

EmBoard (IR) Interactive Whiteboard Software User Manual

Contents

1. Chapter I Brief Review of Whiteboard	5
1.1 Whiteboard Network	5
2. Chapter II Introduction	6
2.1 System Requirements	6
2.2 Installation of Software	6
2.3 Uninstallation of Software	7
2.4 Program Running	7
2.4.1 Calibration	7
2.4.2 Software Startup	8
2.4.3 Title Bar	9
2.5 Keyboard Shortcuts	12
3. Chapter III Operating Modes	14
3.1 Teaching Mode	14
3.2 Design Mode	14
3.3 Annotation Mode	15
3.4 Control Mode	15
3.5 Modes Switch	16
3.5.1 Switch to teaching mode	16
3.5.2 Switch to design mode	16
3.5.3 Switch to annotation mode	16
3.5.4 Switch to control mode	16
4. Chapter IV Files	17
4.1 Create New File	17
4.2 Open File	17
4.3 Save File	17
4.4 Save As	18
4.5 Import	19
4.6 Export	20
4.6.1 Export as Picture File	20
4.6.2 Export as PDF	21
4.7 Export as PDF	21
4.8 Print	21
4.9 Print Preview	22
5. Chapter V Edit Selected Object	24

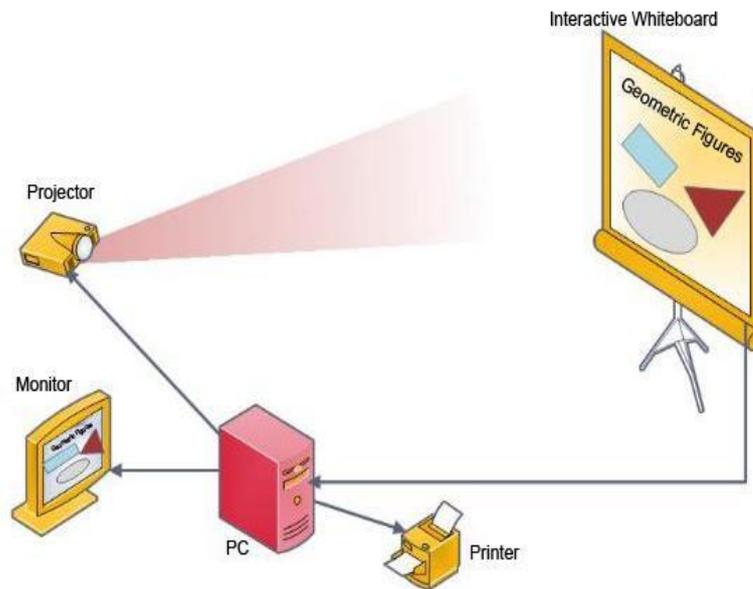
5.1 Select Object	24
5.1.1 Select one object:	24
5.1.2 Select multiple objects:	24
5.2 Copy	25
5.3 Copy to Clipboard.....	25
5.4 Cut	26
5.5 Paste	26
5.6 Clone.....	26
5.7 Unlimited Clone.....	26
5.8 Undo	27
5.9 Redo.....	27
5.10 Delete	27
5.11 Move	28
5.12 Flip.....	28
5.13 Rotate	28
5.14 Mirror	29
5.15 Lock on.....	30
5.16 Unlock	30
5.17 Group	30
5.18 Ungroup	31
5.19 Alignment	31
5.20 Zoom.....	32
5.21 Sequence.....	32
5.22 Color.....	32
5.23 Color Selector	33
5.24 Frame	33
6. Chapter VI Page Management	35
6.1 Insert a New Page.....	35
6.2 Copy Page	35
6.3 Cut Page.....	35
6.4 Paste Page	35
6.5 Delete Page.....	36
6.6 Switch Pages	36

6.7 Grid and Ruler	36
6.8 Zoom Page	36
6.9 Replay Page	37
6.10 Clear Page	37
6.11 Page Properties Setup	37
7. Chapter VII Painting	38
7.1 Pens and Brushes	38
7.1.1 Normal Whiteboard Marker	38
7.1.2 Highlighter	38
7.1.3 Broad Brush	38
7.1.4 Textured Brush	38
7.1.5 Writing Brush	39
7.1.6 AI pen	39
7.2 Duster	40
7.3 Flood Fill	40
7.4 Lines	40
7.5 Geometric Figures	40
7.6 Text	41
7.7 Hyperlink	41
7.7.1 Hyperlink to Web Page	41
7.7.2 Hyperlink to slides	42
7.8 Insert Images	43
7.9 Insert Resource File	44
7.10 Insert Audio File	44
7.11 Insert Video File	45
7.12 Insert Flash File	46
7.13 Insert Tables	48
7.14 Insert Functions	48
8. Chapter VIII Whiteboard Tools	50
8.1 Moving the Pages	50
8.2 Screen Curtain	51
8.3 Spotlight	51
8.4 Camera	52
8.5 Ruler	53

8.6 Set Square	54
8.7 Protractor	55
8.8 Compasses	56
8.9 Calculator	57
8.10 Virtual Keyboard	58
8.11 Clock	59
8.12 Audio Recorder	59
8.13 Magnifying Glass	60
8.14 Video Recorder	61
8.15 Adding External Tools	62
Steps to import external tools into whiteboard interface are as follows:	62
1. Click external tools settings button.	63
2. Click the Add button on the External Tool Dlg window.	63
3. Click browse to choose the path of external tools	63
9. Chapter IX Customized Definition	64
9.1 Customize Brush	64
9.2 Customize Colors	64
9.3 Customize Page Size	65
10. Chapter X Visualizer	66
13. 1 Function Introduction	66
13. 2 Video Module	66
13.2.1 Recording Control	66
13.2.2 Rotate Control	67
13.2.3 Snap Control	67
13.2.4 Zoom Control	68
13. 3 Picture Module	68
13.3.1 Operating Function	68
13.3.2 Rotating Operation bar	69
13.3.3 Save Control	69
13.3.4 Zoom Control	69
13. 4 Style Interface setting	70
13.4.1 Hide menu	70
13.4.2 Set Style	70
13.4.3 Language Setting.....	70
13.4.4 File menu.....	70

1. Chapter I Brief Review of Whiteboard

1.1 Whiteboard Network



- Documents are projected to the whiteboard for demonstration when the projection equipment is properly connected to the PC.
- Users can write or draw on the whiteboard with the stylus.
- User operation is immediately reported back to the whiteboard software for processing when the whiteboard is connected to the PC through the private line.
- Users can print the documents with the printer while the monitor is displaying the contents of the whiteboard.

2. Chapter II Introduction

2.1 System Requirements

Requirements		
Hardware	PC	Quantity: 1 Recommended Setup: Intel Core i3 2100 2GHZ, 2GB, 64 - bit operating system Lowest Setup: Intel Pentium 4 800, 512MB 32 - bit operating system
	Projector	Quantity: 1
Software	Operating System	Ubuntu12.04(Update to the latest software upgrade)

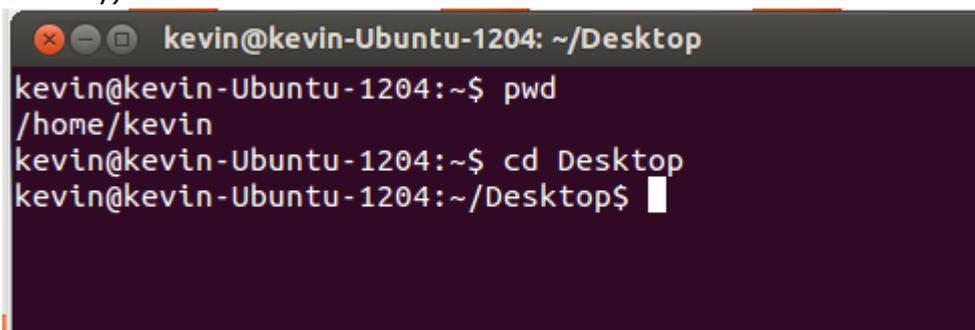
2.2 Installation of Software

The installing steps are as follows:

1. Run “blackboard_4.0.xxxx_i386.deb” in the computer, as shown in the following detailed chart:

(1) Double-click to open the terminal and go to the interface of the desktop;

Secret Order: input “cd Desktop” -->“Enter” (save the file to be installed in the desktop directory)



```

kevin@kevin-Ubuntu-1204: ~/Desktop
kevin@kevin-Ubuntu-1204:~$ pwd
/home/kevin
kevin@kevin-Ubuntu-1204:~$ cd Desktop
kevin@kevin-Ubuntu-1204:~/Desktop$

```

2. Install software

Secret Order: sudo dpkg -i blackboard_4.0.4161_i386.deb-->Enter

```

kevin@kevin-Ubuntu-1204:~/Desktop$ sudo dpkg -i blackboard_4.0.4161_i386.deb
Selecting previously unselected package blackboard.
(Reading database ... 141439 files and directories currently installed.)
Unpacking blackboard (from blackboard_4.0.4161_i386.deb) ...
Setting up blackboard (4.0.0) ...
Processing triggers for desktop-file-utils ...
Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf.index...
Processing triggers for gnome-menus ...
kevin@kevin-Ubuntu-1204:~/Desktop$ █

```

3. Open the software: double-click the desktop shortcut icon to open the software after completion of software installation.



2.3 Uninstallation of Software

The steps are as follows:

1. Open the terminal, then switch to the desktop directory and input uninstallation order to complete the uninstall of software.

Secret Order: `sudo dpkg -r Blackboard-->Enter`

```

kevin@kevin-Ubuntu-1204:~/Desktop$ sudo dpkg -r Blackboard
(Reading database ... 141922 files and directories currently installed.)
Removing blackboard ...
Processing triggers for desktop-file-utils ...
Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf.index...
Processing triggers for gnome-menus ...
kevin@kevin-Ubuntu-1204:~/Desktop$ █

```

2.4 Program Running

2.4.1 Calibration

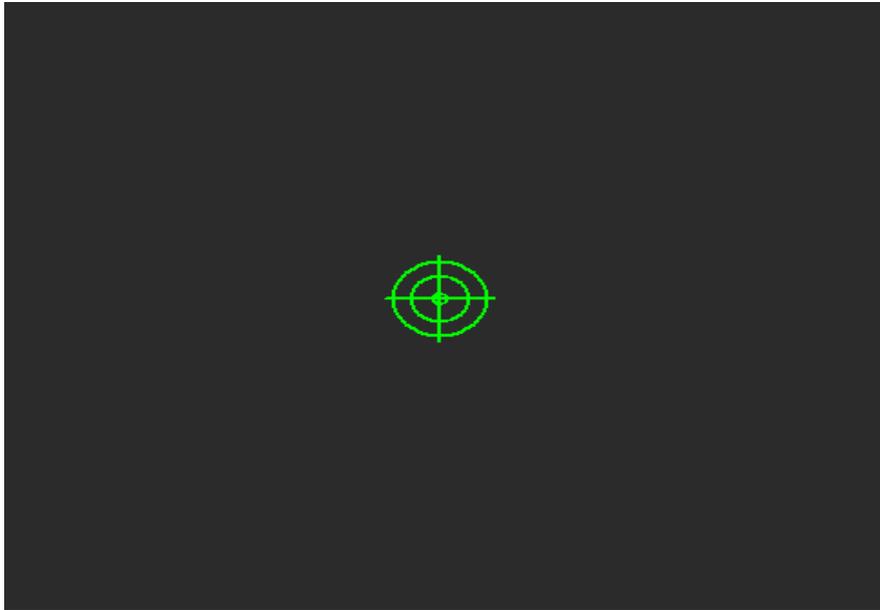
In order to run the whiteboard normally, we need to calibrate when we use it the first time. The operating orbit of the brush or fingertip must agree with the mouse, and the calibration will not be needed if no environment changes involved.

Calibration methods: after the connection of the whiteboard to the computer, double click the



calibration shortcut "Calibration" on the whiteboard surface, the projector will project a calibration point icon on whiteboard (icon ① in below screenshot), use fingers or other tools to click on the

center of the icon, the whiteboard will automatically recognize it. Then the first icon disappears while the second one appears, use the same way to calibrate the rest points to finish the calibration.



Icon 1

Calibration Tips:

1. If your brush or fingertip is not in the exact central dot, or you have the wrong click, or the next calibration icon appears even before you click, you need to press the “ESC” button on the keyboard to quit or calibrate again after it, otherwise the brush or fingertip will not exactly correspond with the mouse.
2. While calibrating, the pen or fingertip needs to be vertical as much as possible with the board and click on the right center of the calibration point.
3. The whiteboard shall be calibrated in the following situations:
 - A. The distance between the projector and the whiteboard changes;
 - B. The drivers of the computer are re-installed;
 - C. The resolution of the monitor or the projector changes.

2.4.2 Software Startup

1. When the user start the Linux System, under the procedure catalog of the menu [Start], click the desktop shortcut (Blackboard) to start the software.

Note: To avoid conflicts between the whiteboard shortcuts and the toolbar on the left side, users should hide the toolbar on the left side after the start of whiteboard software. Click windows key, users can find the toolbar in Linux system. Specific operation are as follows:



01. Click icon  to enter the system setting mode, then click

02. Switch to behavior mode, click on the Auto - hide the Launcher to open the button as shown in the figure below



03. Complete the setting and close the window.

2.4.3 Title Bar



1.1 Extramarks Icon

- Click on the icon on the left-upper corner of the software, users can closed, maximize, minimize the page.



1.2 Customize the quick access toolbar:

- Click the quick access toolbar drop-down button, user can quickly add convenient shortcut icons according to their needs and use these functions.

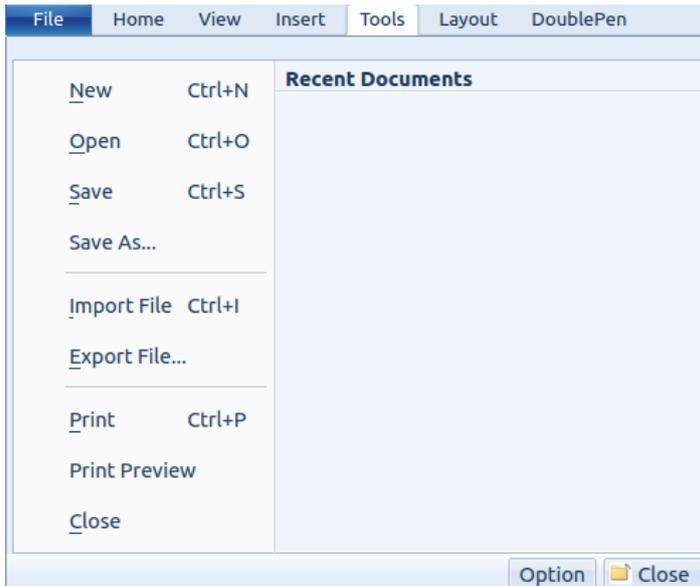


1.3. Control window toolbar

- With the window toolbar, users can do operations like maximize, minimize and close the page, etc.

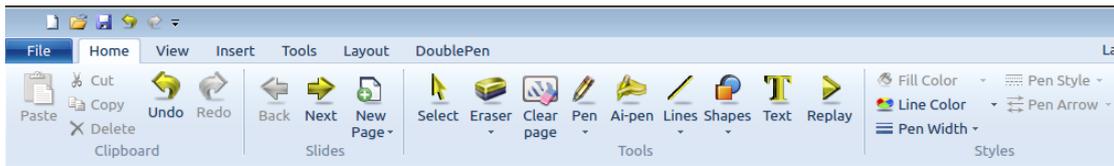
2.4.4 Menu Bar

1.1 File Menu Bar:



Click the file menu, users can do different operations: create a new file, open the file, save the file, save as, import files (including a variety of formats, such as doc, docx, PDF, PPT, PPTX, XLS, XLSX), export files, print and close the files, etc.

1.2 Start Menu Bar



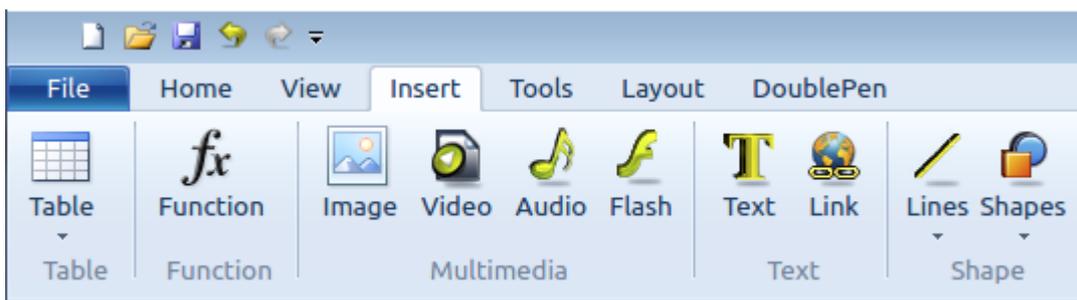
- Start Menu Bar includes four main modules: Clipboard, slides, tools and styles.

1.3 View Menu Bar



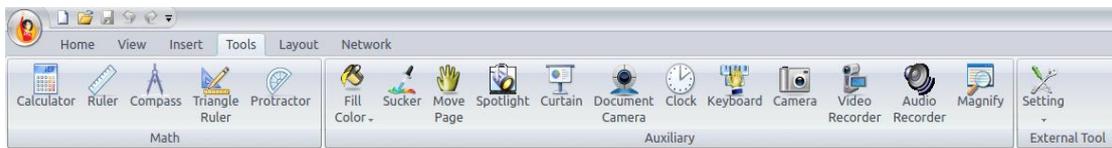
- With the View Menu Bar, users can operate switch among four main modes, and other items including sidebar, grid ruler, zoom in/out, left/right switch, single/double switch functions are available, too.

1.4 Insert Menu Bar:



- With the Insert Menu Bar, users can insert table, function, multimedia files, text, shapes, etc.

1.5 Toolbar Menu:



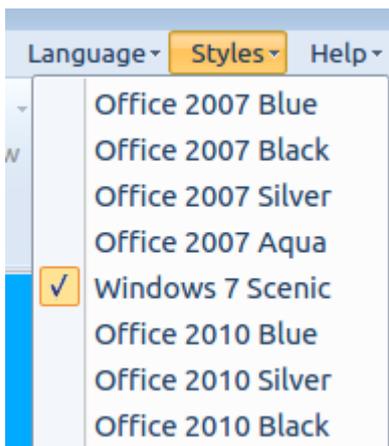
- The toolbar menu is mainly composed by math tools, auxiliary tools, external tool, etc.

1.6 Layout Menu Bar:



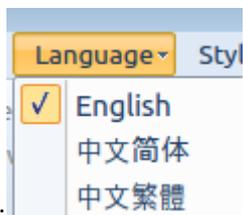
- Users can edit text and shapes made in the page with layout menu bar.

1.7 Option Menu Bar:



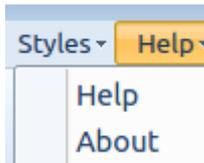
- With this Menu bar, users can switch among various styles.

1.8 Language setting:



- Click the language icon, users can operate switch among English and Chinese language.

1.9 Help Menu Bar:



- Click Help menu bar, users can get relevant software help file (software user manual) and information about Extramarks.

2.0 Left Margin Shortcut Menu Bar



- Left margin toolbar is mainly composed of the sidebar tool and the tool page. Users can click the resources button to open the internal resources, and they can add new resources (by clicking the Add button).

2.5 Keyboard Shortcuts

The software has been embedded some keyboard shortcuts for users, as shown in below chart:

Types	Keyboard Shortcuts	Function Descriptions
System Key	Page Up	Last page
	Page Down	Next page
	Insert	Insert a new page
	ESC	Teaching mode switches to design mode or annotation mode to design mode
	Delete	Delete the object
Combination Key	Ctrl + A	Select all the objects
	Ctrl + C	Copy the selected objects
	Ctrl + N	Create a new file
	Ctrl + O	Open the files
	Ctrl + P	Print
	Ctrl + S	Save the files
	Ctrl + V	Paste the objects

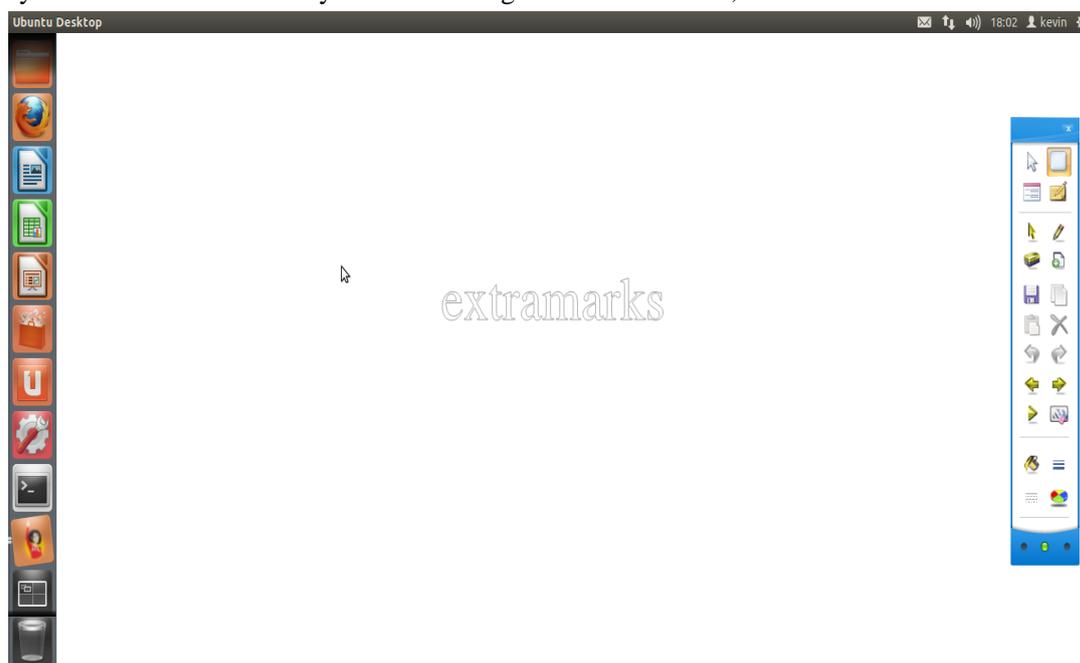
	Ctrl + X	Cut the objects
	Ctrl + T	Insert the texts
	Ctrl + Z	Cancel
View Mode Key	F2	Demonstration/Teaching Mode
	F3	Desktop Annotation Mode
	F4	Design Mode
	F5	Playback the page
	F6	Control Mode

3. Chapter III Operating Modes

EM whiteboard has four working modes to meet different demands of teachers and other user groups. Click “View” button in the menu bar to select any of the four modes according to your requirement.

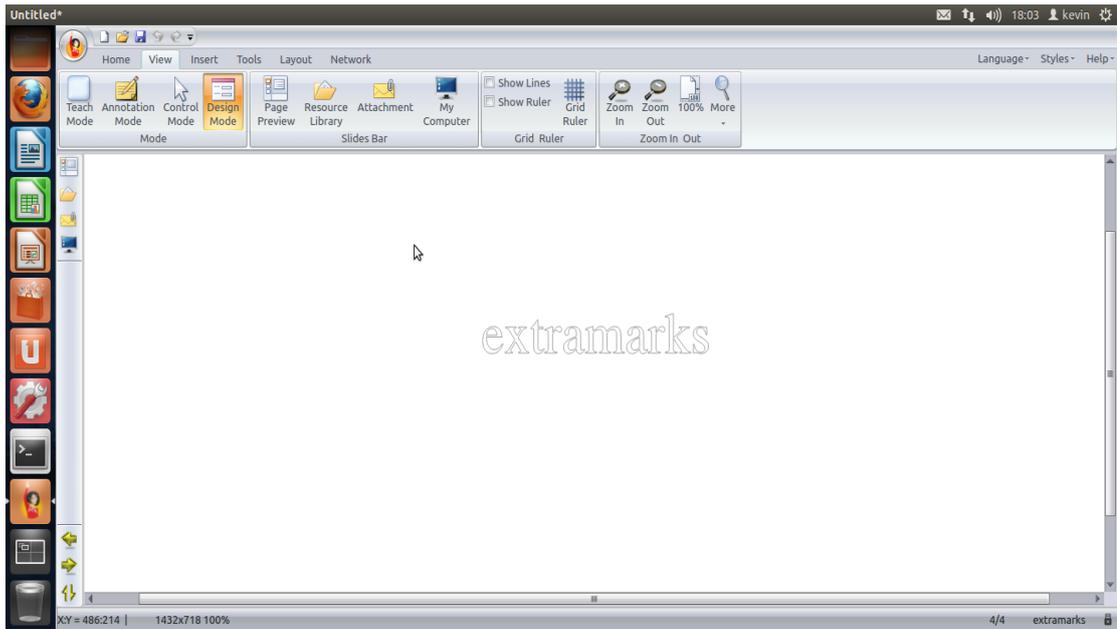
3.1 Teaching Mode

Teaching mode, also demonstration mode is mainly used in classroom teaching, under which the system interface will be very neat for writing and demonstration, shown as below:



3.2 Design Mode

Under the design mode, the system will provide varied interfaces (menu, toolbar, etc.) to help users quickly make electronic wall map:



3.3 Annotation Mode

Under the annotation mode, users can annotate on the computer screen shown as below:



3.4 Control Mode

Under control mode, users can control computer applications along with the EM whiteboard floating toolbar, which allows users to interact with the desktop, shown as below:



3.5 Modes Switch

3.5.1 Switch to teaching mode

Teaching mode: click “view” on main menu → “Teaching mode” or press F2 enter into teaching mode.

3.5.2 Switch to design mode

Design mode: click “view” on main menu → “Design mode” or press F4 enter into design mode.

3.5.3 Switch to annotation mode

Annotation mode: click “view” on main menu → “Annotation mode” or press F3 enter into design mode.

3.5.4 Switch to control mode

Control mode: click “view” on main menu → “Control mode” or press F6 enter into design mode.

Gentle reminder: When switching from control mode to other modes. It is required to click on any tools on the toolbar and select the function then press the express key to switch (This operation is mainly because that the software recognize only the icon interface on the desktop but not the toolbar interface under control mode)

4. Chapter IV Files

4.1 Create New File

Create a new file:

1. Under the design mode, there are two ways:

- ★ Click on “Create New File” 
- ★ Click on “File” in the main menu → “New”

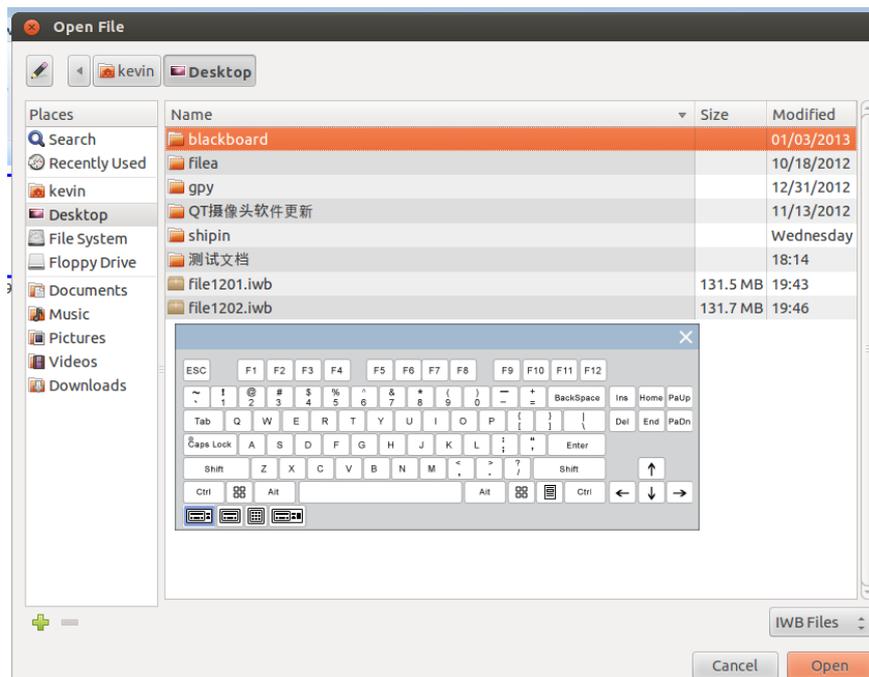
4.2 Open File

Open a file previously saved, the supporting formats for now are: *. iwb

1. Under the design mode, there are two ways:

- ★ Click on “ Open” button  on the upper title toolbar
- ★ Click on “ File” → “Open” on the main menu

2. The “Open” window is popped up as:



3. Select the file to be opened, and click “Open”.

4.3 Save File

The file is saved to the disk in the format of the whiteboard file for the reuse and the saving formats is : iwb.

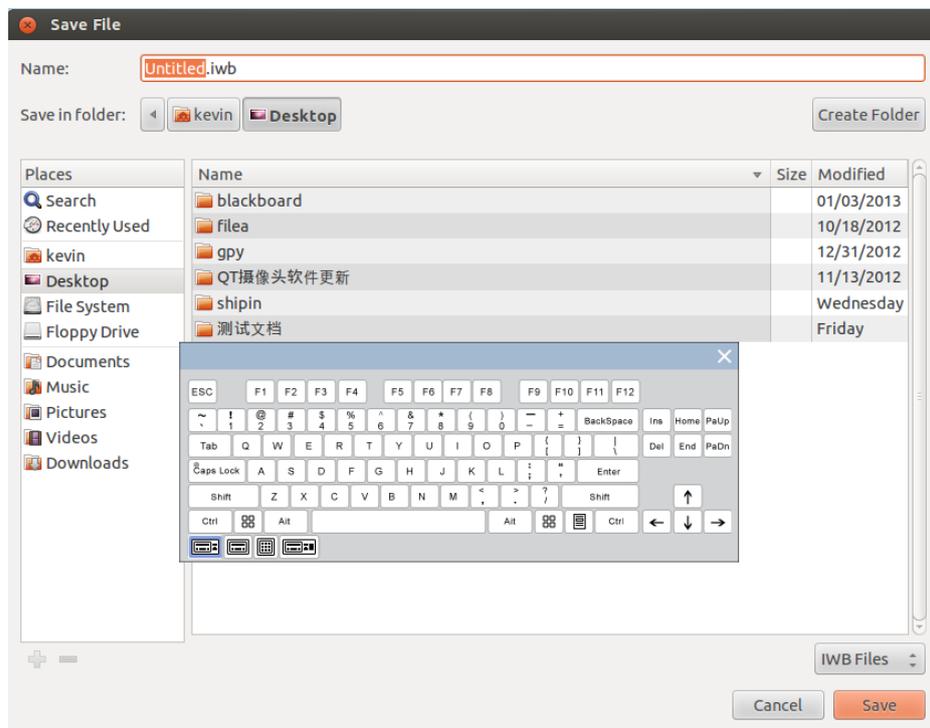
1. Under the design mode, there are two ways:

- ★ Click on standard toolbar and choose “ Save” 
- ★ Click on main menu and choose “ File” —> “ Save” 

2. Under the teaching mode, there are two ways:

- ★ Click on “File” —> “Save”. 
- ★ Click on standard toolbar and choose “ Save” 

3. When the file is saved for the first time, the “Save As” window is popped up as:



4. Input the file name and click “Save”.

5. If the file is previously saved, the software will save the changes in the file and there is no “Save As” window to pop up.

4.4 Save As

The file is saved with a different name or to another address.

1. Under the design mode, the way is:

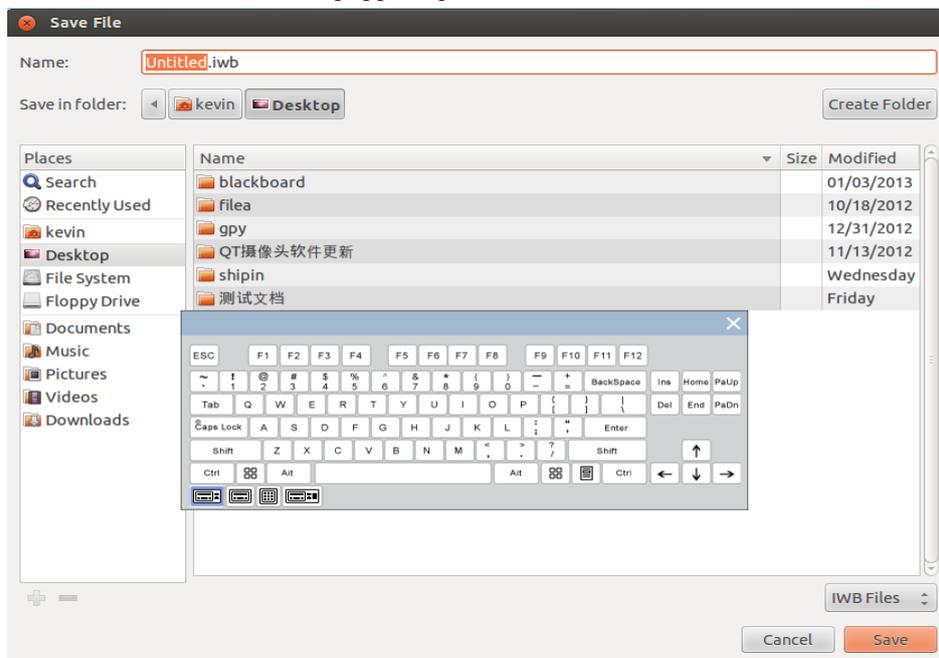
- ★ Click on main menu and choose “File” —> “Save As” to save a file.

2. Under the teaching mode, the way is :

★ Click on menu toolbar and choose “Save As”. 

Notice: The way of “ Save as” of other modes are the same with this.

3. The “Save As” window is popped up as:



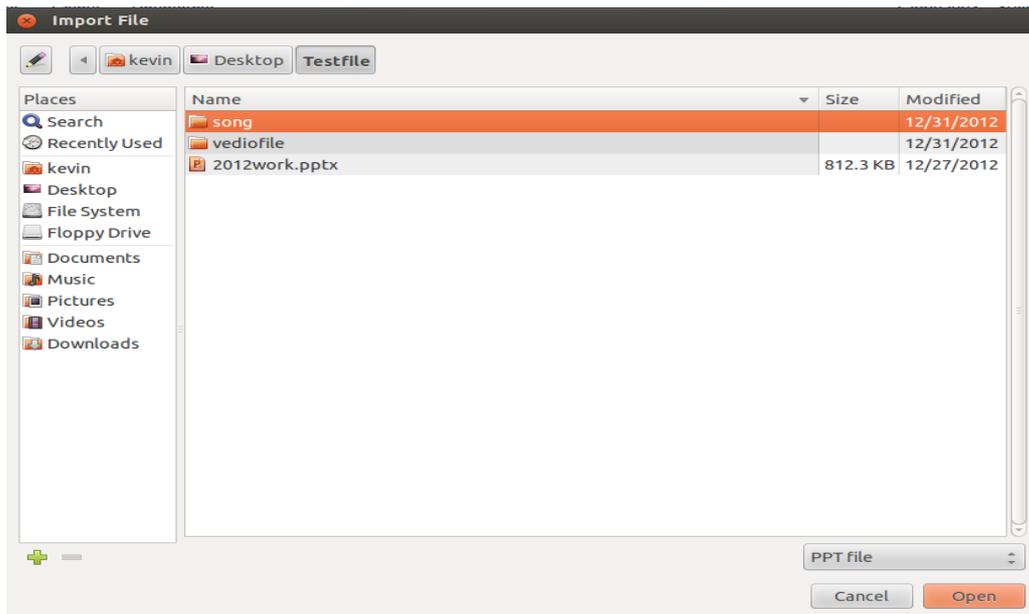
4. Key in the file name either with the on-screen keyboard or with the physical keyboard of computer, and click “Save”.

4.5 Import

Import the files (format like doc、docx、pdf、ppt、pptx、xls、xlsx、odt、odp、ods) into whiteboard software, able to select any single object and edit.

Under the design mode, the way is:

1. Click on the main menu and choose “File” —> “Import File”
2. The window is popped up as:



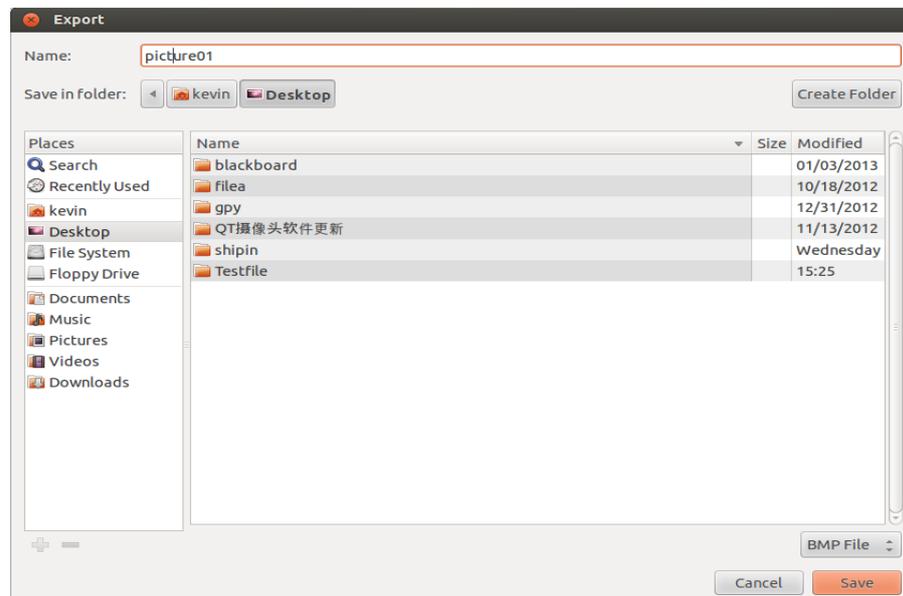
3. Click the drop-down arrow , Select the format, and choose right file, Click on “ Open”.

4.6 Export as Picture File

Export the files as picture, and export every object respectively , users can select and edit single object in the exported picture,

Under the design mode, the way is:

1. Click on main menu and choose “ File” —> “Export File”



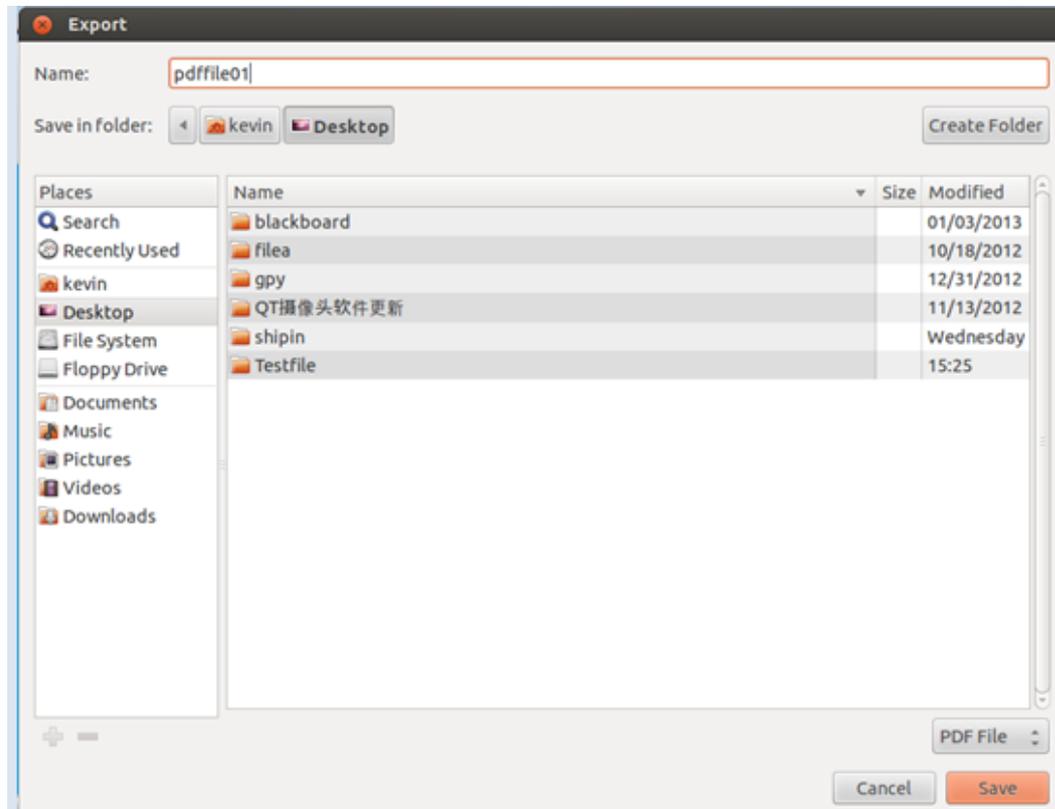
2. Click on drop-down arrow and choose file format (supported formats contain TIFF、 PNG、 BMP), select the saving path, key in the file name with on-screen keyboard
 3. Click on “Save”.

4.7 Export as PDF

The file is exported as the pdf format for users to check in the PDF browser

Under the design mode, the way is to:

1. Click on the **main menu** and choose "File" —> "Export file". —> select format as PDF.
2. The "Export" window is popped up, click on " Save" as

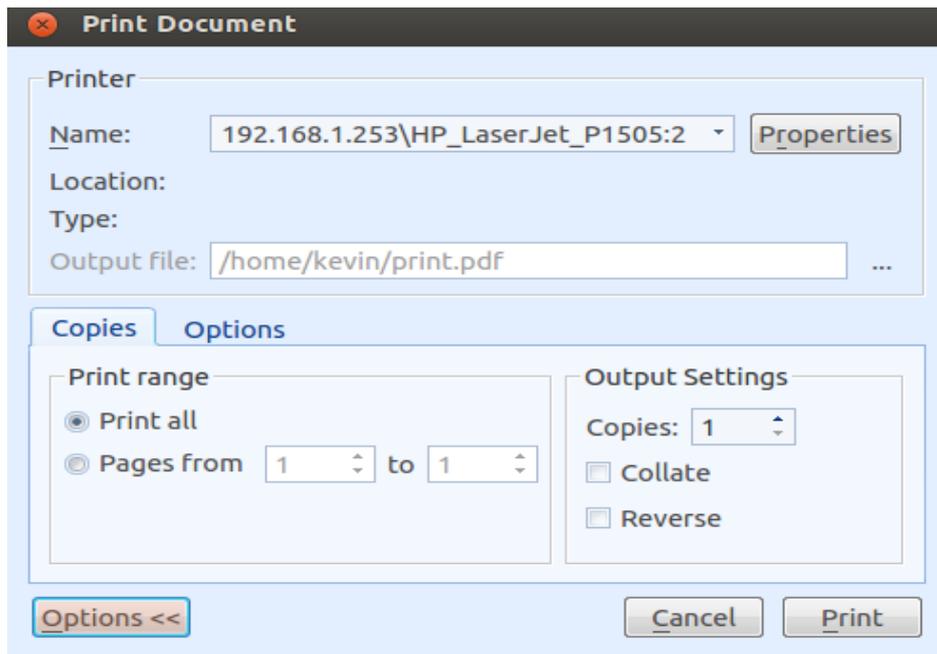


3. Key in the file name with on-screen keyboard and click "Save" to export the ppt file,

4.8 Print

Under the design mode, the way is:

1. Click on the "File" -> "Print", The "Print" dialogue box is popped up as:



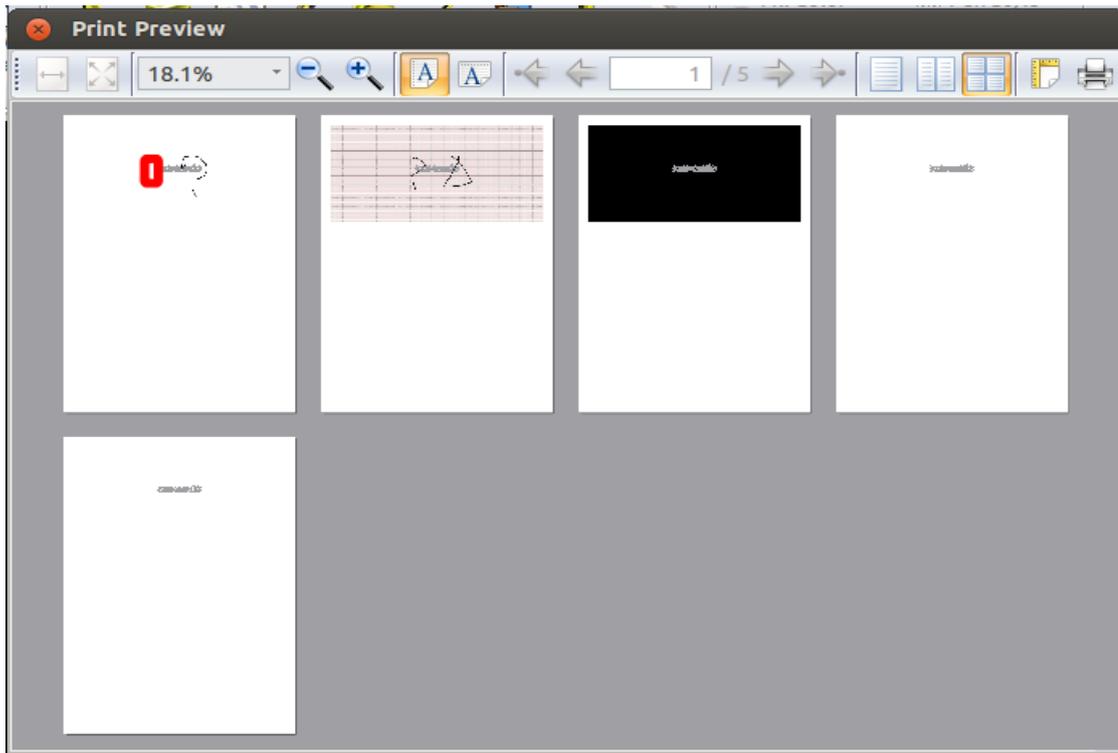
2. Select the corresponding printer, print range and number then click “OK” to finish the printing operation.

4.9 Print Preview

The print effect can be seen from the print preview.

Under the design mode, the way is:

- 1 .Click on the main menu icon and choose "File" —> “Print Preview” to preview the print file, and the “Print Preview” window is popped up as:



2. If changes are needed, click “Close” to go back to the status before the preview; if changes are not needed, click “Print” to directly print the page.
3. Click “Next Page” or “Previous Page” to switch the pages.
4. Click “Single Pages” or “ Two pages” “ Whole page” to preview pages.
5. Click “Zoom In” or “Zoom Out” to zoom the previewing pages.

5. Chapter V Edit Selected Object

5.1 Select Object

Extramarks software enables users to select and edit objects within the page.

5.1.1 Select one object:

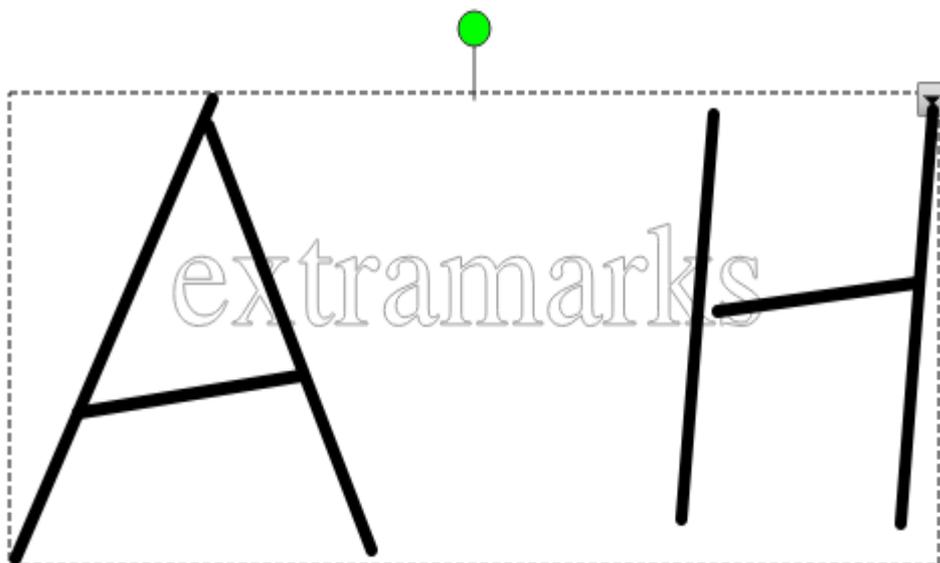
- Under the design mode, the following two ways can be used to select a single object:
 - 1) Select “Selector  ” in the standard toolbar, and click the object to be selected.
 - 2) Under the state of selecting, press on the cursor whiling drag out an area to enclose the object to be selected, and then release the push-button.
- Under the teaching mode, the following two ways can be used to select a single object:
 - 1) Select “Selector  ” in the toolbar right side, and click the object to be selected.
 - 2) Under the state of selecting, press on the cursor whiling drag out an area to enclose the object to be selected and then release the push-button.

5.1.2 Select multiple objects:

- Under the design mode, the following way can be used to select multiple objects:

Under the state of selecting single object, press on the cursor whiling dragging out an area, all the objects within the area will be selected.
- Under the teaching mode, the following way can be used to select multiple objects:

Under the state of selecting single object, press on the cursor whiling dragging out an area, all the objects within the area will be selected. View the picture below:



5.2 Copy

To copy is to put the selected objects in internal Clipboard of the whiteboard software, then paste it into the same page or other pages of the document. Only the latest copied object can be pasted. The specific procedures are introduced as follows:

1. Select the object to be copied (Detailed procedure refers to the selected object).
2. The following ways can be used to copy:
 - Under the design mode, operate according to one of the following instructions:
 - 1) Click “Home” → “Clipboard” → “Copy” in the menu bar.
 - 2) Click the right Function Key  of the object, and select “copy” in the pop-up menu.
 - Under the control mode, operate according to one of the following instructions:
 - 1) Click the “Copy”  in the standard toolbar.
 - 2) Click the right Function Key  of the object, and select “Copy” in the pop-up menu.

5.3 Copy to Clipboard

This part is to put the selected object in the clipboard of the system, and then paste it into other windows applications programs. The specific procedures are introduced as follows:

1. Select the object to be copied (Detailed procedure refers to the selected object).
2. The way to copy something to the clipboard is displayed as follows:
 - Under the design mode, click the right Function Key  of the object, and select “Copy to Clipboard” in the pop-up menu.

- Under the control mode, click the right Function Key  of the object, and select “Copy to Clipboard” in the pop-up menu.

5.4 Cut

Cut is to remove the selected object from current page and put it into the internal clipboard of the whiteboard software, then paste it into same page or other pages of document. Only the latest cut object can be used to paste. The specific procedures are introduced as follows:

1. Pitch on the object to be cut (Detailed procedure refers to the selected object).
2. To cut as follows:
 - Under the design mode, operate according to one of the following instructions:
 - 1) Click “Home” → “Clipboard” → “Cut” in the menu bar.
 - 2) Click the right Function Key  of the object, and select “Cut” in the pop-up menu.

5.5 Paste

To paste is to insert the latest copied or cut object into current page, that is, to paste the object in the internal clipboard of the whiteboard into the current page. The specific procedures are introduced as follows:

1. Under the design mode, operate according to one of the following instructions:
 - Click “Home” → “Clipboard” → “Paste”  in the menu bar.
 - Click the right Function Key  of the object, and select “Paste” in the pop-up menu.
2. Under the control mode, operate according to one of the following instructions:
 - Click “Paste”  in the standard toolbar.
 - Click the right Function Key  of the object, and select “Paste” in the pop-up menu.

5.6 Clone

To clone is to create an identical object next to the selected one, and the specific procedures are introduced as follows:

1. Pitch on the object to be cloned (Detailed procedure refers to the selected object).
2. Cloning can be done as follows:
 - Under the design mode, click the right Function Key  of the object, and select “Clone” in the pop-up menu.
 - Under the control mode, click the right Function Key  of the object, and select “Clone” in the pop-up menu.

5.7 Unlimited Clone

Unlimited clone is to create multiple identical objects through dragging, and the specific procedures are introduced as follows:

1. Pitch on the object to be cloned (Detailed procedure refers to the selected object).

2. The following ways can be used to perform unlimited clone:
 - Under the design mode, click the right Function Key  of the object, and select “Unlimited Clone” in the pop-up menu.
 - Under the control mode, click the right Function Key  of the object, and select “Unlimited Clone” in the pop-up menu.
3. Press down the cursor and pull it to any area, thus a cloning is done.
4. Many cloning pictures can be accomplished through repeating 3 (above).

5.8 Undo

To undo is to withdraw the latest editing or order of command, and the specific procedures are as follows:

1. Under the design mode, operate according to one of the following instructions:
 - Click “Undo”  in the standard toolbar.
 - Click “Home” → “Clipboard” → “Undo” in the menu bar.
2. Under the teaching mode, operate according to one of the following instructions:
 - Click “Undo”  in the standard toolbar.

5.9 Redo

Redo can restore the latest undone editing or the order of command, and the specific procedures are introduced as follows:

1. Under the design mode, operate according to one of the following instructions:
 - Click “Home” → “Clipboard” → “Redo”  in the menu bar.
2. Under the control mode, operate according to one of the following instructions:
 - Click “Redo”  in the standard toolbar.

5.10 Delete

To delete is to remove the selected object, and the specific procedures are introduced as follows:

1. Pitch on the object to be deleted.
2. Under the design mode, operate according to one of the following instructions:
 - Click “Home” → “Clipboard” → “Delete”  ”.
 - Click the right Function Key  of the object, and select “Delete” in the pop-up menu.
3. Under the control mode, operate according to one of the following instructions:

- Click the right Function Key  of the object, and select “Delete” in the pop-up menu.
- Click the Delete Button in the standard toolbar .

5.11 Move

To move the selected object within the page and specific operations are as follows:

1. Pitch on the object to be moved (Detailed procedure refers to the selected object).
2. Move the cursor while pressing on the object to the desired position and then release it.

5.12 Flip

To flip is to reverse the selected object horizontally or vertically within the page, and specific operations are as follows:

1. Pitch on the object to be rotated (Detailed procedure refers to the selected object).
2. Under the design mode, operate according to one of the following instructions:
 - Click “Home” → “Picture” → “Rotation”.
 - Click “Layout” → “Rotation” to select “Horizontal Flip” or “Vertical Flip” in the menu



- Click the right Function Key  of the object and select “Flip” in the pop-up menu.
3. Under the teaching mode, operate according to the following instruction:
 - Click the right Function Key  of the object and select “Flip” in the pop-up menu.
 - Click “Layout” → “Rotation” to select “Horizontal Flip” or “Vertical Flip” in the menu



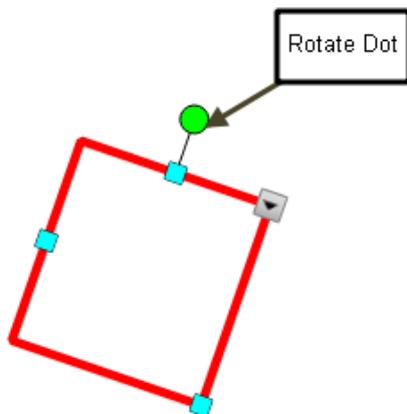
Below is a flip example:

Flip Example			
Flip Horizontal		Flip vertical	
Before Flip	After Flip	Before Flip	After Flip
			

5.13 Rotate

To rotate is to spin the selected object within the page, and the specific procedures are as follows:

1. Pitch on the object to be rotated (Detailed procedure refers to the selected object).
2. Under design mode, operate according to one of the following instructions:
 - Press on the “Turning Point”, spin while pressing the cursor as below:



- Click “picture”—>“Rotation” in the menu bar.
 - Click the right Function Key ▾ of the object, and select desired option from “Rotation” in the pop-up menu.
3. Under teaching mode, operate according to one of the following instructions:
 - Press on the “Turning Point”, spin while pressing the cursor.
 - Click the right Function Key ▾ of the object, and select desired option from “Rotation” in the pop-up menu.

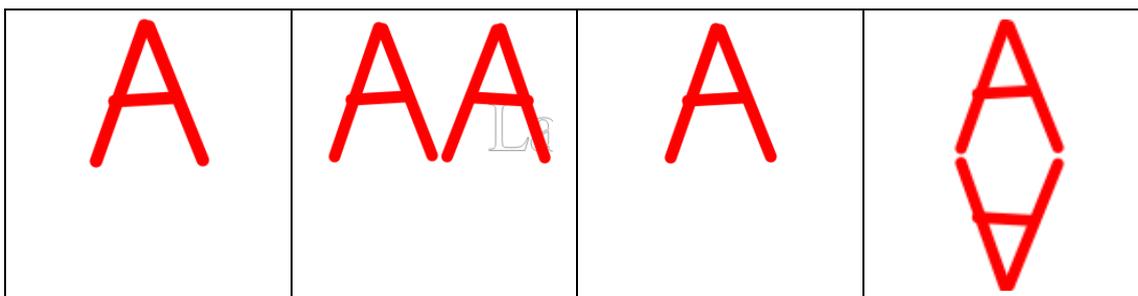
5.14 Mirror

Through mirroring, a new image is created symmetrical to the original one, either horizontal or vertical, and the specific procedures are as follows:

1. Pitch on the object to be mirrored (Detailed procedure refers to the selected object).
2. Under the design mode, operate according to one of the following instructions:

- Click “Layout” —>“Mirror”   in the menu bar.
- click the right Function Key ▾ of the object, select Mirror in the pop-up menu.

Mirror Example			
Mirror Horizontal		Mirror vertical	
Before Mirror	After Mirror	Before Mirror	After Mirror



5.15 Lock on

Lock on is to lock the selected object within the page, the locked object cannot be moved, flipped, rotated, mirrored or resized, and the specific procedures are as follows:

1. Pitch on the selected object (Detailed procedure refers to the selected object).
2. Under the design mode, operate according to one of the following instructions:
 - Click “Layout” —> “Lock”—>  in the menu bar.
 - Click the right Function Key  of the object, select “Lock” from “Lock/Unlock” in the pop-up menu.

5.16 Unlock

It is to unlock the locked object, the unlocked object can be moved, resized, flipped, mirrored and rotated, and the specific procedures are as follows:

1. Pitch on the object to be unlocked (Detailed procedure refers to the selected object).
2. Under the design mode, operate according to one of the following instructions:
 - Click “Layout” —> “Lock”—> .
 - Click the right Function Key  of the object, select “Lock/Unlock” —> “Unlock”.

5.17 Group

To group is to form the selected multiple objects into a group, the grouped objects can be edited as a single one, and the specific procedures are as follows:

1. Pitch on the objects to be grouped (Detailed procedure refers to the selected object).
2. Under design mode, operate according to one of the following instructions:
 - Click “Layout”—>“Group” —>“Group” in the menu bar.
 - Click the right Function Key  of the object, select “Group/Ungroup” in the pop-up menu.
3. Under teaching mode, operate according to one of the following instructions:
 - Click the right Function Key  of the object, select “Group/Ungroup” in the pop-up menu.

- Click “Layout”→“Group” →“Group”  in the menu bar.

5.18 Ungroup

To ungroup is to separate the grouped objects, and the specific procedures are as follows:

1. Pitch on the objects to be ungrouped (Detailed procedure refers to the selected object).
2. Under the design mode, operate according to one of the following instructions:
 - Click “Layout”→“Group” →“Ungroup” in the menu bar.
 - Click the right Function Key  of the object, select “Group/Ungroup”→“Ungroup” in the pop-up menu.
3. Under the teaching mode, click the right Function Key  of the object, select “Group/Ungroup”→“Ungroup” in the pop-up menu.

5.19 Alignment

To align selected multiple objects in certain way, and the specific procedures are as follows:

Left Align	Align to the left of the first selected object
Center Align	Align to the vertical center of the first selected object
Right Align	Align to the right of the first selected object
Top Align	Align to the upper side of the first selected object
Middle Align	Align to the horizontal center of the first selected objects
Bottom Align	Align to the bottom of first selected object

1. Pitch on the object to be aligned (Detailed procedure refers to the selected object).
2. Under the design mode, click “Layout”→“Alignment” in the menu bar to select the corresponding icons shown as below:

1) Left Align: 

2) Center Align: 

3) Right Align: 

4) Top Align: 

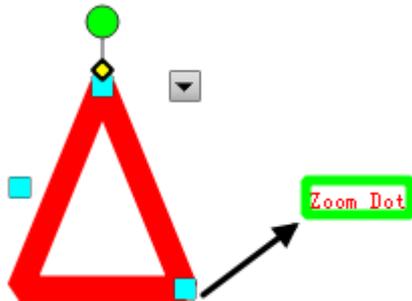
5) Middle Align: 

6) Bottom Align: 

5.20 Zoom

To zoom is to enlarge or decrease the size of the selected object within the page, and the specific procedures are as follows:

1. Pitch on the object (Detailed procedure refers to the selected object).
2. Press on the zooming point of the object, move the cursor when it becomes an arrow to zoom.



5.21 Sequence

Sequence is to change object's display priority by arranging its order, the specific operations are as follows:

1. Pitch on the object (Detailed procedure refers to the selected object).
2. Under design mode, operate according to one of the following instructions:
 - Click "Layout" → "Arrange" in the menu bar and select a corresponding pattern.
 - Click the right Function Key  of the object, select "Order" in the pop-up menu, and then choose the corresponding pattern.
 - Click "Arrange" in the Layout and alignment tool bar as shown below:

1) Move to Front:  , the selected object is in front of all others to display.

2) Move Forward:  , the selected object brings forward to display.

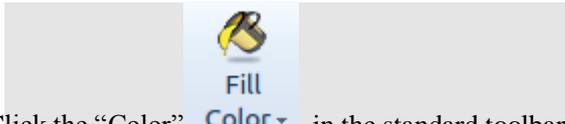
3) Move Backward:  , the object moves backward to display.

4) Move to Back:  , the selected object becomes the last one to display.

5.22 Color

Color Button is used to adjust the color of painting brush, lines, graphs and flood fill, below is the specific procedures:

1. Select the tools to be colored (painting brushes, lines, graph, and flood fill) in the File menu.

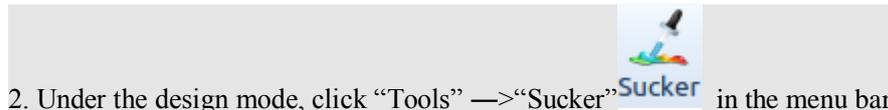


2. Click the “Color” in the standard toolbar.

5.23 Color Selector

Color Selector is used to adjust the colors of painting brush, lines, graphs and spray tool, and the specific procedures are as follows:

1. Select the tools to be colored (e.g. painting brush, lines, graph, and flood fill).



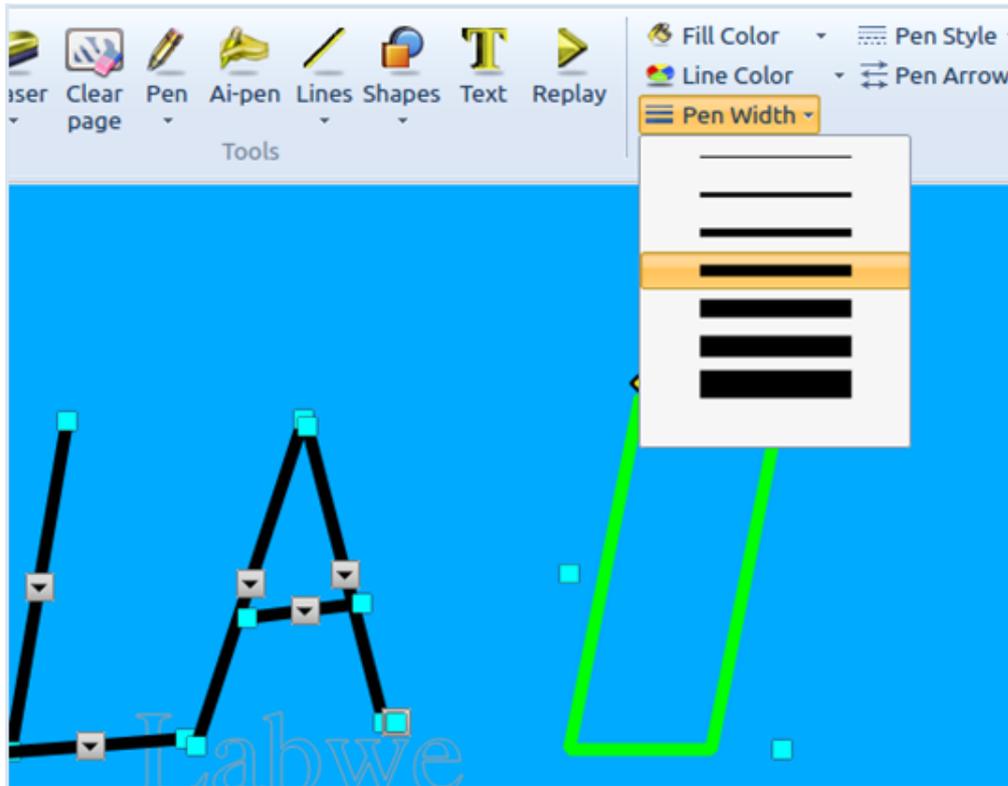
2. Under the design mode, click “Tools” —>“Sucker” in the menu bar.
3. Click and select a color wanted.

5.24 Frame

The frame of the selected object can be modified in terms of style, color, width and transparency, and the specific procedures are as follows:

Under Design Mode:

1. Pitch on the object. It only permits changes on width and color for stroke line ; changes on width, color, pen style and pen arrow for straight lines; and changes on color fill, width, color and pen style for graphics.
2. Click “Line color” “Fill color” “ Pen width” “ pen style”button, and select the appropriate items in the pop-up Menu as shown below:



6. Chapter VI Page Management

6.1 Insert a New Page

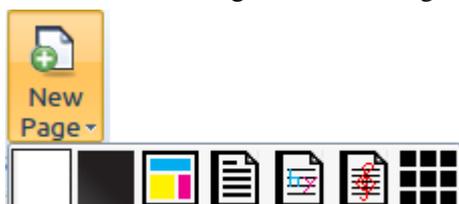
In current document, to insert a new page:

1. Under the design mode, operate according to one of the following instructions:

- Click  in the standard toolbar to insert a new page;
- Click any page in the “Page Preview” and select “New Page” in the pop-up menu.
- Six different styles of background pages can be created under the new created pages (blank pages, black pages, color pages, lines pages, alphabet line pages, stave pages, text page), to make the interface more beautiful.

2. Under the teaching mode, operate according to the following instructions:

- Click “New Page” in the floating toolbar.



6.2 Copy Page

It is to copy the current page to the clipboard of the Emboard whiteboard software, and the specific procedures are as follows:

1. Select the page to be copied in the “Page Preview”.
2. Click right Function Key  and select “Copy Page” in the pop-up menu.

6.3 Cut Page

Cut page is to cut the current page to the clipboard of the Emboard whiteboard software, and the page disappears after that.

- Select the page to be cut in “Page Preview”, click right Function Key  and select “Cut Page” in the pop-up menu.

6.4 Paste Page

This operation is to paste the page in the Emboard whiteboard software clipboard to current page.

- Click on the page space, in the pop-up menu, select "Paste Page"
- Select any page in the “Page Preview”, click right Function Key  and select “Paste Page” in the pop-up menu.

6.5 Delete Page

This operation is to delete the current page from the document.

- Click the page to be deleted in “Page Preview” and select “Delete Page” in pop-up menu.

6.6 Switch Pages

This operation is to alter the current page.

1. Two ways under the design mode:

- Click “Previous Page ” or “Next Page ” in the standard toolbar.
- Click the pages in the “Page Preview” to switch.

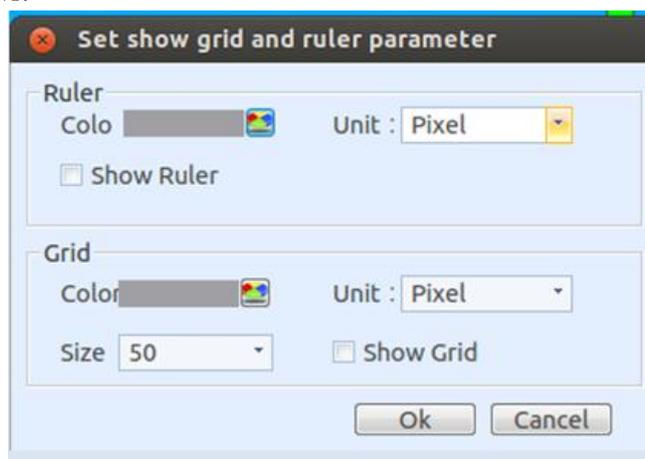
2. Under the teaching mode, operate according to one of the following instructions:

- Click “Previous Page ” or “Next Page ” in the menu
- Click “Previous Page ” or “Next Page ” in the standard toolbar.

6.7 Grid and Ruler

Grid and Ruler facilitate users to align words, images, etc. The attributes of grid and ruler can be customized in the following ways under the design mode:

- Click “View” → “Grid/Ruler” → “Grid Lines” in the menu bar to display grid.
- Click “View” → “Grid/Ruler” → “Show Ruler” in the menu bar to display ruler.
- Click “View” → “Grid and Ruler settings” in the menu bar, popping the dialogue box as follows:



- Edit the attributes of grid and ruler respectively, and then click “Ok”.

6.8 Zoom Page

Users could zoom in/out a page:

Under the design mode, the zoom ratio of the page are: 400%, 200%, 150%, 120%, 100%, 75%,

50%, to achieve follow steps below:

- Click click “Zoom In ” or “Zoom Out ” of the preview page in the toolbar.

6.9 Replay Page

This enables users to review the playback of previous operation(s).

1. Under the design mode, operate according to one of the following instructions:

- Click “Start”- “Replay ” in the standard toolbar.

3. Under the control mode or other modes, click the “Replay ” in the standard toolbar.

6.10 Clear Page

This operation is to clear all the objects other than the setting of the page, grid and ruler.

- Click “Tools” in the Start menu , select "Clear Page" in the pop-up menu

6.11 Page Properties Setup

Click File on the menu bar → Option → View → to set page style of the page.

7. Chapter VII Painting

7.1 Pens and Brushes

7.1.1 Normal Whiteboard Marker

Markers are most frequently used in our daily whiteboard writings, and the ways to select the different markers are as follows:

Under the design mode:

Click “Tools” in the start menu → ‘Pens and Brushes’, or click on the ‘Pens ’ icon in the toolbar. A selection box of pens and brushes will pop out as shown below:



Four types of whiteboard marker colors black, blue, red and green are available.

7.1.2 Highlighter

Highlighter is a paintbrush with the efficacy of semi transparency, whose bright color can be used to highlight the emphasis, please operate according to the following instructions:

Under the design mode, click “Pens ” icon → “highlighter  or ” icon in the toolbar.

7.1.3 Broad Brush

Broad Brush is a kind of brush used for paintings, with the characteristic of flat strokes. It can be operated according to the following instructions:

1. Click ‘Pens ’ icon in the toolbar, and click Broad Brush  icon in the popped out selection box.
2. The thickness and color of the broad brush can be customized.

7.1.4 Textured Brush

Textured brush can be used to draw texture lines, which can be operated according to the following instructions:

1. Click the “Pens ” icon in the toolbar.

2. Click “Textured Pen ” icon in the popped out selection box.

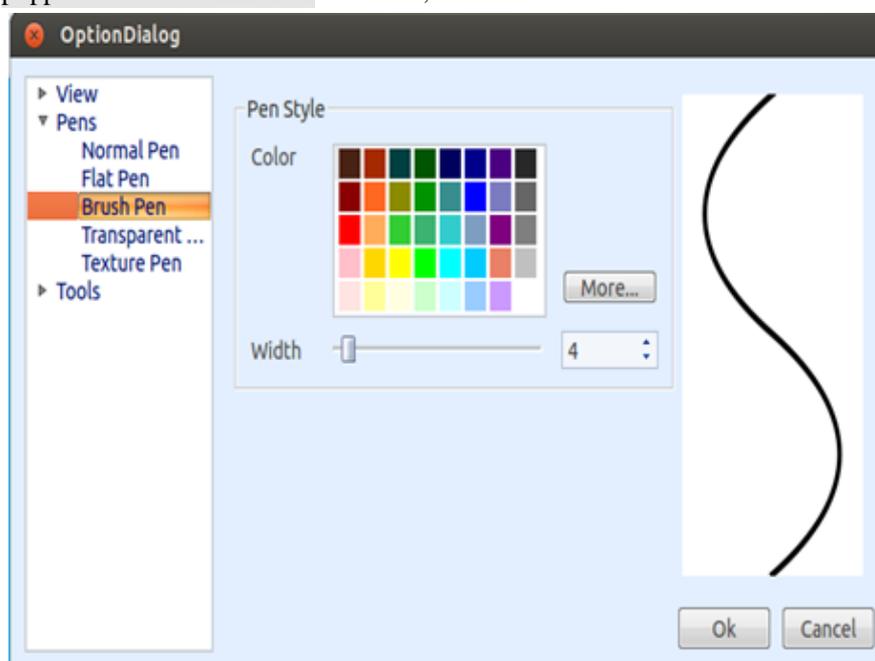
3. The thickness and color of the textured brush can be customized.

7.1.5 Writing Brush

Writing brush automatically adjusts the fonts with the speed of writing to simulate the effect of calligraphy, to select the writing brush please follow the instructions below:

1. Select writing brush: click the ‘Pens ’ icon on the toolbar, click the  icon in the popped out selection box.

2. Set the color and font: click the ‘Pens ’ icon on the toolbar, click the  icon in the popped out "Customize Pen" window, as shown below:



3. Use of writing brush: press and hold the cursor to write in the drawing area.

7.1.6 AI pen

AI pen could identify some of the common geometry graphics including straight line, polygonal line, ellipse, rectangle, triangle, parallelogram, rhombus, hexagon and polygon, which helps users to achieve common geometry sketch recognition and text recognition as well as Chinese character, English and gesture recognition.

1. To select the AI pen:

- 1) Under design mode, click the ‘Pens ’ icon and select the corresponding pen in the popped out selection box.
- 2) Use of AI pen:

Draw in the drawing area by press and hold the cursor.

7.2 Duster

Dusters are used to erase the writings on the page. The software provides four types of dusters as follows:



Small Duster



Middle Duster



Big Duster



Object Duster

The first three dusters can be used to erase the common content written by marker, highlighter, writing brush, broad brush and textured brush. Object Duster could erase all of the objects by dragging over them.

● Under the design mode, there are two ways to operate:

1. Click “Tools” —> “Duster” in the toolbar, select a duster shown as below:



2. Click the “Duster  ” icon in the toolbar to select.

7.3 Flood Fill

Flood fill can be used to fill the predetermined areas with selected colors, to operate please follow the instructions below:

1. Click the “Flood Fill  ” icon in the toolbar.

2. Click on the area to fill with selected color.

7.4 Lines

The software offers multi-lines functions: lines drawn at will, horizontal lines, vertical lines, radials and curves, and the specific procedures are as follows:

1. Click the “Line  ” icon in the toolbar.

2. Select the desired pattern of line in the popped out selection box.

3. Click the “Pen width  ” icon in the toolbar to change the thickness of the lines.

7.5 Geometric Figures

21 geometric figures are available in the software from which users can select and edit, the specific procedures are as follows:

1. Click the “Geometrical Shapes  ” icon in the toolbar.

2. Select the required geometrical shape from the popped out selection box.

3. Select the figure, click the function menu and edit the figure as needed.

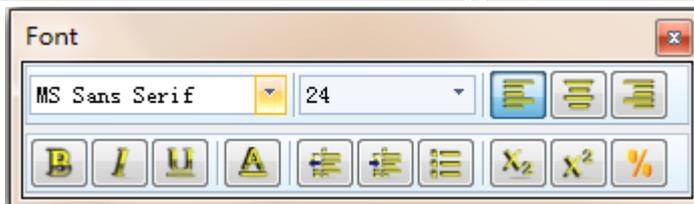
7.6 Text

Text entry enables users to insert text in the page, the specific procedures are as follows:

1. Click the 'Text icon ' in the toolbar.
2. Electronic pen can be used in the Drawing Area to drag out the Text Input Frame, in which text can be written as follows:



3. Text toolbar pops out while Text Input Frame is dragged (see above picture):



Pitch on the words, and change the style, size, color, thickness, italicization, underlining and alignment of them.

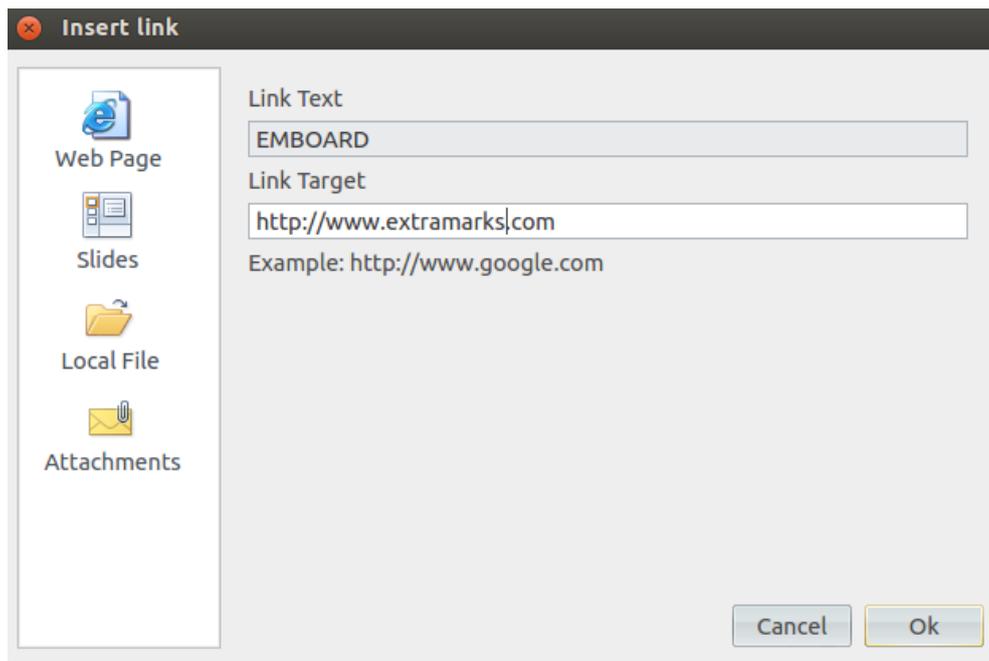
7.7 Hyperlink

Hyperlink function enables users to input the outside resources into the current page.

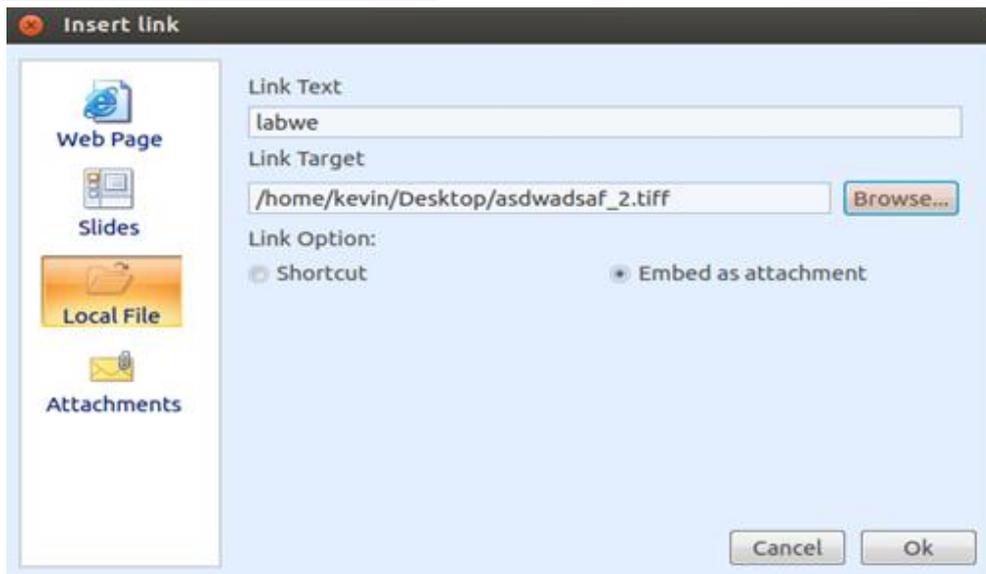
- Under the design mode, click "Insert"—> "Link" in the main menu.
- Under the teaching mode, click "Link " icon on the drawing toolbar.

7.7.1 Hyperlink to Web Page

Step 1. Click "Insert" —> "Link" in the main menu, the window is popped out as follows:



Step 2. Select “Web Page” in the popped out window, insert the website in “Link Target” and link name in “Link Text”, and then click “OK”.



Step 3. Locate the file needed to be linked, select the mode to link the file either by “Shortcut” or “Embed as attachment” and then click “OK”.

Step 4. The written name will be displayed, click the name, the web page will display.

7.7.2 Hyperlink to slides

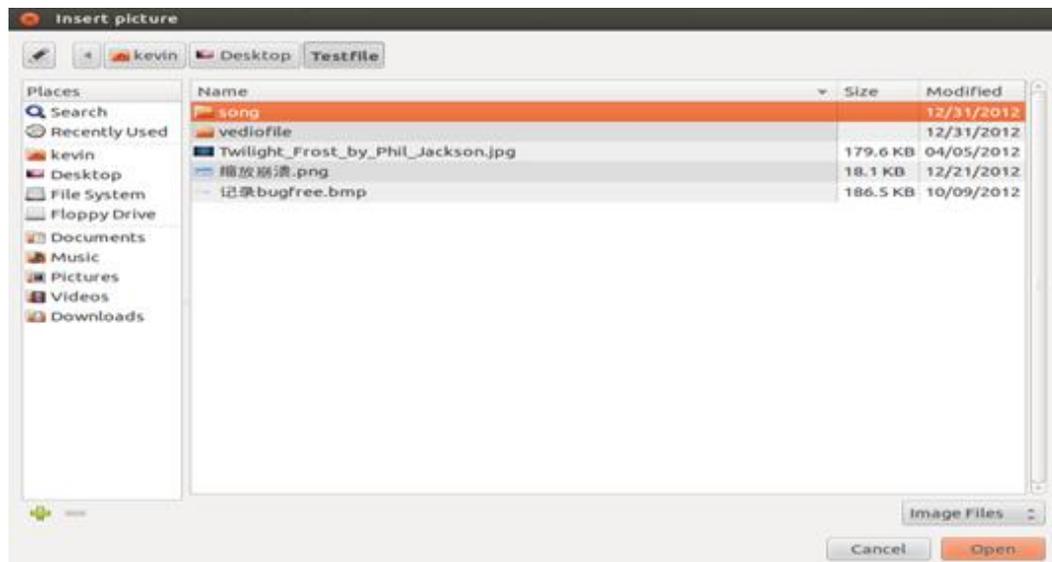
Step 1. Click “Insert” —> “Link” on the main menu.

Step 2. Select “Slides” in the popped out window, enter name and slide number and click ‘OK’.

7.8 Insert Images

Insert images to current page, different formats of images such as *.jpeg, *.jpg, *.bmp, *.png are supported. To insert the images from other files, operate as the following instructions:

Step 1. Click “Insert” —> “Image” on the main menu and the following window will pop-out:

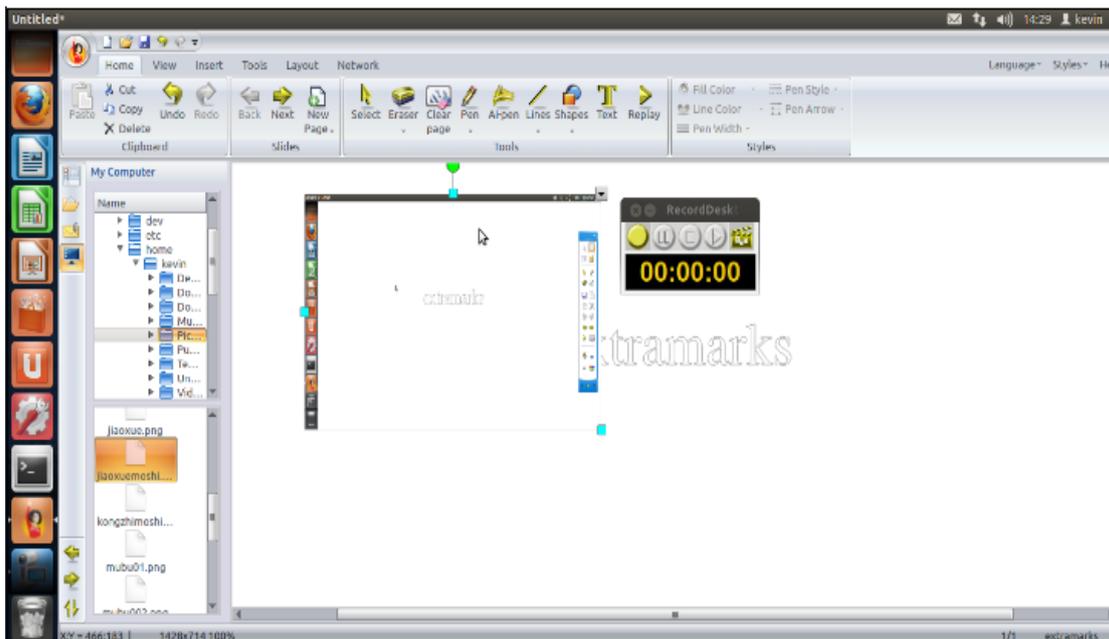


Step 2. Select the image to be inserted in the window above and click “Open”.

- To insert image from gallery:

Step 1. Click the ‘resource library’  icon’ on the toolbar in the left and drag the selected image from the popped out window into the whiteboard page.

Step 2. Open My Computer  to select image. Select the file required for insertion through the defined path in the computer and drag to import:



7.9 Insert Resource File

To insert resource file in the page:

Two approaches under the design mode

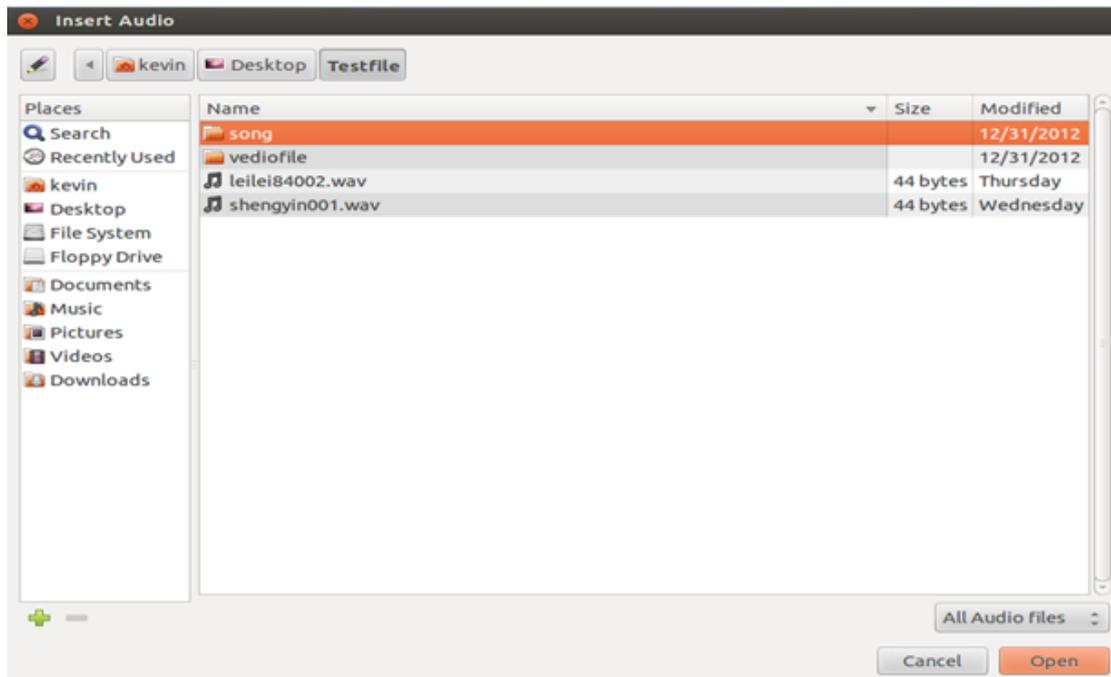
1. Click “Insert” —> “Insert resource” in the main menu.

2. Click the ‘Insert Resource  icon’ on the standard toolbar.

7.10 Insert Audio File

Able for users to insert audio files in the *.mp1、*.mp2、*.mp3、*.mid、*.wma、*.3ga formats:

1. Click “Insert” —> “audio file” in the main menu, window popped out as below:



2. Select file to be opened in the window and click ‘Open’, a player will be popped out as below:



3. The functional buttons of the player are depicted as,



		
Play	Pause	Stop

7.11 Insert Video File

Note: In order to play the inserted video, relevant software of player must be installed or updated. The detailed steps of operation are as follows:

1. Open ‘Terminal’ on the task bar at the left of ubuntu and enter ‘sudo apt-get install vlc vlc-plugin-pulse’ in the command prompt as shown below:

```
labwe@labwe-PC:~$ sudo apt-get install vlc
[sudo] password for labwe:
```

2. Key in password and press enter. When Y/N appears select Y and press enter.

```
After this operation, 45.0 MB of a
Do you want to continue [Y/n]? y
```

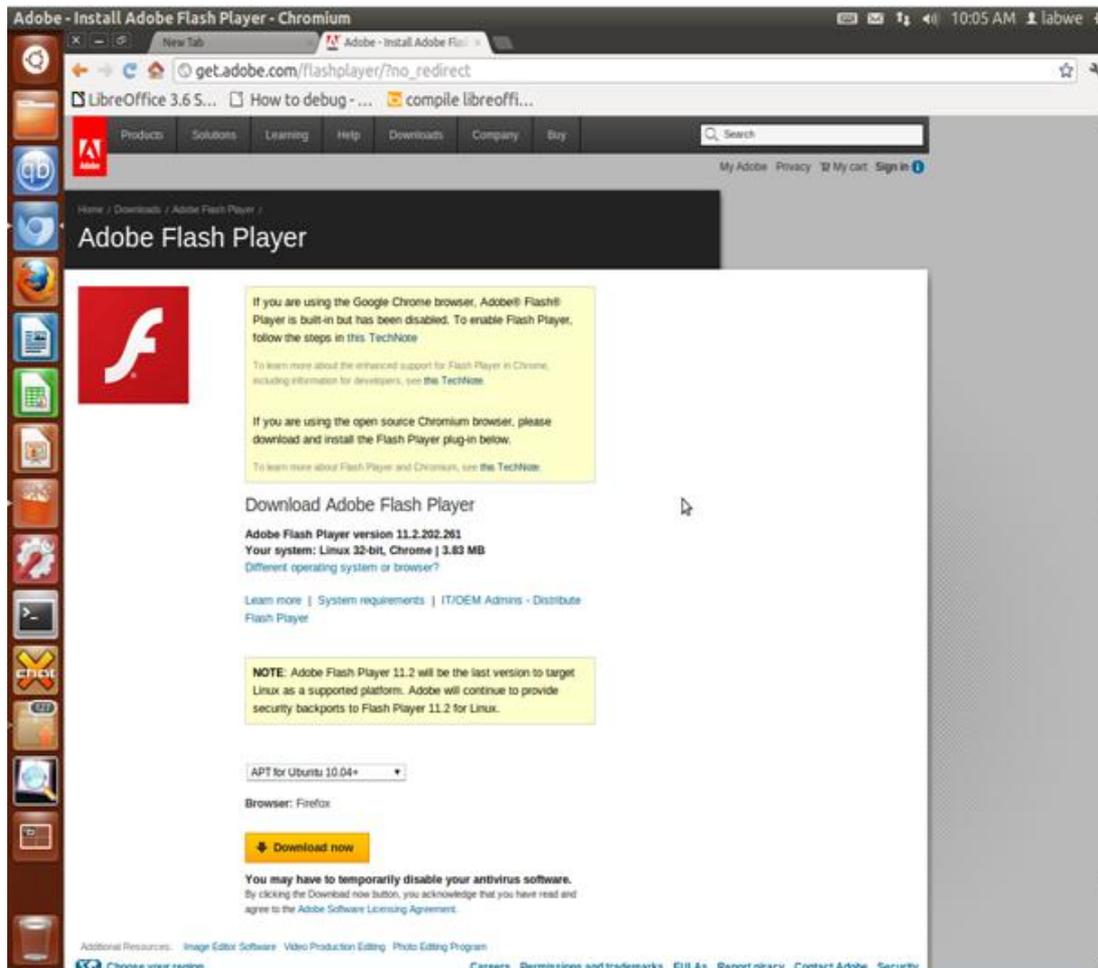
Steps to enable users to insert video files are as follows:

1. Click “Insert” → “Video” on the main menu
2. Select the path for the file to be inserted, on the popped out window and click ‘Open’.
3. The selected video file can be rotated, dragged, zoom in/out and mirror imaged.

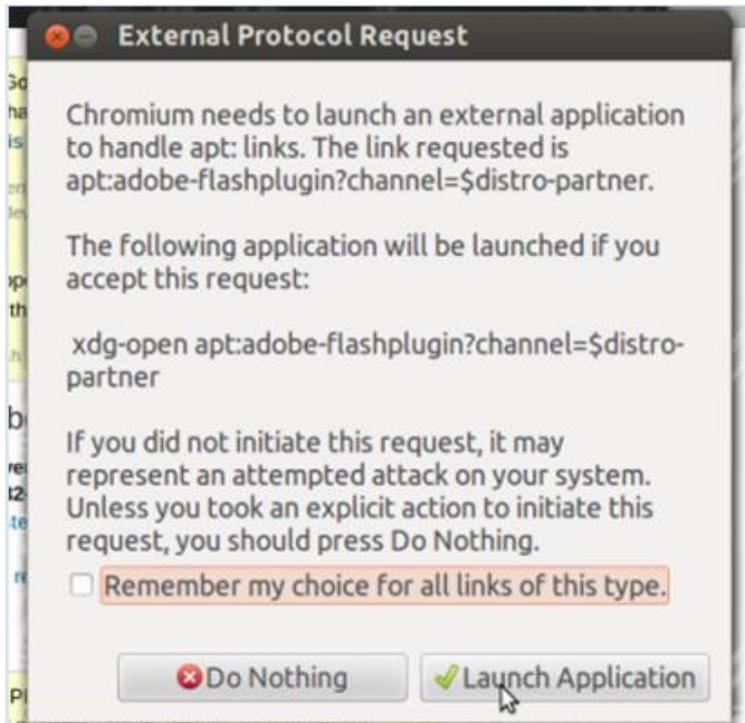
7.12 Insert Flash File

Note: All necessary updates of the Flash plugin files of ubuntu 12.04 must be carried out before inserting flash files. The detailed steps of operation are as follows:

1. Open the ‘<http://get.adobe.com/flashplayer>’ website with Firefox. Click the ‘downward arrow options’ and select ‘APT for Ubuntu10.04+’ then click the ‘download now’ button.



2. The window showed below will popped out, click ‘launch application’ button.



3. After clicking the 'launch application' and return to new software interface as showed below.



4. Click the Install button again to install as showed below. Inserted Flash files can be played once the installation is done.



Steps enabling users to insert flash files are as follows:

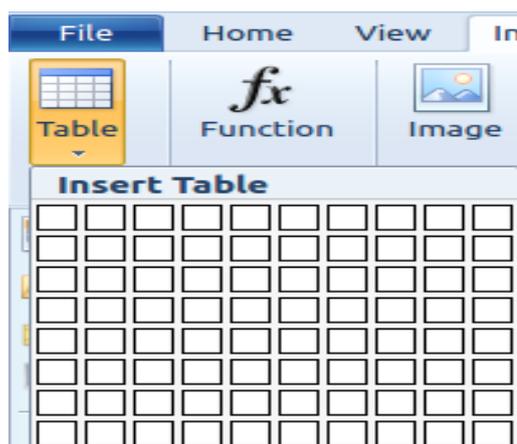
1. Click “Insert” → “flash” on the main menu
2. Select the flash file insertion path on the popped out window and click ‘Open’.

7.13 Insert Tables

Steps to insert tables in the page are as follows:

Step 1. Click “Insert” → “Table” on the main menu

Step 2. Move the mouse cursor over the popped out table box to select roll and column numbers to be inserted. Click the right or left mouse button to insert the designated table as shown below:



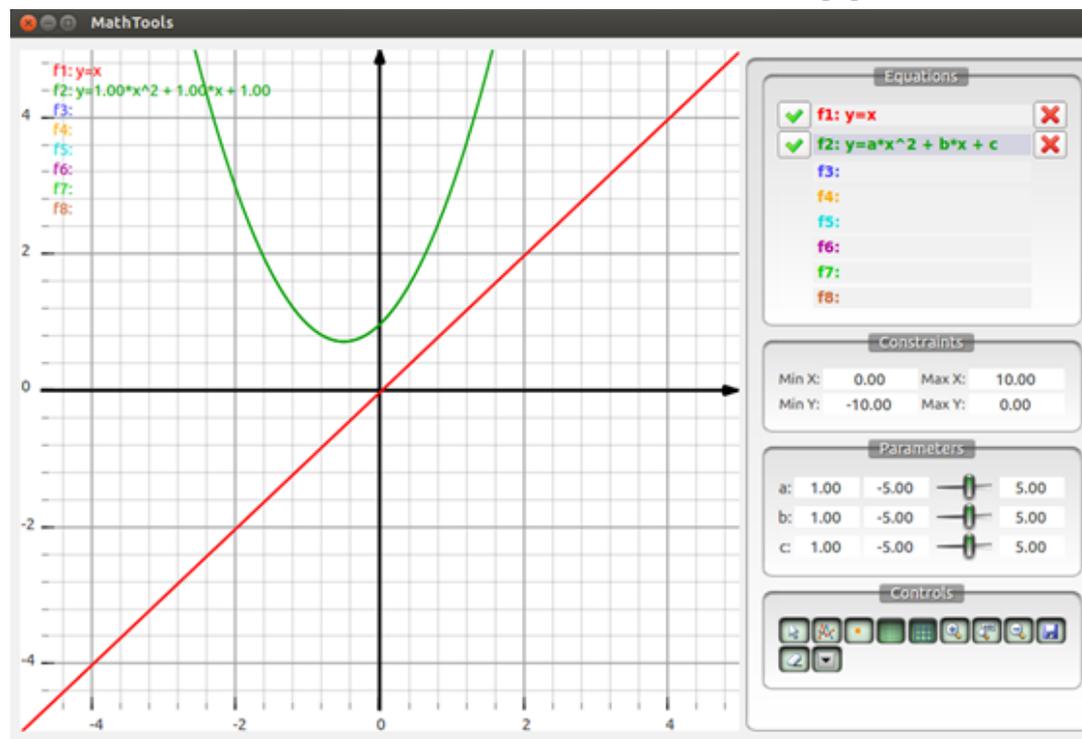
Step 3. Click ‘OK’ and the table is inserted in the page.

Step 4. Users are able to edit the inserted table through the down pull menu options.

7.14 Insert Functions

Users are able to insert functions according to their needs, the steps of operation are showed below:

1. Click “Insert” —> “Function” on the main menu and a window pops out as below:



2. There are four windows on the right side, each with a unique function:

Equations window- to input or delete functions

Constraints window- to set the max or min value range

Parameters window- to set or modify the coefficients of the functions

Control window- a set of functions such as the zooming in/out or saving of the graph as image.

	Moving coordinate system selection
	Show the coordinates of the points on the image function
	Fix the coordinates of a point
	Show fine grid in coordinate system
	Show coarse grid in coordinate system
	Zoom in function image
	Image Restoration function prototype
	Zoom out function image
	Save function image
	Delete the coordinate points
	Add any fixed coordinate points

3. The graph will appear as an image on the whiteboard page when saved. Double click on the image will open the function window allowing the users to edit or modify.

8. Chapter VIII Whiteboard Tools

8.1 Moving the Pages

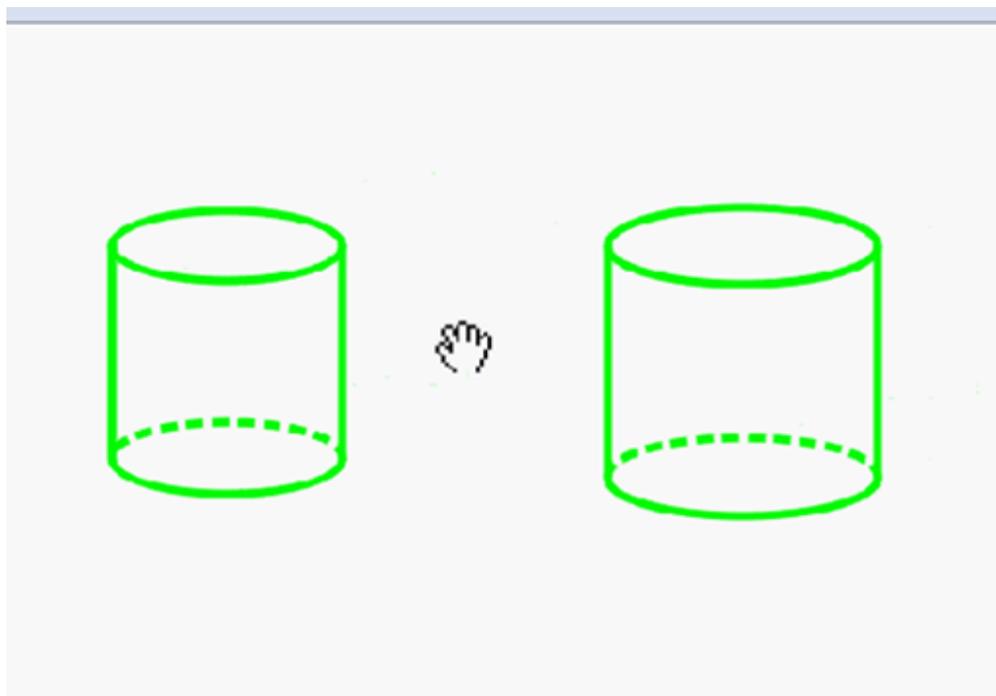
You can move the currently displayed page up and down or around.

1. Two approaches:

- In the design mode, operate with the following instructions:
 - 1) Click “Move Page ” in the standard toolbar.
 - 2) Click “Tools” → “Auxiliary” → “Move Page” in the menu bar.
- In the teaching mode, operate with the following instructions:
 - 1) Click “Move Page ” in the standard menu bar.
 - 2) Click “Move Page ” in the toolbar.

2. Use of moving page:

After choosing “Move Page”, the cursor becomes , users can move the page by dragging it, and the following is an example:



8.2 Screen Curtain

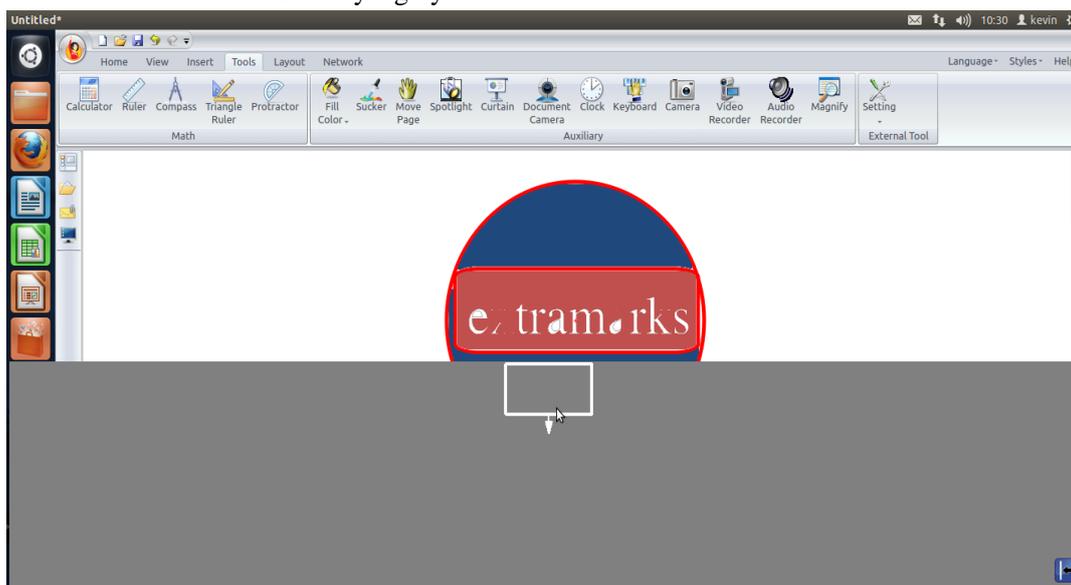
Screen curtain is used to gradually show the information on the whiteboard to students or audiences and the information can be slowly shown in four directions (up, down, right and left).

1. Following is the way for choosing screen curtain.

In the design mode, click “Tools” → “Curtain  ” in the menu bar.

2. Use of screen curtain:

The whiteboard will be masked by a gray curtain after the click:



3. Click “Exit  ” at the bottom right corner will close screen curtain.

8.3 Spotlight

Spotlight will be helpful for drawing attention to certain part on the screen, there are two types: Ellipse Spotlight and Rectangle Spotlight.

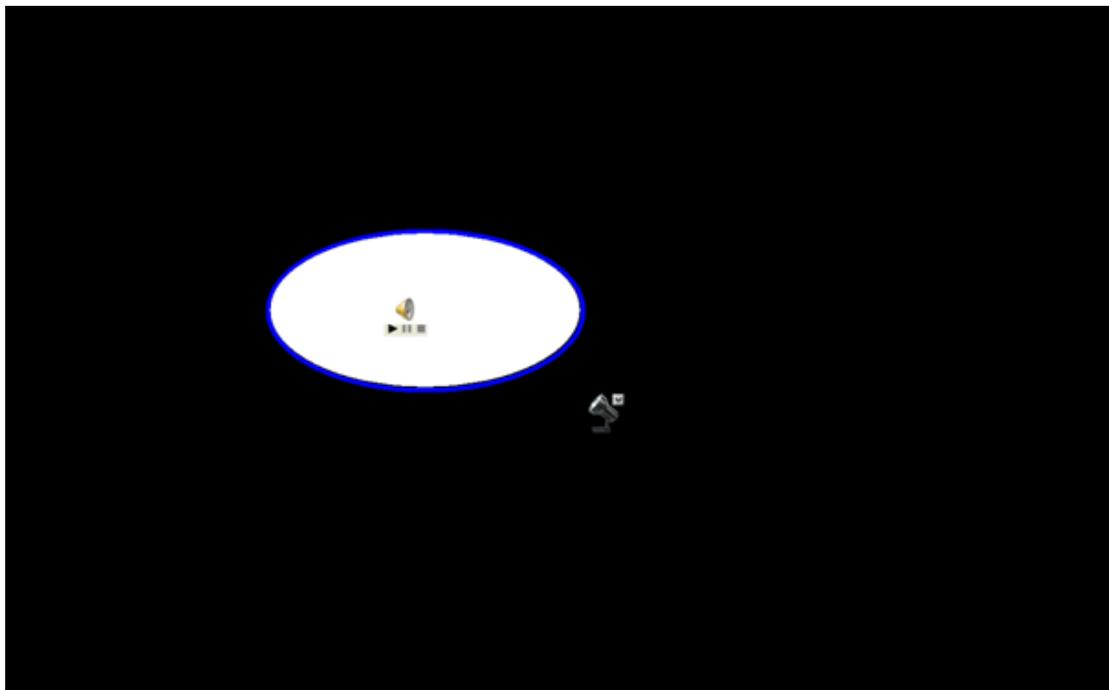
Circular Spotlight	The circular area is illuminated with the black background on the screen.
Rectangular Spotlight	The rectangular area is illuminated with the black background on the screen.
Solid Circular Spotlight	The circular area is covered with black color while the screen is still visible.
Solid rectangular Spotlight	The rectangular area is covered with black color while the screen is still visible.

1. Steps to choose spotlight:

In the design mode, click “Tools” —>“Spotlight  ” in the menu bar, the spotlight will automatically start as below:

2. Use of spotlight:

- Taking the circular spotlight for an example.



- Change the position of the illuminated area by clicking and moving spotlight.
- Change the size of the illuminated area by clicking and dragging the edge part of spotlight.
- Use right Function Key  to change the spotlight shape, color and transparency of the background.

3. Exit spotlight:

Click the right Function Key of spotlight and select “Exit” in the pop-up menu to exit.

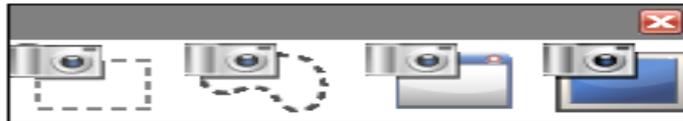
8.4 Camera

Camera can be used to snatch part of screen, full screen or a window and insert it into current page, there are four types: area snapshot, irregular area snapshot, window snapshot and full screen snapshot.

1. Choosing camera:

(1) In the design mode, click “Tools” —> “Camera  ”.

(2) The pop-up menu is shown as below:



(3) Select the appropriate type of camera to use.

2. Use of camera:

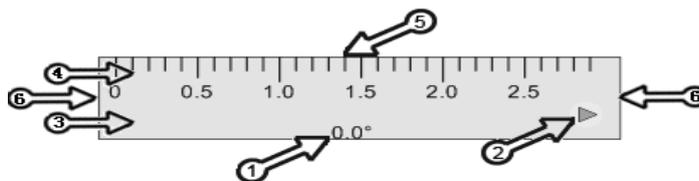
Area Snapshot	Drag the cursor to select the corresponding area after the click, release the cursor and the screenshot will be directly pasted into current page.
Irregular Area Snapshot	Drag the cursor to select an irregular area (any shape), the screenshot will be pasted in current page after releasing the cursor.
Window Snapshot	Click “window snapshot” icon, image of the window will be pasted into current page.
Screen Snapshot	Select “screen snapshot”, image of the full screen will be pasted into the current page.

8.5 Ruler

Ruler is a versatile tool, which can be used to measure the object and draw lines of special sizes and angles.

1. Selecting ruler is as follow:

In the design mode, click “Tools” —> “Ruler  ” in the menu bar and the below is the pop-up ruler:



- ① Ruler rotation angle
- ② Ruler right Function Key
- ③ Move ruler area
- ④ Area of rotation and scale display
- ⑤ Area of line drawing
- ⑥ Area of ruler length change

2. Use of ruler:

- Unit switch: ruler provides 3 types of measurements: Centimeter, Pixel and millimeter, click the  Key to switch.

- Move ruler: place the cursor anywhere at the bottom edge of the ruler, when it changes to , drag to move the ruler, release the cursor and the move will stop.
- Rotate ruler: place the cursor anywhere at the upper edge of the ruler, when it changes to , drag it to rotate ruler, release the cursor and the rotation will stop.
- Line drawing: move the cursor to the upper edge of the ruler, when it changes to , click and drag the cursor along the edge of the ruler to draw the line, release the cursor to stop drawing when the length of the line is appropriate.
- Length change: put the cursor at either end of the ruler, when the cursor changes to , drag the cursor to change the length of the ruler.

3. Hiding ruler:

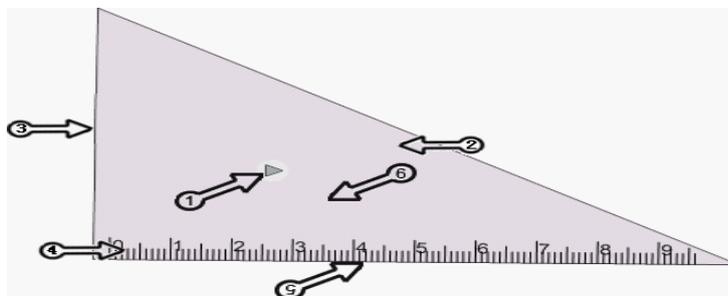
- Click the  Key of the ruler, select “Exit” in the pop-up menu.
- Click “Ruler” again in the menu bar.

8.6 Set Square

Set square can be used to measure the length, draw straight or vertical lines.

1. Selecting the set square:

In the design mode, click “Tools”—>“Set Square ”, the pop-up set square is shown as below:



- ① Right Function Key of set square
- ② Rotation Area
- ③ Size changing area
- ④ Scale display area
- ⑤ line drawing area
- ⑥ Move area

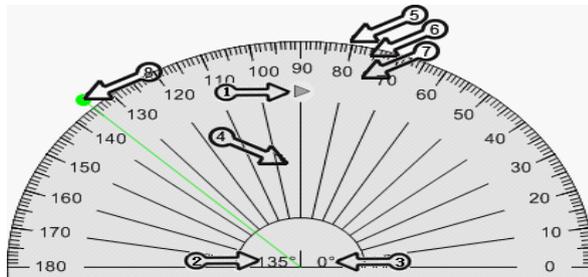
2. Use of the Set Square:

- Shape: Set Square provides two shapes: 30° and 45° , click the  Key and select a required shape from “Shape” in the pop-up menu.

- Set square provides three measurement units, namely centimeter, pixel and millimeter, click the  Key to select from “Unit” in the pop-up menu.
 - Move the set square: place the cursor anywhere in the blank area of the set square, when the cursor changes to , drag it to move and release the cursor to stop moving.
 - Rotation: place the cursor anywhere at the edge of the set square, when the cursor changes to , drag the cursor to rotate the set square, release the cursor to stop the rotating.
 - Line drawing: move the cursor to the upper edge of the scale, when the cursor changes to , click and drag it to draw a line, release it when the drawing finished.
 - Size change:
 - 30° : place the cursor at the left-angle line without the scale, when the cursor changes to , drag it to change the size of set square.
 - 45° : place the cursor around the waist of set square, when the cursor changes to , drag it to change its size.
3. Hiding set square:
- Click the  Key of the set square, select “Exit” in the pop-up menu.
 - Click “Set Square” in the menu bar again.

8.7 Protractor

Protractor can be used to measure angles and radians, or draw arcs and pies. Following is the method of selecting protractor:

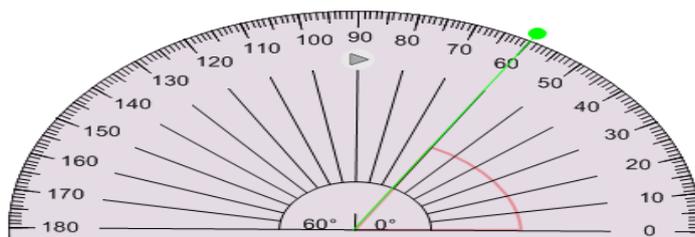


1. In the design mode, click “Tools”→“Math”→“Protractor” in the menu bar, the pop-up protractor is shown as below:

- ① Protractor right Function Key
- ② Display of measuring angle or radians
- ③ Display of angle or radians of rotating protractor
- ④ Area of moving protractor
- ⑤ Area of arc or fan-shaped painting
- ⑥ Area of protractor size and scale display
- ⑦ Area of rotating protractor and number display
- ⑧ Angle drag

2. Use of protractor:

- Arc, sector: protractor can draw arcs and sectors, click the  Key and switch in the pop-up menu.
- Unit switch: protractor provides two methods of measurement: Angle and Radian. Click the  Key and switch in the pop-up menu.
- Move the protractor: place the cursor anywhere in the blank area of the protractor, when the cursor changes to , drag it to move and release the cursor to stop moving.
- Rotate the protractor: place the cursor anywhere near the measurement scale of the protractor, when the cursor changes to , drag it to rotate the protractor, release it to stop the moving.
- Draw arc, sectors: move the cursor to the outer edge of the protractor, when the cursor changes to , click and drag it along the outer edge to draw arc and sector, release the cursor to stop the drawing.
- Change size: place the cursor towards the edge of the measurement scale of the protractor, when the cursor changes to , drag it to change the size.
- Following is the measuring function of protractor:



3. Hiding the protractor:

- Click the  Key in the protractor, select “Exit” in the pop-up menu.
- Click “Protractor” again in “Tools”—>“Protractor”.

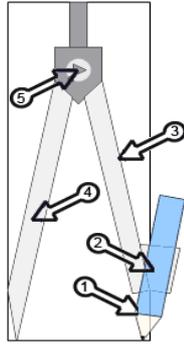
8.8 Compasses

Compasses can be used to draw circular or fan-shaped articles in various colors, lengths or widths.

1. Selecting the compasses:

In the design mode, click “Tools”—>“Compasses  ” in the menu bar.

2. Working principle of compasses:

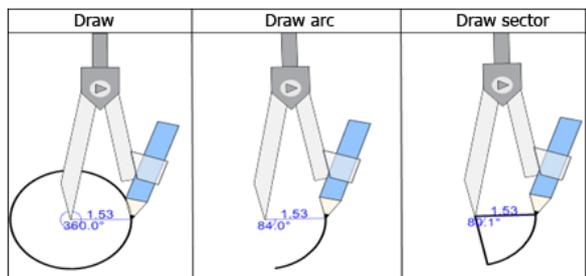


Compasses consist of five parts:

- ① Pencil: click and drag it to draw an arc or a circle.
- ② Penholder: click and drag it to enlarge or decrease the radius of the compasses.
- ③ Pencil arms: click and drag it to rotate the compasses without drawing a circle.
- ④ Point arm: click and drag it to move the compasses on the page.
- ⑤ Right Function Key menu: it is used to select more functions.

3. Use of the compasses:

- Arc, sector: compasses provide drawings of arc and sector, click the Key to switch in the pop-up menu.
- Radius: compasses provide two patterns: display of radius (pixels, cm), no display of radius, click the Key to switch in pop-up menu.
- Change size: place the cursor towards the edge of the measurement scale of the compasses, when the cursor changes to , drag it to change the size.
- Drawing demonstration:



4. Hiding the compasses:

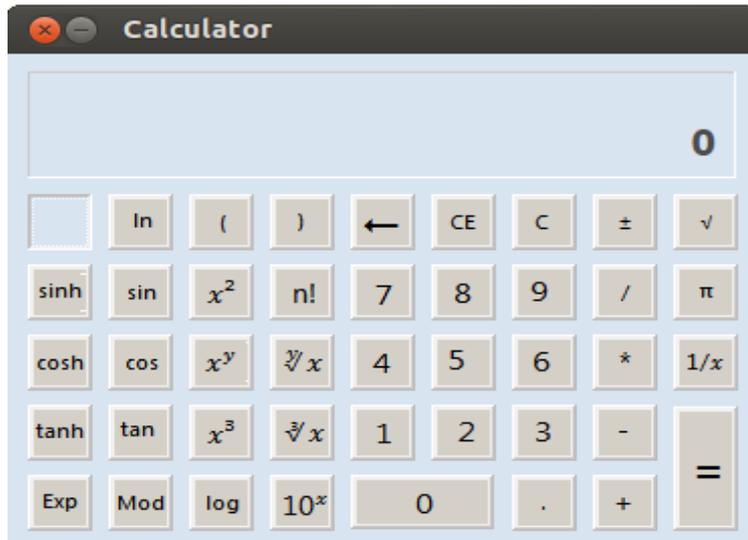
- Click the Key of the compasses and select “Exit” in the pop-up menu.
- Click “Compasses” again in the menu bar.

8.9 Calculator

Calculator provides users with convenience.

1. Selecting calculator is as follows:

In the design mode, click “Tools” —> “Calculator” in the menu bar, the pop-up calculator is shown as below:



2. Use of calculator:

- Various scientific computing can be conducted with the click of calculator’s buttons after the start-up of the calculator.
- Calculator can be moved with the click and drag within any area of its title bar.

3. Exiting calculator:

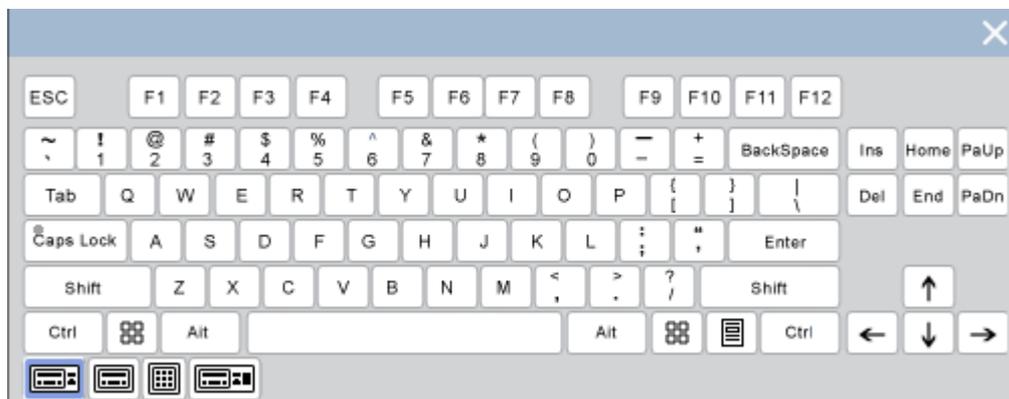
Click “Close” button on the upper right corner to exit calculator.

8.10 Virtual Keyboard

Virtual keyboard can be used as the virtual hardware keyboard to help users input words on the whiteboard.

1. Following is the method to select the on-screen keyboard:

In the design mode, click “Tools” —> “Keyboard  ” in the menu bar.



2. Use of keyboard:

- Click any area within title bar of the on-screen keyboard and drag to move it.
- Users can click keystrokes on the on-screen keyboard that has the identical function with hardware keyboard.
- **Cap and Cap Lock:** click on “lock” key to input capitalized letters and use “shift” as a toggle button to input symbols (e.g. #, \$, @, &, %, &).
- **Shift:** Press any Shift button to access the characters of £, \$ and % etc. Or to switch
- **Ctrl, Alt:** “Ctrl” and “Alt” are also toggle keys which used to enter a combination key (such as Ctrl+C, usually used to copy the object) or three keys of combinations (such as Ctrl+Alt+Del, used to restart the computer).

3. Exiting keyboard:

Click “Close” icon in the upper right corner of the soft keyboard to exit it.

8.11 Clock

Clock tool is used to display a digital clock on the screen.

1. Selecting the clock: in the design mode, click “Tools” → “Clock  ” in the menu bar, below is the pop-up clock:



2. Dragging the clock: the clock can be moved anywhere after the click and dragging.
3. Clock setup: right click to bring down the clock options to set timer, digital clock, counting down clock and time zones.
4. Exiting the clock: right click to bring down the clock options and click exit.

8.12 Audio Recorder

Recorder is used to record the sound.

1. Selecting the recorder:

2. In the design mode, click “Tools” → “Audio Recorder  ” in the menu bar, following is the pop-up recording window



3. Use of the recorder:

Button Icon	Button Name	Function Description
	Record	Click to begin recording the voice.
	Stop/Pause	Click to cease recording or pause play.
	Play	Click to play recorded files.
	Save	Click to save recorded file

4. Exiting the recorder:

Click “Close ” in the upper right corner of the audio recorder to exit it.

8.13 Magnifying Glass

1. The way to choose magnifier is as below:

Under design mode, click “Tools” —> “Magnifying Glass ” in the menu bar.

2. Use magnifier:

The cursor will change to  when the magnifier starts, press the electronic pen and pull out a display area to magnify. In the bottom right corner of dotted rectangle there are three control buttons, respectively zoom in, zoom out and exit, as shown below:



Button Icon	Button Name	Function Descriptions
	Zoom In	Increase the display area magnification
	Zoom Out	Decrease the display area magnification
	Close	Close the display area

Press and hold to enlarge or decrease within the region. Drag the magnified area to move it around within the page.

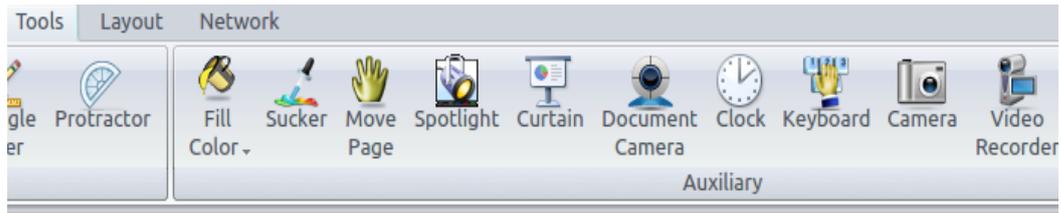
8.14 Video Recorder

With the video recorder, users can record all the operation on the whiteboard and save it as *.avi files, which provides great convenience for users to review the contents.

Use video recorder in the following ways:

Control Panel:

1. Click tools menu to select "Video Recorder", as shown below:



extramarks

2. A recorder window will pop-out when clicked as shown below:



3. The button functions are as follows:

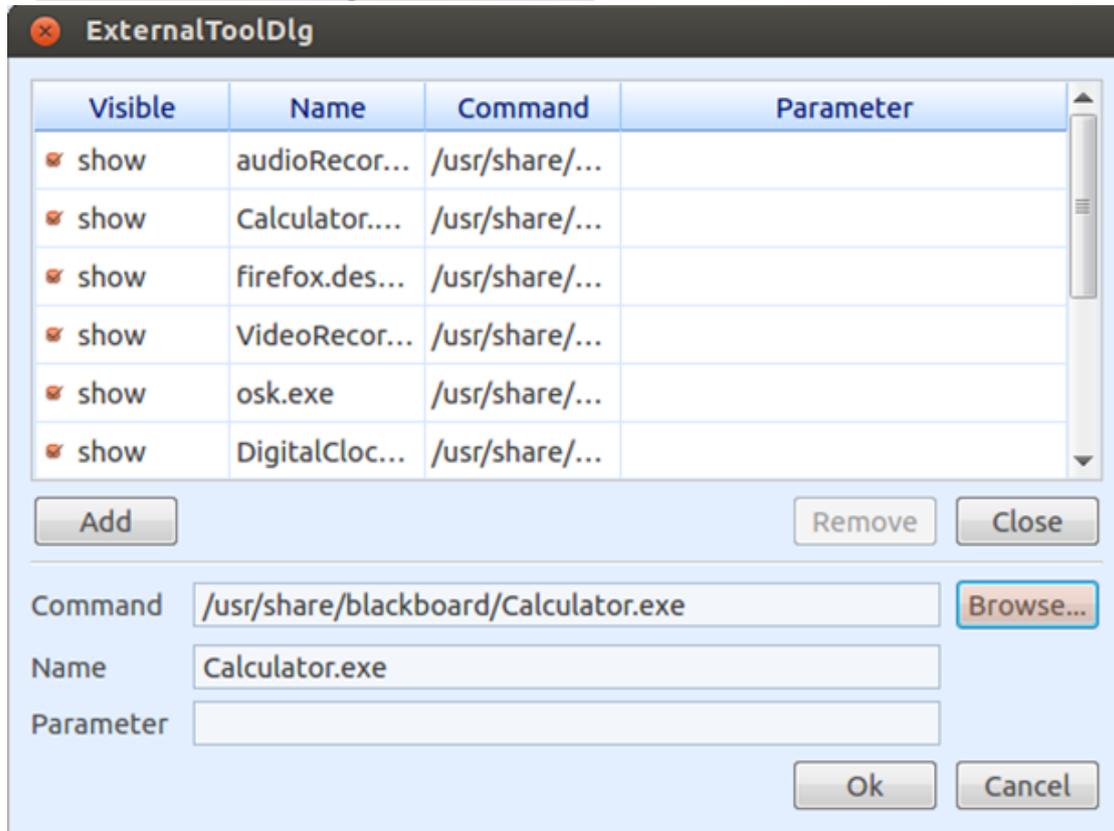
	Record
	Pause
	Stop and save
	Open
	Capture options

4. Under the design mode: Click the  icon on the standard toolbar to start video recording.

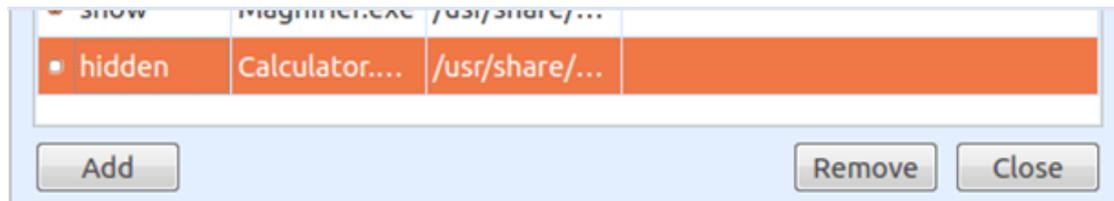
8.15 Adding External Tools

Steps to import external tools into whiteboard interface are as follows:

1. Click external tools settings button.
2. Click the Add button on the External Tool Dlg window.
3. Click browse to choose the path of external tools.



4. Click 'OK', tick to hide the front box to set as display and exit window.



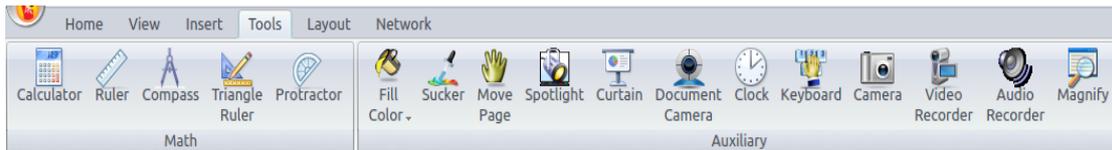
5. Return to main window and click settings to bring down the selection button to select the added exe file.

9. Chapter IX Customized Definition

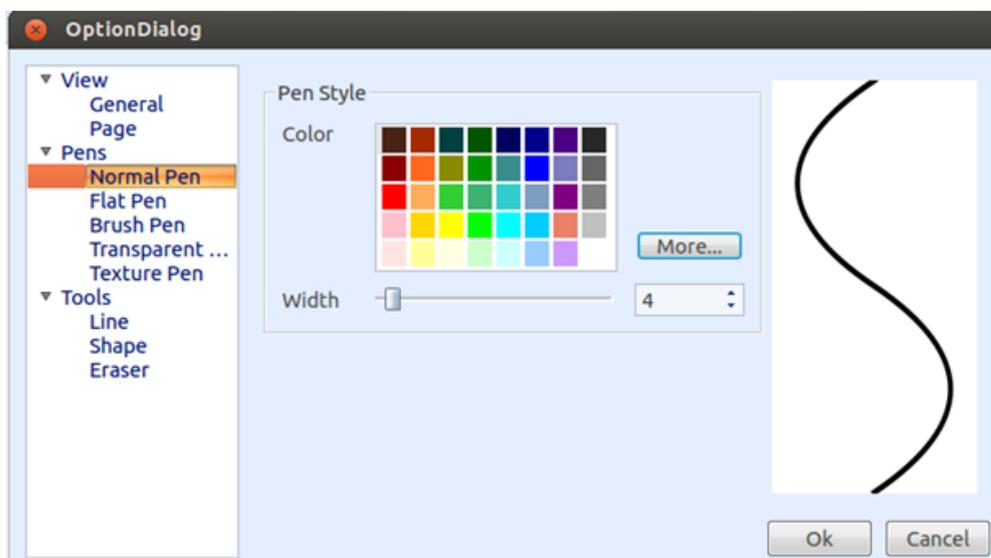
9.1 Customize Brush

Users can customize the type, width, color and other attributes of the brush, following are the specific operations:

Step 1. Click the brush  icon in the menu toolbar, following is the pop-up menu:



Step 2. Select “Customize Pen ”, the pop-up dialog box is as follows:

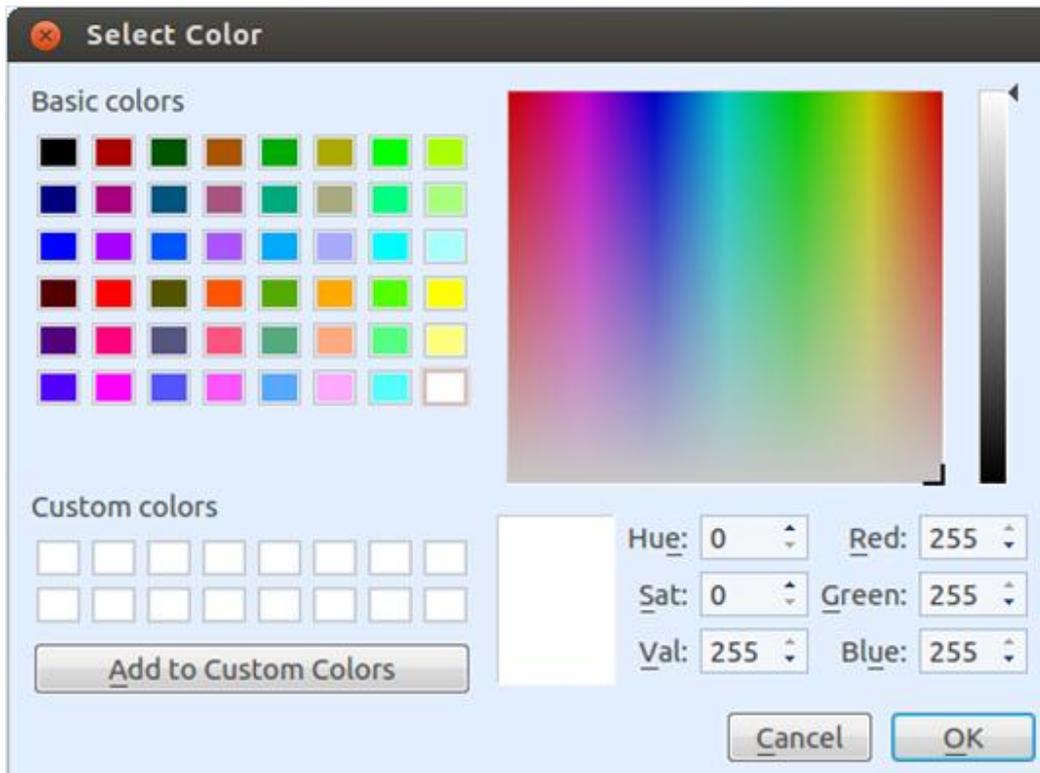


Step 3. Select the brush type, pen width, color, etc. in the pop-up dialog box, click “Ok”.

9.2 Customize Colors

The color of object can be customized other than the selected colors, specific operations are as follows:

Step 1. Click “More Colors” in the drop-down menu of color, following is the pop-up form:



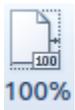
Step 2. Select a color and click “OK”.

9.3 Customize Page Size

Users can adjust the page size by changing size scale, and the specific operation is as follows:

Step 1. Click "View" —> "Zoom in/out" in the menu bar

Step 2 select “Zoom in/ Zoom out” icon to enlarge or decrease page size.

Step 3 Click  ,the pages will return to original size of the page.Users can also select a

correct proportion among from certain options by clicking “More”  .

10. Chapter X Visualizer

13.1 Function Introduction

Emboard Document Camera System is mainly composed of two functional modules: the first part is video module. It presents a dynamic video image. Users can adjust the position of the collect images in this module to achieve optimum efficiency. The second part is picture module. Users can preview, edit the pictures taken in the video module.

13.2 Video Module

Video module mainly includes the following 4 functions: record control, rotate control, snap control and zoom control as shown below.



13.2.1 Recording Control

When the HD camera is properly connected to the PC, users should start the visualizer

software and then switch to the video module, click Start Record button  to begin

recording video process. Click the Stop Record  when the recording is finished.

Users can preview the recorded video in avi format, and single click left or right buttons to save or delete the file.



13.2.2 Rotate Control

Rotate control mainly includes Rotate Left, Rotate Right, Mirror, Filp.

1. Click the Rotate Left button  , the image will rotate in the counterclockwise direction (Each operation only permits rotation for 90° , while users can repeat the operation several times until it shows as the users expect.)

2. Click the Rotate Right button  , the image will rotate in the clockwise direction (Each operation only permits rotation for 90° , while users can repeat the operation several times until it shows as the users expect.)

3. Click the Mirror button  , the video images will be shown as reflected by a mirror.

4. Click the Flip button  , the video images will be turned upside down.

13.2.3 Snap Control

It is mainly composed of 2 functions: Snap and Snap to Blackboard.

1. Click the Snap button  , uses can take a photo in png or jmp format, and then click preview button  , they can see the photos they have taken.

2. Click Snap to Blackboard button  , users can sending photos that they have taken to interactive whiteboard page.

13.2.4 Zoom Control

In this module, users can adjust the image window in 3 customized proportion sizes: 320*240, 640*480, and 800*600. click each pixel size button, users can operate switch to different size of the window.

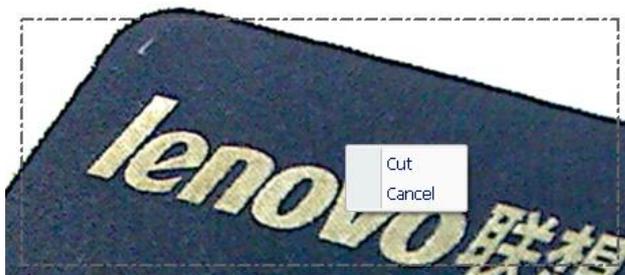
13.3 Picture Module

If users want to edit the pictures they have taken, they should switch to the picture module (by clicking the picture button ) and then they can rotate, save, zoom in/ out the pictures.

13.3.1 Operating Function

It mainly includes 4 operations on pictures: cut, annotate, move and restore. Choose the picture to be edited in the preview page,

1. Click cut button , when the mouse changes into “+” shape, users can drag the mouse in any angle to choose the range of the picture (single click left button, users can reselect the picture range), then right-click the selected area and choose “cut” button, or choose “cancel” to give up the operation. See the illustration below:



2. Left click the annotate button , the mouse will change into “+” shape, then click left button and drag the mouse, users can draw lines or write text to annotate the current page or knowledge.

3. Click the move button , users can drag and view the the pages.

4. If users click the restore button , all pictures will be returned to the original state if all

modifications on the pictures are not been saved.

13.3.2 Rotating Operation bar

It mainly includes two kinds of operations: left side rotation and right side rotation on the pictures taken by users.

1. If users click the Rotate Left button , the image will rotate in the counterclockwise direction (Each operation only permits rotation for 90° , while users can repeat the operation several times until it shows as the users expect.)

2. If users click the Rotate Right button , the image will rotate in the clockwise direction (Each operation only permits rotation for 90° , while users can repeat the operation several times until it shows as the users expect.)

13.3.3 Save Control

There are 2 saving modes: one is to save  file into the default snap picture , another is to save as  in users' customized file .

13.3.4 Zoom Control

Zoom Control enables users to zoom in, restore and zoom out the view and pictures in limitation.

Zoom in button  is for enlargement , zoom out button  is for reduction and restore

button  is for normalization of the view and pictures.

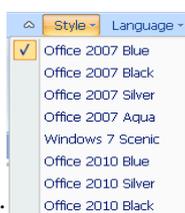
13.4 Style Interface setting

13.4.1 Hide menu

click the button , the toolbar is hidden and the button becomes Down-arrows. Then click it again, the toolbar appears for users to choose..

13.4.2 Set Style

Style setting bar, click the button , the page shows 8 kinds of different display interface



styles as shown below:

13.4.3 Language Setting

Users can click language drop-down arrow  to do switches among English, simplified Chinese and traditional Chinese.

13.4.4 File menu

Users can File menu button  (it shows as file menu in Win7 system) enables users to save and close the software.

(-----Over line-----)