

Other language comparisons

Thursday, June 9, 2022

5:22 PM

Python:

`sm_coreurl (page, logon, start, extent)` **internal helper**

forms a url with:

`base_url + page + start + logon + extent (duration)`
jhu.com service starttime username

`sm_csvitem_to_list (myarr)` **external helper**
convert csv data to list

`sm_csvitem_to_dict (myarr, **kwargs)` **external helper**
converts csv to list.

`sm_parse_start` **internal helper**
converts list, datetime to superMag format.

`sm_dateTOYMDHMS (tval, yr, mo, dy, hr, mt, sc)` **unused**
sample code of conversion

`sm_keycheck_data (flagstring)` **internal helper**
add optional flags to the url

possible choices: mlt, mag, geo, decl, sza / "all" for all 5
delta = start
baseline = yearly, baseline = none

format:

&option &option ...

side note: consider checking for mono-instance
no &decl &decl & mlt & mlt

perhaps? not baseline = yearly & baseline = none?

`sm_checkkey_indices (flagstring)` **internal helper**

output: indices + swi + imf

indices: "&indices="

swi: "&swi="

imf: "&imf="

used double for loop to go through both reference list & user input.

if `userinput (from userinputs) = "all" / "indicesall" + indices + "all,"`
"swi"all" → swi + "all,"
"imf"all" → imf + "all,"

there exist different variations of a key.

basekey: no modifiers

sunkey: with modifier **s** at the end.

darkkey: with **d** at the end

regkey: with **r** at the end

pluskey: keys that don't have a modified version

sunkey is available with **sunbasekey** and **basekeys**
darkkey is available with **darkbasekey** and **basekeyd**
regkey is available with **regbasekey**, **regionalbasekey**, and **basekeyr**

pluskey
basekey
imfkey
swikey
} is available when name matches exactly.

when special vals **baseall, sunall, darkall, regionalall, regall, plusall**
is detected, all all keys in that category to **indices**

clean up tags by removing unused headers (imf, indices, swi)
replace **&** with **&**.

`sm_geturl (fetchurl, fetch="raw")`: **internal helper**
fetch the data with the url and **decode** it

↓
difficult with R.
figuring it out

`SuperMAGGetInventory (logon, start, extent)` **core function**
in seconds

construct url with `sm_coreurl()` and pass in **"inventory.php"**

get data with `sm_geturl()` which returns the stations.

check get status and if successful:

if list longer than **1**:

remove header & footer

else set stations to none.

`SuperMAGGetIndices (logon, start, extent, flagstring="", **kwargs)` **core function**
construct url with **"indices.php"**

`SuperMAGGetData (logon, start, extent, flagstring, station, **kwargs)`

construct url with **"data-api.php"**

construct indices with `sm_keycheck_data()`

add station to url

get data from url