

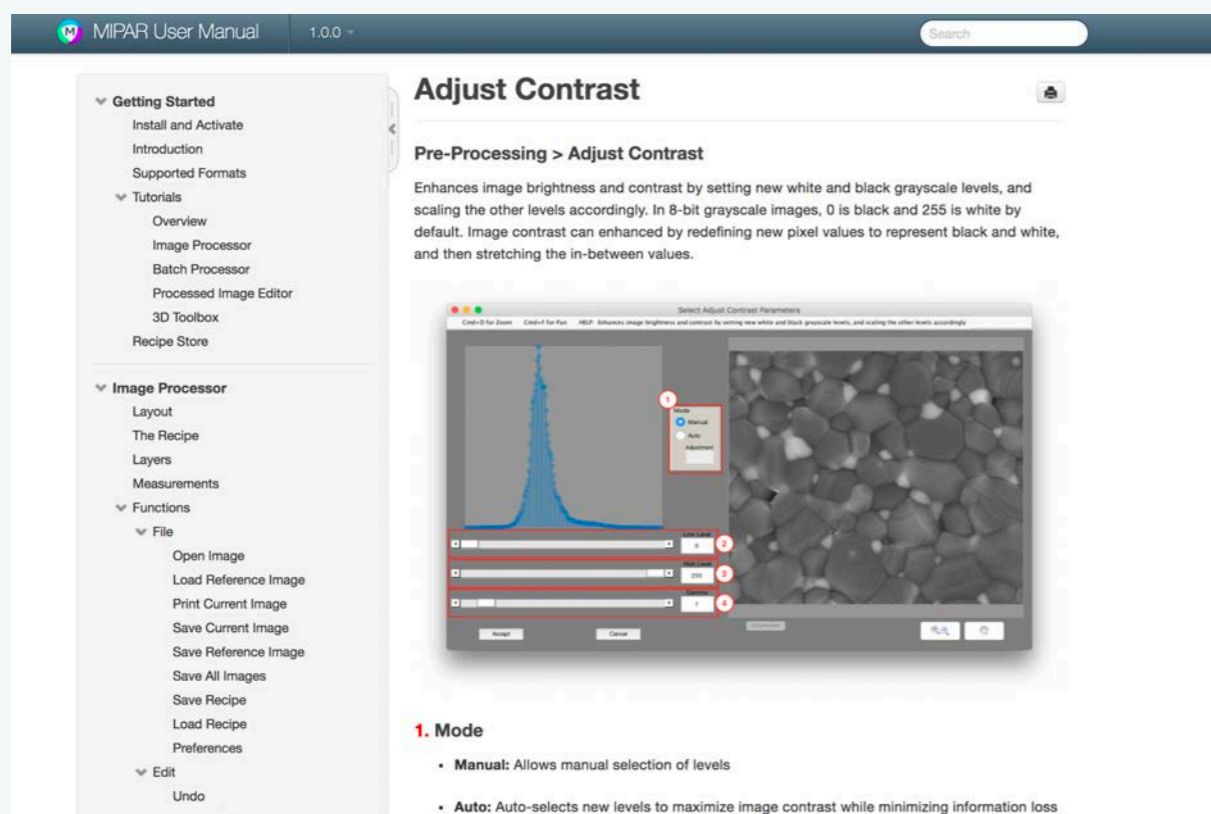


MIPAR™

Release Notes

v1.0.0

User Manual



Yes, MIPAR has an official user manual! It will continue to grow, and we truly hope you find it a valuable resource.

Also, click the "?" button in the corner of every preview window, and be taken straight to that function's page!

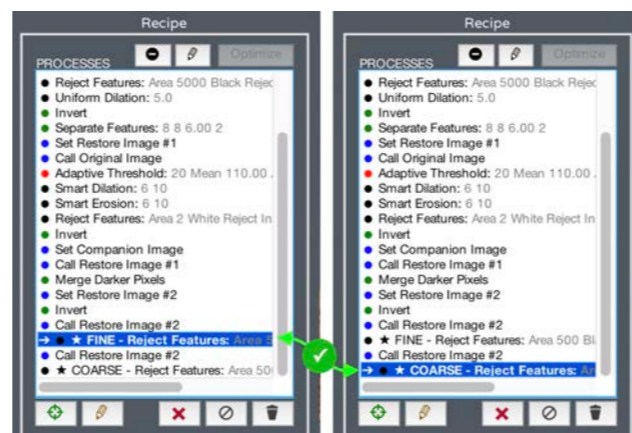
[Read User Manual >>](#)

Speed & User Experience



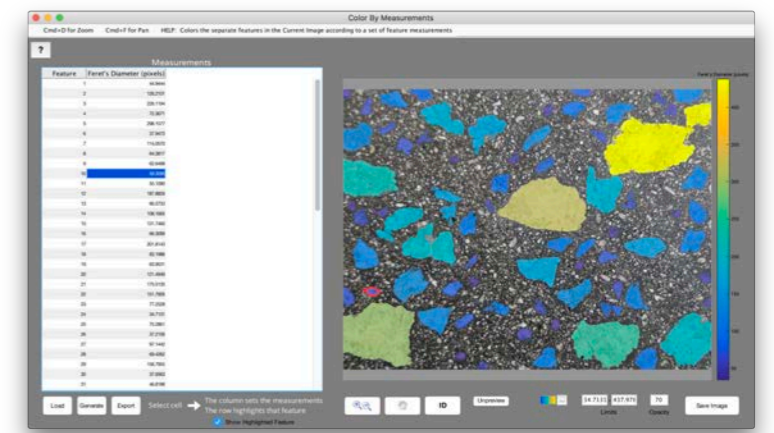
Better Zoom

Zoom for the modern era. Smoothly zoom in and out of images using your mouse's scroll wheel.



Faster Image Switching

You'll notice a quicker response when switching between your Recipe steps. Image display in the preview windows has gotten a boost too!



Fast Color By Measure

After clicking a cell in your desired column in *Color By Measurements*, get ready for near instant coloring of your features.

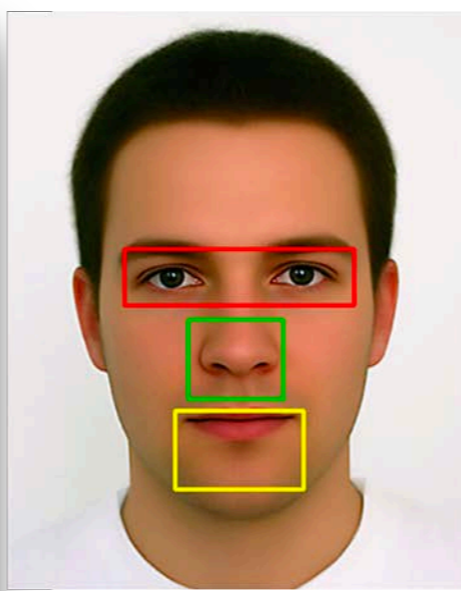
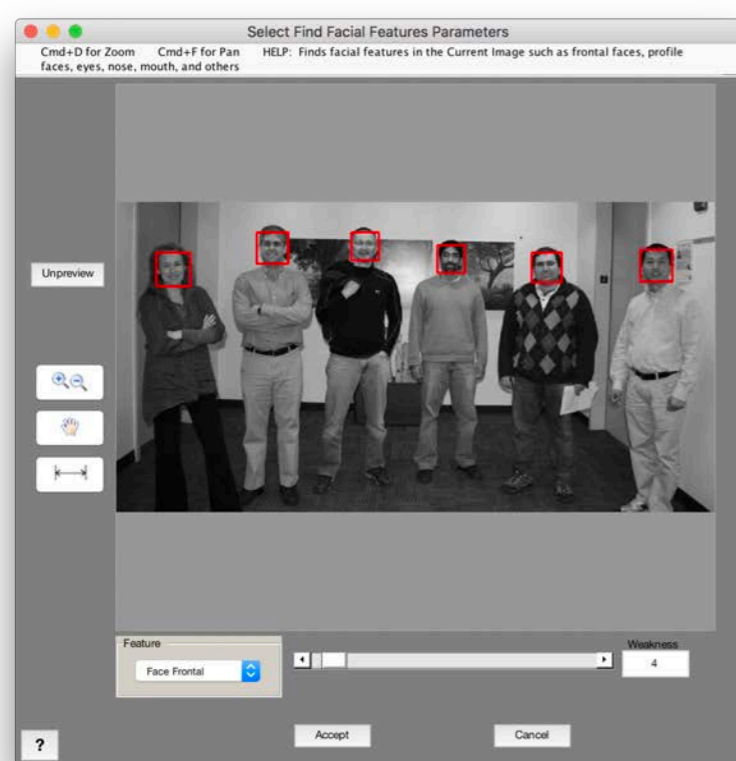
More Memory Slots

Set Restore Image #1
Set Restore Image #2
Set Restore Image #3
Set Restore Image #4
Set Restore Image #5
Set Restore Image #6

Call Restore Image #1
Call Restore Image #2
Call Restore Image #3
Call Restore Image #4
Call Restore Image #5
Call Restore Image #6

Ever run out of Restore Image memory slots? Hopefully those days are over. Now you have 6!

Facial Feature Finding

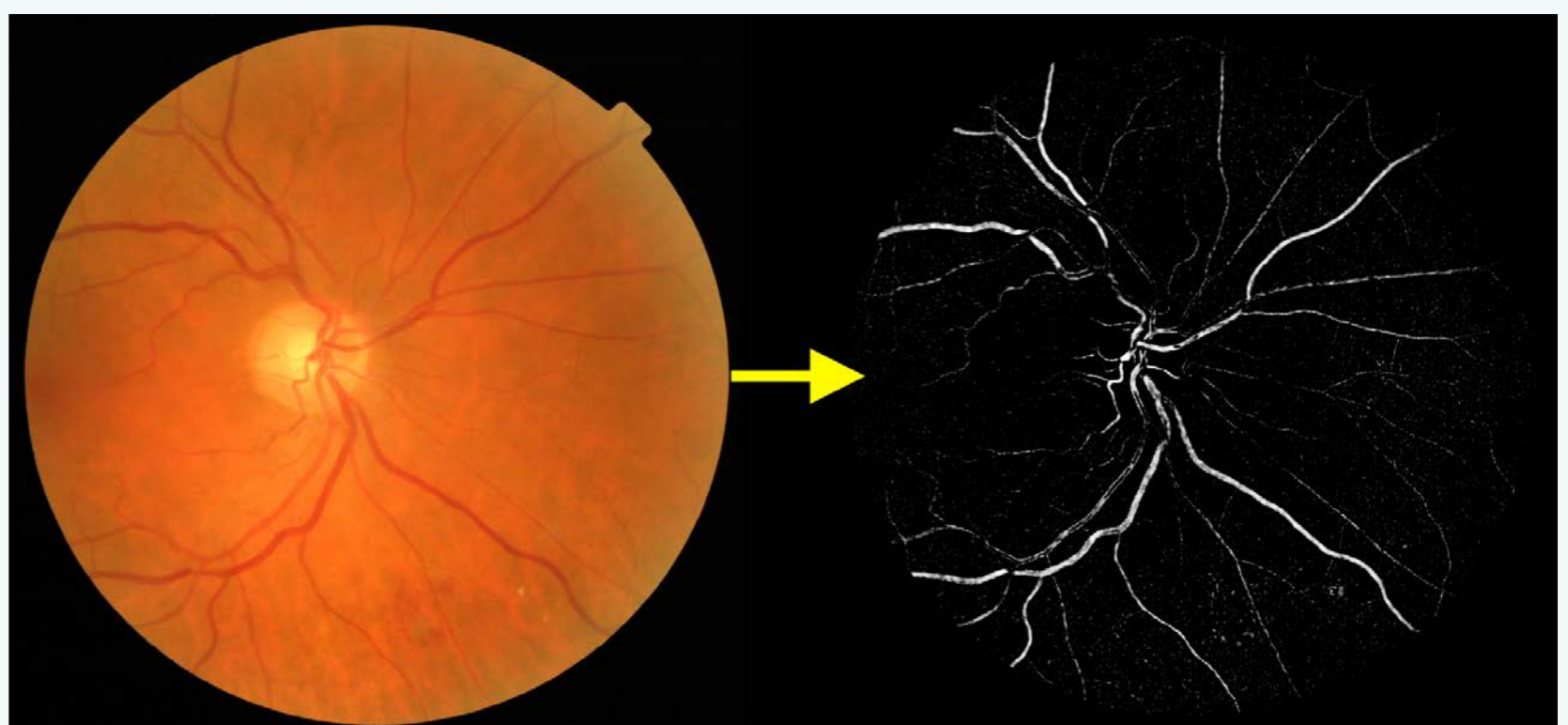


This won't be for everyone, but it's still pretty cool. Advanced computer vision is made easy using MIPAR's new *Find Features > Find Facial Features* tool.

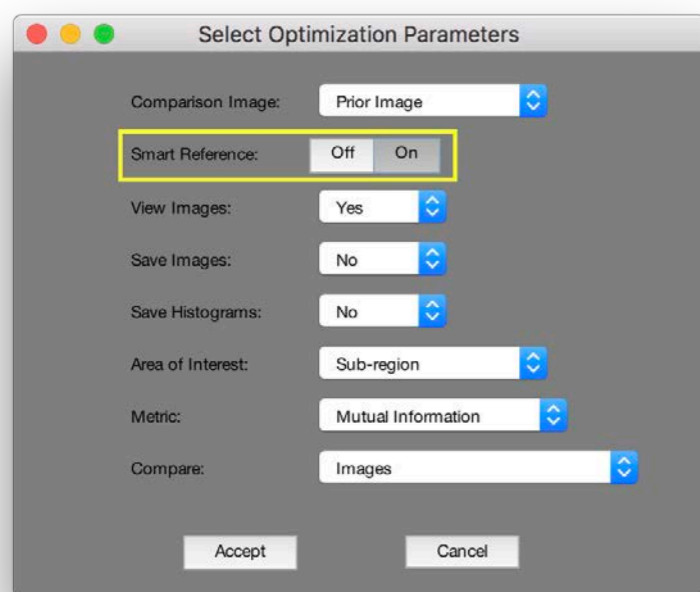
Automatically detect complex features such as faces, eyes, noses and mouths.

New & Improved Find Lines

Find Features > Find Lines has been completely rewritten, and now uses the Frangi filter to highlight linear features in your image. Life just got much easier for folks working on problems like retinal vessel and tree branch finding.



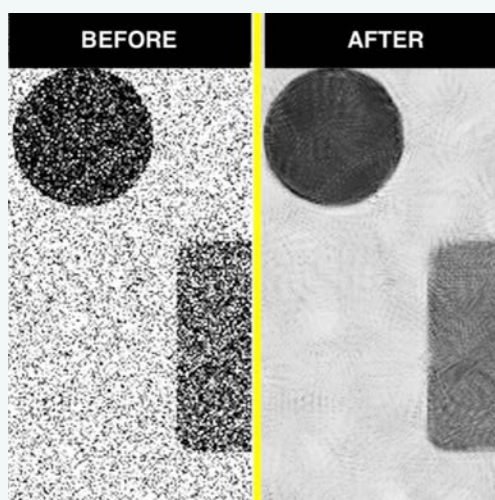
Smart Reference for Optimization



With the flip of a switch, turn on "Smart Reference" during Recipe step *Optimization*, and MIPAR will automatically apply a high-pass FFT filter to your comparison image prior to optimization.

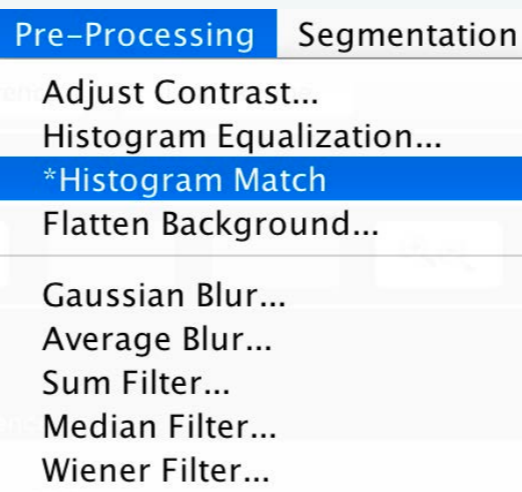
This makes feature edges more important, and often improves the results of your optimization.

New Functions



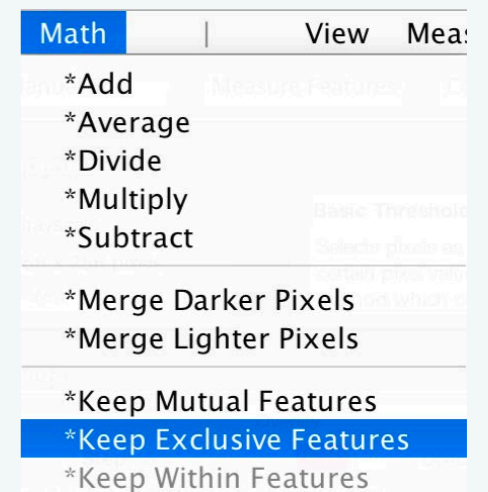
Non-Local Means

Advanced noise reduction while preserving edges amazingly well.



Histogram Matching

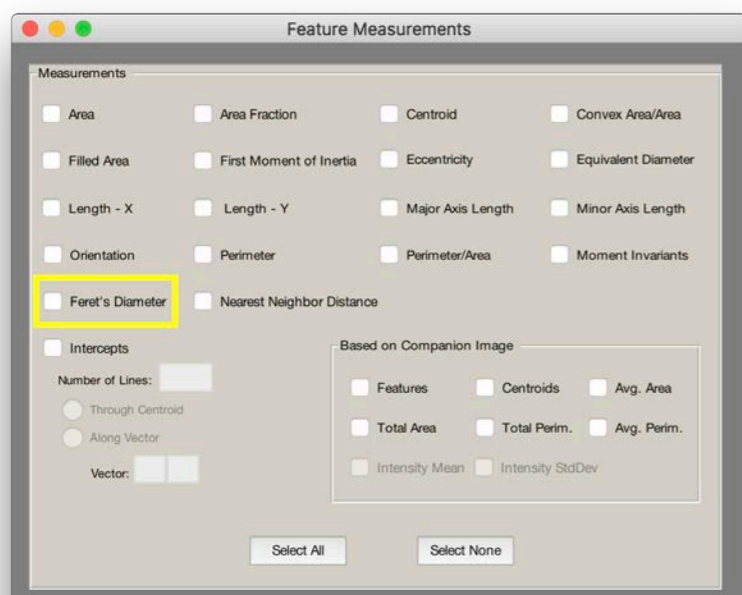
Match the overall brightness and contrast of one image to the Companion Image. This is a dream for normalizing contrast variations image to image, especially for 3D image stacks.



Exclusive Features

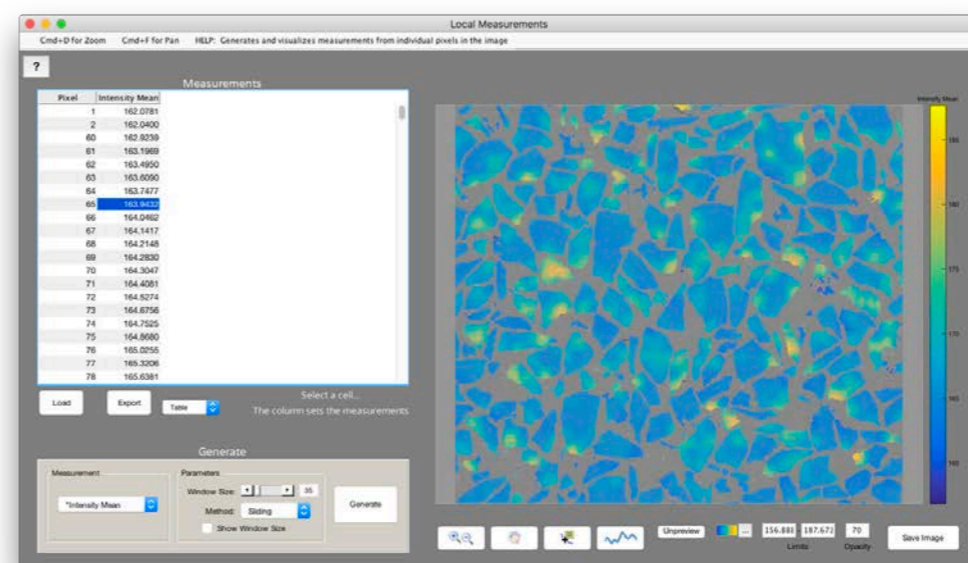
Ever want to keep just those features from one image, that aren't in another? Now instead of several Recipe steps, you can do it in one: *Math > Keep Exclusive Features*

New Measurements



Feret's Diameter

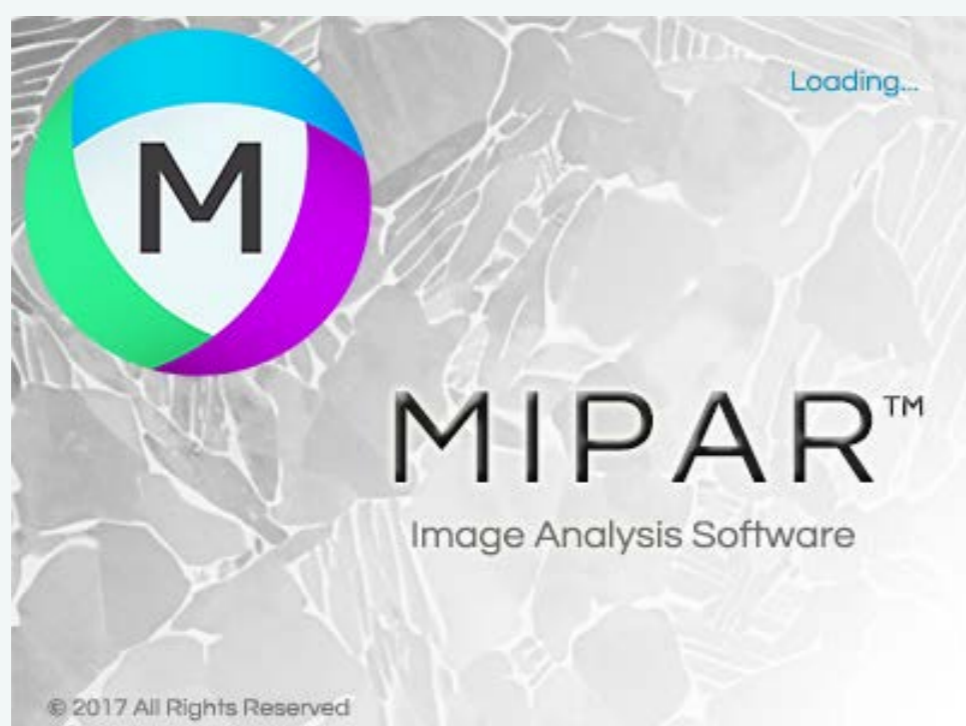
Measure the largest line that fits inside each feature. The highly requested measurement is now here! It also shows up in *Reject Features!*



Local Intensity Measures

New additions to the Local Measurements tool. Measure and visualize local grayscale mean and standard deviation across all features.

New Logo & Splash Screen



Sometimes it's the little things that count. MIPAR has a fresh look with a new logo and splash screen. We hope you enjoy!

Bugs Fixed

We've fixed over **30 bugs** and improved stability everywhere we could. The post-beta era of MIPAR is certainly here.

As always, we greatly appreciate any feedback you can provide regarding bugs, usability, and feature requests. Feel free to submit any feedback anytime to support@mipar.us.

Please visit our [Bug Report](#) page to report any bugs and review our official [Bug Tracker](#) to learn workarounds for bugs which have been found in the latest release.

Other Changes

- *Keep Darker Pixels* changed to *Merge Darker Pixels*
- *Keep Lighter Pixels* changed to *Merge Lighter Pixels*
- *View Histogram* tool removed from Shortcut Bar in Image Processor
- *Local Measure* tool added to Shortcut Bar in Image Processor
- *Measurements > Area Fraction > Point Grid* has been removed
- Unmeasured pixels for various measurements in *Local Measurements* no longer print as zeros unnecessarily
- All [supported 2D formats](#) can now be loaded in all apps
- Added *Morphology > Replace With > Circumscribed Circle*