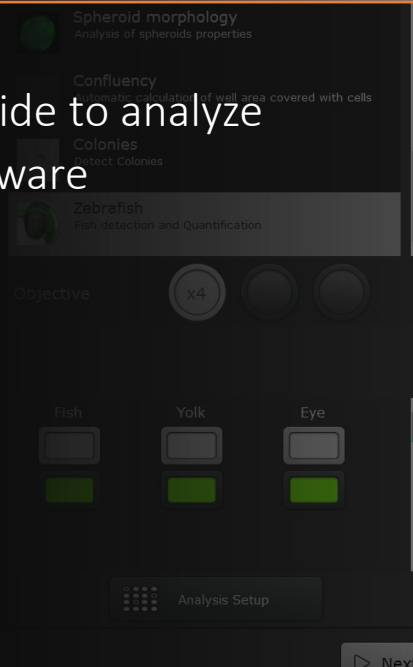


Loading your own images into Athena Zebrafish software

IDEA Bio-Medical Seeing Better

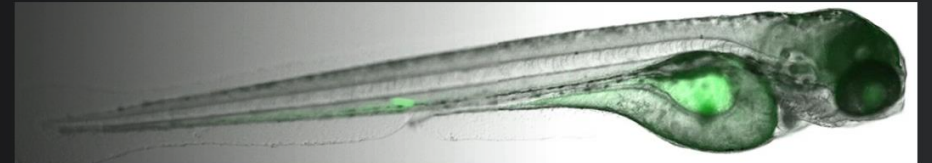
Please begin, first, with our quick-start guide to analyze the sample images included with the software download.

Access the quick-start guide [HERE](#).



Zebrafish Analysis

Automatic quantification of Zebrafish embryo for studying of morphological features, fluorescence measurements and internal organelle properties



Preparing Your Images for Analysis in Athena

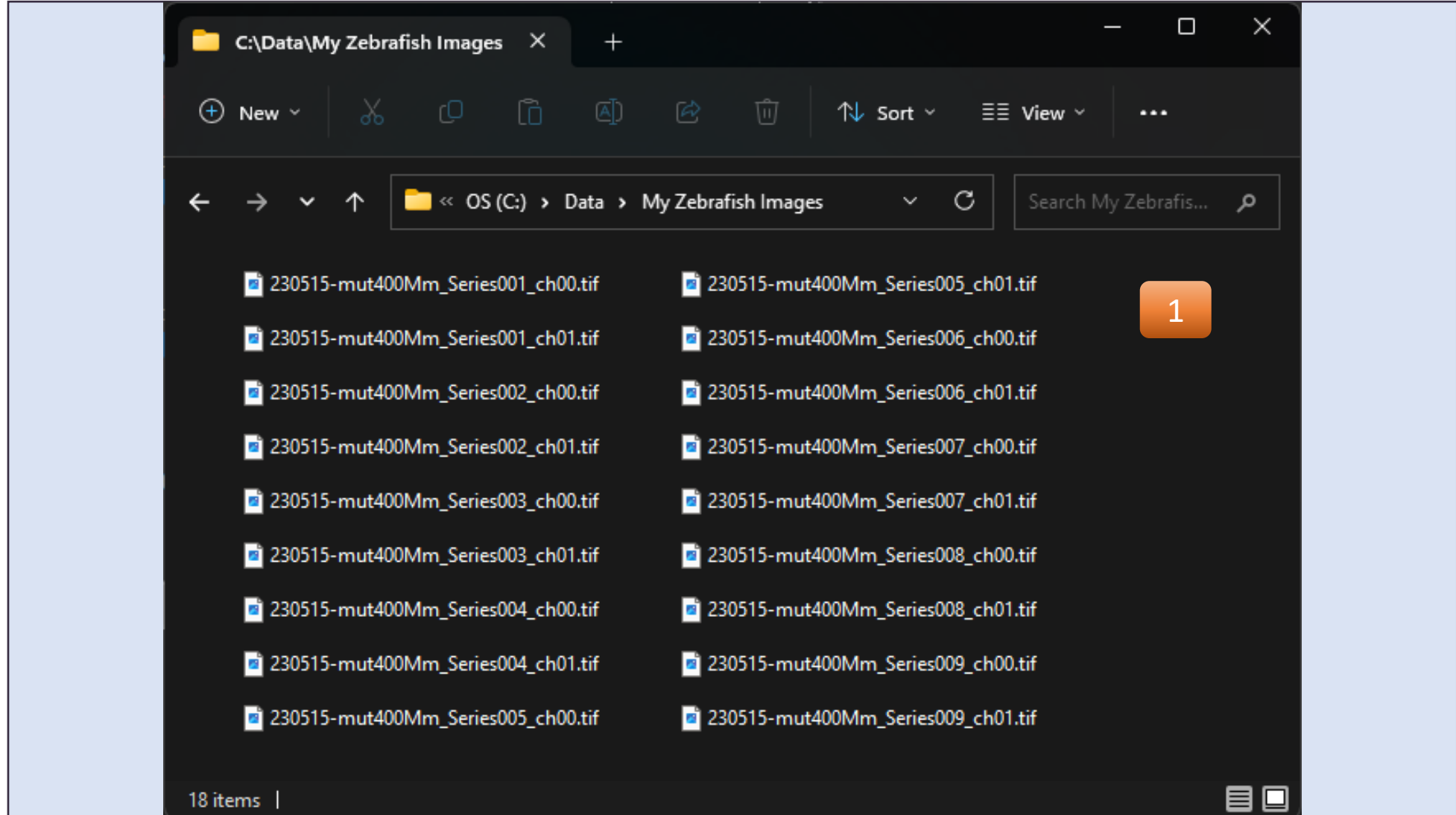
Two-channel tiff images example

1. In this example, standard .tif images are saved into a folder on the local hard drive; the path is displayed in the windows explorer.

This dataset contains two color channels, each indicated in the filename with recognizable text:
Brightfield = *ch01*
Green fluor. = *ch00*

Other text in the filename, as shown, will not affect loading the images into Athena.

If images contain well-identifiers, such as A1, B2, C3, etc., then the images will be assigned to those wells.



Open Athena

Shortcut from desktop

2. Open Athena using the shortcut on your desktop.

Sample images that can be analyzed for free are also accessible on the desktop from the 'Samplefish' folder shortcut.



Opening Athena

Selecting user & updating license

3. Select the default 'Admin' user, or other user profile, from the menu.

If you need to insert a license code or coupon code, please see the quick-start guide by clicking [HERE](#).



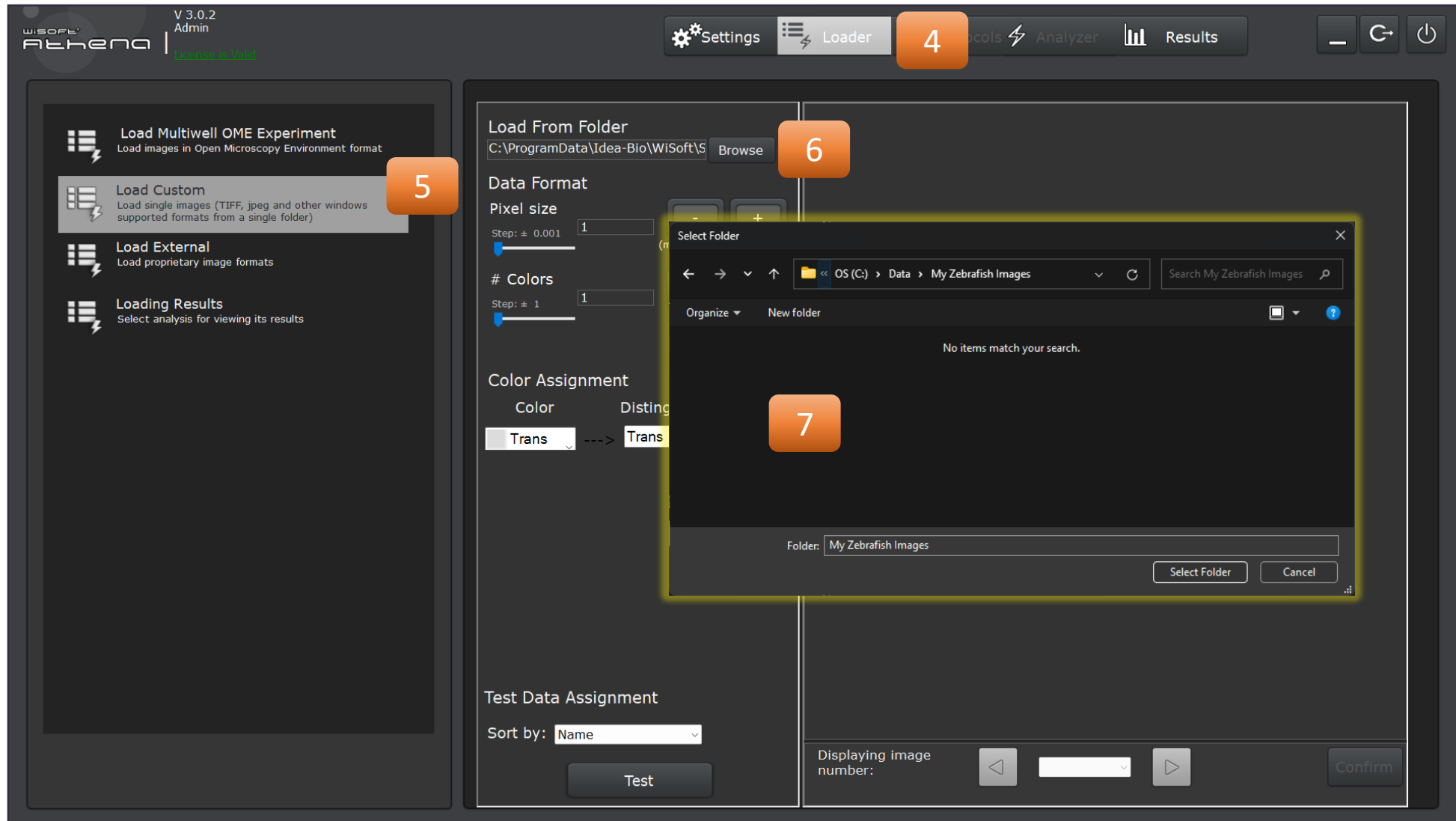
Using Athena with Your Own Images

Define where images are located

4. Select the 'Loader' tab to open images.
5. Select the 'Load Custom' option from the menu on the left.
6. Press the 'Browse' button to navigate to the **FOLDER** location where the tiff images you would like to load & analyze are located.
7. The file explorer window shows the currently selected folder. Navigate to your image storage location, then click the "Select Folder" button to choose this path.

Info:

The default folder path is pre-set to identify the freely analyzable sample images. Other parameters are also set to permit loading the sample images.



Using Athena with Your Own Images

Define characteristics of your images

- Define the correct pixel size for your images by clicking on the text field to open the number pad.
- Use the numbers on screen or your keyboard to set the desired pixel size.

Click 'Done' to set the pixel size.

Using the default pixel size of 1 will return areas in dimensions of pixels, not microns.

Info:

Contact your microscope manufacturer if you have questions about how to find the pixel size for your images. In some cases, metadata such as pixel size may sometimes be saved in an associated .xml file, so can be found therein.

The screenshot displays the Athena software interface (V 3.0.2 Admin) with the 'Loader' menu open. The 'Load From Folder' section is active, showing the path 'C:\Data\My Zebrafish Images' and a 'Browse' button. Under 'Data Format', the 'Pixel size' is set to 1, and a numeric keypad overlay is visible with the number 8 highlighted. The '# Colors' is also set to 1. The 'Color Assignment' section shows 'Color' and 'Distinguishing Text' both set to 'Trans'. At the bottom, the 'Test Data Assignment' section shows 'Sort by: Name' and a 'Test' button. A numeric keypad overlay is also visible, showing the number 9 highlighted and the value 3.196 in the input field. The keypad has buttons for digits 0-9, a decimal point, and a 'Del' button. The 'Done' button is highlighted in orange.

Using Athena with Your Own Images

Define characteristics of your images

10. Define the number of colors present in your dataset.
11. Define the channel that should be assigned to each of the colors present.

Info:

The “Distinguishing Text” editable fields are auto-filled with default values, as shown. These text strings are used to assign each image file in the selected data folder (steps 6 & 7) to one of the colors for analysis.

The screenshot displays the Athena software interface for loading and configuring images. The top navigation bar includes 'Settings', 'Loader', 'Protocols', 'Analyzer', and 'Results' tabs. The main interface is divided into three panels:

- Left Panel:** Contains loading options: 'Load Multiwell OME Experiment', 'Load Custom' (selected), 'Load External', and 'Loading Results'.
- Middle Panel:** Titled 'Load From Folder', it includes:
 - Data Format:** 'Pixel size' set to 3.196 (mic) with step ± 0.001.
 - # Colors:** Set to 10, with step ± 1.
 - Color Assignment:** A table with columns 'Color' and 'Distinguishing Text'.

Color	Distinguishing Text
Trans	Trans
Green	Green
 - Test Data Assignment:** 'Sort by:' set to 'Name'.
- Right Panel:** Shows 'Displaying image number:' with navigation buttons and a 'Confirm' button.

Using Athena with Your Own Images

Define characteristics of your images

12. Type the text strings identifying the images to be assigned to each color channel.
13. Click 'Test' (i) to load the images and visually confirm (ii) that the images are assigned to the color channels correctly.
14. Use the left & right arrows to move between each zebrafish image file. If the .tif images are multi-page, the menu will allow moving between pages.
15. Click 'Confirm' once you are finished.

Info:

The contrast settings are defined automatically and may not be optimized to visualize some fluorescence signal.

The screenshot displays the Athena software interface for loading and configuring images. The interface is divided into several sections:

- Left Sidebar:** Contains four loading options: 'Load Multiwell OME Experiment', 'Load Custom', 'Load External', and 'Loading Results'.
- Central Configuration Panel:**
 - Load From Folder:** Shows the folder path 'C:\Data\My Zebrafish Images' and a 'Browse' button.
 - Data Format:** Includes 'Pixel size' (3.196 mic) and '# Colors' (2).
 - Color Assignment:** A table showing channel assignments:

Color	Distinguishing Text
Trans	ch01
Green	ch00
 - Test Data Assignment:** Includes a 'Sort by' dropdown menu set to 'Name'.
- Right Preview Area:** Shows two image channels: 'Trans' (grayscale) and 'Green' (dark). A '13.ii' callout points to this area.
- Bottom Panel:** Includes a 'Test' button (with callout '13.i'), a 'File' dropdown menu, and a 'Confirm' button (with callout '15').

Using Athena with Your Own Images

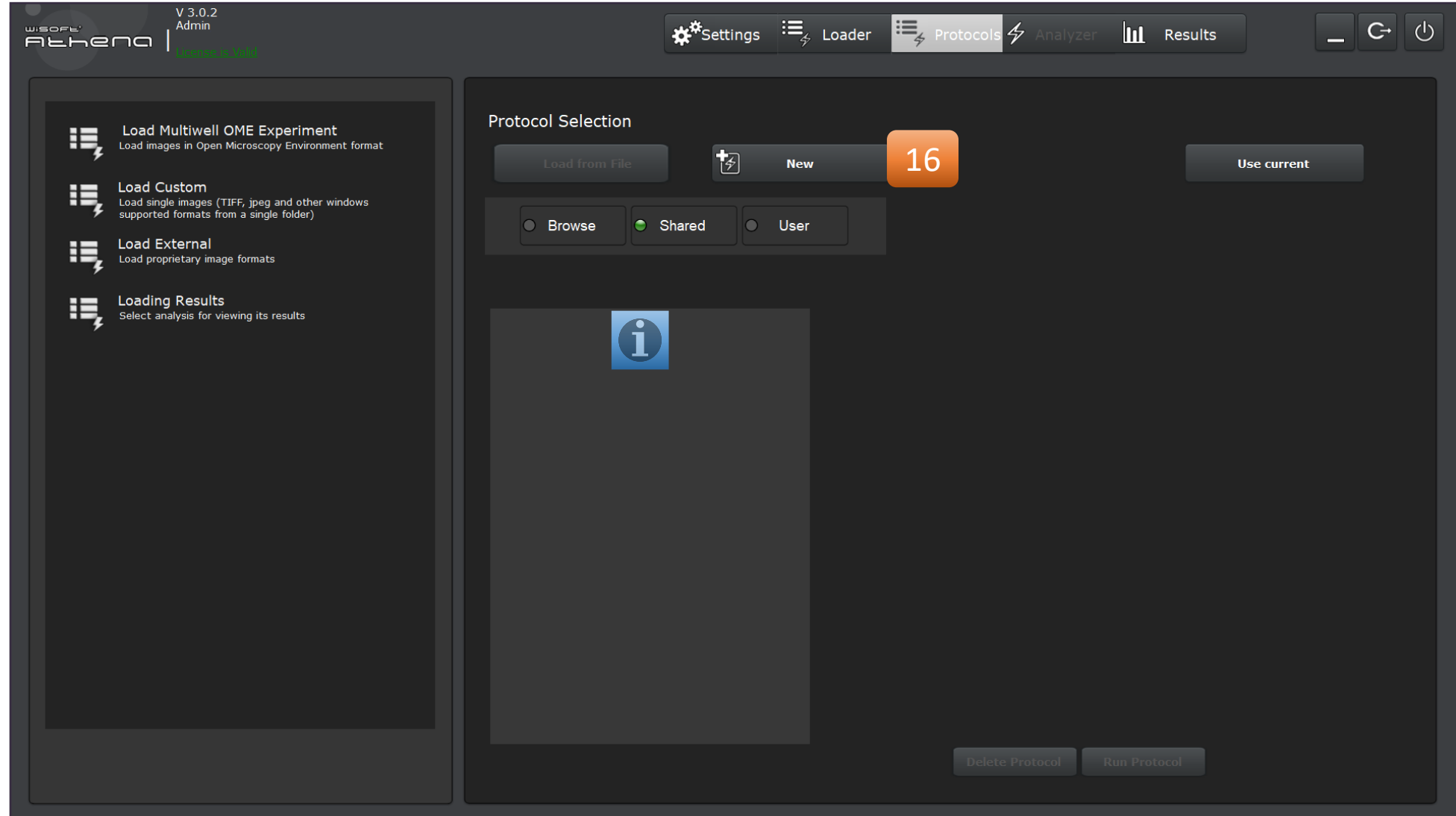
Protocol menu

16. Click 'New' button to create a new image analysis protocol.

Info:

Analysis protocols allow for quick, reproducible analysis of images acquired in the same fashion for the same experiment.

They are saved as files that can be loaded from a 'Shared' folder available to all users, a 'User' folder accessible to the user selected in step (3), or can be selected from the hard disk using the 'Browse' option.



Using Athena with Your Own Images

Select zebrafish application

17. Select Anatomy to be identified in each color channel.

Light-grey = selected
Dark-grey = omitted

18. Click 'Next' to advance.

Info:

The "Other" structure is a flexible anatomical region, that can be manually outlined in brightfield channels or can be identified in a fluorescence channel.

The "Granules" anatomy is intended to be for smaller, point-like structures, such as fluorescently labeled cells.

The "Other" structure can be larger structures, such as fluorescently labeled organs.

The screenshot shows the Athena software interface. At the top, the version is V 3.0.2 Admin. The navigation bar includes Settings, Loader, Protocols, Analyzer, and Results. The main window is titled 'Zebrafish Analysis' and describes automatic quantification of Zebrafish embryos for studying morphological features, fluorescence measurements, and internal organelle properties. On the left, the 'Application Selection' panel shows 'Zebrafish' selected. Below it, the 'Objective' section has a grid of anatomical regions: Fish, Yolk, Eye, Fin, Spine, Head, Trunk, Tail, Granules, and Other. The 'Fish' and 'Other' buttons are highlighted in light grey, while others are dark grey. A 'Next' button is at the bottom right. A zebrafish embryo image is shown on the right side of the main panel.

17

18

Using Athena with Your Own Images

Parameter Definition

Please be patient while the “Processing Masks” flashes, the software is working.

The screenshot displays the Athena software interface for image analysis. The top navigation bar includes 'Settings', 'Loader', 'Protocols', 'Analyzer', and 'Results'. The main window is titled 'Analysis Parameters Calibration - Zebrafish' and is divided into several sections:

- Parameters:** 'Minimum Area' is set to 100000 mic² and 'Maximum Area' is set to 1E+09 mic². 'Drawing Mode' is set to 'Auto'. 'Measure Intensity of:' shows two channels with values of 0.
- Object List:** A vertical list on the left shows 'Fish', 'Yolk', 'Eye', 'Fin', and 'Spine', each with a corresponding thumbnail and a colored dot.
- Processing Masks:** The central large image shows a zebrafish with a red 'Processing Masks' label at the top. A histogram below the image shows a peak at 336, with a threshold set to [336, 16608].
- Grid:** A 12x12 grid of colored squares is visible in the bottom right corner.
- Bottom Bar:** Includes 'Back', 'Next', 'Overlay Definition', and 'Well' (set to A1).

Using Athena with Your Own Images

Parameter Definition

Identified structures are outlined on the image

19. Anatomy detected in the image are displayed as masks, seen as outlines.
20. Intensity histogram (i) & navigation plate map (ii); minimize them with the arrow-buttons below them.
21. Scroll between different images, each assigned to one well, using the left & right arrow buttons. If T-stack or Z-stack data is loaded, you can also move between different time points or slices.

The screenshot displays the Athena software interface (V 3.0.2 Admin) with the following components:

- Top Bar:** Settings, Loader, Protocols, Analyzer, Results, and navigation icons.
- Left Panel (Analysis Parameters Calibration - Zebrafish):**
 - Fish:** Minimum Area (100000 mic²), Maximum Area (1E+09 mic²), Drawing Mode (Auto), Measure Intensity of (0/0).
 - Yolk, Eye, Fin, Spine:** Lists of detected structures with scroll arrows.
 - Defaults:** Button to reset parameters.
 - Well Selection:** A1 is selected.
 - Navigation:** Back and Next buttons.
- Center Panel (Well: A1 F:1 T:1 Z:1):**
 - Image Navigation:** A vertical stack of image thumbnails for Fish [Trans], Yolk, Eye [Trans], Fin [Trans], and Spine.
 - Main Image:** A zebrafish image with colored outlines (19) representing detected structures.
 - Intensity Histogram (20.i):** A graph showing the intensity distribution with a peak at 10768. Min: 336, Max: 16608, Threshold: [336, 16608].
 - Navigation Plate Map (20.ii):** A 12x12 grid with well A1 highlighted in red.
 - Scale Bar:** 800µm (72.6%).
 - Buttons:** Clear Thresholds, Log, Show Saturation.
- Bottom Panel:** Overlay Definition, Well selection dropdown, and navigation arrows.

Using Athena with Your Own Images

License vs. Trial version

Identified structures are quantified

19. When highlighting a mask, as the fish here, it becomes selected.

If you are using a **Licensed** version of the software, then quantitative data is made available and is displayed at the bottom of the screen.

The screenshot displays the Athena software interface for image analysis. The main window shows a grayscale image of a zebrafish with several regions segmented and highlighted in different colors (red, green, yellow, blue). A large orange box with the number '19' is overlaid on the fish's body. The interface includes a top menu bar with 'Settings', 'Loader', 'Protocols', 'Analyzer', and 'Results'. On the left, there is a 'Analysis Parameters Calibration - Zebrafish' panel with settings for 'Fish', 'Yolk', 'Eye', 'Fin', and 'Spine'. The 'Fish' section has 'Minimum Area' set to 100000 mic² and 'Maximum Area' set to 1E+09 mic². Below this is a 'Drawing Mode' dropdown set to 'Auto' and 'Measure Intensity of:' controls. A 'Well: A1 F:1 T:1 Z:1' panel on the left shows a list of segmented parts with corresponding thumbnail images. At the bottom right, a histogram shows the intensity distribution of the selected region, with 'Min: 336', 'Max: 16608', and 'Threshold: [336, 16608]'. A 'Grid' panel shows a 12x12 grid of cells. The bottom status bar displays quantitative data: 'Fish Area: 1.44 mm²', 'Count Eye: 2', 'Count Fin: 1', 'Count Head: 1', 'Count Tail: 1', 'Count Yolk: 1', 'Count Spine: 2', 'Count Trunk: 1', 'Eye Area: 4.6e+4 mic²', 'Fish Area: 1.42 mm²', 'Fin Area: 7759.03 mic²', and 'Head Area: 0.35 mm²'. A scale bar indicates '800µm (72.6%)'.

Using Athena with Your Own Images

License vs. Trial version

Identified structures are quantified

19. When highlighting a mask, as the fish here, it becomes selected.

If you are using a **Licensed** version of the software, then quantitative data is made available and is displayed at the bottom of the screen.

Quantitative data is also accessible via the 'Attributes' menu accessed by right-clicking on the image.

More data is accessible on the final Results screen.

The screenshot displays the Athena software interface for image analysis. The main window shows a fish image with a red mask and a context menu open over it. The context menu includes options: Copy Image to Clipboard (Ctrl+C), Copy Image Including size Bar, Choose LUT, Attributes (highlighted), Save Image (Ctrl+S), and Edit Mask Settings. A histogram and a grid are also visible in the lower right.

The 'Analysis Parameters Calibration - Zebrafish' window on the left shows the following settings:

- Fish: Minimum Area: 100000 mic², Maximum Area: 1E+09 mic², Drawing Mode: Auto, Measure Intensity of: 0 (grey), 0 (green).
- Yolk
- Eye
- Fin
- Spine

The 'Attributes' window in the center displays the following data:

- Fish Area: 1.42037 mm²
- Fish Axial Ratio: 5.72794
- Fish Long Axis: 1.29659 mm
- Fish Perimeter: 7.87054 mm
- Fish Solidity: 0.75913
- Fish Variance: 6.99e+6
- Count Eye: 2
- Eye Area: 46288.05859 mic²
- Count Fin: 1
- Fin Area: 7759.0332 mic²
- Count Granules: 9
- Granules Area: 54.59303 mic²
- Granules Tot Int: 43235.55469
- Granules Tot Int - Bck: 40428.62891
- Count Head: 1
- Head Area: 0.35368 mm²
- Count Spine: 2
- Spine Area: 92750.13281 mic²
- Count Tail: 1
- Tail Area: 0.38554 mm²
- Count Trunk: 1
- Trunk Area: 0.67482 mm²
- Count Yolk: 1
- Yolk Area: 0.218 mm²

The bottom of the interface shows a summary of the analysis results:

- Fish Area: 1.44mm²
- Count Eye: 2
- Count Fin: 1
- Count Head: 1
- Count Tail: 1
- Count Yolk: 1
- Count Spine: 2
- Count Trunk: 1
- Count Granules: 9
- Eye Area: 4.6e+4 mic²
- Fish Area: 1.42 mm²
- Fin Area: 7759.03 mic²
- Head Area: 0.35 mm²

Using Athena with Your Own Images

License vs. Trial version

Identified structures are quantified

19. When highlighting a mask, as the fish here, it becomes selected.

If you are using a **Trial** version of the software, then no quantitative data is made available.

Email info@idea-bio.com to purchase a license package and get the data you need.

Athena Packages

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Advanced	1,000	\$150
Pro	5,000	\$150
Expert	10,000	\$150
Elite	25,000	\$150
Enterprise	50,000	\$150

Price per image: \$0.30

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*All purchased packages are valid for 12 months post installation

The screenshot displays the Athena software interface for image analysis. The main window shows a grayscale image of a zebrafish with a red mask highlighting the fish's body. A large orange box with the number '19' is overlaid on the mask. The interface includes a top navigation bar with 'Settings', 'Loader', 'Protocols', 'Analyzer', and 'Results' tabs. On the left, the 'Analysis Parameters Calibration - Zebrafish' panel is visible, showing settings for 'Fish' (Minimum Area: 100000 mic², Maximum Area: 1E+09 mic², Drawing Mode: Auto) and other structures like 'Yolk', 'Eye', 'Fin', and 'Spine'. A central 'Well: A1 F:1 T:1 Z:1' panel shows a vertical stack of image thumbnails with colored selection indicators. The bottom right corner features a histogram, a grid of colored squares, and a status bar displaying '800µm (72.6%)' and 'Fish Area: 1.44mm²'.

Click above for more info.

Using Athena with Sample Images

Parameter Definition

22. Click the thumbnail for each anatomical structure to see the image it is associated with and access its analysis parameters. Click the name of each anatomical object below its thumbnails to toggle its mask visibility. Click on the colored dots to change the color of the outline.

23. Adjust the Min/Max area parameter to define what size of objects are permitted. (See point 19)

24. Define raw-intensity threshold values above which signal should be integrated and measured. See next page for continued definition...

The screenshot displays the Athena software interface for parameter calibration. The top menu bar includes Settings, Loader, Protocols, Analyzer, and Results. The main window is divided into three panels:

- Analysis Parameters Calibration - Zebrafish:** This panel shows parameters for various anatomical structures. The 'Fish' section has 'Minimum Area' set to 100000 mic² and 'Maximum Area' set to 1E+09 mic². The 'Drawing Mode' is set to 'Auto'. The 'Measure Intensity of:' section has two input fields, both set to 0. A 'Defaults' button is located below the parameters.
- Well: A1 F:1 T:1 Z:1:** This panel shows a list of anatomical structures with their corresponding thumbnails and colored dots. The structures listed are Fish, Yolk, Eye [Trans], Fin [Trans], and Spine. An orange arrow points from the 'Fish' thumbnail to the color selection dialog box.
- Color Selection Dialog:** A dialog box titled 'Choose a color' is open, showing a grid of color swatches. The 'OK' button is highlighted.

Orange callout boxes with numbers 22, 23, and 24 highlight the thumbnail, the area parameter inputs, and the intensity threshold inputs respectively.

Using Athena with Sample Images

Signal Integration Within Structures

24. Using the pixel intensity histogram (20.i), drag left-to-right to define the visualized contrast levels.

When all fluorescence objects of interest are visible in white or grey color, then the lower pixel intensity bound can be used for signal integration.

In this example, the minimum value is 949 AU, highlighted with an orange circle.

The screenshot displays the Athena software interface (V 3.0.2 Admin) with the following components:

- Top Bar:** Settings, Loader, Protocols, Analyzer, Results, and navigation icons.
- Left Panel (Analysis Parameters Calibration - Zebrafish):**
 - Granules Smooth: Step: ± 0.1, 5 mic
 - Granules Background Subtraction: Step: ± 0.1, 30 mic
 - Granules Intensity Threshold: Step: ± 1, 2700
 - Granules Maximum Merge Area: Step: ± 1, 50 mic²
 - Granules Minimum Area: Step: ± 0.1, 10 mic²
 - Granules Maximum Area: Step: ± 1, 200 mic²
 - Measure Intensity of: 0
 - Defaults button
 - A1 selection button
 - Back and Next navigation buttons
- Middle Panel (Well: A1 F:1 T:1 Z:1):** A list of structures with corresponding thumbnail images:
 - Spine (green circle)
 - Head (purple circle)
 - Trunk (pink circle)
 - Tail [Trans] (purple circle)
 - Granules (green circle)
- Main Image:** A zebrafish image with segmented regions in various colors (green, purple, pink, orange) and a pixel intensity histogram overlaid.
- Bottom Panel:** Overlay Definition, Well dropdown, and navigation buttons.

The histogram shows a pixel intensity distribution with a red vertical line at the minimum value of 949 AU, which is circled in orange. The histogram also displays the maximum value of 875605 and a threshold of 0.6% at 5.5. The current intensity is 304. The histogram includes 'Clear Thresholds', 'Log', and 'Show Saturation' options.

Using Athena with Sample Images

Signal Integration Within Structures

24. Insert this value into parameter (24) on the fish or other anatomy to integrate fluorescence intensity above this value

The intensity integration can be included for all anatomical regions selected for analysis in the same fashion.

The screenshot displays the Athena software interface (V 3.0.2 Admin) with the following components:

- Top Navigation:** Settings, Loader, Protocols, Analyzer, Results.
- Left Panel: Analysis Parameters Calibration - Zebrafish**
 - Fish:** Minimum Area: 100000 mic²; Maximum Area: 1E+09 mic²; Drawing Mode: Auto; Measure Intensity of: 0 (grey) and 949 (green).
 - Yolk**
 - Eye**
 - Fin**
 - Spine**
 - Defaults** button
 - A1** well selection
 - Back** and **Next** navigation buttons.
- Center Panel: Well: A1 F:1 T:1 Z:1**
 - Thumbnail gallery for Fish [Trans], Yolk, Eye [Trans], Fin [Trans], and Spine.
 - 800µm (72.6%) scale bar.
 - Overlay Definition** and **Well** dropdown menu.
- Main Image:** Zebrafish with segmented anatomical regions (Tail, Spine, Fin, Eye, Head) outlined in various colors.
- Bottom Right Panel:** Histogram showing intensity distribution with a threshold line at 336. Statistics: Min: 336, Max: 16608, Threshold: 0.6%, [336, 6608] ek. Curr Intens.: 11296. Buttons: Clear Thresholds, Log, Show Saturation.
- Bottom Right Corner:** Tail Area: .39mm².

Using Athena with Sample Images

Identify Fluorescently-labeled Structures

25. Use the 3 image analysis parameters and the 3 object selection parameters to identify fluorescent spots.

Image analysis

- Smooth
- Background Subtraction
- Thresholding

Object Selection

- Merge Area
(joins touching objects)
- Minimum Area
- Maximum Area

26. Click 'Next' to advance.

Note:

Increasing the smooth or the background subtraction parameters tends to expand masks to detect larger objects.

Increasing the threshold parameter tends to shrink the masks and detecting smaller objects.

The screenshot displays the Athena software interface (V 3.0.2 Admin) with the following components:

- Top Bar:** Settings, Loader, Protocols, Analyzer, Results, and navigation icons.
- Left Panel (Analysis Parameters Calibration - Zebrafish):**
 - Granules Smooth:** Step: ± 0.1, value: 5 mic.
 - Granules Background Subtraction:** Step: ± 0.1, value: 30 mic.
 - Granules Intensity Threshold:** Step: ± 1, value: 2700.
 - Granules Maximum Merge Area:** Step: ± 1, value: 50 mic².
 - Granules Minimum Area:** Step: ± 0.1, value: 10 mic².
 - Granules Maximum Area:** Step: ± 1, value: 200 mic².
 - Measure Intensity of:** value: 0.
 - Defaults** button.
 - Well:** A1.
 - Navigation:** Back, Next buttons.
- Right Panel (Well: A1 F:1 T:1 Z:1):**
 - Image List:** Spine, Head, Trunk, Tail [Trans], Granules.
 - Main Image:** Zebrafish image with segmented structures (Spine, Head, Trunk, Tail, Granules) overlaid in different colors.
 - Intensity Histogram:** Min: 0, Max: 875605, Threshold: 0.6%, [949, 7048], 5.5.
 - Current Intensity:** 304.
 - Buttons:** Clear Thresholds, Log, Show Saturation.
 - Scale Bar:** 800µm (72.6%).
 - Bottom Bar:** Overlay Definition, Well dropdown, navigation arrows.

Using Athena with Sample Images

Identify Fluorescently-labeled Structures

27. Optionally, define populations to identify fish having desirable characteristics.

Use of this feature is described in the [Quick Reference Guide](#), so please refer to instructions there for clarification.

28. Click 'Next' to advance.

The screenshot displays the Athena software interface. At the top, the title bar includes 'WISOPH Athena V 3.0.2 Admin' and navigation buttons for 'Settings', 'Loader', 'Protocols', 'Analyzer', and 'Results'. The main window is titled 'Populations Definition - Zebrafish' and features a list of defined populations on the left: 'All', 'Fish [Trans]', 'Yolk', 'Eye [Trans]', 'Fin [Trans]', and 'Spine'. Each population has a corresponding colored dot. The central area shows a grayscale image of a zebrafish with various regions outlined in different colors (green, purple, yellow) corresponding to the defined populations. A scale bar indicates '800µm (72.6%)'. At the bottom, there are controls for 'Overlay Definition', 'Well', and navigation buttons for 'Back' and 'Next'. Two orange callout boxes with the numbers '27' and '28' are overlaid on the interface, pointing to the 'All' population selection and the 'Next' button respectively.

Using Athena with Sample Images

Identify Fluorescently-labeled Structures

29. The summary page allows for review of the analysis parameters defined on previous screens and setting the name of the analysis run.

It also allows for saving of an analysis protocol to facilitate future analysis.

Use of this feature is described in the [Quick Reference Guide](#), so please refer to instructions there for clarification.

WISOFT Athena V 3.0.2 Admin

Application Summary - Zebrafish

Analysis Parameters

8

Fish:
Minimum Area: 100000
Maximum Area: 1E+09
Drawing Mode: Auto
Measure Intensity of: G

Yolk:
Minimum Area: 5000
Maximum Area: 250000
Drawing Mode: Auto

Eye:
Minimum Area: 1500
Maximum Area: 250000
Drawing Mode: Auto

Fin:
Minimum Area: 5000
Maximum Area: 300000
Drawing Mode: Auto

Spine:
Minimum Area: 5000
Maximum Area: 300000
Drawing Mode: Auto

Head:
Minimum Area: 5000
Maximum Area: 1000000
Drawing Mode: Auto

Trunk:
Minimum Area: 5000
Maximum Area: 1300000
Drawing Mode: Auto

Tail:

Save Protocol

Dataset Name:
Zebrafish

Zebrafish Analysis

Automatic quantification of Zebrafish embryo
for studying of morphological features, fluorescence measurements
and internal organelle properties

29

Back Start

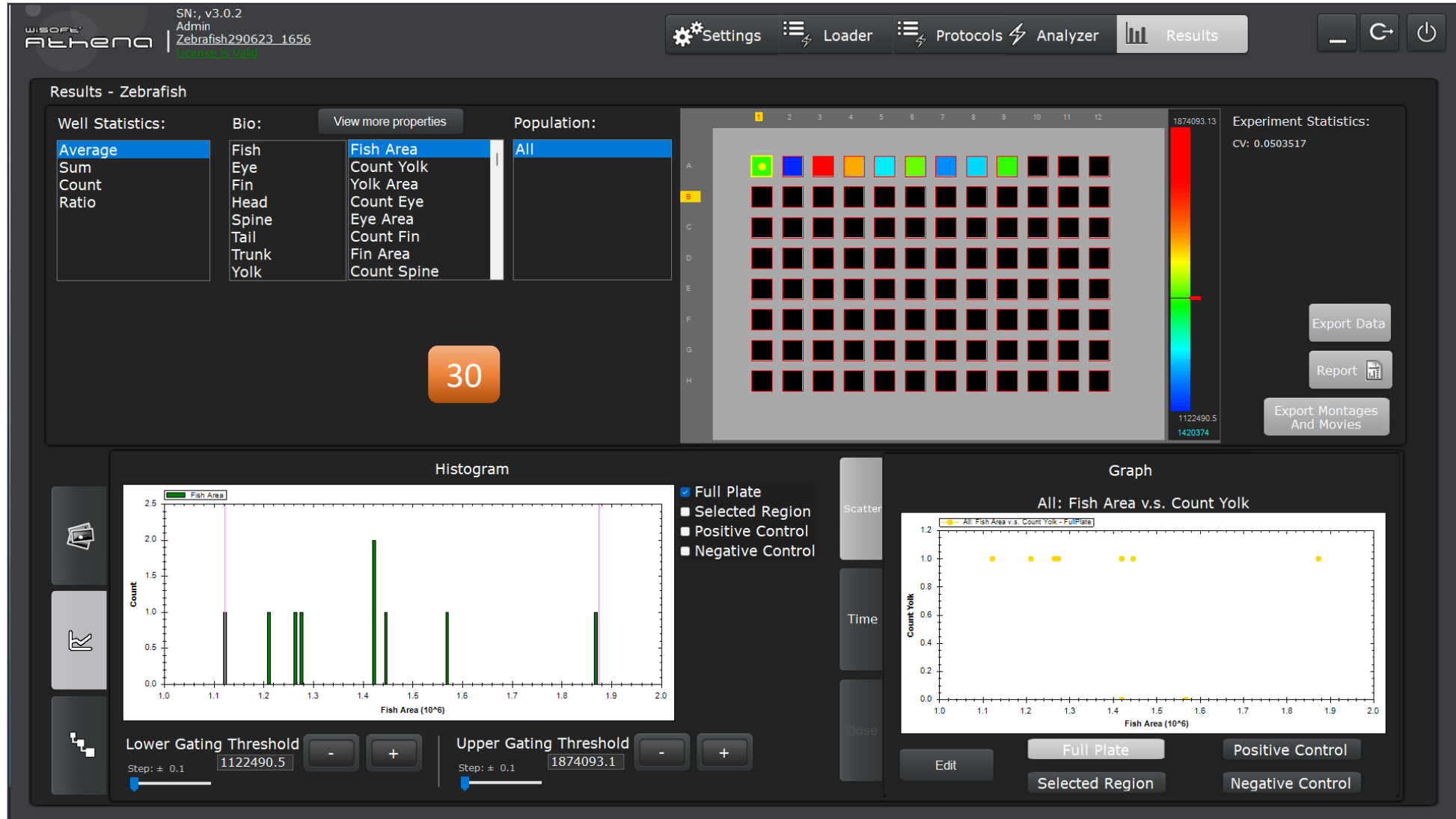
Using Athena with Sample Images

Identify Fluorescently-labeled Structures

30. The Results page allows for exploration of the data extracted from the zebrafish images (Licensed version only).

It also permits review of the segmentation masks for each image analyzed.

Use of this feature is described in the [Quick Reference Guide](#), so please refer to instructions there for clarification.





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We'll be sure to contact you soon!