

BADA for Traffic Complexity

Traffic Complexity Score uses BADA coefficients for aircraft performance.

The scripts in this directory are used to extract the aircraft performance parameters in a CSV file that can then be imported in the relevant ORACLE schema.

Please note that all scripts are version controlled under git and hosted on Github at the following URL:

<https://github.com/euctrl-pru/bada4trafficcomplexity>

Should you need any changes, please submit a pull request.

Extract BADA dataset

Extract the BADA zip in a folder, i.e. `bada_3131`

This folder should now contains a set of files like:

```
$ ls -l bada_3131
total 6580
-rw-r--r-- 1 spi 1049089 2547 May 13 2013 A124___.APF
-rw-r--r-- 1 spi 1049089 4453 May 13 2013 A124___.OPF
-rw-r--r-- 1 spi 1049089 14376 May 22 2013 A124___.PTD
-rw-r--r-- 1 spi 1049089 5401 May 22 2013 A124___.PTF
-rw-r--r-- 1 spi 1049089 2547 May 15 2013 A140___.APF
-rw-r--r-- 1 spi 1049089 4453 May 15 2013 A140___.OPF
-rw-r--r-- 1 spi 1049089 10208 May 22 2013 A140___.PTD
-rw-r--r-- 1 spi 1049089 4087 May 22 2013 A140___.PTF
...
...
-rw-r--r-- 1 spi 1049089 2547 May 7 2013 YK40___.APF
-rw-r--r-- 1 spi 1049089 4453 Aug 22 2014 YK40___.OPF
-rw-r--r-- 1 spi 1049089 10729 Aug 25 2014 YK40___.PTD
-rw-r--r-- 1 spi 1049089 4251 Aug 25 2014 YK40___.PTF
-rw-r--r-- 1 spi 1049089 2547 May 7 2013 YK42___.APF
-rw-r--r-- 1 spi 1049089 4453 May 7 2013 YK42___.OPF
-rw-r--r-- 1 spi 1049089 12292 May 22 2013 YK42___.PTD
-rw-r--r-- 1 spi 1049089 4743 May 22 2013 YK42___.PTF
```

Sanity check

In order to make sure that there is no spurious data file or that the file format has not changed, you need to run the `sanity_check_PTF.awk` script

```
There is something fishy in the PTF files!
$ echo $?
1
```

```
$ ./sanity_check_PTF.awk bada_3131/*.PTF
$ echo $?
0
```

The following command will extract the relevant aircraft performance parameters in CSV format:

The outcome is similar to the following:

Import to ORACLE

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Otherwise import scripts and support files for SQL Loader can be generated via SQL Developer as described in [this post](#).

The files `bada_ptf_3131.sh`, `bada_ptf_3131.bat` and `bada_ptf_3131.ctl` are an example.

If you want to reuse them, **Please change the relevant filepath in order to accomodate for the actual location of the CSV and log files and/or ORACLE table.**

In order to run the `bada_3131.csv` it then suffice to execute

```
$ ./bada_3131.sh
```