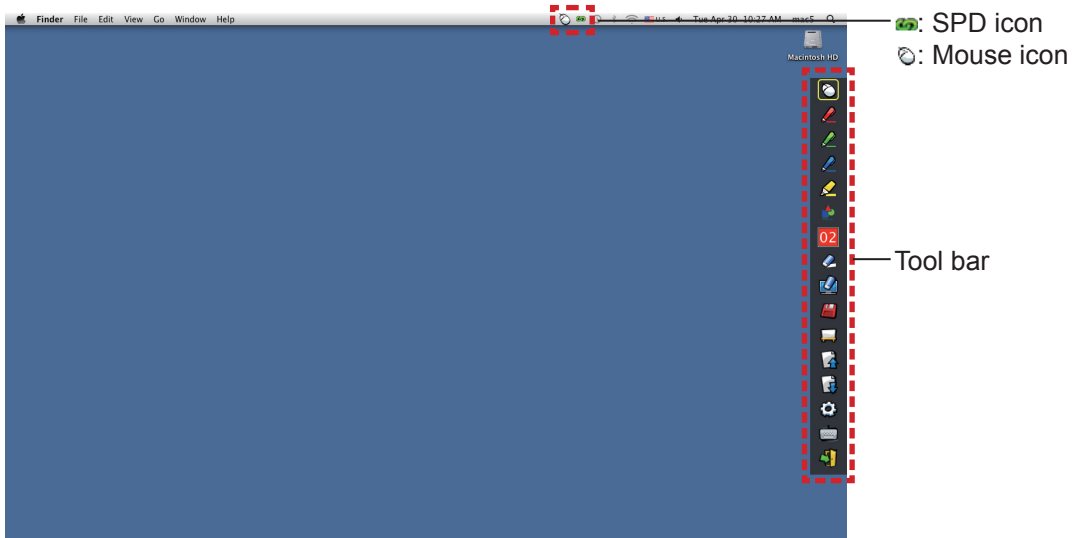
#### Note

- When the position of the screen and the projector is fixed, there is no need for calibration again next time if you use the same computer at the same resolution.

# For Mac OS (continued)

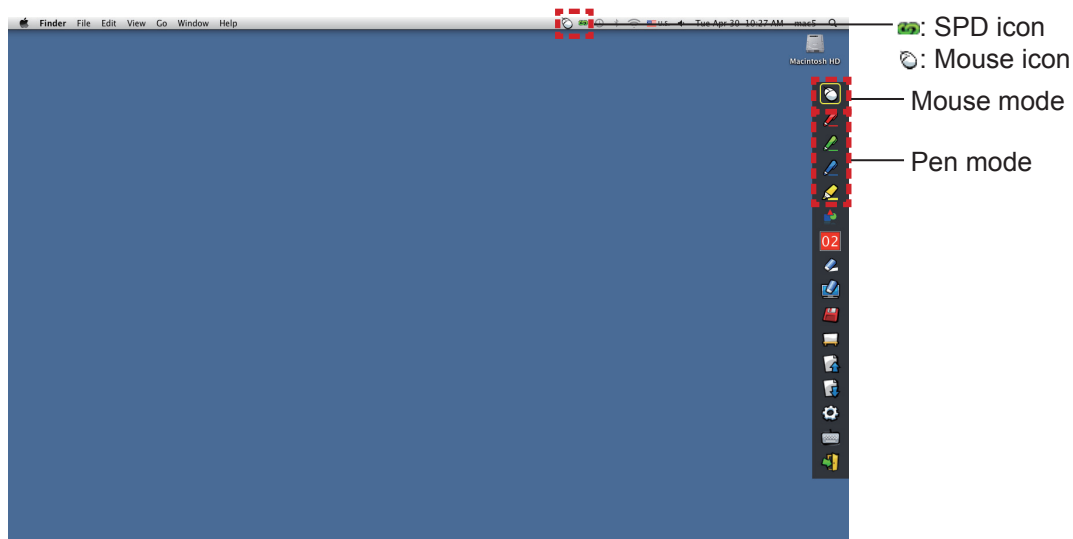
## How to use the Interactive function

### ■ Tool bar functions



Icon	Name	Description	Page
	Mouse	To perform as a PC mouse.	-
	Red pen	To draw as a red pen.	-
	Green pen	To draw as a green pen.	-
	Blue pen	To draw as a blue pen.	-
	Marker pen	To draw as a half-transparent yellow pen.	-
	Shape tool	To draw a circle, a square, a triangle or a straight line.	22
	Line thickness and color change tool	To change the color and the thickness of the Pen.	22
	Eraser	To partially erase the pictures or lines.	-
	Erase all	To erase all the pictures or lines.	-
	Save	To save the displaying screen to the computer.	-
	Whiteboard tool	To change the background to the whiteboard mode.	23
	Previous page	To return to the previous page.	-
	Next page	To go to the next page.	-
	Editing tool	To edit the drawn pictures or lines.	24
	On-Screen Keyboard	To display the On-Screen Keyboard.	24
	Exit	To exit LightPen3.	24

## ■ For "Mouse mode" and "Pen mode"



### ● Mouse mode

The "Mouse mode" is active immediately after Startup. Use a Pen or a Pointer to move the mouse cursor.

- When using the Pen, press the tip of the Pen to the screen as the use of a normal pen.
  - When using the Pointer (Optional accessories), press and hold down the button during use.
- During mouse mode, press and hold the Pointer button or the tip of the Pen for about 2-3 seconds to do right-click.

### ● Pen mode

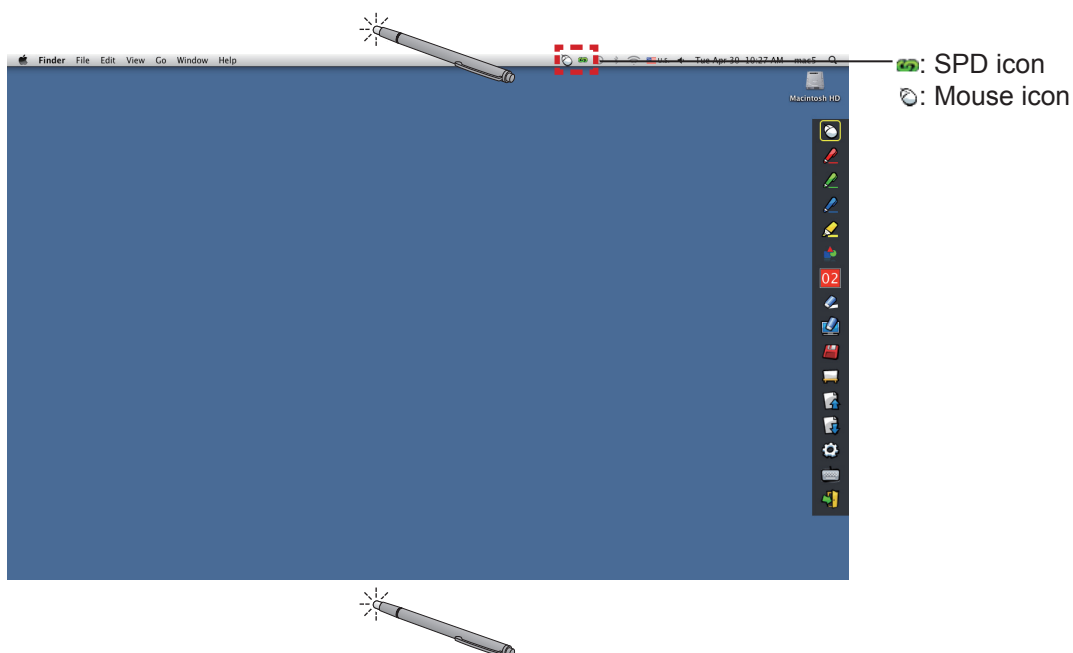
Select the Pen icon (Red pen/Green pen/Blue pen/Marker pen) from the tool bar and draw a line with a Pen or a Pointer. You can set the thickness and the color of the line.

- When using the Pen, press the tip of the Pen to the screen to draw a line as the use of a normal pen.
- When using the Pointer, press and hold down the button to draw a line.

### Note

- Press the icon on the taskbar to switch the "Mouse mode" or the "Pen mode".

### ● Quick switch of the "Mouse mode" or the "Pen mode".



You can switch the "Mouse mode" or the "Pen mode" (Red pen/Green pen/Blue pen/Marker pen) function by

## For Mac OS (continued)

simply using the Pen or the Pointer to click a little space up above or below the projection screen edge.

- The Pen color was the last selected color when using "Pen mode".

### ■ Position changing and Displaying / Hiding of the tool bar

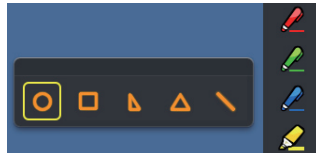


You can change the position of the tool bar or switch to display or hide of the tool bar.

- If you use the Pen or the Pointer to click a little space left to the projection screen edge, the tool bar will move to the left. To move the tool bar to the right, use the Pen or the Pointer to click a little space right to the projection screen edge.
- To switch the displaying or hiding of the tool bar, use the Pen or the Pointer to click a little space outside of the projection screen with the tool bar side.

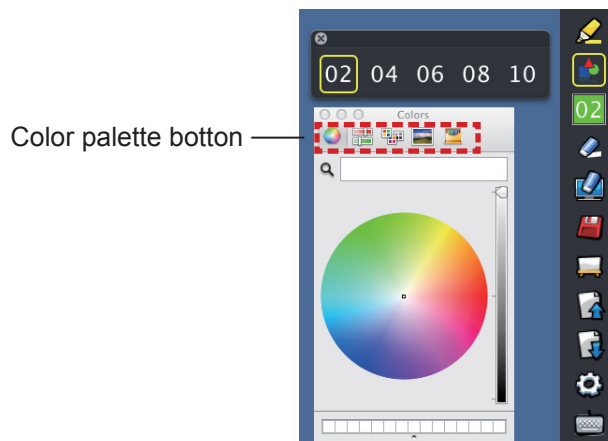
### ■ Shape tool

Click the "Shape tool" icon  to display the following menu and select the shape you want to draw.



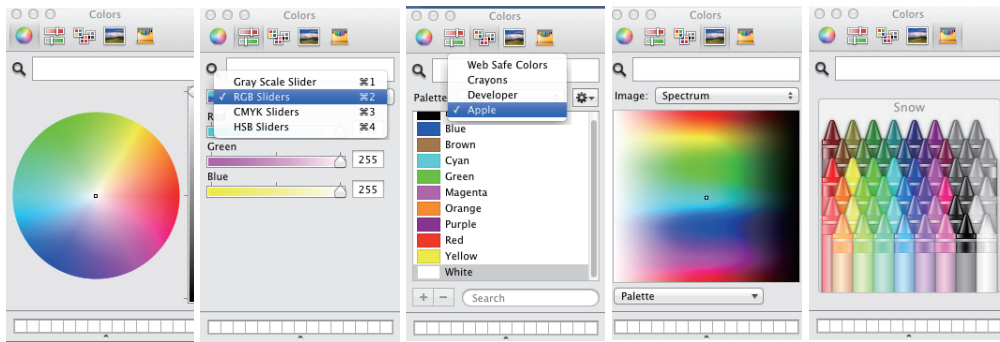
### ■ Line thickness and color change tool

Click the "Line thickness and color change tool" icon  to display the following menu and choose the thickness or color of the line.









You can select rich color palette from the following picture in the Mac OS system.

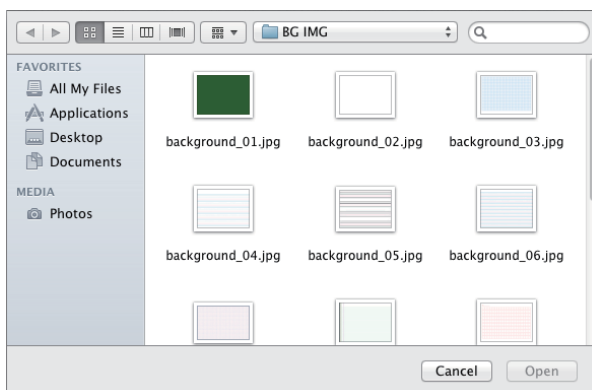
- Set the switching of the 5 types of color palette button.




## Whiteboard tool


Select the "Whiteboard tool"  icon to make the wallpaper of the PC screen white. The  (previous page) and the  (next page) icons are replaced by the  (wallpaper selection) and the  (white wallpaper) icons.

(1) Select the  icon to open the following window where you can choose the wallpaper that you want to use.




Related whiteboard tools

(2) Select the  icon to change the wallpaper to white.





(3) To exit the Whiteboard mode, select the  icon.

## For Mac OS (continued)

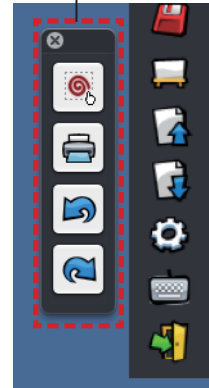
### ■ Editing tool

Select the  icon to display the following "Editing tool" bar and select the necessary functions of the editing work.


#### ● Functions of Editing bar

Icon	Name	Description
	<b>Object selecting, moving, scaling, rotating</b>	To select, to move, to scale or to rotate the object that you draw.
	<b>Print</b>	To print the screen that you drew.
	<b>Undo</b>	To return to the last action.
	<b>Undo canceling</b>	To cancel the returning of the last action.

Editing tool bar




### ■ On-screen keyboard

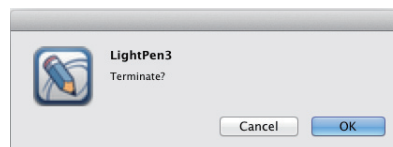
Select  icon to display the below on-screen keyboard. You can write text to a document via the "Mouse mode".




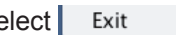
## To exit the Software and Driver

### ■ If you want to exit the LightPen3 from the tool bar


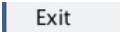
- 1) Select the  icon (exit icon) from the tool bar.
- 2) The confirmation screen displays and press "OK" to select.



### ■ If you want to exit the LightPen3 from the task bar

- 1) Click the  icon (Mouse icon) from the task bar and select .
- 2) The confirmation screen displays and press "OK" to select.

### ■ To exit SPDriver

Click the  icon (SPD icon) from the task bar and select .



**To uninstall the Software and Driver**

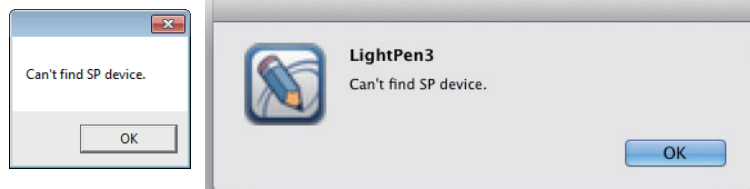
- 1) Drag or drop the "SP Driver.app" and the "LightPen3.app" from the desktop to the recycle bin.
- 2) Select the "Empty trash" for the "Finder" menu.

# Troubleshooting

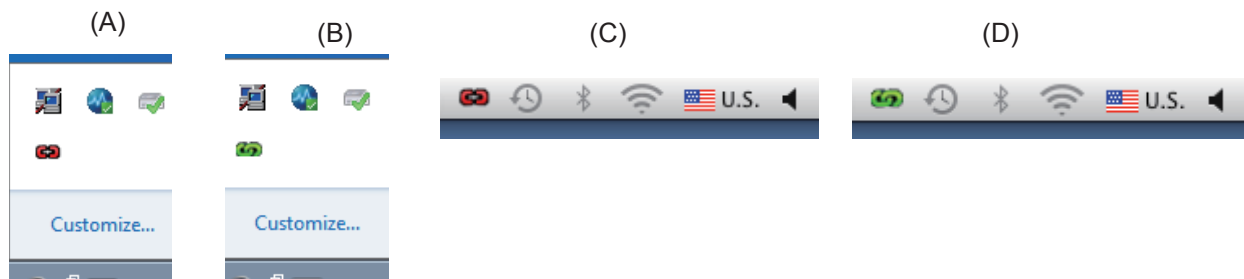
## "The SP device can not be found" message displays.

In this case, please check the followings.

- (1) Confirm that the USB cable is connected securely and that the USB port is functioning properly.
  - If the following warning appears, connect the projector and the computer using the supplied USB cable, and then restart the program.



If the SPDriver icon appears in red as figures (A)/(C), the USB function is not working. In this case, Confirm that the USB cable is connected securely and that the USB port is functioning properly. The USB function performs normally when the icon becomes green as figures (B)/(D).



### Attention:

Some antivirus softwares may disable the USB ports. Set such software to support the USB ports.

- (2) Use the supplied USB cable together with the projector. If a longer USB cable is needed, contact your dealer for details.
- (3) Confirm the USB port is functioning normally. Consult a qualified technician when it does not work.

### Note:

When using a notebook computer, reduced battery capacity can result in USB ports not working. If this should occur, use AC power. Moreover, some notebook computers are unable to supply the standard current level of 500 mA from USB ports. In addition, some USB converters will not work properly. In such cases, use the supplied USB cable.

## When the computer is restarted from standby mode, LightPen3 does not work.

When a computer is put into standby mode, its USB ports might be shut down. Quit the LightPen3 program once and then restart it.

## The tip of the Pointer and the mouse cursor position are not the same.

This may be caused by one of the followings.

- (1) Calibration was not conducted accurately.
- (2) After calibration, the projector or screen was moved.
- (3) The computer resolution was changed.  
Recalibrate in any of these cases.

## The mouse cursor jumps around regardless of the movement of the Pointer tip.


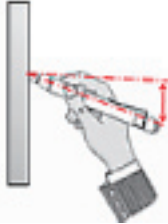
This may be caused by one of the followings.

- (1) There might be interference from a strong light nearby. Block nearby light from reaching the screen.
- (2) Since remote control use can cause malfunction, do not use the remote control when using the interactive functions.

**Under manual calibration, you can not proceed to next step even by clicking the cross mark.**

(1) Check the followings.

- Is the Pen or Pointer have enough battery charge?
- Is the tip of the Pointer or Pen in shadow on the screen? If the sensor cannot detect the LED in the tip of the Pointer or Pen, it will not function.

Do not put the Pen tip in shadow.	The recommended angle is 25°.
	

(2) The surrounding light might be too bright. Move light sources further away from the projector and screen.

It often happens in the following cases.

- Sunlight is entering through a window near the screen
  - There is a light source near the sensor or screen
- (3) When using Windows Vista or Windows 7, the + mark at the bottom left of the screen might be hidden by the start icon. In this case, place the tip where you expect it to be and press the button.

**"The ambient light is too bright to run the light pen system properly." message displays.**

The surrounding light is too strong. Therefore, try to move the light source or change the location of the screen or turn off the light, also try to make use of the curtain.

# Suffix (For Linux)

Install the Linux dedicated SPDriver in the Linux system computer. The Drawing application dedicated for Linux is not included in the CD-ROM contents and the "Pen function" does not work. You can use the Pen or the Pointer as a PC mouse function on the projection screen.

## System requirements

The computer must meet the following requirements in order to install the SPDriver.

OS	Linux OS Ubuntu v10.04, Debian v5.0, Suse v11
CPU	Intel Core 2 Duo 2.0 GHz or more (dedicated GPU is recommended)
Memory	2 GB or more
Free space on the hard disk	100 MB or more

### Note

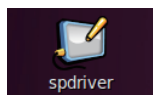
- Please notice that it is not guaranteed of the proper operations for system requirements other than the above mentioned requirements or for the self-made computers.

**Even all the requirements are meet, there is not guaranteed operations for all computers.**

※ Screen images used in these instructions are subject to change without notice.

## How to install the Driver

- 1) Before installation, use a USB cable to connect the projector to the PC, and Start the computer with administrator privileges.
- 2) Insert the software recorded CD-ROM into the CD drive.
- 3) Open the "LNX" folder and copy the "Linux.tar" on to the desktop.
- 4) Take the CD-ROM out from the CD drive.
- 5) Double click the "Linux.tar" → "Linux" → "1-setup".
  - "SPDriver icon" and "Installed successfully" messages display on the desktop.



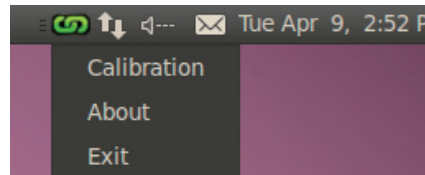
### Interactive functions initial settings

First, carry out the calibration for the projector sensor to accurately recognize the position of the projected screen.

#### ■ Perform the Calibration of the camera

##### 1) Connect the computer to the projector via a USB cable.

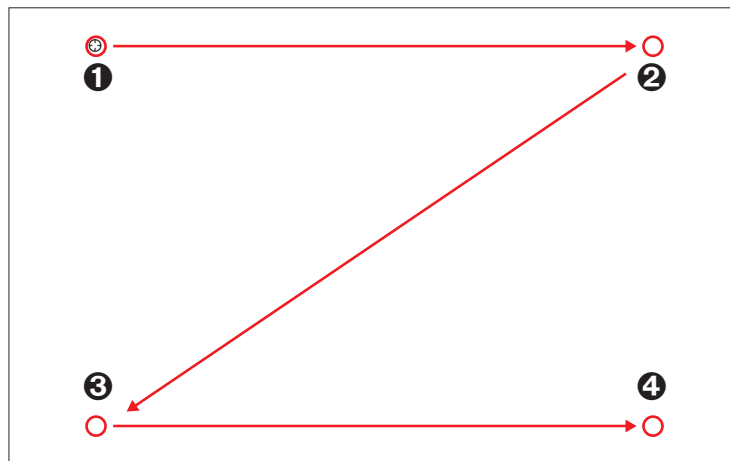
- The SPDriver icon in the taskbar turns from red into green.



##### 2) Click the "SPDriver" icon in the taskbar.

##### 3) Choose the pop-up "Calibration".

- The manual calibration screen displays.



##### 4) Press the target mark ① in the screen with the Pen.

- Each time you press the target mark, the moving order is ① → ② → ③ → ④.

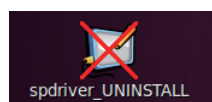
##### 5) Press the target mark ② → ③ → ④.

- The "Please wait..." message appears, and after completing the process the message will disappear.

#### Note

- When the position of the screen and the projector is fixed, there is no need for calibration again next time if you use the same computer at the same resolution.

### To uninstall the Driver



##### 1) Double click the "spdriver\_UNINSTALL" on the desktop.

- "Uninstalled successfully" message will display when unistallation finishes.

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