## **HFR Total Processing**

```
runRtv( domain, resolution, [options] )
Initiated via cron operationally or manually via CLI
for reprocessing
                                                                      Configuration, Logging & Process Control
                                                                     c = configureRtv( domain, resolution )
                                                                        c = rtvMetadata(c)
processRtv( domain, resolution, configureRtv, [options])
                                                                     logger = Logger( c.log )
                                                                     IPC = FileLock( c.lock )
                                                  RTV Processing
                           rtv(c, logger)
                              t = rtvGetProcessTimes( c, logger )
                              c = rtvGetSiteConfig( c, logger, t)
                              [c, r] = rtvLoadRadials(c, logger, t)
                                  r = rtvReadRadialFile(s)
                              U = rtvComputeTotals(c, logger, r)
                                  [ u, v, dopx, dopy, hdop ] = uwlsTotal( rSpeed, rHeading )
                              [r, U] = rtvMergeData(c, logger, r, U)
                              [ success, message ] = saveMat(c, t, U, r)
                               [ success, message ] = saveAscii(c, U)
                              [ success, message ] = rtvSaveNetcdf( c, t, U, r )
                                                  STC Processing
                           stc( c, logger )
                              t = findNewRtvs( c, logger )
                              A = stcCompute25hrAvg(c, logger, t)
                              [ success, message ] = saveMat( c, t, A )
                              [ success, message ] = saveAscii( c, A )
                              [ success, message ] = stcSaveNetcdf( c, t, A )
                                                  LTA Processing
                           Ita( c, logger )
                              ltaMonthly( c, logger )
                                  S = ItaMonthlySum(c, logger, t)
                                  [ success, message ] = saveMat( c, t, S )
                                  A = ItaMonthlyAvg(c, logger, S)
                                  [ success, message ] = saveMat( c, t, A )
                                  A = ItaQCmask(logger, A, t, c)
                                  [ success, message ] = saveAscii( c, A )
                                  [ success, message ] = ItaSaveNetcdf( c, t, A )
                              ItaAnnual( c, logger )
                                  A = ItaAnnualAvg( c, logger, year )
                                  [ success, message ] = saveMat( c, t, A )
                                  A = ItaQCmask(logger, A, t, c)
                                  [ success, message ] = saveAscii( c, A )
                                  [ success, message ] = ltaSaveNetcdf( c, t, A )
```