setup

overhead

tag

In[298]:=
```
home = "ert/mercury/analyze/";
Get["utility modules.m", Path → dirPack];
stamp1;
```

```
maximum memory: 0.176874 GB
seed file: /Users/dantopa/Mathematica_files/nb/seed 19_12.nb
user: dantopa, CPU: Xiuhcoatl,  MM v. 12.0.0 for Mac OS X x86
date: Mar 17, 2020, time: 10:39:04
nb: /Users/dantopa/Mathematica_files/nb/ert/mercury/analyze/json-01.nb
```

modules, functions, settings, ...

import

In[307]:=
```
RCS = Import[dirData <> "rcs-values.dat"];
n = Length[RCS]
```

Out[308]=
```
28
```

(frequencies, degrees)

In[309]:=
```
Dimensions[RCS]
```

Out[309]=
```
{28, 361}
```

center yaw on the nose

In[310]:=
```
RCS = RotateLeft[RCS, 180];
```

json writer

inits

In[311]:=
```
tab = "        ";
file = "firstJSON.txt";
fname = dirData <> file;
```

write JSON file

In[314]:=
```
json = OpenWrite[fname, PageWidth → Infinity];
Write[json, "user: ", user, ", CPU: ", CPU, ", Mathematica v. ", mmv]
Write[json, "source: ", dirHome, nb]
Write[json, date, time]
Write[json, ""]
Write[json, "Computation of mean total RCS using Mercury MoM 4.1.12"]
Write[json, ""]
Write[json, "{"]
Write[json, tab, "'Label':'Bonito5000',"]
Write[json, tab, "'ICONImage':'Bald_Eagle-sm.png',"]
Write[json, tab, "'description':'Aircraft',"]
Write[json, tab, "'nominalSpeed':400,"]
Write[json, tab, "'CIT':2,"]
Write[json, tab, "'crossSection':["]
Do[
  Do[
    σ = RCS[[ν - 2, α + 181]];
    Write[json, tab, tab, "{'Deg':", α, ",'Freq':", ν, ",'Val':", σ, "},"];
    , {ν, 3, 30}];
  , {α, -180, 180}];
Write[json, tab, "]"]
Write[json, "}"]
Close[json];
```

clean up file - use JSON delimeters

In[332]:=
```
str = Import[fname, "Plaintext"];
(* remove " *)
strX = StringReplace[str, FromCharacterCode[34] → ""];
(* ' → "" *)
strX = StringReplace[strX, "'" → FromCharacterCode[34]];
(* kill final comma in lieu of ] *)
pos = Last[StringPosition[strX, ","]];
strX = StringReplacePart[strX, "", pos];
Export[fname, strX];
```

---

end