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;*****
;Assignment for LAD class
;done by Kai Wang
;date:Sep 13,2010
;note: in order to show the contour of 0, I replace all 0 with -1 in the data
;*****
load "$NCARG_ROOT/lib/ncarg/nclscripts/csm/gsn_code.ncl"
load "$NCARG_ROOT/lib/ncarg/nclscripts/csm/gsn_csm.ncl"
load "$NCARG_ROOT/lib/ncarg/nclscripts/csm/contributed.ncl"
load "$NCARG_ROOT/lib/ncarg/nclscripts/csm/shear_util.ncl"
begin
;=====
;open file and read in data
;=====
nrows = 37
ncols = 12
data = asciiread("raw.txt", (/nrows,ncols/),"float")
wks = gsn_open_wks("ps","lad09")
gsn_define_colormap(wks,"BlWhRe")
res =True
;*****
;set contour levels
;*****
res@cnLevelSelectionMode = "ManualLevels"
res@cnMinLevelValF=0.
res@cnMaxLevelValF=480.
res@cnLevelSpacingF=30.
res@tmXBMode = "Explicit"
res@tmXBValues = (/0,1,2,3,4,5,6,7,8,9,10,11/)
res@tmXBLabels = (/ "Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov", "Dec" /)
res@tmXBLabelAngleF = 0
res@tmYLMode = "Explicit"
res@tmYLValues = (/0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36/)
res@tmYLLLabels =
(/ "90S", "80S", "70S", "60S", "50S", "40S", "30S", "20S", "10S", "0", "10N", "20N", "30N", "40N", "50N", "60N", "70N", "80N", "90N" /)
res@tmXBLabelFontHeightF=0.025
res@tmXTLabelFontHeightF=0.015
res@tmYLLLabelFontHeightF=0.020
res@gsnLeftString = "daily average"
res@gsnRightString = "(W/m2)"
res@gsnLeftStringFontHeightF =0.018
res@gsnRightStringFontHeightF =0.018
;*****
;width change
;*****
res@vpWidthF = 1.3
plot=gsn_csm_contour(wks,data,res)
;*****
;dash lines
; OK, I tried but failed in this part
;*****
;shade
;*****
opt = True
opt@gsnShadeFillType = "color"
opt@gsnShadeLow = 145 ;3 blue,150 yellow
plot=gsn_contour_shade(plot,0,-999,opt)
delete(opt@gsnShadeLow)
;*****
;draw panel plot with title
;*****
pres =True
pres@txString = " Solar Radiation At Top Of Atmosphere, by NCL"
gsn_panel(wks,plot,(/1,1/),pres)
end

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