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| **Vmstools Reference Card** | | |
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| **Data** | | |
| **data(eflalo2)** load eflalo2 test dataset | | |
| **data(tacsat)** load the tacsat test dataset | | |
| **data(harbours)** load the harbour test dataset | | |
| **data(VMShf)** load the VMS high ping rate test dataset | | |
| **data(VMS)** load the VMS test dataset | | |
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| **Metièr definitions** | | |
| **Classif()** | | |
| **Fonctions()** | | |
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| **Tacsat Behavior Analyses** | | |
| **filterVMS(tacsat)** filter out records that do not lay within a speed range  and/or change of heading interval | | |
| **pointInHarbour(tacsat)** flags tacsat points that are positioned in a  harbour | | |
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| **Link eflalo2 - tacsat** | | |
| **merge.vms.to.logbook.at.the.ping.scale (eflalo2,tacsatplus,general,vesselid)** Merge eflalo2 and  tacsat+ on tacsat ping level | | |
| **mergeEflalo2Tacsat(eflalo2,tacsat)** Merge eflalo2 and tacsat at  trip level | | |
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| **Interpolate tacsat** | | |
| **interpolateVMS(VMS,interval,margin,res,method,params,headingAdjustment)** interpolate tacsat data between pings *x*  minutes apart using straight line or cubic Hermite spline interpolation | | |
| **calculateCI(longitudes,latitudes,interpolations,indexInterpolation,tacsat,grid,spatialDataFrame,singleInterpolation,indexTacsat,parameters)** calculate a confidence  interval around the interpolation | | |
| **diffInter(interpolation,tacsatHighRes)** calculate difference  between true high-resolution data and interpolated dataset | | |
| **distanceInterpolation(interpolation)** calculate length of  interpolation | | |
| **distanceVMS(VMS,index)** calculate distance between gps coordinates  of a complete VMS dataset | | |
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| **Plotting** | | |
| **createGrid(xrange,yrange,resx,resy)** create spatial grid | | |
| **mapGrid()** | | |
| **vmsGridCreate()** | | |
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| **Converting** | | |
| **bearing(lon1,lat1,lon2,lat2)** calculate bearing from tacsat  longitude and latitude data | | |
| **degree2Km(lon,lat,degree)** convert degrees to kilometers, only in  longitudinal direction | | |
| **distance(lon1,lat1,lon2,lat2)** calculate distance between two  gps coordinates | | |
| **km2Degree(lon,lat,km)** convert kilometers to degrees, only in  longitudinal direction | | |
| **lonLatRatio(lon,lat)** compute the ratio between distance in longitude  and latitude | | |
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