

AimSeg

Image File Browse

Stage 1 (Inner Myelin)

Myelin Probability Channel

Myelin threshold

Min area (pixels)

Min circularity

Stage 2 (Fibre)

Correct myelin threshold by

Stage 3 (Axon)

Object Prediction Threshold

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel

Modes

Automated ☐

Axon Autocomplete ☐

Aceptar Cancelar

Image File: browse to select an image.

NOTE: the ilastik probability map and object predictions must be in the same folder as the image.

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Stage 1 (Inner Myelin)

Myelin Probability Channel ▾

Myelin threshold ▾

Min area (pixels) ▾

Min circularity ▾

Stage 2 (Fibre)

Correct myelin threshold by ▾

Stage 3 (Axon)

Object Prediction Threshold ▾

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel ▾

Modes

Automated ☐

Axon Autocomplete ☐

Aceptar Cancelar

Myelin Probability Channel: The ilastik pixel classification generates a probability map, which is a multi-channel image. Each channel corresponds to the different pixel labels defined during training and starts from 1, following the same order as your ilastik project.

Myelin Threshold: All pixels with values above this threshold (ranging from 0 to 1) in the myelin probability channel will be considered as myelin, helping identify potential myelinated axons.

AimSeg

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Stage 1 (Inner Myelin)

Myelin Probability Channel 1

Myelin threshold 0,3

Min area (pixels) 500

Min circularity 0,35

Stage 2 (Fibre)

Correct myelin threshold by 1,00

Stage 3 (Axon)

Object Prediction Threshold 3

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel 2

Modes

Automated ☐

Axon Autocomplete ☐

Aceptar Cancelar

Min Area (pixels): Non-myelin regions smaller than this specified size will be filtered out.

Min Circularity: Non-myelin regions with circularity below this threshold (ranging from 0 to 1, where 1 represents a perfect circle) will be filtered out.

AimSeg

Image File Browse

Stage 1 (Inner Myelin)

Myelin Probability Channel

Myelin threshold

Min area (pixels)

Min circularity

Stage 2 (Fibre)

Correct myelin threshold by

Stage 3 (Axon)

Object Prediction Threshold

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel

Modes

Automated ☐

Axon Autocomplete ☐

Acceptar Cancelar

Correct Myelin Probability Threshold: the initial myelin threshold is used to detect potential myelinated axons, but it is possible to adjust it for the final myelin segmentation.

- *Set to 1 to use the same threshold.*
- *Set a higher value to be more stringent.*
- *Set a lower value to be more permissive.*

AimSeg

Image File Browse

Stage 1 (Inner Myelin)

Myelin Probability Channel

Myelin threshold

Min area (pixels)

Min circularity

Stage 2 (Fibre)

Correct myelin threshold by

Stage 3 (Axon)

Object Prediction Threshold

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel

Modes

Automated ☐

Axon Autocomplete ☐

Aceptar Cancelar

Object Prediction Threshold: Adjust this threshold to select objects classified as axons. The ilastik object classification generates an object prediction, which is a single image where pixel values correspond to different object labels from training, starting from 1. Specify whether the selected objects should be "**Below**" or "**Above**" the threshold.

Axon Correction: AimSeg offers methods for additional processing of the axon mask.

Axon Probability Channel: For methods based on watershed, you need to specify the Axon Probability Channel.

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Stage 1 (Inner Myelin)

Myelin Probability Channel

Myelin threshold

Min area (pixels)

Min circularity

Stage 2 (Fibre)

Correct myelin threshold by

Stage 3 (Axon)

Object Prediction Threshold

Set Threshold ☒ Below ☐ Above

Axon Correction ☒ None ☐ Convex Hull ☐ Watershed ☐ Watershed & Smooth

Axon Probability Channel

Modes

Automated ☐

Axon Autocomplete ☐

Aceptar Cancelar

Automated: Set this mode to skip the user-editing steps; otherwise, AimSeg will enter the Supervised mode.

Axon Autocomplete: This option will create axon ROIs when they are not detected by AimSeg or added by the user. In this case, AimSeg assumes that the inner tongue of those fibers lacking axon ROIs has shrunk completely, and it automatically generates an axon ROI equivalent to the inner region ROI.

NOTE: The Axon Autocomplete option is recommended only for the Supervised mode.