Subject: Re: How to build ASCII File
Posted by Marshad2 on Wed, 28 Nov 2007 21:37:55 GMT
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On Nov 24, 11:33 am, "devin.wh...@gmail.com" <devin.wh...@gmail.com>
wrote:
> I see what you're trying to do, but there's definitely an easier way
> to go about it. You're attempting to create a binary ENVI Spectral
> Library file that contains the spectral response curves for MASTER's
> first 25 channels (VNIR and SWIR) from the individual SRF ASCII
> files. Because of how ENVI Spectral Library files are constructed, an
> entry for a particular channel must contain response values for the
> entire wavelength range of the 25 channels, combined--even if the
> recorded values for a channel (in a single SRF file) fall over a much
> smaller range. As a result, you have to provide "filler" values of 0
> to compensate. Because each SRF file covers a different range and
> contains a variable number of entries, getting everything into one
> ENVI Spectral Library file is a bit challenging. The program below
> will build the library for you, as long as all of the individual SRF
> files and the associated header file (*.ph) are in the same folder on
> your computer. It makes liberal use of array and structure
> concatenation, subscripting, and the WHERE function to build the
> library. SORT is used in a few places to ensure that all response
> values end up in the right locations. The program is provided as is.
>
> pro create_master_spectral_reponse_sli
> compile_opt idl2
>
> header_file = dialog_pickfile(title='Select Spectral Response Header
> File', filter='*.ph', $
> get_path=header_path)
> if header_file eq '' then return
> out_name = dialog_pickfile(title='Select Output Library Name',
> path=header_path)
> if out_name eq '' then return
>
> spec_search = file_search(header_path, '*.c*', count=spec_count)
> if spec_count ne 50 then begin
> ok = dialog_message('You must have all 50 MASTER spectral response
> curve files to proceed', $
> /error)
> return
> endif
>
> ;Sort response files from lowest to highest band
> spec_sort = sort(spec_search)
> spec_search = spec_search[spec_sort]
>

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>       envi_read_cols, header_file, parameters
>
>       band_nums = lindgen(25)+1
>       band_names = replicate('Band',25) + ' ' + strtrim(string(band_nums),
> 2)
>
>       ;Read in spectral response files and create
>       ;structure array to hold all returned info
>       spec_struct = {sensor_type:'MASTER'}
>       wl_array = dblarr(1)
>       for i=0,24 do begin
>             envi_read_cols, spec_search[i], spec_data
>             spec_struct = create_struct(spec_struct, band_names[i], spec_data)
>             wl_array = [wl_array, reform(transpose(spec_data[0,*]))]
>       endfor
>
>       wl_array = wl_array[1:*]
>       wl_array = wl_array[sort(wl_array)]
>       num_measure = n_elements(wl_array)
>
>       openw, lun, out_name, /get_lun
>
>       ;Write out band-specific spectral response library entries
>       for j=1,25 do begin
>             cur_wl = (spec_struct.(j))[0,*]
>             sort_cur = sort(cur_wl)
>             num_cur = n_elements(cur_wl)
>             where_cur = where(wl_array eq cur_wl[sort_cur[0]], where_count)
>             response = reform((spec_struct.(j))[1,sort_cur])
>             response_array = dblarr(num_measure)
>             response_array[where_cur[0]:(where_cur[0]+num_cur-1)] = response
>             writeu, lun, response_array
>       endfor
>
>       free_lun, lun
>
>       file_type=envi_file_type('ENVI Spectral Library')
>       envi_setup_head, fname=out_name, data_type=5, file_type=file_type, $
>             interleave=0, nb=1, ns=num_measure, $
>             nl=25, wl=wl_array, /write, /open, r_fid=lib_fid, $
>             wavelength_unit=0, spec_names=band_names
>
> end
>
> On Nov 20, 12:19 pm, Marsh...@gmu.edu wrote:
>
>
>
```

>> Hi Guys:
>
>> I tried to make ASCII file for Spectral Response Curves obtained atftp://asapdata.arc.nasa.gov/MASTER/srf/May_03/however, it is not
>> working. Can someone give suggestions how to build ASCII file for
>> Spectral Response Curves.
>
>> Best Regards,
>
>> Arshad- Hide quoted text -
>
> - Show quoted text -

Thank You, Devin White. I really appreciate your respose.

Arshad
