

NAME

rahisto – print histogram of metrics from **argus(8)** data.

SYNOPSIS

rahisto [**-M** *histomode*] [**-H** *bin[L]:range/size ...*] [**raoptions**] [**--** *filter-expression*]

DESCRIPTION

Rahisto reads **argus** data from an *argus-data* source, sorts the records based on the criteria specified on the command line, and outputs a valid *argus-stream*.

OPTIONS

Rahisto, like all ra based clients, supports a number of **ra options** including filtering of input argus records through a terminating filter expression. See **ra(1)** for a complete description of **ra options**. **rahisto(1)** specific options are:

-M nozero

Don't print bins that have zero frequencies.

-M outlayer

Print accumulated stats for outlayer values, i.e. the values that are outside the histogram range.

-H metric bin[L]:range / size

Supported metrics are:

| | |
|----------------------|--|
| dur | record total duration. |
| avgdur | record average duration. |
| proto | transaction protocol. |
| sport | source port number. |
| dport | destination port number. |
| stos | source TOS byte value. |
| dtos | destination TOS byte value. |
| sttl | src -> dst TTL value. |
| dttl | dst -> src TTL value. |
| [sld]bytes | [src dst] transaction bytes. |
| [sld]appbytes | [src dst] application bytes. |
| [sld]pkts | [src dst] packet count. |
| [sld]meansz | [src dst] mean packet size. |
| [sld]load | packets per second. |
| [sld]loss | pkts retransmitted or dropped. |
| [sld]ploss | percent pkts retransmitted or dropped. |
| [sld]rate | bits per second. |

INVOCATION

A sample invocation of **rahisto(1)**. This call reads **argus(8)** data from **inputfile** and generates a frequency distribution histogram for the transaction duration for HTTP traffic.

```
% rahisto -H dur 10 -r ~/argus/data/argus*out.gz - port http
N = 194      mean = 15.928685  stddev = 23.728876  max = 81.354462  min = 0.008055
           median = 0.079948    95% = 59.208977
Class      Interval          Freq    Rel.Freq    Cum.Freq
  1  0.000000e+00           123    63.4021%    63.4021%
  2  8.200000e+00            7      3.6082%    67.0103%
  3  1.640000e+01           13      6.7010%    73.7113%
  4  2.460000e+01            9      4.6392%    78.3505%
  5  3.280000e+01            0      0.0000%    78.3505%
  6  4.100000e+01            0      0.0000%    78.3505%
  7  4.920000e+01            6      3.0928%    81.4433%
  8  5.740000e+01           35     18.0412%    99.4845%
  9  6.560000e+01            0      0.0000%    99.4845%
 10  7.380000e+01            1      0.5155%   100.0000%
```

A sample invocation where the call reads **argus(8)** data from **inputfile** and generates a frequency

distribution histogram for the round-trip time of arp volleys in **argus(8)** data.

```
% rahisto -H dur 10:0-75u -R /Vol*/Data/Archive/split/*68/2012/0[23] - arp and dur gt 0
N = 360      mean = 0.000028  stddev = 0.000007  max = 0.000066  min = 0.000014
            median = 0.000031  95% = 0.000028
            mode = 0.000026
```

| Class | Interval | Freq | Rel.Freq | Cum.Freq |
|-------|--------------|------|----------|-----------|
| 1 | 0.000000e+00 | 0 | 0.0000% | 0.0000% |
| 2 | 7.500000e-06 | 2 | 0.5556% | 0.5556% |
| 3 | 1.500000e-05 | 63 | 17.5000% | 18.0556% |
| 4 | 2.250000e-05 | 188 | 52.2222% | 70.2778% |
| 5 | 3.000000e-05 | 71 | 19.7222% | 90.0000% |
| 6 | 3.750000e-05 | 23 | 6.3889% | 96.3889% |
| 7 | 4.500000e-05 | 10 | 2.7778% | 99.1667% |
| 8 | 5.250000e-05 | 2 | 0.5556% | 99.7222% |
| 9 | 6.000000e-05 | 1 | 0.2778% | 100.0000% |
| 10 | 6.750000e-05 | 0 | 0.0000% | 100.0000% |

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SEE ALSO

ra(1), rarc(5), argus(8),

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BUGS