Subject: IDL / ENVI help with MNF masking
Posted by superman on Sun, 11 Oct 1998 07:00:00 GMT
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I am attempting to run an MNF transformation on an image that has been GPS corrected causing alot of 'black' areas surrounding the image to the point that the image is a narrow diaganol strip within the .img file. All of this 'black' (zero values) destroy the MNF image.

RSI tech support told me to "determine the mean spectrum of all the pixels that contain meaningful data (those not zero), and then assign this spectrum to all of the background pixels (zero values). --This is not a simple task in ENVI since it must be accomplished for each individual band and could take me a week per scene just to accomplis this.

RSI further said, "I realize this a really cumbersome process. If you have experience with IDL and ENVI programming, you may want to write a procedure that will run in batch mode or as a user function. That way you would not need to repeat all of the steps interactively for each band. Plus you could use the same code to do similar processing to other images i n the future. To do the same sequence of events in an ENVI/IDL procedure you would probably want to first make your mask in interactive ENVI or construct it using IDL routines such as WHERE. You can use ENVI_STATS_DOIT to calculate the mean spectrum using the mask. Then you would use ENVI_MASK_APPLY_DOIT to apply the mask using the mean values, and CF_DOIT to create your new meta file with different masked bands. Then you could use, MNF_DOIT to do the MNF transform"

Well isn't that easy! Not if you are not an ENVI or IDL programmer which I am not. It would seem to me since MNF transforms are so critical to hyperspectral processing ENVI would allow masks to be applied during the transform. In the mean time I could use any help with this problem. I could even send a dataset to demonstrate the problem. I just need to be able to mask out all the zero values before doing an MNF transform.

Thanks for any help

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