The geoknife package

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1 Introduction to geoknife

For information on getting started in R and installing the package.

2 General Workflow

```
library(geoknife)
```

```
# create geoknife object w/ defaults
geoknife <- geoknife()
# give this geoknife object a linear ring as the
# feature of interest (will be adding multiple rings in the future)
linearRing = bufferPoint(c(-111.48,36.95))
geoknife <- setFeature(geoknife,list(LinearRing=linearRing))

# get a list of available processing algorithms
getAlgorithms(geoknife)
```

```
# set processing algorithm to feature weighted grid statistics
# feature weighted:
geoknife <- setAlgorithm(geoknife,getAlgorithms(geoknife)[4])

# set the post inputs for the processing dataset
geoknife <- setProcessInputs(geoknife,
   list('DATASET_ID'='Downward_longwave_radiation_flux_surface',
   'DATASET_URI'='dods://igsarm-cida-thredds1.er.usgs.gov:8081/qa/thredds/dodsC
   'TIME_START'='2010-01-01T00:00:00Z',
   'TIME_END'='2010-01-01T23:00:00Z',
   'DELIMITER'='TAB'))

# print it out so you know what's up
geoknife

# kick off your request
geoknife <- startProcess(geoknife)

status.geoknife <- checkProcess(geoknife)

cat('checking status of GDP request.
    Large complex requests take longer to process.\n')

repeat{
  if (!is.null(status.geoknife$URL) | status.geoknife$status!=""){
    break
  }
  cat('checking process...\n')
  Sys.sleep(10)
  if (is.null(status.geoknife$URL)){
    status.geoknife <- checkProcess(geoknife)
  }
}

if (status.geoknife$status=='Process successful'){
  cat(paste(status.geoknife$status,
            '\nDownload available at: ',status.geoknife$URL,sep=''))
} else {
  cat(status.geoknife$status)
}
```

2.1 Introduction