

tab_calc — column calculator



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Problem



```
; Analytical estimate
; N =      2000
; M =      1.0000000000000000
0.1000000000000000      0.194963273695390      0.452280145149274
0.2000000000000000      9.394811338740788E-002      0.323391367380061
0.3000000000000000      4.084729010535589E-002      0.200191059613909
0.4000000000000000      4.292707466984787E-003      7.657484986078489E-002
0.5000000000000000      -7.612910840109233E-003      9.831300477361030E-003
0.6000000000000000      -5.107206163155024E-003      9.517306866829316E-005
0.7000000000000000      -2.542372564188784E-003      1.329229054067548E-008
0.8000000000000000      -1.361691080886834E-003      4.585636647390338E-015
0.9000000000000000      -7.643529836984155E-004      2.058043776584193E-025
1.0000000000000000      -4.424826178663354E-004      2.133254014119388E-041
1.1000000000000000      -2.612563088200786E-004      1.009698704521469E-070
1.2000000000000000      -1.556945721021596E-004      2.812543508576504E-115
1.3000000000000000      -9.248354070395218E-005      7.979046074182607E-181
1.4000000000000000      -5.375035345279097E-005      9.736205305495680E-275
1.5000000000000000      -2.955319774665858E-005      0.000000000000000
1.6000000000000000      -1.418167774705137E-005      0.000000000000000
1.7000000000000000      -4.203683556061041E-006      0.000000000000000
1.8000000000000000      2.708637025001526E-006      0.000000000000000
1.9000000000000000      8.564231211634461E-006      0.000000000000000
2.0000000000000000      1.540864936608158E-005      0.000000000000000
```



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 → extremely quick!
- Column/row counts detected on-the-fly.
- IO and commands are independent.
- ~ 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);
- Fit (linear and power-law);
- Table function integration, zero- and extremum-finding.



Group-by option

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

Future



- Python experiments (slow...);
- Better string support.