NDP.view2
U12388-01
Instruction manual

⚠CAUTION	• Follow the safety precautions in Chapter 1 in order to avoid personal injury and damage to property when using this system. The manual describes the correct handling method of the system and provides precautions in order to avoid accidents. **Read this manual carefully** before using this software. • After reading the manual, store it in a location where you can refer to it at any time.

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HAMAMATSU PHOTONICS K.K.

95770301-03

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1. SAFETY PRECAUTIONS

1-1 CLASSIFICATION OF WARNINGS

We have classified the warning symbols that appear in this operating manual as well as the system itself. Make sure that you fully understand them and obey the instructions they contain.

⚠WARNING	Improper handling of the system without observing these warnings could lead to serious injury to the user and even death.
⚠CAUTION	Improper handling of the system without observing these cautions could lead to personal injury to the user or damage to property.

Note	This symbol indicates a note to help you get the best performance from the system. Read the contents of the note carefully to ensure correct and safe use. Failure to observe one of these notes might impair the performance of the system.
	This symbol indicates a cautionary item that should be obeyed when handling the system. Read the contents carefully to ensure correct and safe use.
	This symbol indicates an action that is forbidden. Read the contents carefully and be sure to obey them.
	This symbol indicates a compulsory action or instruction. Read the contents carefully and be sure to obey them.

1-2 HARDWARE SAFETY PRECAUTIONS

- Read the chapter 1 SAFETY PRECAUTIONS carefully and be sure to obey them.

2. INTRODUCTION

Please read this manual carefully before using the NDP.view2 software.

2-1 SYSTEM REQUIREMENTS

The recommendation system requirements for this software are as follows.

Windows

OS	Windows XP, Windows 7 (32 bit and 64 bit)
CPU	Core series or faster
Memory	2 GB or more
Available HDD space	30 MB or more
VGA	Direct X compatible (Indispensable)
Screen Resolution	XGA (1024×768) or higher

Mac OS

OS	Mac OS X v10.7, v10.8
CPU	Intel Multicore Processors
Memory	2 GB or more
Available HDD space	30 MB or more
VGA	OpenGL 2.0 support
Screen Resolution	XGA (1024×768) or higher

Note

- This software may not work satisfactorily on some computers. This software may fail to operate due to the operating system or system requirements. Please read the clause of "System requirements".

Note

- In the software, a character of "μ" is not indicated. So, in the software window, a character of "u" is used instead of "μ". For example, um is used instead of μm.

2-2 TRADEMARKS

Windows XP and Windows 7 are the registered trademarks of Microsoft Corporation in the United States and other countries. Mac OS is the registered trademarks of Apple Inc. in the United States and other countries. Other brand names are the trademarks or registered trademarks of each company.

3. CHECK THE CONTENTS OF PACKAGE

When you open the package, check that the following items are included before use. If the contents are incorrect, insufficient, or damaged in any way please contact Hamamatsu subsidiary or your local distributor before using this software.

NDP.view2 Install Disk (CD-ROM)	1
NDP.view2 instruction manual	1

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4. OVERVIEW

NDP.view2 is a dedicated viewer for displaying digital slide files (NDPi files,NDPis files,vms files and vmu files) that have been created on the Hamamatsu NanoZoomer system. The NDP.view2 software lets you open a digital slide file so you can navigate around the specimen as well as view the specimen at different magnifications.

5. INSTALL AND UNINSTALL

Please install as follows when you use the software to open a digital slide that is stored on your computer or local storage media.

- This software may not work satisfactorily on some computers. This software may fail to operate due to the operating system or system requirements. Please read the clause of "System requirements" well and use it in the right system requirements.

5-1 INSTALL AND UNINSTALL TO WINDOWS COMPUITER

Install and uninstall NDP.view2 to Windows computer.

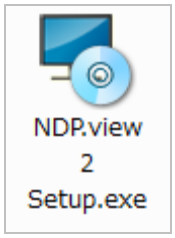
Note

- When you are using Mac OS, please refer 5-2 INSTALL AND UNINSTALL TO Mac OS system.

5-1-1 INSTALL

(1) Insert the Install CD to computer.

(2) The first thing you will need to do is navigate to the NDP.view2 Setup.exe file and double left click on it.



(3) Once you have clicked on the setup.exe, NDP.view2 Setup Wizard will start. (Image 1)

Image 1

Note

- NDP.view2 software is installed in “C:/Program Files/Hamamatsu/NDP.view2".

(4) When you click on the Next button the setup wizard will display the file associations menu. (Image 2)
When "NDP.view" (previous version) is already installed and you usually use NDP.view, Choose "No and skip file association."

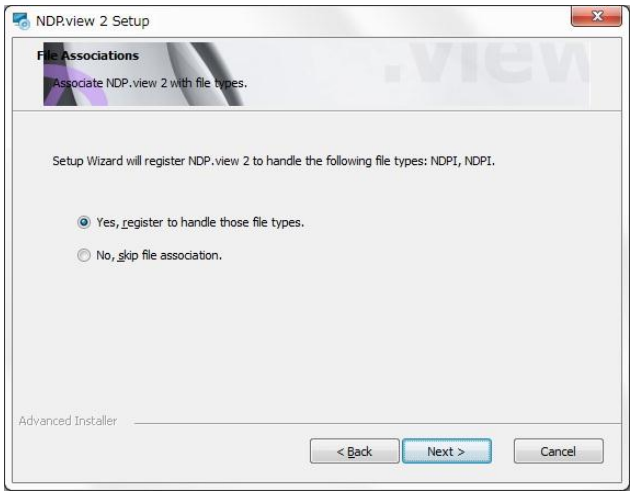


Image 2

(5) When you click on the Next button the setup wizard will start to install NDP.view2.

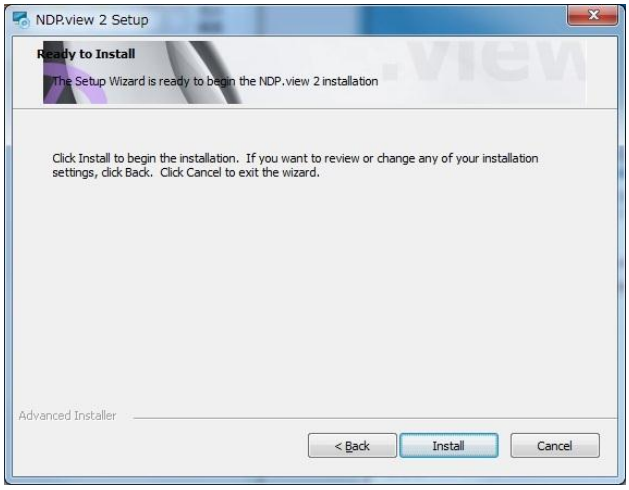


Image 3

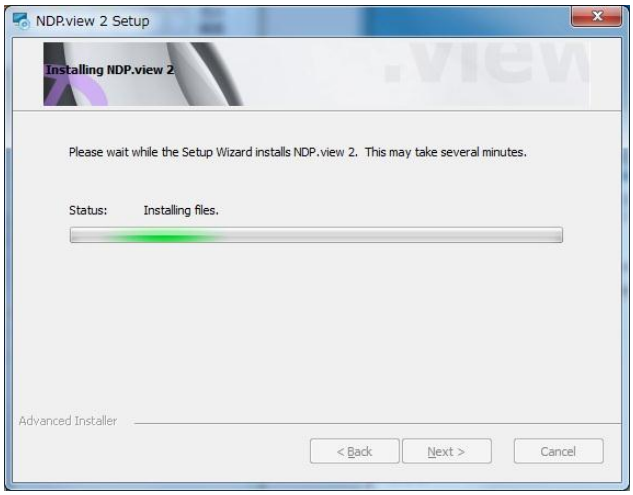


Image 4 (the screen shot during installation)

(6) When the installation is finished the dialog box below will appear. (Image 5)
Click on the Finish button to complete the install.

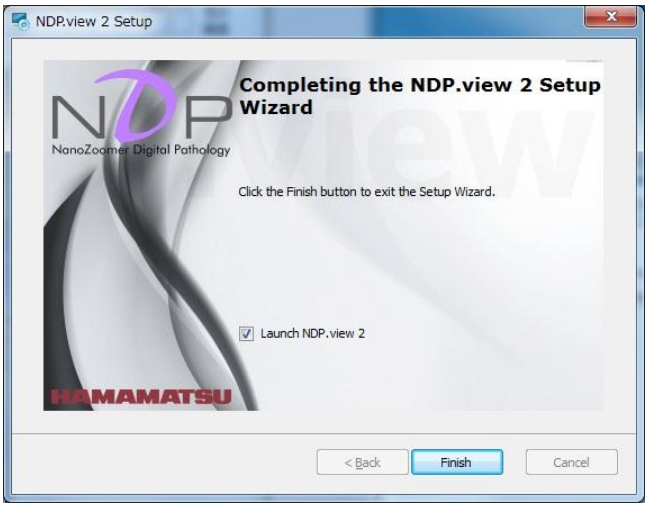


Image 5

5-1-2 UNINSTALL

To remove the software go into your add and remove program section of the Control Panel in your operating system.

Note

- The screen shots below are from Windows 7 Pro so your control panel may differ depending on what operating system you are using. If more information is needed on uninstalling software please see your relevant operating system manual.

(1) The control panel window in Windows is shown below.

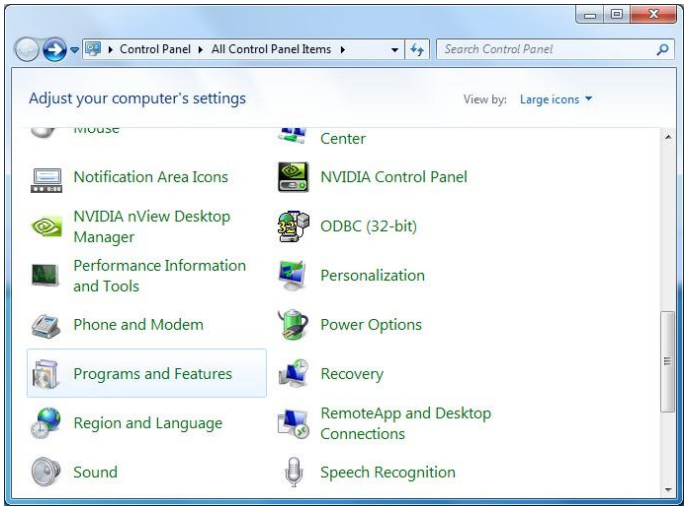


Image 6

(2) Click the “Programs and Features” icon and the window will appear. (Image 7)

Scroll down until you find the NDP.view2 software listed and then left mouse click on it so that it becomes highlighted as shown below. Once highlighted click on the remove icon and you will be asked are you sure you want to remove this software, click yes and the uninstall program will start removing the NDP.view2 software from your computer.

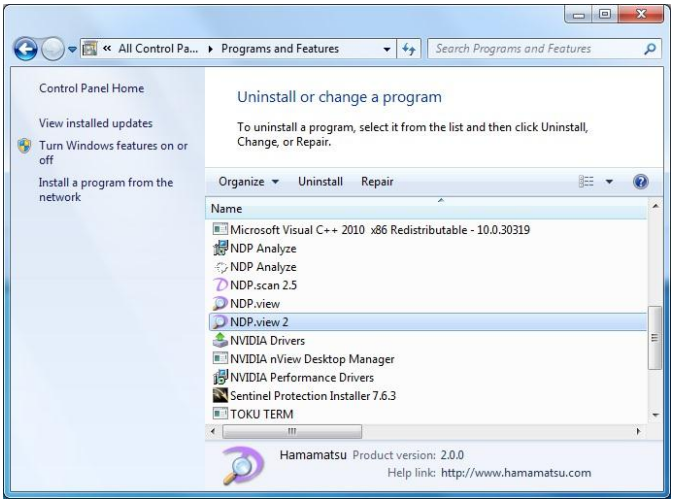


Image 7

5-2 INSTALL AND UNINSTALL TO MAC OS SYSTEM

Install and uninstall NDP.view2 to Mac OS system.

Note

- When you are using Windows PC, please refer 5-1 INSTALL AND UNINSTALL TO Windows computer.

5-2-1 INSTALL

(1) Insert the Install CD to the computer.

(2) The first thing you will need to do is navigate to the NDP.view 2.x.x.dmg file and double left click on it.

(3) Once you have mounted setup image, following window will display.
Drug NDP.view2 icon and drop to "Applications" folder.

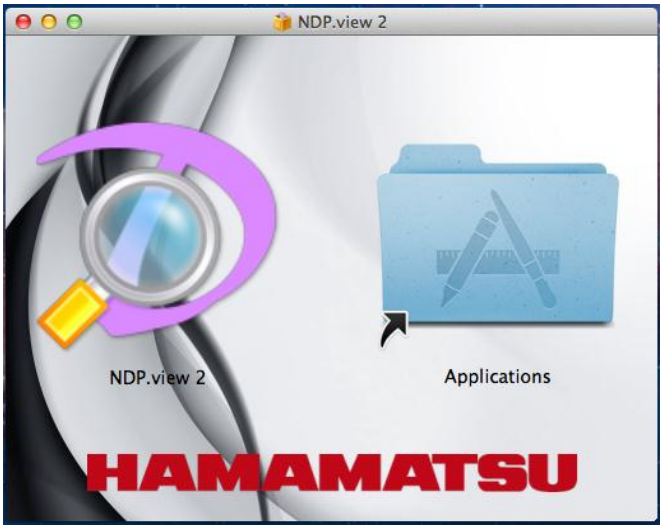


Image 8

Note

- NDP.view2 software is installed in “/Applications”.

(4) NDP.view2 will be added in "Applications"

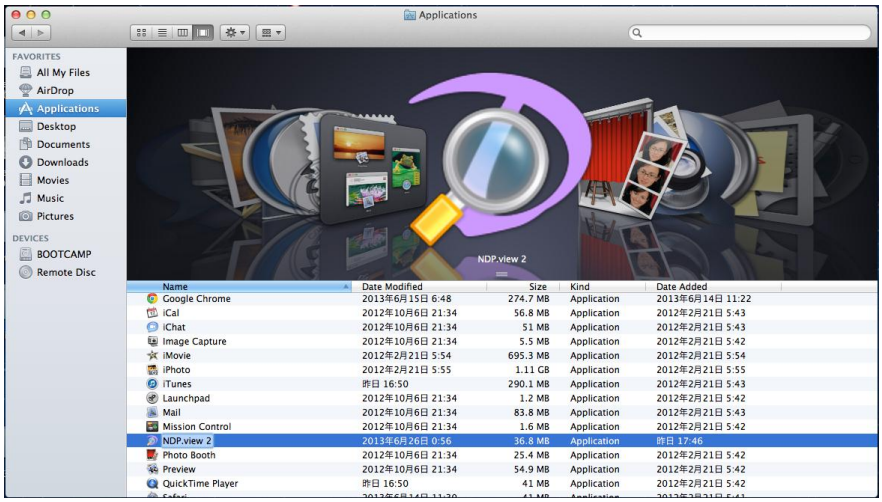


Image 9

5-2-2 UNINSTALL

NDP.view2 software is uninstalled in the following procedures.

(1) Open "Applications" in Finder.

(2) Remove "NDP.view2" from "Applications".

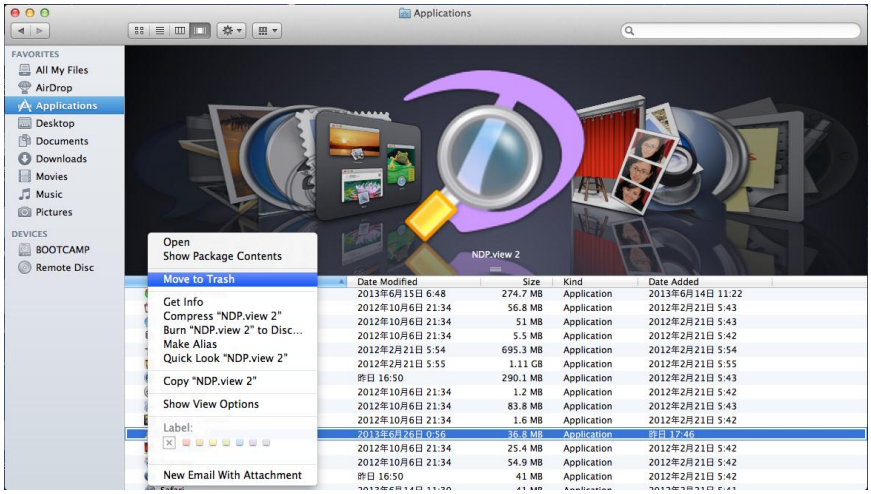


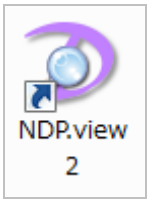
Image 10

6. STARTING UP AND EXIT

6-1 STARTING UP NDP.view2

Windows

(1) A double click of an icon created on the desktop will start up NDP.view2.



Note

- When the icon is not created on the desktop, chosen "all program" ->"NDP.view2" -> "NDP.view2" from the start menu of Windows.

Mac OS

(1) A click NDP.view2 in "Applications" will start up NDP.view2.

(2) A following screen will be first displayed, when NDP.view2 starts.

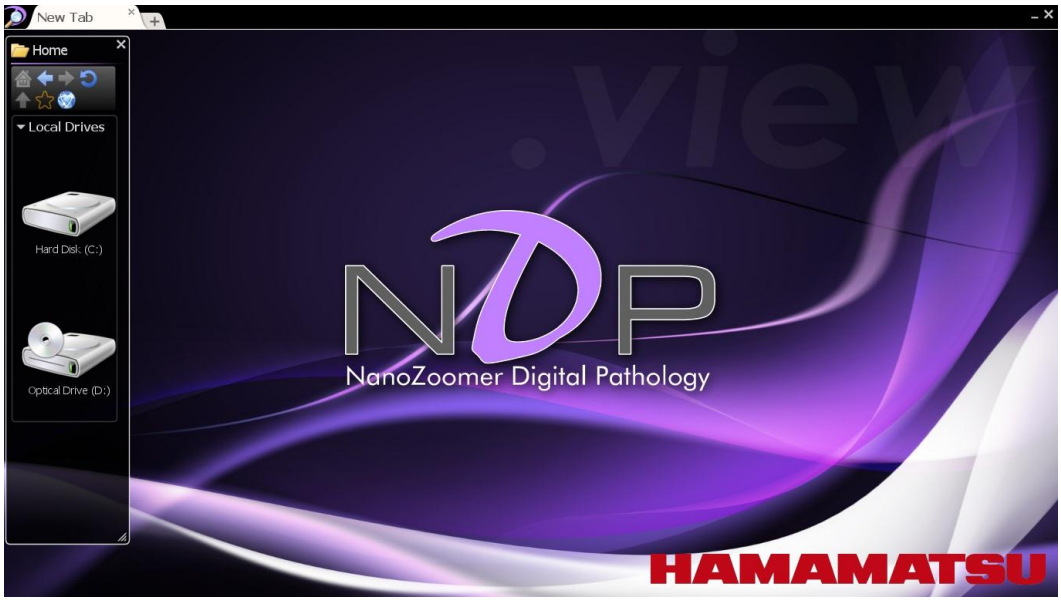


Image 11

6-2 EXIT NDP.view2

Choosing “Exit” from the main menu that placed at upper left or Clicking “x” button at the upper right or the “Alt” + “F4” keys (“Command” + “Q” key for Mac OS)of a keyboard will exit NDP.view2.

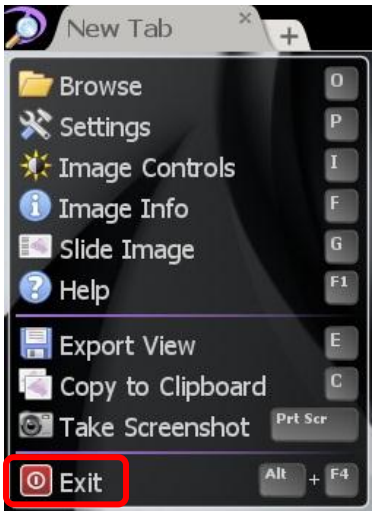


Image 12

Image 13

Note

- Clicking “_” button at the upper right will minimize NDP.view2 window.

7. OPERATION AND FUNCTIONS

Note

- The contents in 7. Operation and Functions are written for Window.
  For Mac OS, as long as there is no special statement, please transpose a "right click" to a "sub button" and transpose the "Alt" key to the "Option" key.

7-1 IMAGE DISPLAY

7-1-1 MAIN DISPLAY

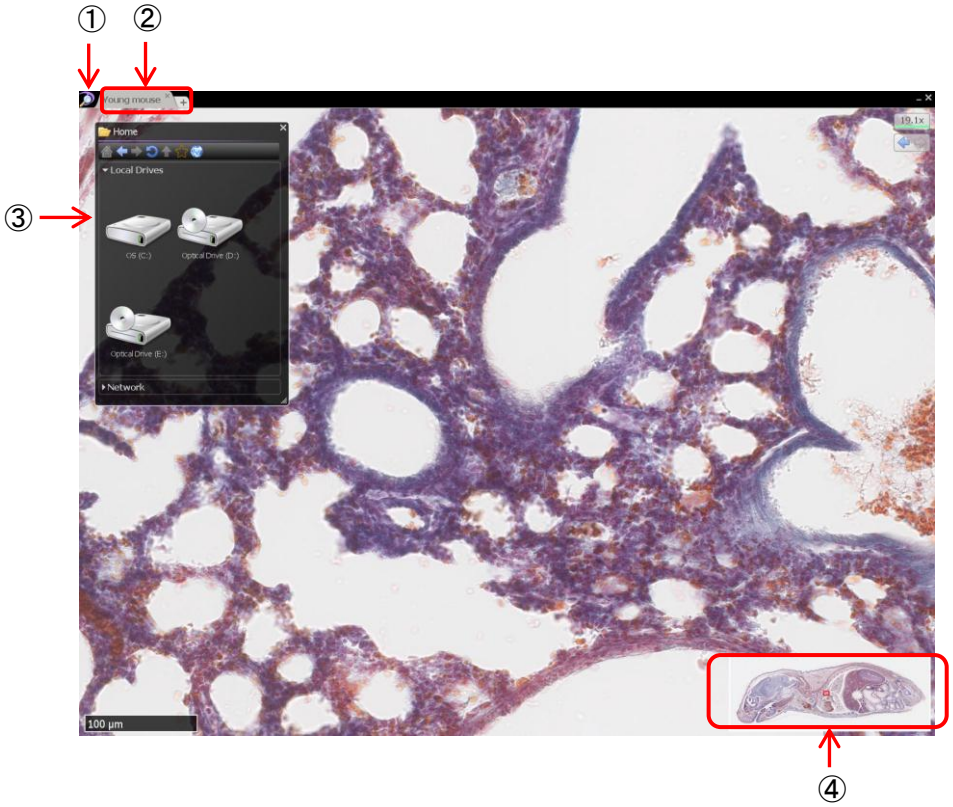


Image 14

① NDP.view2 icon

Clicking this icon will open the main window (Refer to 7-1-3).

② Tab (Tab area)

Choosing tabs will change the slide images.

Clicking “+” tab will open the new tab.

Image 15

Clicking "x" button at the upper right in the tab will close the tab.

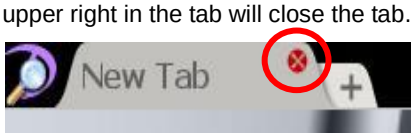


Image 16

③ Browse window

Choosing “Browse” from the main menu that placed at upper left or the "O" key of a keyboard will display the browser window. You can chose and open the slide data.

Image 17

Note

- Please refer to section "7-1-2 Browse Window” for these details.

④ Map window

A map window can be displayed in the lower right of the screen.
Show or hide the overview map using the 'M' key.
Left click on the map to jump directly to the selected position at the current magnification, hold the left button down and move to quickly pan around the image.
Drag a box using the right mouse button to view the selected area immediately.
Right click on the overview map to choose the desired display size for the map.

Note

- Please refer to section "7-3-8 Map Window" when change the size of the map.

7-1-2 BROWSE WINDOW

The slide data can be displayed as thumbnail images.

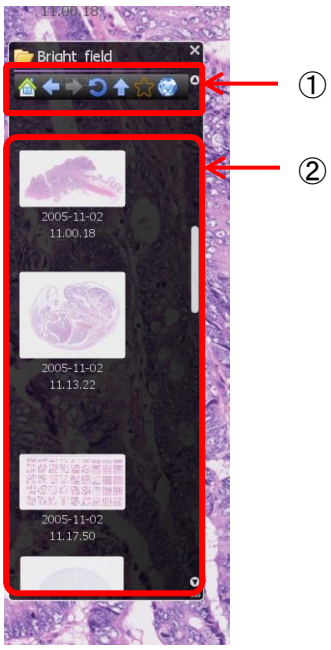


Image 18

① Tool buttons

Tool buttons in browse window.

	Go to Home directory.
	Back to previous directory.
	Forward to next directory.
	Reload images in the folder.
	Go to upper directory.
	Add or delete a folder with favorites.
	Open the address window.

② Slide data

The slide data can be displayed as thumbnail images.

Note

- The slide data in the folder are displayed as thumbnail images. Therefore, images can be checked before open the files.

■ Access to NDP.serve

(1) Clicking “ ” button will be displayed the input window of file address.

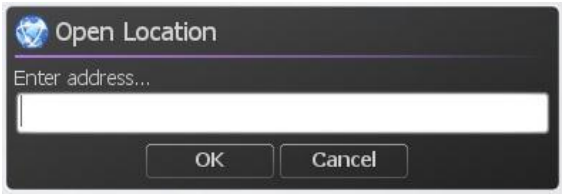


Image 19

(2) Input the address of NDP.serve and click the “OK” button.

(3) Input the username and the password.

Image 20

(4) When “sign In” is successful the folder in a server is displayed on file browser.

Image 21

■ Add a folder to favorites

You can add to favorites the often accessed folder.
Also you can add the folder on a server.

(1) Open the folder you want to add and click “ ”icon.

When you add the folder too favorites, the icon change to “ ”.

(2) The folder you added to favorites will appear on “Home”.

Image 22

■ Show Network on Home Page

You can show the network on home page.

(1) Open the setting window.

(2) Select “Show Network on Home Page” in “Browser”.

Note

- Please refer to section "7-4 Settings” for these details.

7-1-3 MAIN WINDOW

Main window include following menu.

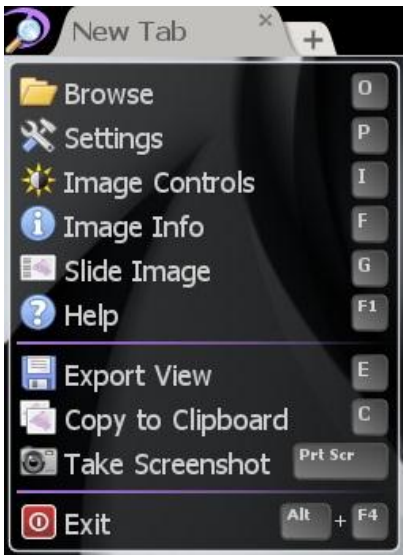


Image 23

Menu	Details	Reference section
Browse	Open the browse window.	7-1-2
Settings	Open the settings window.	7-4
Image Controls	Open the image controls window.	7-4-8
Image Info	Show the current slide information.	7-4-10
Slide Image	Show the glass slide image.	7-3-15
Help	Show help.	7-3-11
Export View	Export the current screen to the image file.	7-3-13
Copy to Clipboard	Copy the current screen to clipboard.	7-3-14
Take Screenshot	Take screenshot with tool windows.	7-3-14
Exit	Exit NDP.view2.	6-2

Clicking the out of window will close the main window.

7-1-4 TOOL WINDOWS

The tool windows can be moved the position, changed the size and closed.
The windows size and position are saved automatically, when software closes

- Move position : Drugging the upper bar of the window can change the window position. (①)
- Change size : Drugging the right-bottom of the window can change the window size. (②)
  (Window without the mark will not be able to change the size.)
- Close window : Clicking "x" button at the upper right will close the window. (③)

Image 24

7-2 OPEN A DIGITAL SLIDE FILES

7-2-1 OPEN THE SLIDE DATA

A slide is opened by the following methods.

- Click the thumbnail image of the slide data.
- Choose the method to open the slide data from open menu which displayed by right-click on the thumbnail image. (Image 25)
- Drag and drop the slide data from a browser window. (Image 26)

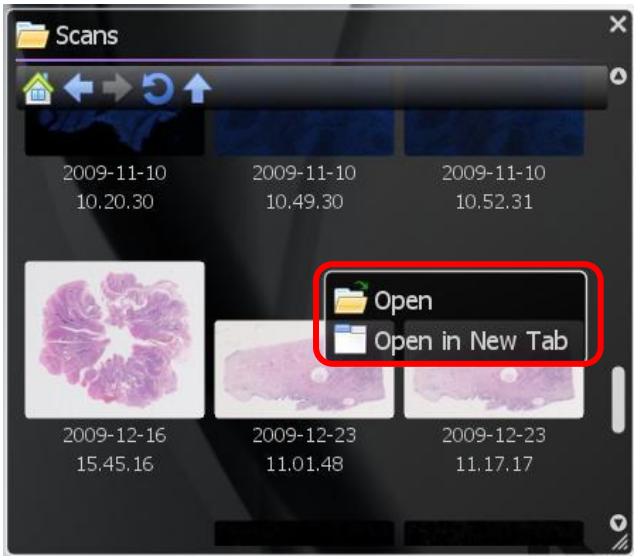


Image 25

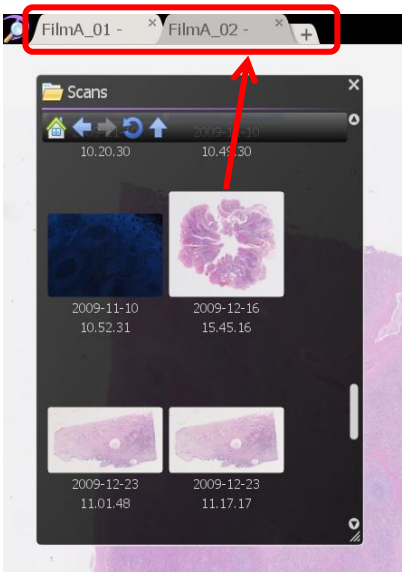


Image 26

A Slide image will be displayed, when open the slide data.

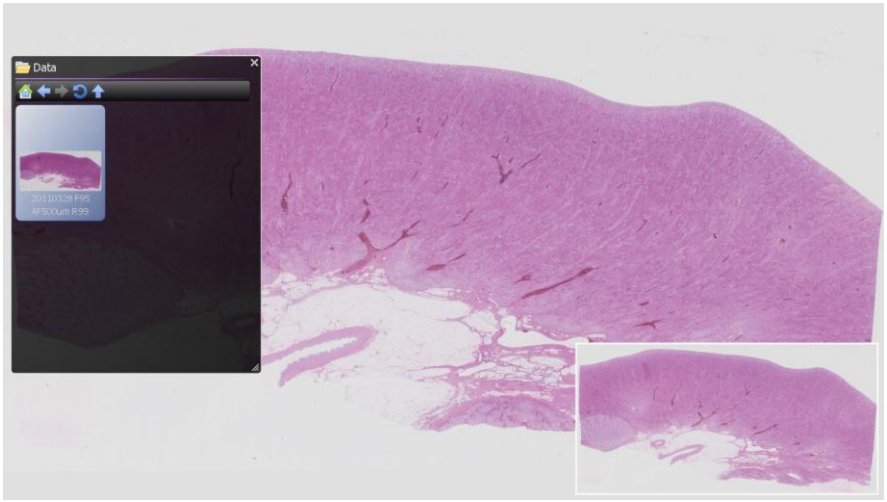


Image 27

7-2-2 CLOSE THE SLIDE DATA

Clicking “x” button at the upper right or tab will close the slide images.

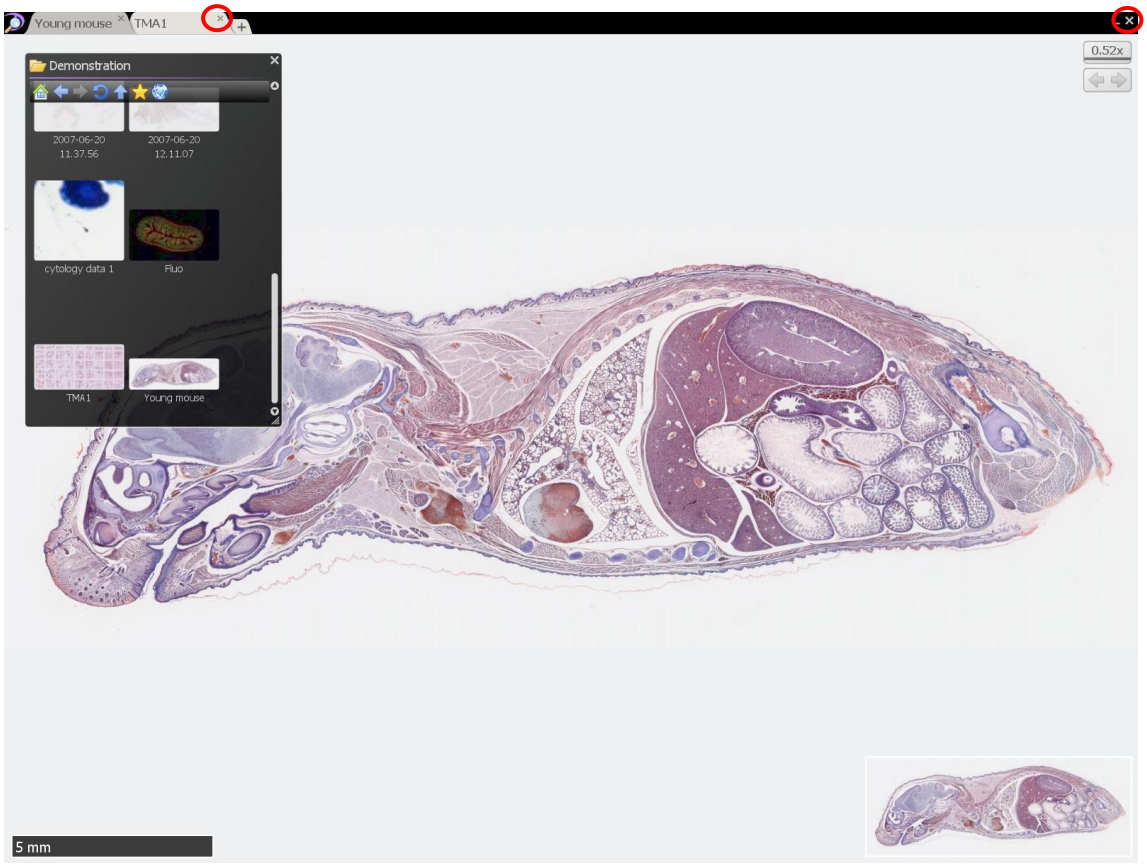


Image 28

7-3 THE DIGITAL SLIDE OPERATION

You can navigate around a digital scan in more then one way by using the keys as well as the mouse.

Note

- Please refer each chapter or “7-5 OPERATION LIST” for these details.

7-3-1 MOVEMENT

You can the slide image in order to display an interested area on a screen.

7-3-1-1 Moving the slide image

Holding down the left mouse button and dragging as depicted below.

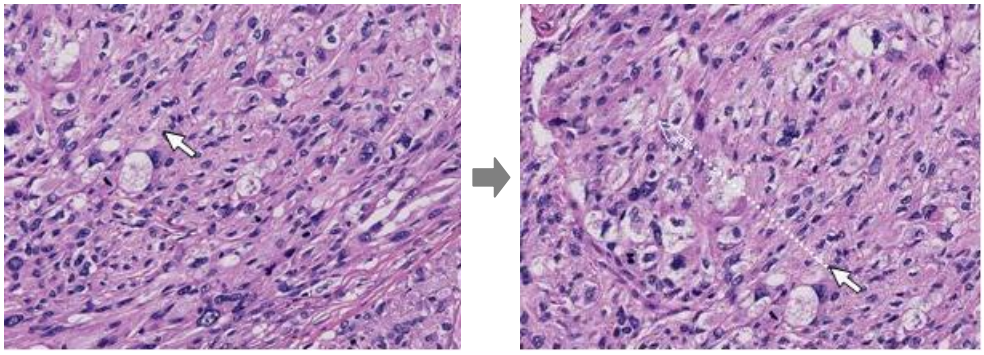


Image 29

“↑, ↓, →, ←” keys will move the specimen a single field in the relevant key direction.

Note

- Moving direction when pressing the arrow keys, it is possible to change by the settings. Also, it is possible to change the moving distance. Please refer to section "7-4-2 Navigation” for this details

7-3-1-2 Jump to a specific area

You can centre and expand a specific area of interest by placing the mouse pointer on the relevant area and left double clicking.

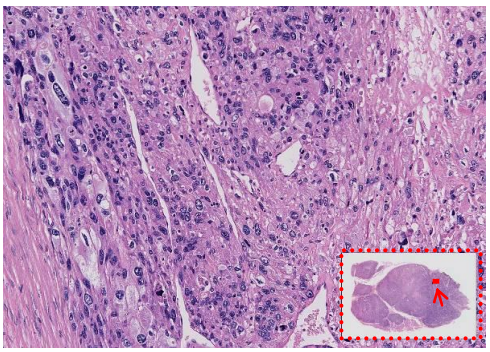


Image 30

7-3-1-3 Joystick operation

You can move a slide by operating joystick widget.

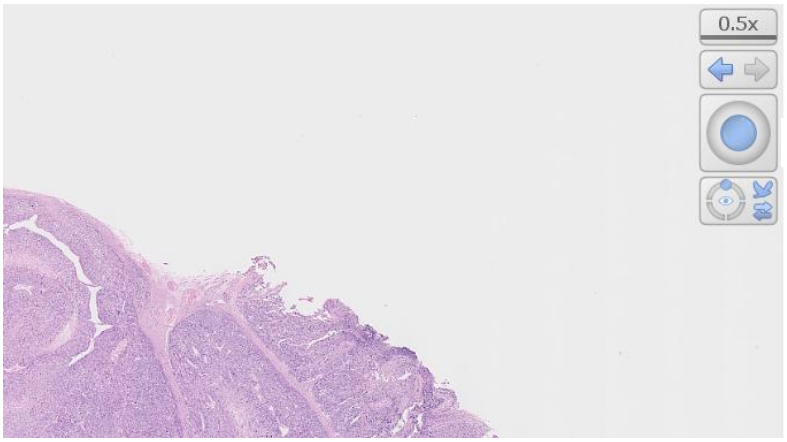


Image 31

7-3-2 EXPANSION AND REDUCTION

Expansion and reduction the slide images.
Expansion is possible to the 8-fold of the magnification maximum which acquired the images.

Note

- The magnification which acquired the images can be checked in the information window (see the 7-4-9 clause).The maximum magnification can be changed by setting. (see the 7-4-2 clause).

Pressing the “space bar“ or “0” key at any time will take you back to the overview image

7-3-2-1 Expansion and reduction by mouse's wheel

Zooming in and out of a scan can be done by using the mouse's wheel.

Note

- Expansion direction by the mouse wheel manipulation can be changed by settings. Please refer to section “7-4-2 Navigation” for this details

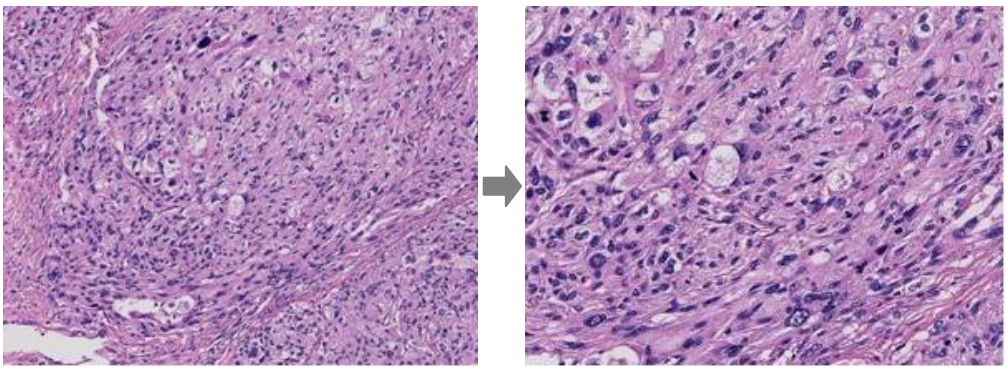


Image 32

7-3-2-2 Expansion and reduction with focus widget

Note

- Lens menu and shortcut key are deferent depend on the scan mode when you taken the image.

The magnification can also be changed with the “Lens Widget”.
You can specify the magnification by choosing arbitrary magnifications from “Lens Menu”.

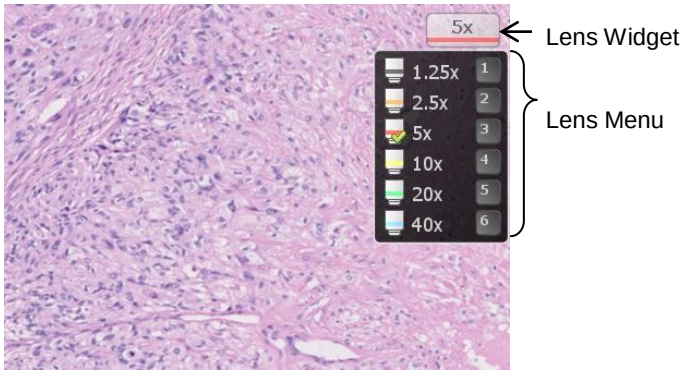


Image 33

Manipulate by keyboard.

Keys	Magnifications	Keys	Magnifications
+	Expansion	−	Reduction
0	Map view	**5**	20x
1	1.25x	**6**	40x
2	2.5x	**7**	80x
3	5x	**8**	160x
4	10x		

7-3-2-3 Expansion of a specific area

Holding down the right mouse button and then dragging the mouse will select an area of interest. As you let go of the right mouse button the image you selected will zoom to fill the screen. (Image 34)

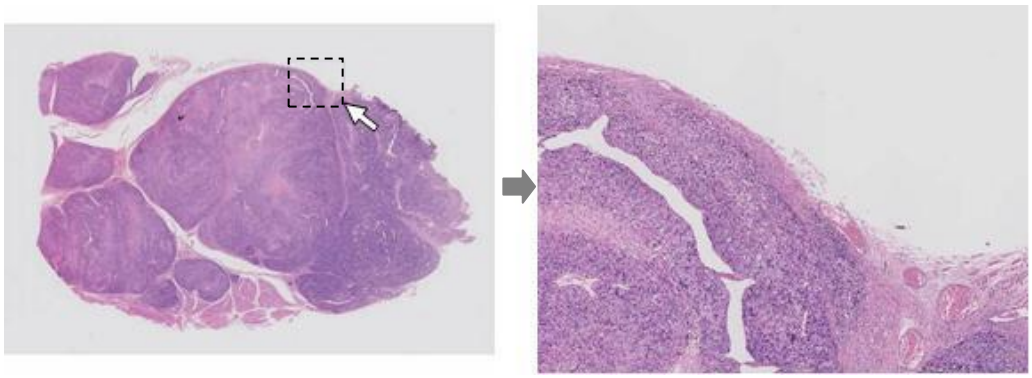


Image 34

7-3-3 CHANGE IN FOCUS PLANE

View the slide images with multi focal plane.

Note

- The operation of focus is limited to the slide data acquired for Z stack when scanning.

7-3-3-1 Moving the focal plane

The focus position can be changed by rolling the mouse wheel while holding down the "Ctrl" key or you can use the "Page up" and “Page down" key.

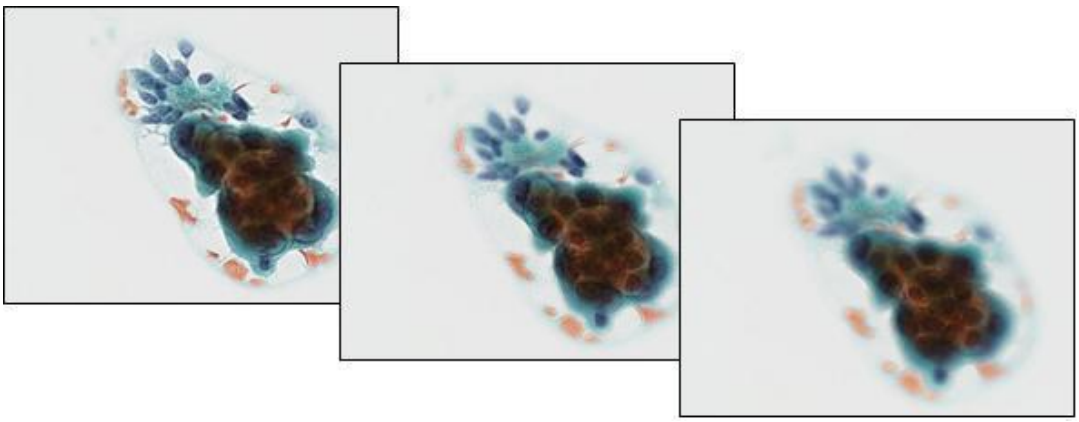


Image 35

7-3-3-2 Moving the focal plane with focus widget

The Current focus position displayed at “Focus Widget”.
The focus plane can also be changed with the “Focus Widget”.

Image 36

7-3-4 INDICATION CHANGE OF THE IMEAGE

Rotate the slides.

Image 37

7-3-4-1 Rotate operation

Use the R key to rotate the image each 90 degrees. You can manually rotate the image by holing the “Ctrl” key ("Option" key for Mac OS)down and pressing the “←” or “→” key.
Or the view widget at the upper right of a screen can operate the rotation.

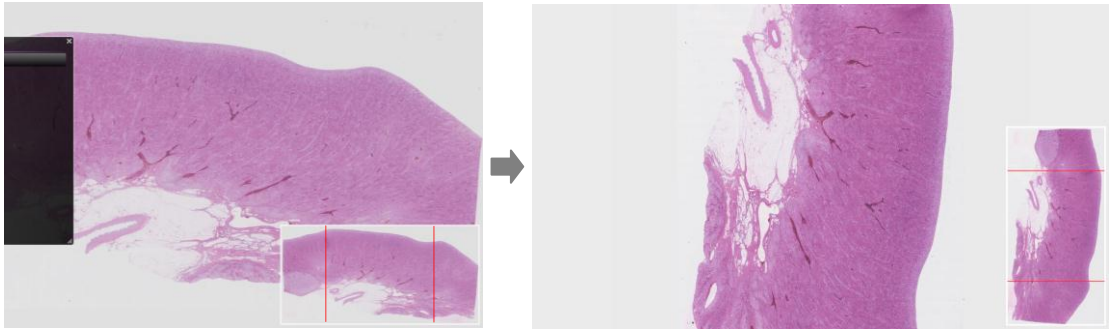


Image 38

Note

- Image rotation direction can be changed by settings.
  Please refer to section "7-4-2 Navigation” for this details

7-3-4-2 Inversion operation

To switch normal image and mirror image press “Alt”+ "M" key. Or the Mirror widget at the upper right of a screen can switch mirror image.
To switch normal image and frip image press “Alt”+ "F" key.

7-3-4-3 Bird’s eye view

Bird's eye view allows you to view images in a way of Bird's Eye view.

Note

- Return to normal view when clicking the map image.

To toggle between normal viewing and the bird's eye view press the “W” key.
To return to normal view mode, press the “W” key again. Or the Bird’s eye view widget at the upper right of a screen can switch the bird's eye view.

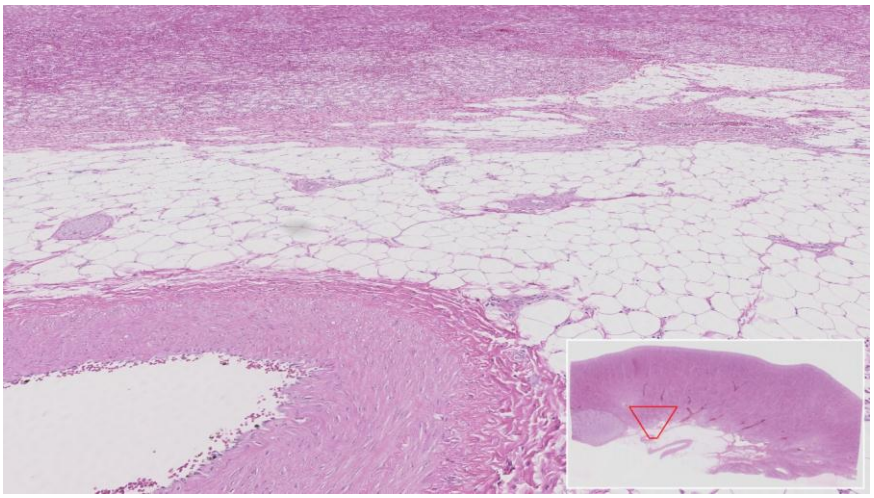


Image 39

7-3-5 HISTORY

Move to back and forward screen.

7-3-5-1 Back

Click a left arrow at history widgets.
When you click a left arrow while pushing “Ctrl” key, it skip move animations.

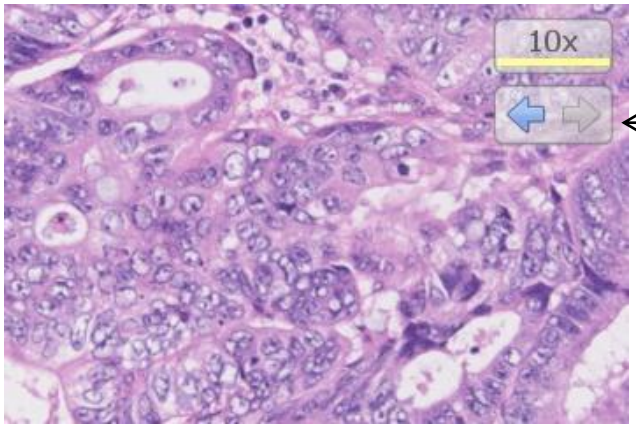


Image 40

Note

- You can operate while the icon is colored.

7-3-5-2 Forward

Click a right arrow at history widgets.
When you click a right arrow while pushing “Ctrl” key, it skip move animations.

Note

- You can operate while the icon is colored.

7-3-6 MULTI WINDOW

Can be displayed the same tab the two or more slide data. You can also synchronize the split screen images.

7-3-6-1 Display multi slide data concurrently

(1) Display the split menu.

Right click on the current tab's title will open a split menu.

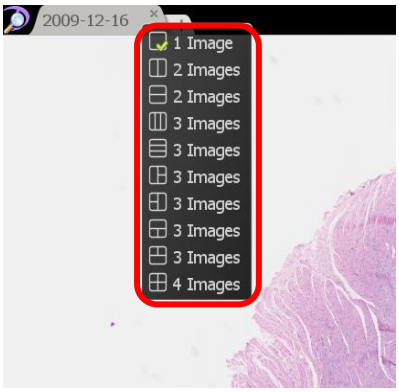


Image 41

(2) Choose the desired layout from the split menu.

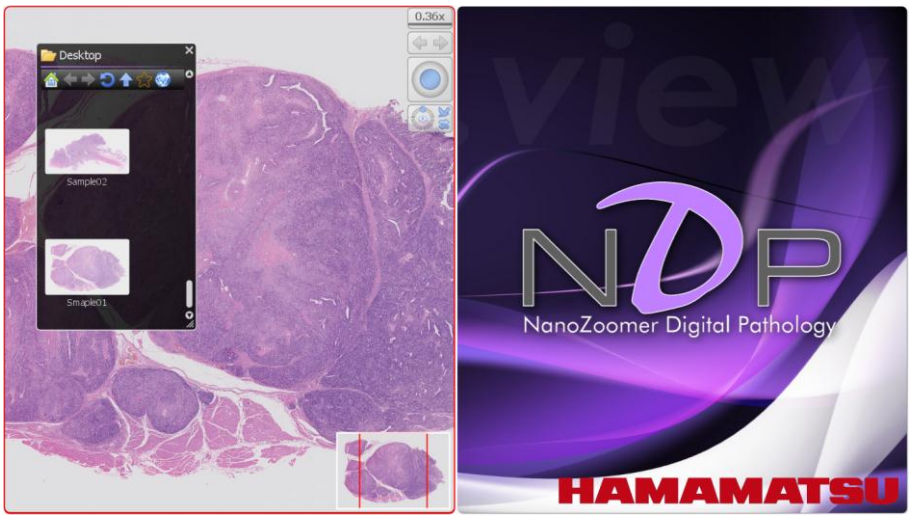


Image 42

shows the screen which selected 2 images (vertical) from the split menu. One image is opened. Drugging and dropping the slide data from the browser window to the right area will open second image.

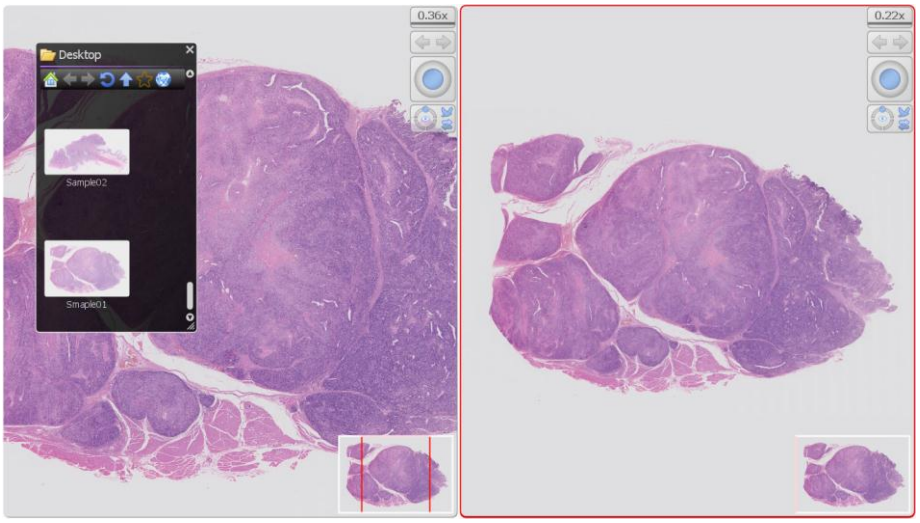


Image 43

The operation will activate at the window which have the red frame.

7-3-6-2 Synchronize

Right click on the active tab title at the top of the screen and choose “synchronize”.
All the images on the current tab will move together.

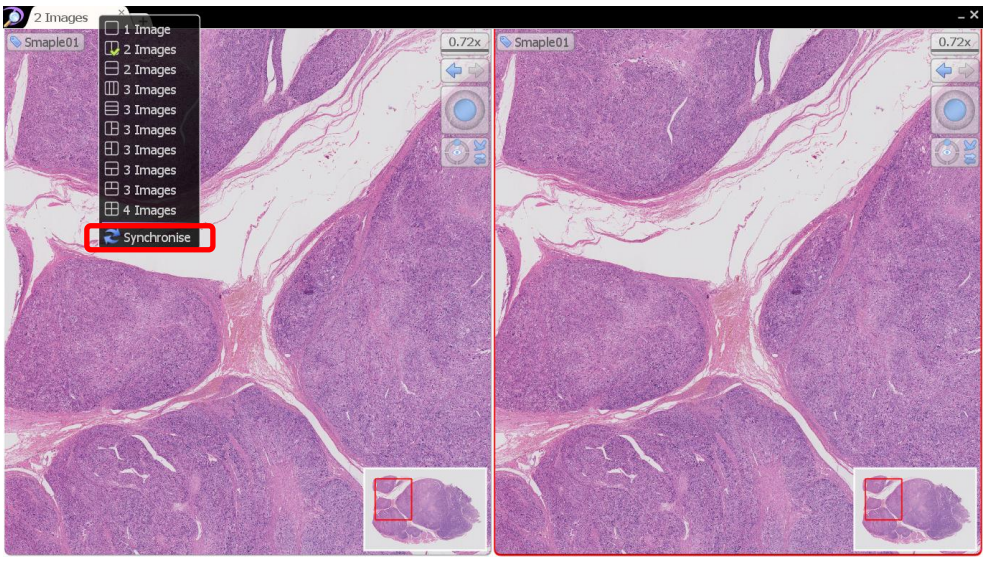


Image 44

7-3-6-3 Desynchronize

To cancel the synchronization right click on the active tab again and choose the “Desynchronize” option.

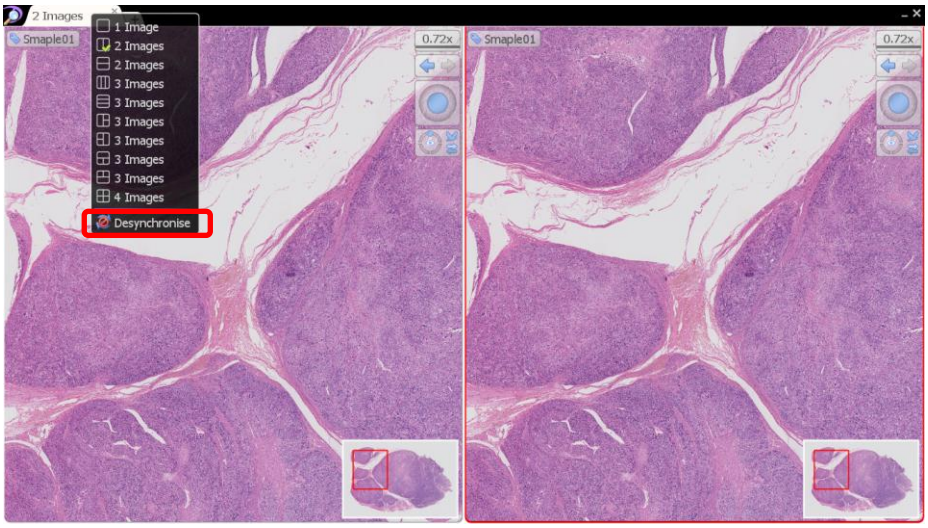


Image 45

7-3-7 ANNOTATIONS

Annotations can be drawn on an image and saved alongside it.

Right clicking on the slide image will open the annotation menu.

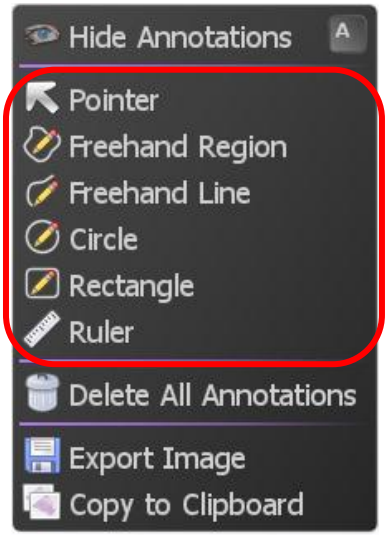


Image 46

(1) To add a new annotation right click on the image and choose the desired annotation type.

(2) Next move the mouse to the desired start position and press the left button, hold the button down and move to the end position then release the button.

(3) When the button is release a dialog box will appear allowing you to give the annotation a title and description, you can also set the desired color, whether or not the title is displayed on the image and whether or not measurements are displayed (if applicable).

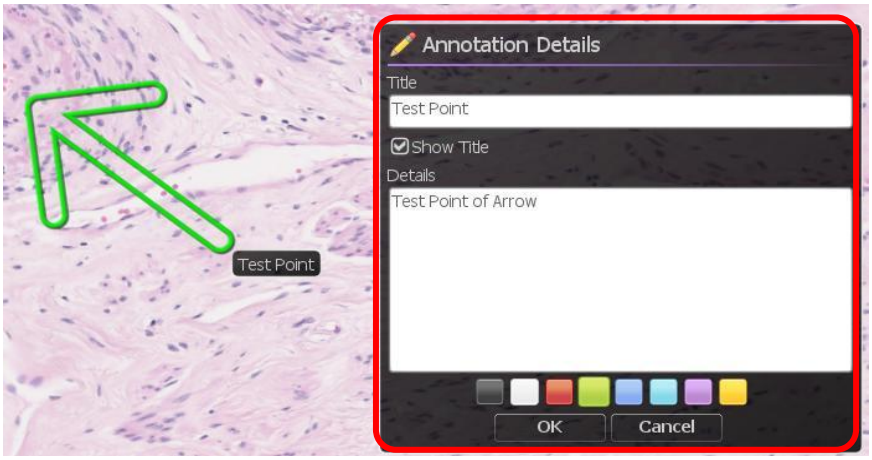


Image 47

(4) When the mouse is over an annotation the annotation is highlighted, highlight the desired annotation and click the right mouse button to bring up the edit menu.

Image 48

Goto	Go to the position that the annotation was created.
Edit	Change the contents of the annotation.
Move	Move the annotation to desired point
Cut	Cut the annotation and copy it to clipboard
Copy	Copy the annotation to clipboard
Delete	Delete the annotation.

(5) To paste copied annotation anywhere on the slide image choose the “Paste Annotation” option from the annotation menu or “V” key.

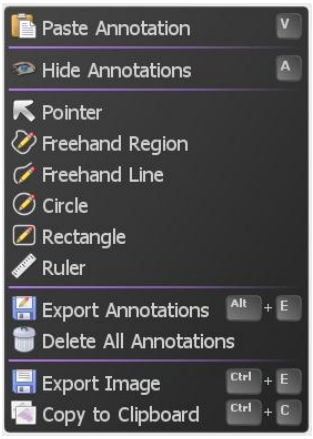


Image 49

(6) To temporarily show or hide all annotation, choose the appropriate option from the annotation menu or press the “A” key.

(7) To permanently delete all annotation in one go choose the “Delete All Annotations” option from the image context menu.

(8) To export all annotation, choose the appropriate option from the annotation menu or press the “Alt + E” key.

(9) Select file format and save all annotation. You can select the field with csv format.

Image 50

7-3-8 MAP WINDOW

Left click on the map to jump directly to the selected position at the current magnification, hold the left button down and move to quickly pan around the image.
Drag a box using the right mouse button to view the selected area immediately.

7-3-8-1 Change the map image size

(1) Display the map menu.
Right clicking on the on the overview map will open the map menu.

Image 51

(2) Select the display size of the map image from the menu (Small, Medium, and Large)

7-3-8-2 Show Track Map

(1) Display the map menu.
(2) Selecting “Enable Tracking” will display the track map and start the tracking.

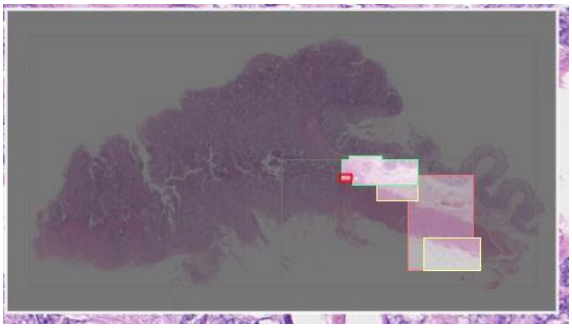


Image 52

(3) Selecting “Show Track Map”, “Hide Track Map” will switch the track map display.
(4) Selecting “Reset Track Map” will reset the track map.

7-3-8-3 Show or hide the overview map

Right click on the on the overview map to choose the hide map.
Show or hide the overview map using the 'M' key.

7-3-9 SCALE BAR

A scale bar can be shown to indicate the physical size of the current field of view image

(1) Show or hide the scale bar using the “B” key.

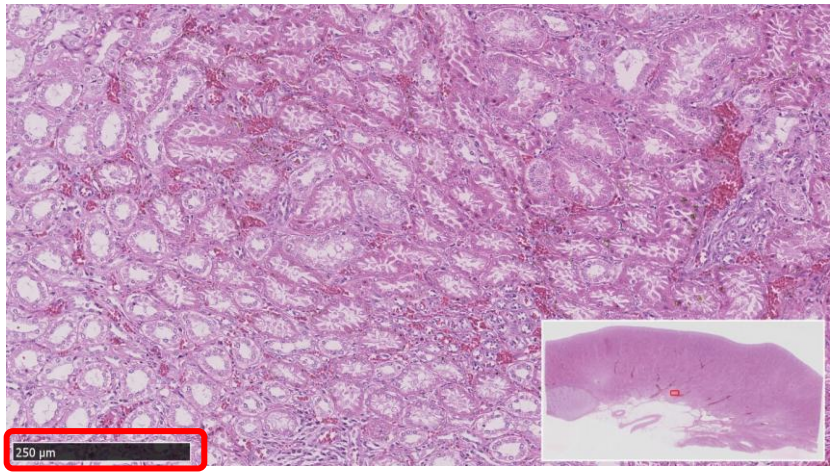


Image 53

When the image magnification is changed, the length and the value of a scale bar will be changed automatically.

Image 54

(2) To hide the scale, press the "B" key on your keyboard again.

Note

- The scale bar type can be changed by settings.
  Please refer to section “7-4-3 SCALE BAR Setting” for this details

7-3-10 GLASS SLIDE IMAGE

Displays the overview image of the entire slide that was scanned.

(1) Open the slide data.

(2) Open the Slide Image window.
Choosing “Slide Image” from the main menu that placed at upper left or the "G" key of a keyboard will display the slide Image.

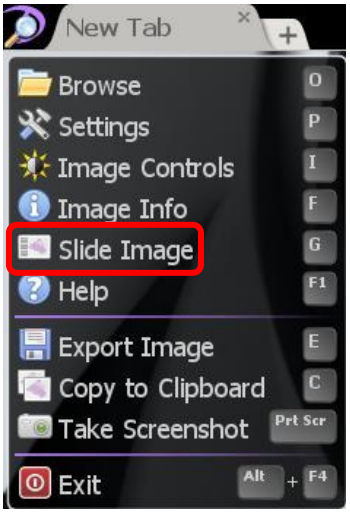


Image 55

(3) The entire image of a glass slide will be displayed.

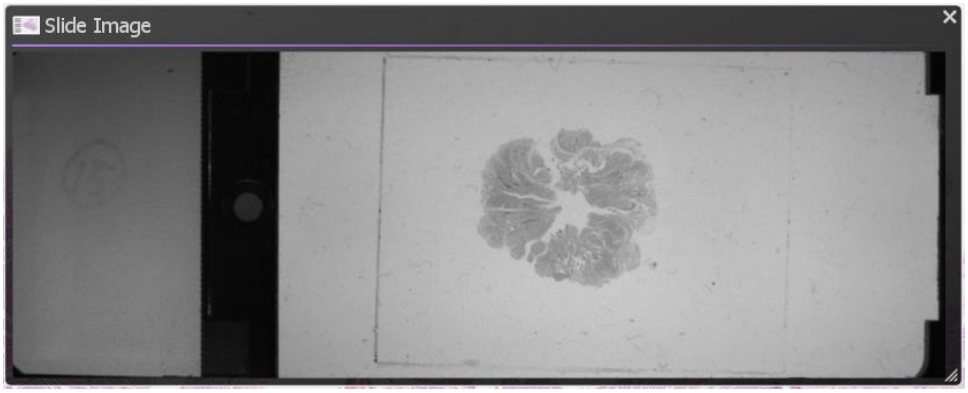


Image 56

7-3-11 EXPORT VIEW

Export the current screen to the image file.

(1) Open the Export View Window.

Choosing “Export View” from the main menu that placed at upper left or the "E" key of a keyboard will display the Export Image Window.

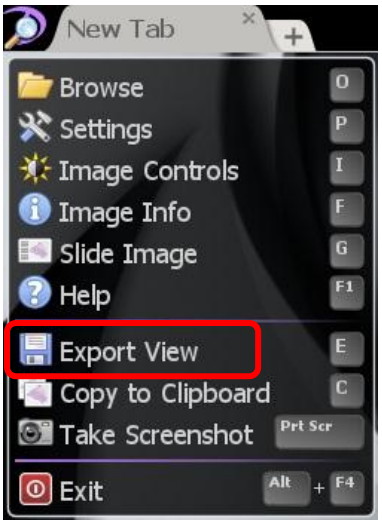


Image 57

(2) Set file name.

Set the file format and file name and save the image file to selected folder.

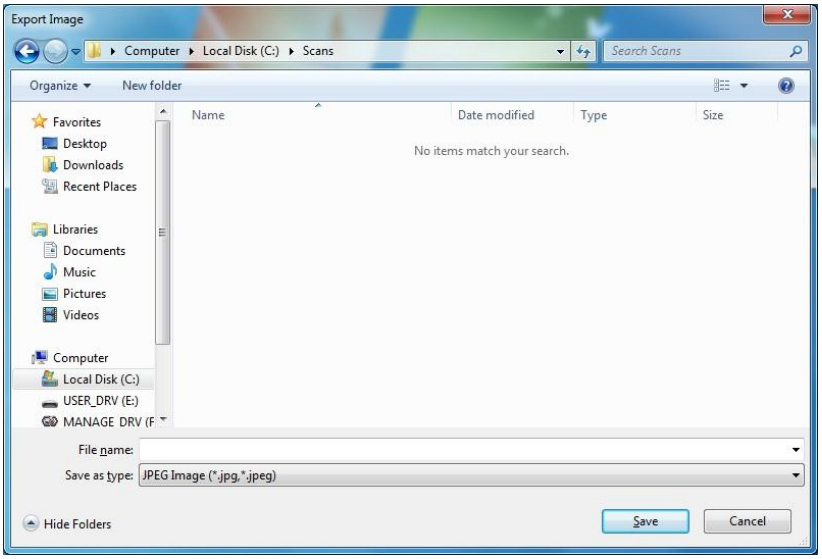


Image 58

7-3-12 EXPORT IMAGE

Export the current screen to the image file.

(1) Open the Export Image Window.

Choosing “Export Image” from the annotation menu that opened by right-click or the "Ctrl” + “E" key of a keyboard will display the Export Image Window.

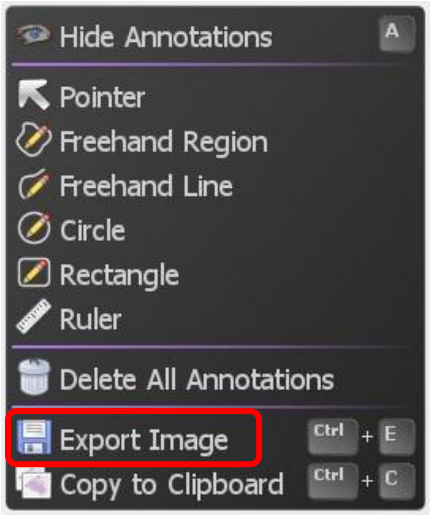


Image 59

(2) Select resolution.

Set the file format and file name and save the image file to selected folder.

Image 60

(3) Set file name.

Set the file format and file name and save the image file to selected folder.

7-3-13 COPY IMAGES

Copy the current screen to clipboard.

Choosing “Copy to Clipboard” from the main menu that placed at upper left or a notation menu that opened by right-click or the "C" key or “Ctrl + C” key of a keyboard will copy the current screen to clipboard.

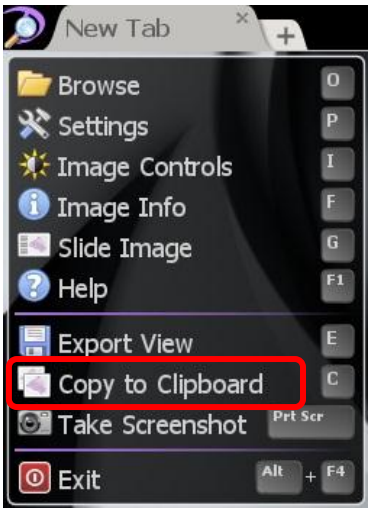


Image 61

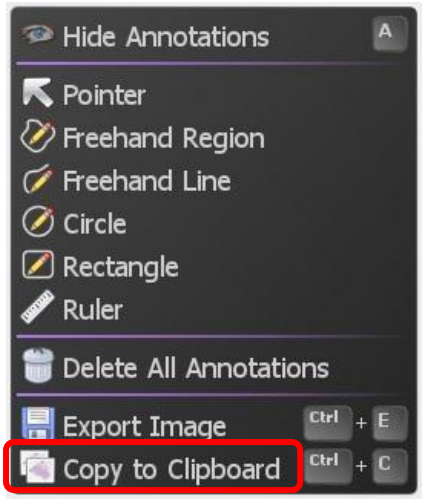


Image 62

7-3-14 TAKE SCREENSHOT

Take screenshot with tool windows.

Choosing “Take Screenshot” from the main menu that placed at upper left or the "Print Screen" key ("Command"+"Shift"+"3" with Mac OS)of a keyboard will take the screenshot to clipboard.

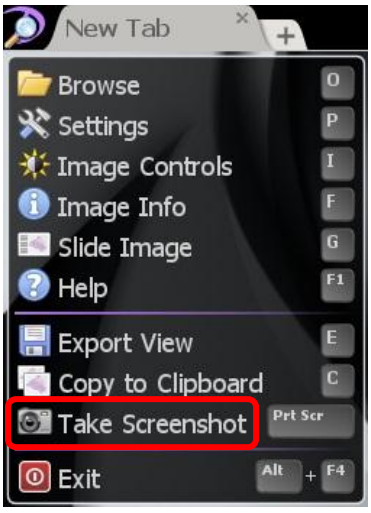


Image 63

7-3-15 HELP

Help menu shows the directions for NDP.view2.

Choosing “Help” from the main menu that placed at upper left or the "F1" key of a keyboard will open the help window.

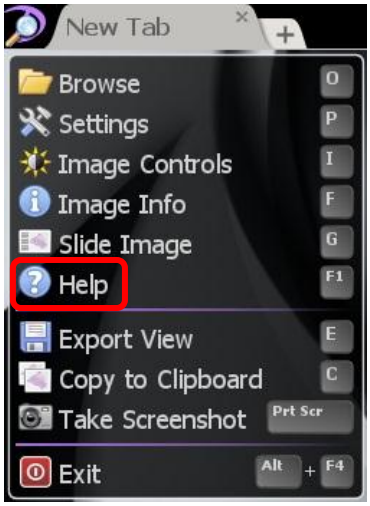


Image 64

Image 65

7-4 SETTINGS

7-4-1 LANGUAGE SETTING

The language can be changed by selecting the settings.

(1) Open the setting window.

Choosing “Settings” from the main menu that placed at upper left or the "P" key of a keyboard will display the setting window.

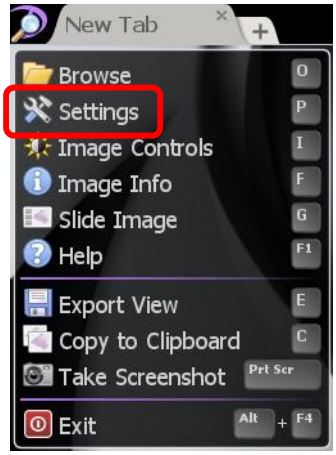


Image 66

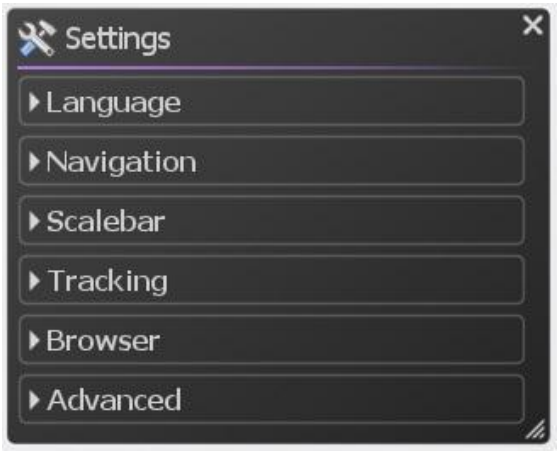


Image 67

(2) Clicking “Language” and choosing the language displayed.

Image 68

(3) Restart NDP.view2

Note

- In order to change language, it is necessary to restart NDP.view2.

7-4-2 NAVIGATION

Navigation can change the settings related to slide actions.

(1) Open the setting window.

(2) Click “Navigation” and change setting any actions.

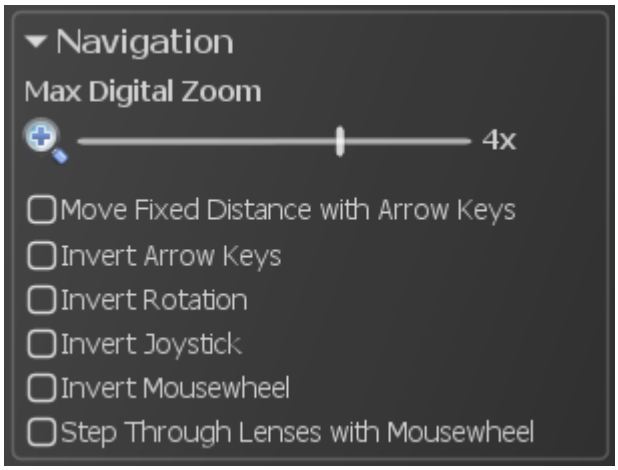


Image 69

7-4-2-1 MAXIMUM MAGNIFICATION SETTING

The maximum magnification beyond the resolution of the image (digital zooming) can be changed by selecting the settings

Sliding scale bar with mouse can change the maximum magnification.
None : The resolution of the image, 2x, 4x, 8x : 2x, 4x, 8x magnification of the image.

7-4-2-2 MOVE FIXED DISTANCE WITH ARROWS KEY

Checking on “Move Fixed Distance with Arrow Keys” can be moving slide image by fixed distance.

(1) Check on “Move Fixed Distance with Arrows Key” from “Navigation” menu.

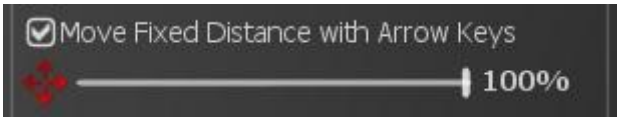


Image 70

(2) Slide scale bar with mouse to set fixed distance which moves by enter any “arrows” key. (window size=100%)

7-4-2-3 CHANGE SCROLL DIRECTION

Checking “Invert Arrow keys” can be changing scroll direction which moves by any “arrows” key.

7-4-2-4 CHANGE ROTATION DIRECTION

Checking “Invert Rotation” can be changing rotation direction which rotates by the “R” key or ”Ctrl” key ("Option" key with Mac OS) and any “arrows” key.

7-4-2-5 CHANGE MOUSE WHEEL DIRECTION

Checking “Invert Mousewheel” can be changing the expand directions which expand by the mouse wheel.

7-4-2-6 STEP THROUGH LENSES WITH MOUTH WHEEL

Checking “Step Through Lenses with Mouthwheel” can be changing the expand type by the mouse wheel to step through.

7-4-3 SCALE BAR SETTING

The scale bar can be displayed and changed by selecting the settings.

(1) Open the setting window.

(2) Click “Scalebar” and change setting any actions.

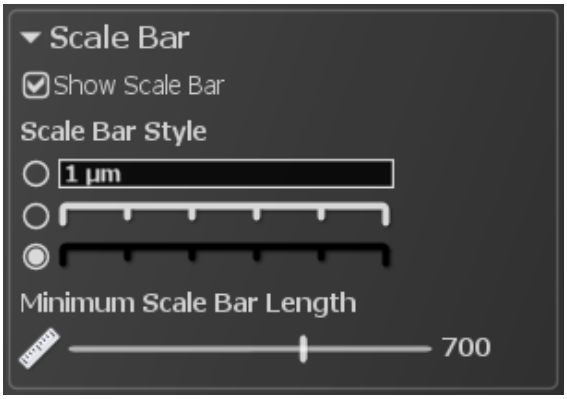


Image 71

(3) Checking “Show Scalebar” can be displayed the scale bar.

(4) Choose scale bar type from “Scalebar style”.

(5) Choose minimum scale bar Length.

7-4-4 TRACKING SETTING

The tracking can be set by selecting the settings.

(1) Open the setting window.

(2) Click “Tracking” and change setting any actions.

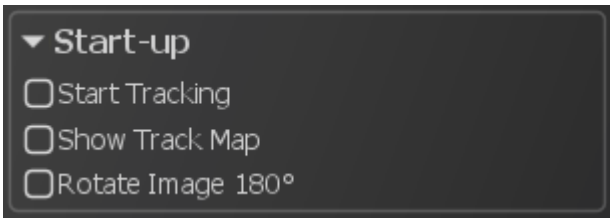


Image 72

(3) Checking “Start Tracking at Start-up” can be starting the tracking at start-up NDP.view2.

(4) Checking “Show Track Map at Start-up” can be showing the track map at start-up NDP.view2.

(5) Checking “Rotate Image 180° at Start-up” can be rotating image 180° at start-up NDP.view2.

7-4-5 BROWSER SETTING

The browser can be set by selecting the settings.

(1) Open the setting window.

(2) Click “Browser” and change setting any actions.

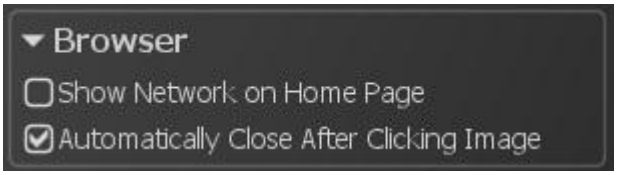


Image 73

(3) Checking “Show Network on Home Page” can be showing the network PC on Home.

Note

- Show Network may take a while depending on the PC condition.

(4) Checking “Automatically Close After Clicking Image” can be close the browser after clicking slide image.

7-4-6 WIDGET SETTING

Widgets can be set by selecting the settings.

(1) Open the setting window.

(2) Click “Widgets” and change setting any actions.

Image 74

(3) Checking “Show Widgets” can be showing all widgets.

(4) Checking “Magnification” can be showing “Lens widget”.

(5) Checking “History” can be showing “History widget”.

(6) Checking “Focus” can be showing “Focus widget”.

(7) Checking “Joystick” can be showing “Joystick widget”.

(8) Checking “View” can be showing “View widget”.

(9) Checking “Always Show Title Tag” can always be showing title tag.

Note

- Each widget will display at top-right on the screen.

7-4-7 ADVANCED SETTING

The advanced setting can be set by selecting the settings.

(1) Open the setting window.

(2) Click “Advanced” and change setting any actions.

Image 75

7-4-8 VIEWING MODE SETTING

The view mode setting can set the full screen mode and the window mode.
The window mode will be used the multi display and the remote desktop access

Switch to window mode by the following procedure.

(1) Uncheck “Use Exclusive Fullscreen Mode”.

(2) Restart NDP.view2.

Note

- Automatically switch to the window mode when you access by the remote desktop.

Note

- The window size could not change in the window mode.

Note

- The window mode may have a motion slower than the full screen mode.

Note

- Only Windows can operate the view mode setting.

7-4-9 MULTI DISPLAY SETTING

NDP.view2 can use the multi display.

(1) Switch to the window mode.

Note

- Please refer "7-4-8 VIEWING MODE SETTING" to switch to the window mode.

(2) All display show NDP.view2 at the first start-up. Each screen can be operated.

(3) Choosing “Use Display 2(display No.)” can be open the closed window.

Note

- Only Windows can operate the multi display function.

7-4-10 IMAGE CONTROLS

The slide image can customize the appearance of the image by changing the image controls.

(1) Open the Image Controls window

Choosing “Image Controls” from the main menu that placed at upper left or the "I" key of a keyboard will display the Image Control window.

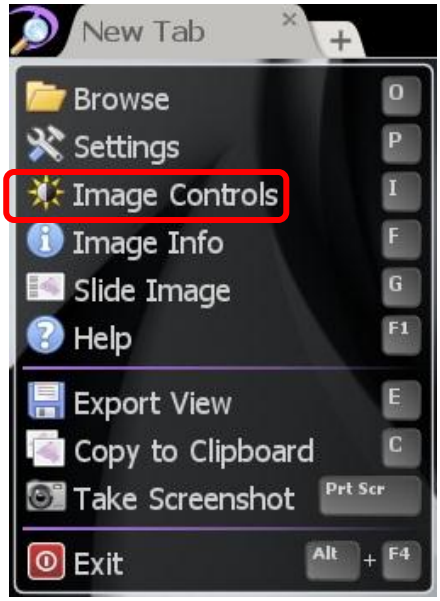


Image 76

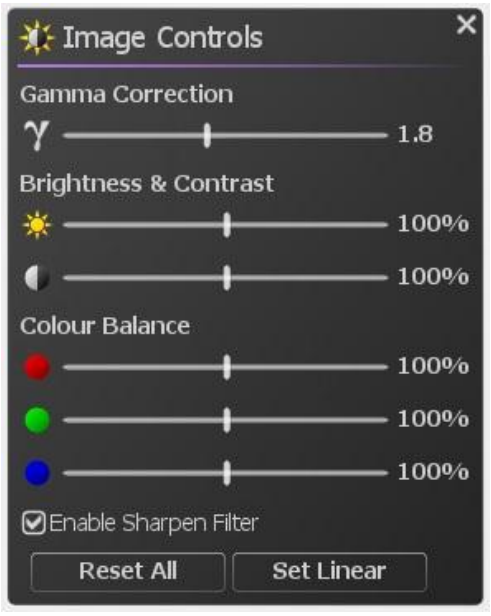


Image 77

(2) Settings

Customize the appearance of the image by changing the brightness, contrast, gamma and color balance values. Individual values can be reset to their default value by clicking on their associated icon.

Gamma Correction		Change the gamma correction.
Brightness & Contrast		Change the brightness.
		Change the contrast.
Color Balance		Change the color Balance.
Sharpen Filter	Apply sharpen filter	
Reset All	Reset the image settings to default.	
Set Linear	Set the image setting to linear mode.	

In case of ndpis format image, you can select the viewing image.

Checking each check box will display each images.
When you check two or more, the images will be displayed as merged image.

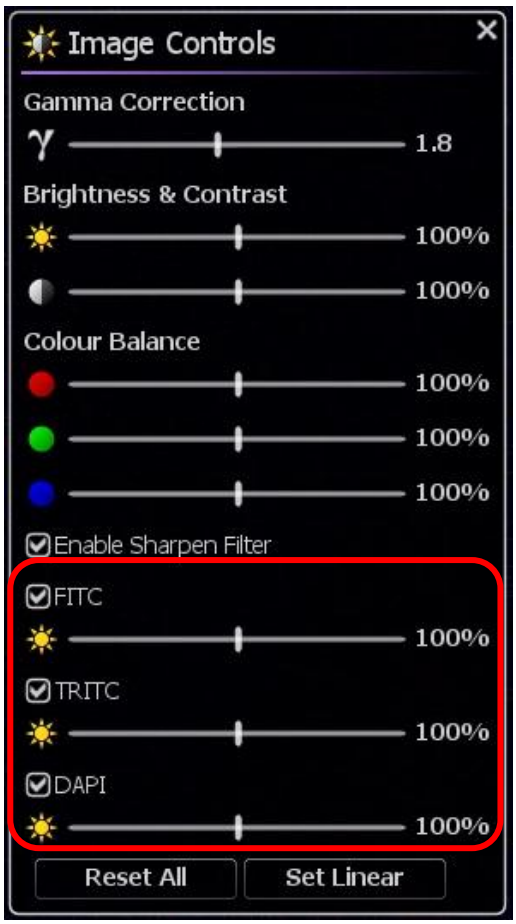


Image 78

- Clicking "x" button at the upper right will close the window.
- Drugging the upper bar of the window can change the window position.
- The windows position are saved automatically, when software closes.

7-4-11 IMAGE INFORMATION

Image information shows the details information of the current slide.

(1) Open the slide data.

(2) Open the Image Information window.

Choosing “Image Info” from the main menu that placed at upper left or the "F" key of a keyboard will display the Image information.

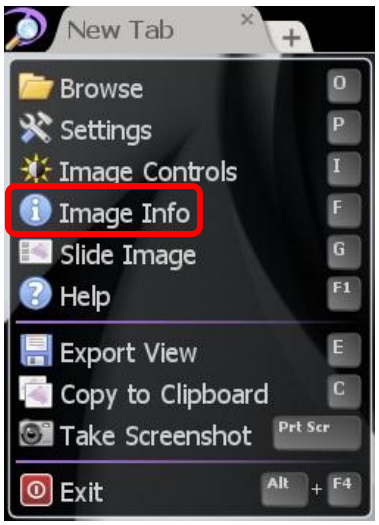


Image 79

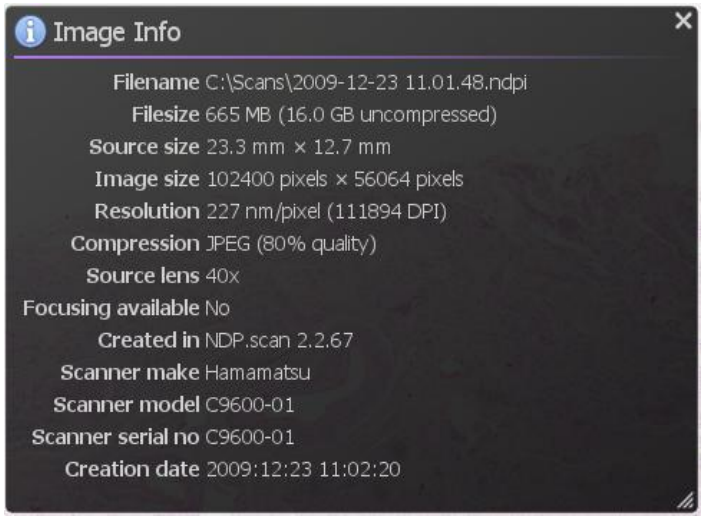


Image 80

- Clicking "x" button at the upper right will close the window
- Drugging the right-bottom of the window can change the window size.
- Drugging the upper bar of the window can change the window position.
- The windows size and position are saved automatically, when software closes

7-5 OPERATION LIST

7-5-1 OPERATION LIST FOR WINDOWS

	Mouse	Keyboard
Help	Main menu > Help	[F1]
Open Slide	Main menu > Browse	[O]
Exit Slide	Tab area > X	—
Exit Software	Upper-right of the screen > X	[Alt] + [F4] [ESC]
	Upper-right of the tab > X	
	Main menu > Exit	
Tool widget	—	[T]
Move Slide	Left-Drug	[←]、[→]、[↑]、[↓]
	Left-Click (in Map image)	
	Joy stick widget	
Magnification	Mouse wheel	[+],[−], [1]～[8] ..... [1] =1.25x [5] =20x [2] =2.5x [6] =40x [3] =5x [7] =80x [4] =10x [8] =160x
	Right-Drug (allow in Map image)	
	Double-Click	
	Lens widget	
Focus Plane	[Ctrl] + Mouse wheel	[Page Up],[Page Down]
Rotation	View widget	[R] each 90 degree [Ctrl]+ [←]、[→]
Mirror Image	Mirror widget	[Alt] + [M]
Flip Image		[Alt] + [F]
Reset Image	—	[Space] , [0]
Multi Window	Right-Click in the tab area	—
Synchronize	Split menu > Synchronize	—
Un-synchronize	Split menu > Unsynchronize	—
Close window	—	[Esc]
Show/Hide Annotation	—	[A]
Add Annotation	Rite-Click Menu > Select Annotation type	—
Go to Annotation	Right-Click on the Annotation > Annotation menu > Go To	—
Edit Annotation	Right-Click on the Annotation > Annotation menu > Edit	—
Move Annotation	Right-Click on the Annotation > Annotation menu > Move	—

	Mouse	Keyboard
Copy Annotation	Right-Click on the Annotation > Annotation menu > Copy	—
Cut Annotation	Right-Click on the Annotation > Annotation menu > Cut	—
Delete Annotation	Right-Click on the Annotation > Annotation menu > Delete	—
Paste Annotation	Annotation menu > Paste	[V]
Export Annotations	Annotation menu > Export	[Alt] + [E]
Enable Tracking	Map menu > Enable Tracking	—
Show Track Map	Map menu > Show Track Map	—
Reset Track Map	Map menu > Reset Track Map	—
Bird's Eye View	—	[W]
Map Image	—	[M]
Scale Bar	—	[B]
Glass Slide image	Main menu > Slide Image	[G]
Export view	Main menu > Export Image	[E]
Export Image	Rite-Click Menu > Export Image	[Ctrl] + [E]
Copy Image	Main menu > Copy to Clipboard	[C] [Ctrl] + [C]
	Rite-Click Menu > Copy to Clipboard	
Screenshot	Main menu > Take Screenshot	[Print Screen]
Settings	Main menu > Settings	[P]
Image Control	Main menu > Image Controls	[I]
Image Information	Main menu > Image Info	[F]

7-5-2 OPERATION LIST FOR WINDOWS

	Mouse	Keyboard
Help	Main menu > Help	[F1]
Open Slide	Main menu > Browse	[O]
Exit Slide	Tab area > X	—
Exit Software	Upper-right of the screen > X	[Command] + [Q] [ESC]
	Upper-right of the tab > X	
	Main menu > Exit	
Tool widget	—	[T]
Move Slide	Left-Drug	[←]、[→]、[↑]、[↓]
	Left-Click (in Map image)	
	Joy stick widget	
Magnification	Mouse wheel	[+],[−], [1]～[8] ・・・・・・・・・・・・・・・・・ [1] =1.25x [5] =20x [2] =2.5x [6] =40x [3] =5x [7] =80x [4] =10x [8] =160x
	Right-Drug (allow in Map image)	
	Double-Click	
	Lens widget	
Focus Plane	[Ctrl] + Mouse wheel	[Page Up],[Page Down]
Rotation	View widget	[R] each 90 degree [Option] + [←]、[→]
Mirror Image	Mirror widget	[Option] + [M]
Flip Image		[Option] + [F]
Reset Image	—	[Space] , [0]
Multi Window	Right-Click in the tab area	—
Synchronize	Split menu > Synchronize	—
Un-synchronize	Split menu > Unsynchronize	—
Close window	—	[Esc]
Show/Hide Annotation	—	[A]
Add Annotation	Rite-Click Menu > Select Annotation type	—
Go to Annotation	Right-Click on the Annotation > Annotation menu > Go To	—
Edit Annotation	Right-Click on the Annotation > Annotation menu > Edit	—
Move Annotation	Right-Click on the Annotation > Annotation menu > Move	—
Copy Annotation	Right-Click on the Annotation > Annotation menu > Copy	—
Cut Annotation	Right-Click on the Annotation > Annotation menu > Cut	—

	Mouse	Keyboard
Delete Annotation	Right-Click on the Annotation > Annotation menu > Delete	—
Paste Annotation	Annotation menu > Paste	[V]
Export Annotations	Annotation menu > Export	[Option] + [E]
Enable Tracking	Map menu > Enable Tracking	—
Show Track Map	Map menu > Show Track Map	—
Reset Track Map	Map menu > Reset Track Map	—
Bird's Eye View	—	[W]
Map Image	—	[M]
Scale Bar	—	[B]
Glass Slide image	Main menu > Slide Image	[G]
Export view	Main menu > Export Image	[E]
Export Image	Rite-Click Menu > Export Image	[Ctrl] + [E]
Copy Image	Main menu > Copy to Clipboard	[C] [Ctrl] + [C]
	Rite-Click Menu > Copy to Clipboard	
Screenshot	Main menu > Take Screenshot	[Command]+[Shift]+[3]
Settings	Main menu > Settings	[P]
Image Control	Main menu > Image Controls	[I]
Image Information	Main menu > Image Info	[F]

*1: Lens widget and Focus widget.
*2: Lens menu and shortcut key are deferent depend on the scan mode when you taken the image.

Note

- Please refer each chapter for details.

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