/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicAndOpticsGrid.m -- BROKEN!

@Nicolas

Broken in computePSFandOTF, which eventually produces a PSF that is not sufficiently real. Function

computePSFandOTF() seems to exist to zero center PSFs or some such, but is hard to read since, well,

there are no comments about what it does.

Works on ISETBio master, so something important may have changed deep in OTF/PSF land, which

we should figure out.

Even on the master, this routine prints out a lot of red warning messages:

“cone aperture is not Gaussian, so cannot visualize characteristic radius. Visualizing the diameter”.

It is not reassuring to a new user, or anyone, to have tutorials in a package print warnings. It’s

the sort of thing that would make someone stop exploring. If it’s expected behavior, there

should not be a warning. Having an option to turn it off, if we think it is useful in other situations,

would be one approach. Then it could be turned off in the tutorial with an explanation. If it is unexpected,

on the other hand, we should fix the underlying problem.

Also, this is an example of a tutorial that takes a very long time to run through a whole lot of cases.

I am not sure it is helpful to have tutorials that take so long. Indeed, I had to kill it before it

finished it was going on so long. Maybe set default parameters so

It runs nine locations for one subject, rather than a whole lot of locations for multiple subjects.

(Particularly since it overwrites each subject with the next in the figure.)

Finally, this tutorial says it saving output files, but doesn’t say where. I can’t find them. And if it were

saving them to the ISETBio tree anywhere other than local, that would be less than desirable.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicEccDependentAbsorptionEfficacy.m -- BROKEN!

@Nicolas

This is broken on the ISETBio master as well, somewhere deep in cMosaic compute. Can you have a look?

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicOffAxisDistortion.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicEccVaryingOptics.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicRankedSubjectsOptics.m -- BROKEN!

@Nicolas

Same not sufficiently real problem as described above.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicModifyApertureProperties.m -- BROKEN!

@Nicolas

This had a typo which I fixed and now it runs. But something it calls prints out a warning  
 \*\* structs 's1' and 's2' have different number of fields: 4 vs 3

which reduces confidence that it is right.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicRodIntrusion.m -- BROKEN!

@Nicolas

Fails because it can't find data file

Unable to find file or directory '/Users/dhb/Documents/MATLAB/toolboxes/isetcam/CurcioConesRods.mat'.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/t\_cMosaicSpatioTemporalStimulation.m -- BROKEN!

@Nicolas

This was initially broken because it relied on the sceGrating method in ISETBioCSFGenerator. Probably it

could ever run because it was developed at a moment when the CSFGenerator was on the path.

I moved it over to ISETBioCSFGenerator. Now it is broken for some other reason having to do with inteporlating wavelengths.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaic/cMosaic\_supportTutorials/t\_cMosaicPrecompute.m -- BROKEN!

I think I fixed this, but it is taking over 24 hours to run on the biggest machine we have in the lab. Not good for

a tutorial because it can't be auto-run. I will look into a way to skip autorun for specified tutorials to address this.

Also, it may write output, which we should think about.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cmosaicrect/t\_cmosaicRectBigArray.m -- BROKEN!

@Brian

I fixed this so it runs by updating 'show' -> 'plottype' in the call to the window method of coneMosaicRect. But,

if you run it to the end it produces a strange plot that looks like this:

A screenshot of a computer

Description automatically generated

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cones/t\_conesEyeSensitivity.m -- BROKEN!

@Nicolas

This is a tree shrew related tutorial. It was calling a function coneMosaicTreeShreeCreate, which fails because

we no longer have a cone mosaic. I switched to cMosaicTreeShrewCreate, but that fails because it also calls

coneMosaicHex. It looks like this is to get cone positions. We need to remove this dependence.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/cones/t\_conesMapRF.m -- BROKEN!

@Nicolas

This depends on something called the RetinaToVisualFieldTransformer object, but that does not exist.

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/data/underDevelopment/t\_rgcEccData.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/eyemovement/t\_fixationalEM.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/eyemovement/t\_fixationalEyeMovementsAndConeMosaicVideo.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/eyemovement/underDevelopmentReplaceConeMosaicHex/t\_fixationalEMConeSampling.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/eyemovement/underDevelopmentReplaceConeMosaicHex/t\_fixationalEMTimeSampling.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/eyemovement/underDevelopmentReplaceConeMosaicHex/t\_fixationalEyeMovementsToIsomerizations.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/fetchScene.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/supportInDegs.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizeConeExcitationResponse.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizePSFfromOI.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizeRGBrenditionsOfSceneAndRetinalImage.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizeSpatialSpectralRadiance.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizeSpatialSpectralRadianceOfRetinalImage.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/support/visualizeSpatialSpectralRadianceOfScene.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/hyperspectral/underDevelopmentReplaceConeMosaicHex/t\_hyperspectralSceneTutorial.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/mrgc/t\_mRGCMosaicCheckerBoardStimulus.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/mrgc/t\_mRGCMosaicDynamicStimulus.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/mrgc/supportTutorials\_mRGCmosaic/t\_mRGClatticePrecompute.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/oisequences/t\_oisCreate.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/optics/t\_humanLineSpreadOI.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/optics/t\_wvfJaekenArtal2012.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/optics/t\_wvfWatsonJOV.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/outersegment/t\_linearFilters.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/outersegment/t\_osFoveaPeriphery.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/outersegment/t\_osLinearize.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/outersegment/advancedTutorials\_os/t\_osTimeStep.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/outersegment/underDevelopment\_os/t\_osCurrentsVsLuminanceLevel.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/recipes/t\_computingWithCustomPSFs.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/recipes/t\_dynamicStimulusToPhotocurrent.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/recipes/t\_generateConeSpecificStimuli.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/recipes/t\_simplePhotocurrentComputation.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/wavefront/t\_wavefrontSampling.m -- BROKEN!

/Users/dhb/Documents/MATLAB/toolboxes/isetbio/tutorials/wavefront/underDevelopment/t\_wvfComputeAverageObserverConePSF.m -- BROKEN!