sandialabs / **slycat-data**

A directory of sample data that can be used by slycat

10 commits | **2** branches | **0** releases | **2** contributors

Branch: **master** | **New pull request** | **Create new file** | **Upload files** | **Find file** | **Clone or download**


alexsielicki Adding .gitignore file — Latest commit `b28c7ff` 31 minutes ago

TAIS	changed paths from slycat/data to /slycat-data/	2 years ago
.gitignore	Adding .gitignore file	31 minutes ago
README.md	Update README.md	2 years ago
cars.csv	adding data	2 years ago
make-cars.py	adding data	2 years ago
make-prn.py	adding data	2 years ago
waves1.prn	adding data	2 years ago
waves2.prn	adding data	2 years ago
waves3.prn	adding data	2 years ago

README.md

Slycat-data

A directory of sample data that can be used by **Slycat web-based ensemble analysis**

Overview

The following datasets are included with Slycat for the tutorials and for regression testing.

cars.csv

This was the 1983 ASA Data Exposition dataset. The dataset was collected by Ernesto Ramos and David Donoho and contains a label plus 8 variables for 406 different cars. The data contains NaNs in several records.

The original cars.data archive was retrieved from StatLib, the Datasets Archive located at http://lib.stat.cmu.edu/datasets

The archive was expanded with

```
$ sh cars.data
```

Then, the cars.csv file was extracted from cars.names and cars.data using

```
$ python make-cars.py > cars.csv
```

waves1.prn, waves2.prn, waves3.prn

These are timeseries data synthesized using the make-prn.py script and compatible with PRN files generated by electrical simulation codes.

##TAIS

###Taylor Anvil Impact Scenario (TAIS) SIERRA/SM CATALYST DAKOTA.

- SIERRA/SM CATALYST DAKOTA ENSEMBLE ANALYSIS of an Oxygen Free High Conductivity (OFHC) Copper Cylinder of Length 2.54 cm and Diameter 0.762 cm with initial velocity of 190 m/sec impacts a rigid wall.
- A Johnson-Cook inelastic constitutive law was used with the finite element analysis code, SIERRA/SM (i.e., "presto"), to numerically predict the response and final deformed shape.
- The Dakota parameter sensitivity study considered four parameters of the Johnson-Cook constitutive law, AJO, BJO, NJO, and BETA (the fraction of plastic work converted to heat).