newline

Newline Document Camera Visualizer Software User Guide

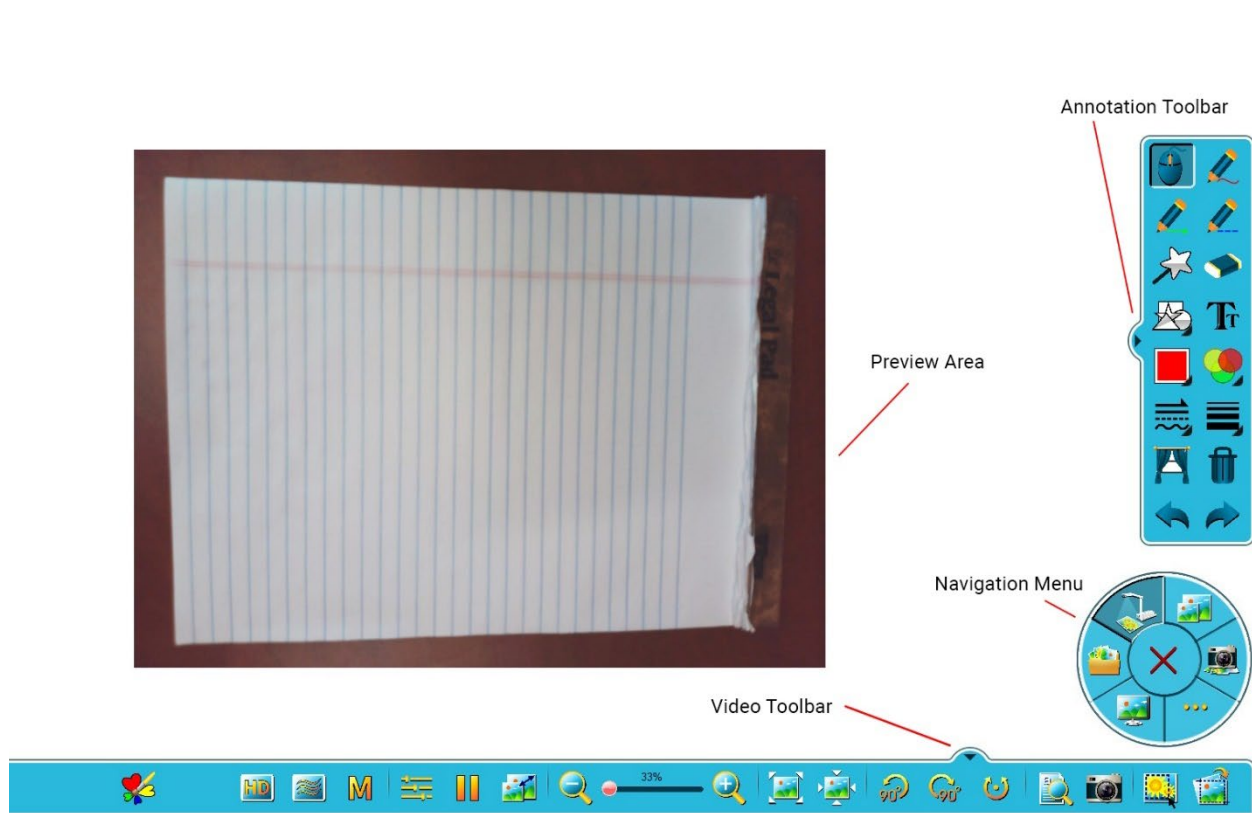**March 2022**

Contents

Chapter 1 - Software Operating Instructions

1.1 Software Interface

1. To open the software: Double click software icon **Visualizer V3.1.7** on your desktop, or via the path Start/Applications/Visualizer V3.1.7.
2. Connect the Document Camera to your device using the USB cable and open the Visualizer V3.1.7 software to use the software.

Picture 1-1

The main interface consists of Preview Area, the Navigation Menu, the Annotation Toolbar, and Video Toolbar. Click on small triangle on the Markup Toolbar and Video Toolbar to hide the toolbars. Click the triangle again to show the toolbars.

1.2 Function Introduction

Preview Area

Displays the images currently being captured by the Document Camera.

The Navigation Menu (refer to picture 1-2)

Picture 1-2

1. Video: Clicking the Video button displays documents and real-time objects in the preview area. See 1.2.1 for details.
2. Contrast: Splits the screen into a single window, two divided windows, or four divided windows to compare and display. Supports contrasting content annotation, zoom in/out and other operations. Also offers multi-video or picture contrast display. See 1.2.2 for details.
3. Screenshot: Screenshot allows you to fast capture images to the desktop, folders, PowerPoint, Word, and other office software. See 1.2.3 for details.
4. File: View and manage images within the Visualizer Software. See 1.2.4 for details.
5. Desktop: Quickly switch to the desktop. Click Video to bring back the Visualizer Software.
6. Function Menu: Opens the menu options, see 1.2.5.

1.2.1 Video Function Description

1.2.1.1 Annotation Toolbar

Click the "Video" function in the Navigation Menu to annotate the image using the tools in the Annotation Toolbar. The Annotation Toolbar features are as follows:

1. Select : Under Video mode, click the Mouse button on the Annotation Toolbar to move the video or the object in the Preview Area around.

2. Pen : Any of these three pen options allows you to draw in the Preview Area.

3. Magic Pen : Allows you to draw in the Preview Area. Releasing the mouse makes the drawing disappear.

4. Eraser : Erases the annotations in the Preview Area.

5. Graphics : Click menu and you will see five shape options: oval, rectangle, triangle, five-pointed star, and highlight. You can change the colors of these shapes in the Color Settings selection.

6. Text : Allows you to add text to the Preview Area.

7. Color Settings : Click on any of the Annotation Toolbar Menu items, then click on Color Settings, the previously selected pen, line, shape, or text color will be changed to the selected color. Custom colors can be set by going to the "Navigation Menu" then selecting the "Function Menu" then the "Settings" submenu, see 1.2.5.6.
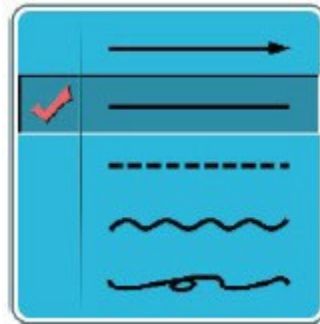

Picture 1-3

8. Transparency : Clicking the Transparency tool allows you to change the pen transparency. The box in the picture 1-4 indicates the pen color and transparency.
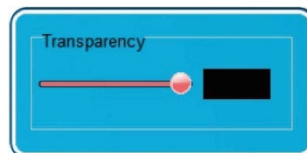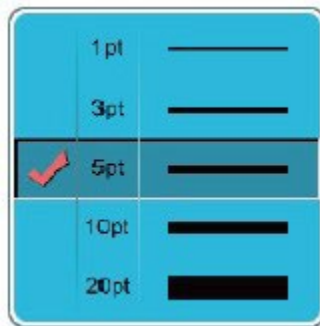

Picture 1-4

9. Line ![icon]: Click any of the Pen menu items, then select the Line Type menu item as shown in picture 1-5. From here you can change the current pen line type.
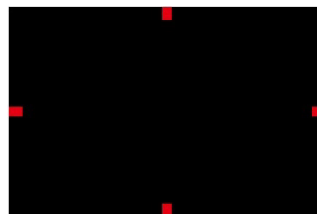

Picture 1-5

10. Line width ![icon]: Click any of the Pen menu items, then select the Line Width menu item as shown in picture 1-6. From here you can change the current pen line width.

Picture 1-6

11. Curtain ![icon]: Creates a "Curtain" you can use the cover up parts of the Preview Area Screen. (See Picture 1-7) Click from any of the red rectangles on the top, bottom, left or right to adjust the size of the curtain. In the lower right corner, click ![icon] to adjust the curtains color or transparency. The close button ![icon] closes the curtain.

Picture 1-7

12. Delete ![trash icon]: Deletes all annotations made in the Preview Area.

13. Undo ![undo icon]: Can be used the remove previous annotations, starting with the last one made.

14. Redo ![redo icon]: Can be used the restore previous annotations, starting with the last one removed.

1.2.1.2 Video Toolbar

Click the "Video" function in the Navigation Menu to edit the image using the tools in the Video Toolbar. The Video Toolbar features are as follows:

1. Image effects : Video image can be set to true color, reverse color, grayscale, and black and white.

2. High Definition : Automatically adjusts the Document Camera to high definition.

3. High Speed : Automatically adjusts the Document Camera to high speed.

4. Mode : Automatically adjusts the Document Camera to Image Mode, Text Mode, or Compatibility Mode.

5. Video Property : Allows you to adjust the Brightness, Contrast, Sharpness, Exposure and Binarization.

6. Pause Preview : Set the video image to pause, the button becomes Recovery Preview .

7. Resolution : Adjusts the resolution of the video image.

8. Zoom out : Zooms out of the video image.

9. Zoom in : Zooms in on the video image.

10. Screen : Adjusts the size of the video image, filling the video in the middle of the screen.

11. Actual size : Displays the actual size of the video image.

12. Rotate counterclockwise 90 degrees : the video is rotated 90 degrees to the left.

13. Rotate clockwise 90 degrees : the video is rotated 90 degrees to the right.

14. Any angle the image can be rotated by any angle.

15. OCR : Extracts the text in the Preview Area into Word, Excel, PDF, and Text File document formats.

16. Scan : Creates a scan of the current Preview Area. After the scan is finished, there will be a pop-up box, as shown in picture 1-8. Click the "Open file" link to be taken directly to the picture preview window. Click the "Open file folder" to jump directly to the directory management window within the Visualizer software. (The camera path is changed by going into the "Navigation Menu" then the "Function Menu" then the "Settings" submenu.)
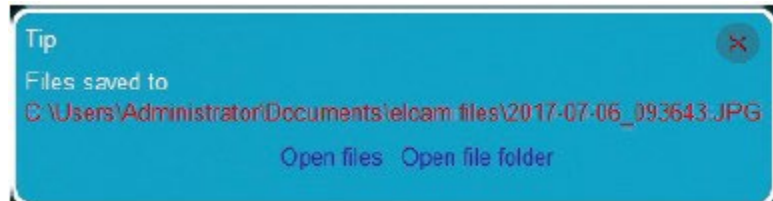
Picture 1-8

12. Rectangle Select : As shown in picture 1-9, in the Preview Area, drag the box with the green and white border around the section of the image to select the area you wish to scan.

Picture 1-9

17. Auto Cropping : Click this item to display a red border around an image in the Preview Area, as shown in picture 1-10 below. When you click "Scan" the image will be automatically cropped and centered when viewed in the Visualizer software.

Auto Cropping before:
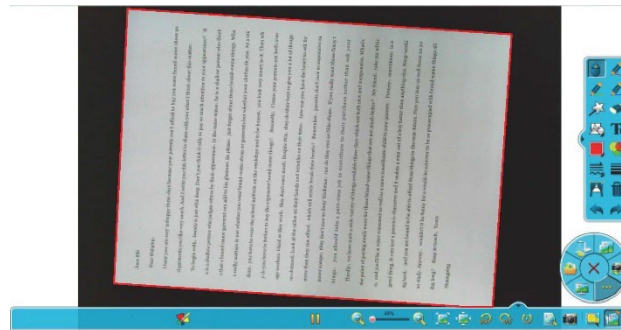
Picture 1-10

Auto Cropping after:

Picture 1-11

Auto Cropping Tips

1. Make sure the surrounding area of the document or item you wish to scan is significantly contrasted with the background, for example, make sure the area around a white piece of paper is black, or dark colored.

2. To make sure the Auto Cropping effect works properly, put the document or item in the middle of screen, without any obstructions.

3. Adjust exposure if the result is not acceptable due to reflection or brightness.

1.2.2 Contrast Function Description

Contrast: You can divide the screen into left and right windows, three windows, four windows or up to 18 windows to compare items on the screen. Each window can support individually marked comparative content, zoom, multi video and image comparisons. A red box will appear around the window currently in use.
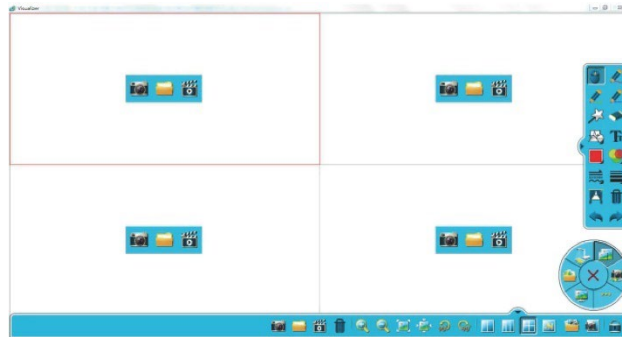
Picture 1-12

1.2.2.1 Contrast Tool Bar

Click the "Contrast" function in the Navigation Toolbar and use the tool from the Annotation Toolbar to mark each window. The Contrast Toolbar functions are as following:

1. Scan : Scans an image with the Document Camera.

2. File : Allows you to select a file from your computer to view in each Window.

3. Video : Creates a video with the Document Camera.

4. Delete : Deletes the content in the Window.

5. Zoom In : Zooms into the video image.

6. Zoom Out : Zooms out of the video image.

7. Screen : Adjusts the size of the video image, filling the video in the middle of the screen.

8. Actual Size : Displays the actual size of the video image.

9. Counterclockwise 90 degrees : the video is rotated 90 degrees to the left.

10. Clockwise 90 degrees : the video is rotated 90 degrees to the right.

11. Two Windows : displays left and right contrast windows.

12. Three Windows : displays three contrast windows.

13. Four windows : displays four contrast windows.

14. Custom Windows : Supports up to 18 contrast windows.

15. Import : Allows you to select a file from your computer to view.

16. Screenshot : Takes a screenshot of the Preview Area.

17. Lock : When lock is in effect, all effect tools in the Contrast Toolbar will be applied to all Windows.

1.2.3 Screenshot Function Description

Using this tool allows you to quickly create and save images captured by the Document Camera

To screenshot, do the following:

1. In the navigation menu, click the Scan icon. This will cause the Preview Area to minimize in the lower right corner.
2. In the preview area, left mouse click and hold.
3. Drag and drop the mouse to save the screenshot on your desktop, as show in picture 1-13.
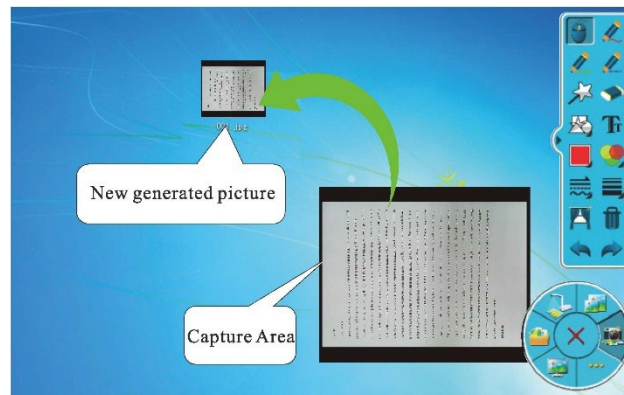
Picture 1-13

"Crop Selected" Screenshot

Additionally, you can create a cropped screenshot using the Rectangle Select tool in the Video Toolbar.

To create a copped screenshot, do the following:

1. Select the Rectangle Select tool in the video tool bar. In the Preview Area, drag the box with the green and white border around the section of the image to select the area you wish to scan. (See picture 1-14)
2. Hit Scan in the Navigation Menu.
3. In the lower right preview area, left mouse click and hold.
4. Drag and drop the mouse to save the now cropped screenshot on your desktop,
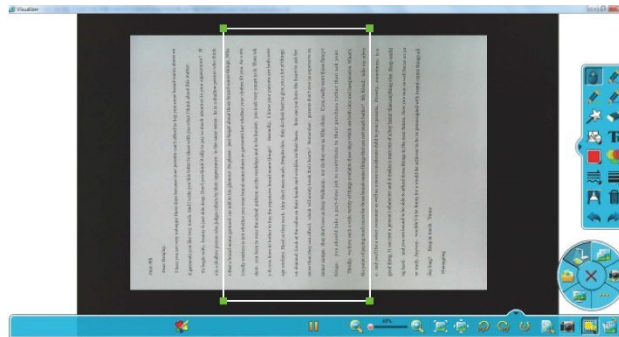
Picture 1-14

The cropped screenshot will appear as shown in picture 1-15 below:
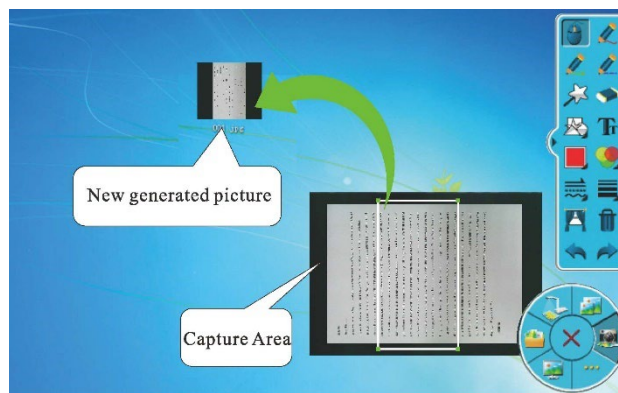
Picture 1-15

1.2.4 File Function Menu

You can edit and manage images captured by the Document Camera by clicking on the File icon in the Navigation Menu.

The File Function Menu is composed of three main areas: the Directory Select column on the left-hand side, with the Image Preview Area below it, and the File Select Window to the right, as show in picture 1-16 below:
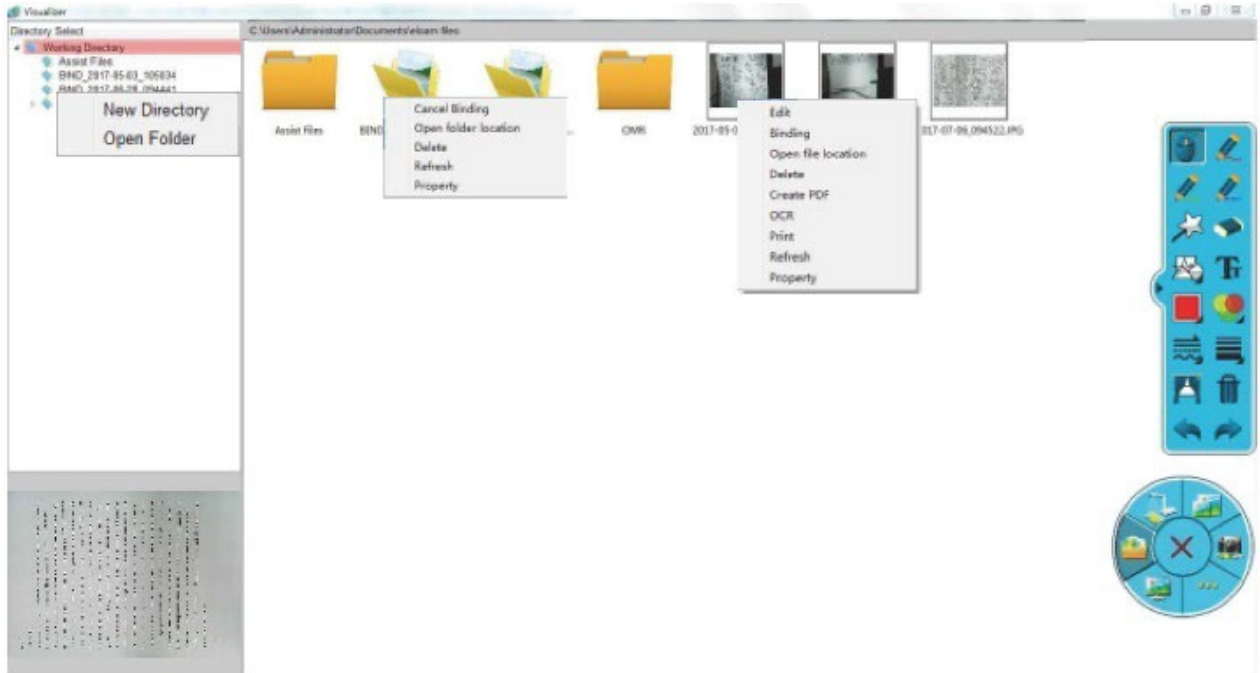
Picture 1-16

Directory Select Column

Here you can view and create folders within the Visualizer software.

Image Preview Window

Select an image in the File Select Window to preview it in the Image Preview Area.

File Select Window

In the File Select Window you can view the images and subfolders within the Directory Select Menu.

1.   Right-click a sub-folder to view the following options: Open folder location, Delete, Refresh, or Property.

2.   Right-click an image to open the following submenu.

1)   Edit: Select to edit an image.
2)   Binding: Puts the selected image into a new folder.
3)   Open Folder: Opens to where the folder is located on the PC.
4)   Delete: Deletes the selected image.
5)   Create PDF: Allows you to save an image as a PDF.
6)   OCR: Extracts the text in the image into Word, Excel, PDF, and Text File document formats.
7)   Print: Send the image to be printed at printer connected to the PC.
8)   Refresh: Refreshes the folder.
9)   Property: Opens a property menu where you can view the metadate of the image.

Editing Images

Double-clicking a selected image in the File Select Window will open that image in a new window where you can edit it using the Visualizer software, as show in picture 1-17 below:

Picture 1-17

The Image editing options are as follows:

(1) Segmentation: Creates a table (max 5 lines and columns) that can be drawn onto an image. See picture 1-18 below.

Picture 1-18

(2) Recombination: Adjusts the previously created Segmentation into one column. (See Picture 1-19)
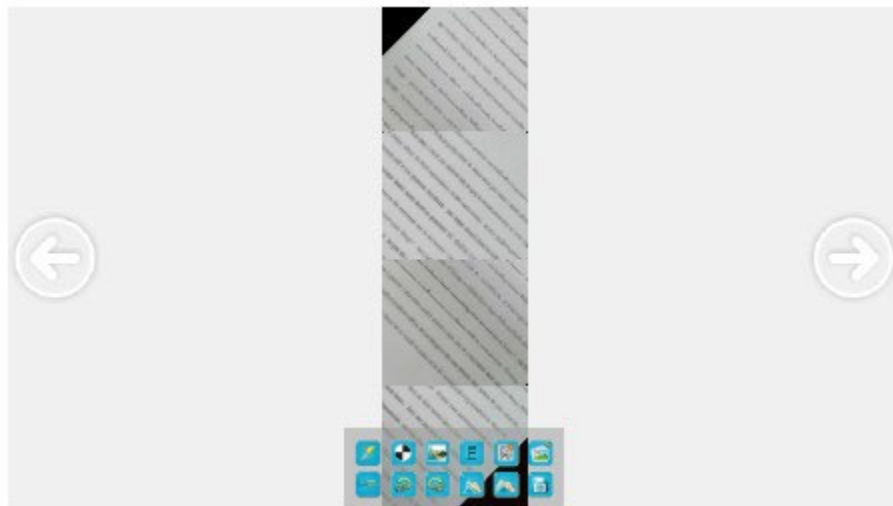
Picture 1-19

(3) Binarization: The image presents as black and white effect.
(4) Remove background: Automatically removes the background color of the selected image.
(5) Emboss: Creates an embossing effect to the image.
(6) Remove Noise: Removes noise on an image.
(7) Auto-crop: Automatically detect the background of a document and crops it out.
(8) Recombination: To recombine image after segmentation, as show in picture 1-19 below and edit image:
(9) Rotate counterclockwise 90 degrees: the image is rotated 90 degrees to the left.
(10) Rotate clockwise 90 degrees: the image is rotated 90 degrees to the right.
(11) Sharpen: Sharpens the image.
(12) Soften. Blurs the image.

(13) Undo: Can be used the remove previous effect, starting with the last one made.

(14) Redo: Can be used the restore previous effect, starting with the last one removed.

(15) Save: Save current image as a new file.

1.2.5 Function Menu Instruction

The three dots in the Navigation Menu represent the Function Menu. The Function menu options include: (1) Screen recordin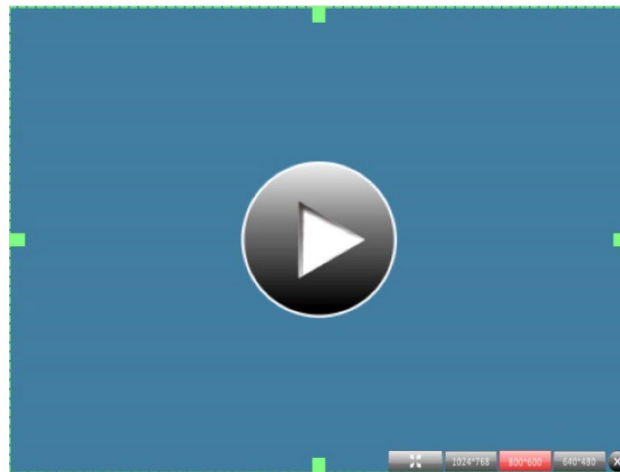g, (2) Start recording, (3) Continuous shooting, (4) Detection shot, (5) Auto Exposure, (6) Auto Focus, (7) Language setting, (8) Setting, (9) Exit.

1.2.5.1 Screen Recording

Screen Recording is used to capture video of the actions happening while the Visualizer software is being used. To enable, click "Menu" in the Navigation Menu, then choose Screen Recording in the popup menu. The screen recording interface will appear, as show in picture 1-20 below. From here you can adjust the size and resolution of the area you wish to record. To begin recording your screen, hit the large play button. You will then be asked to save your file to your PC. After saving the recording starts automatically. To end the screen recording, choose "Stop recoding the screen from

Picture 1-20

To end the screen recording, choose "Stop recording the screen" from the Function Menu in the Navigation Menu. Note: After the screen recording begins, the "Screen recording" button will change to "Stop recording the screen", as show in picture 1-21 below:
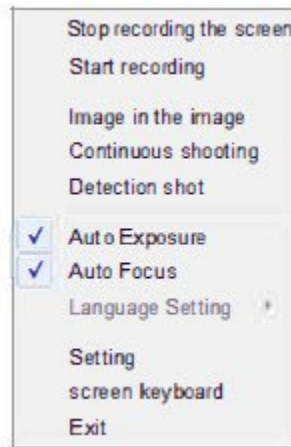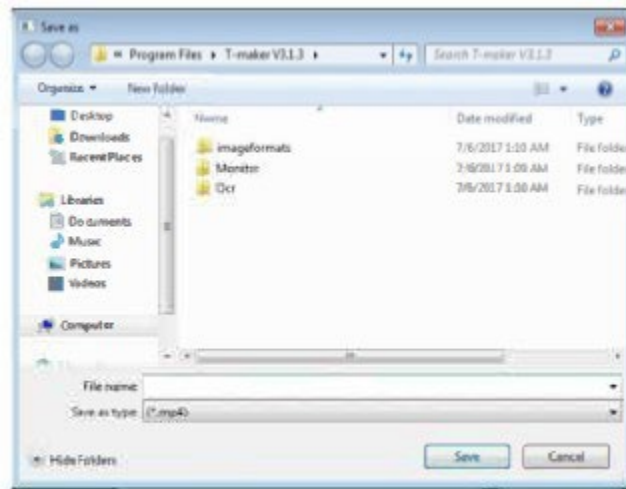

Picture 1-21

1.2.5.2 Start recording

Start Recording is used to capture video of the actions happening while the Document Camera is in use.

Within the Navigation Menu, click on the Function Menu option, then in the submenu choose "Start recording." You must first save your file before the video starts recording, as shown in picture 1-22 below:

Picture 1-22

After you have named your video, click "Save", the video will begin recording automatically. To end the recording, click "Stop recording" in the Function Menu submenu. The video is now saved in the browser path you created.

Note: After the video has begun recording, the "Start recording " option changes to "Stop recording", as show in picture 1-23 below:
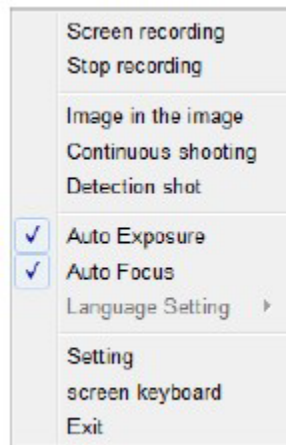
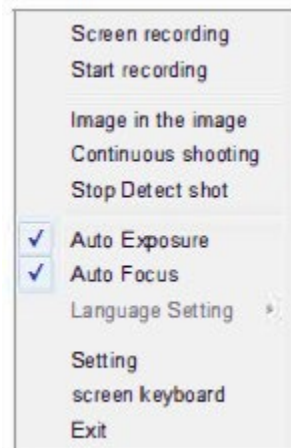Picture 1-23

1.2.5.3 Continuous Shooting

Continuous shooting allows you to set up automatic image captures. Enter the interval time and the number of shots you wish to create (for example, an interval time of 1 and a shoot number of 5 will create 5 automatic image captures 1 second apart.) After the Continuous Shooting is completed, images can be viewed in the File Menu.
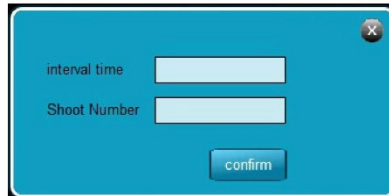
Picture 1-24

1.2.5.4 Detection Shot

When using this option, the camera will recognize to capture an image when the document is stable. If you need to stop the capture, return to the Function Menu option in the Navigation Menu then in the submenu choose "Stop Detect shot."

Picture 1-25

1.2.5.5 Auto exposure

Auto Exposure is selected by default (gray is not supported).
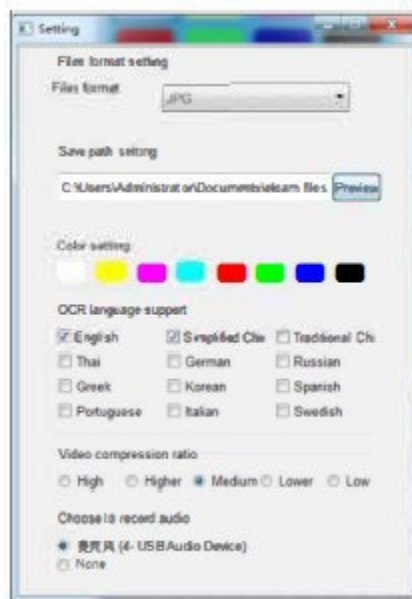
1.2.5.6 Auto Focus

Auto Focus is selected by default (gray is not supported).

1.2.5.7 Language Settings

Supports simple Chinese and English.

1.2.5.8 Settings

Within this menu you can change a variety of Visualizer Settings. See Picture 1-26 for details.
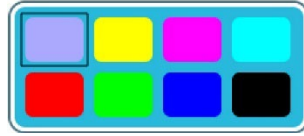

Picture 1-26

1. Save Path Setting: Choose where you would like the files to be automatically saved.

2. Color Setting: Allows you to set the default colors. When a color is selected a submenu will open, which allows you to adjust the selected color to your liking (see picture 1-27)
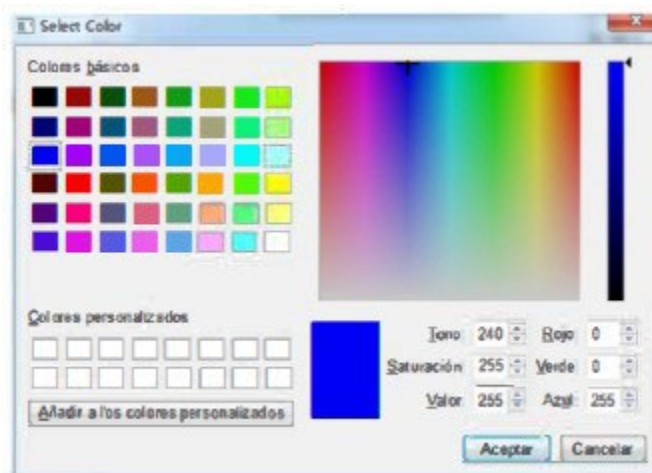
Picture 1-27

Once the color settings in the Settings Menu have been set, the colors in the Color Settings option in the Annotation Menu will reflect the colors chosen in the Settings menu, as shown in picture 1-28 below:

Picture 1-28

3. OCR Language Support: Allows you to change the language recognized by the OCR.

4. Video Compression Ratio: Select video compression rate.

5. Choose to record audio: Select the preferred device to record audio.

1.2.5.9 Exit

This option allows you to exit the Visualizer program.