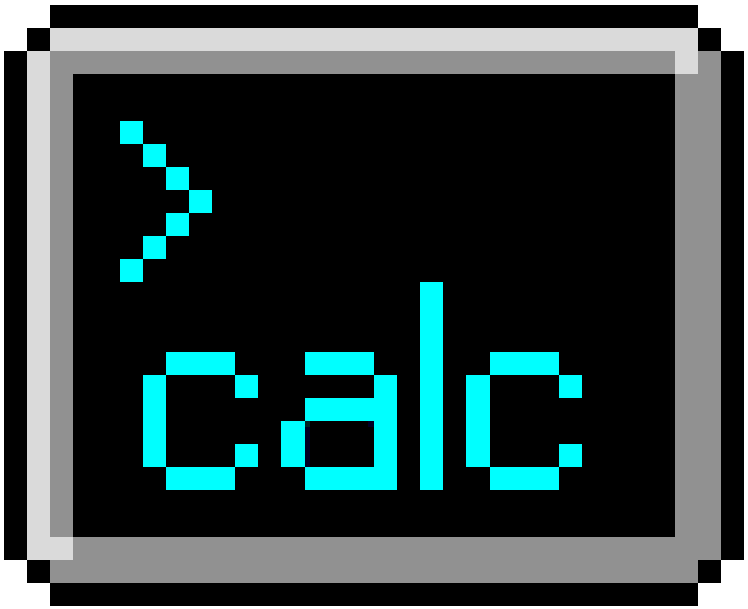
tab_calc — column calculator



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Problem


```
; Analytical estimate
; N =            2000
; M =    1.00000000000000
 0.100000000000000        0.194963273695390        0.452280145149274
 0.200000000000000        9.394811338740788E-002   0.323391367380061
 0.300000000000000        4.084729010535589E-002   0.200191059613909
 0.400000000000000        4.292707466984787E-003   7.657484986078489E-002
 0.500000000000000       -7.612910840109233E-003   9.831300477361030E-003
 0.600000000000000       -5.107206163155024E-003   9.517306866829316E-005
 0.700000000000000       -2.542372564188784E-003   1.329229054067548E-008
 0.800000000000000       -1.361691080886834E-003   4.585636647390338E-015
 0.900000000000000       -7.643529836984155E-004   2.058043776584193E-025
  1.00000000000000       -4.424826178663354E-004   2.133254014119388E-041
  1.10000000000000       -2.612563088200786E-004   1.009698704521469E-070
  1.20000000000000       -1.556945721021596E-004   2.812543508576504E-115
  1.30000000000000       -9.248354070395218E-005   7.979046074182607E-181
  1.40000000000000       -5.375035345279097E-005   9.736205305495680E-275
  1.50000000000000       -2.955319774665858E-005    0.00000000000000
  1.60000000000000       -1.418167774705137E-005    0.00000000000000
  1.70000000000000       -4.203683556061041E-006    0.00000000000000
  1.80000000000000        2.708637025001526E-006    0.00000000000000
  1.90000000000000        8.564231211634461E-006    0.00000000000000
  2.00000000000000        1.540864936608158E-005    0.00000000000000
```

Motivation

- Everyday need in simple (and not very simple too) operations on data files;
- No tool can do everything I want;

Here it comes!

- FORTRAN-based $\rightarrow$ extremely quick!
- Column/row counts detected on-the-fly.
- Comments and bad-line skipping support.
- IO and commands are independent.
- $\sim$ 30 commands ready.

Basic commands

- sum, average, minimum, maximum;
- median, geometric and harmonic means;
- dispersion, skewness and moments;
- sorting;

Advanced commands

- Histograms (1- and 2-dimensional);
- Distributions (1- and 2-dimensional);
- Fits (linear and power-law);
- Table function integration, zero- and extrema-search.

Group-by option

- Allows grouping by several (non-string) columns;
- Works only for several simple commands;

Future

- Batch processing for several files;
- Python experiments (slow, but flexible...);
- Better string support.