**Tuflow FV Matlab Functions**

Function List:

**Figure:**

* tfv\_getcurtainview.m
* tfv\_plotcurtain.m
* tfv\_plotsheet.m
* tfv\_plotmesh.m

**File:**

* tfv\_readBCfile.m
* tfv\_readfvc.m
* tfv\_readoutputcsv.m

**Netcdf:**

* tfv\_infonetcdf.m
* tfv\_readnetcdf.m

**Example Usage**

**Plot Curtain:**

Requires:

* *text file of X/Y points close to desired curtain face*
* *Output netcdf file*
* *GEO netcdf file*
* *\_MASS.csv file*

**filename ='**[**D:/Studysites/Home**](file:///D:/Studysites/Home) **... Folders/Swan/Simulations/20120327\_SWAN\_002/Output/swan\_curv.nc';**

**geoname = '**[**D:/Studysites/Home**](file:///D:/Studysites/Home) **... Folders/Swan/Simulations/20120327\_SWAN\_002/Input/log/swan\_curv\_geo.nc';**

**curtpoints = '**[**D:/Studysites/Home**](file:///D:/Studysites/Home) **... Folders/Swan/Simulations/20120327\_SWAN\_002/Docs/GIS/Txt/UpperReach.xy';**

**varname = {'SAL'};**

**output = '**[**D:/Studysites/Home**](file:///D:/Studysites/Home) **... Folders/Swan/Simulations/20120327\_SWAN\_002/Output/Images/Salt\_Upper/';**

**mkdir(output);**

**massfile = regexprep(filename,'\.nc','\_MASS.csv');**

**imp = tfv\_readoutputcsv(massfile);**

**timestamp = imp.TIME;**

**[viewout] = tfv\_getcurtainview(filename,...**

**geoname,...**

**curtpoints,...**

**'timeslice',10,...**

**'variable',varname);**

**close**

**for ii = 1:10:100000**

**[fig,gridmesh,data] = tfv\_plotcurtain(filename,...**

**geoname,...**

**curtpoints,...**

**'timeslice',ii',...**

**'variable',varname,...**

**'view',viewout);**

**axis off**

**set(gca,'box','off')**

**zlim([-3 5]);**

**caxis([15 25]);**

**text(0.1,1.05,'Salinity',...**

**'Units','Normalized',...**

**'Fontname','Candara',...**

**'Fontsize',16);**

**text(0.1,0,datestr(timestamp(ii),'dd/mm/yyyy'),...**

**'Units','Normalized',...**

**'Fontname','Candara',...**

**'Fontsize',16);**

**print(gcf,'-dpng',[output,'Salt\_',num2str(ii),'.png'],'-opengl');**

**close**

**end**