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# Tranalyzer2

protoStats



Protocol Statistics

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Tranalyzer Development Team

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## 1 protoStats

### 1.1 Description

The protoStats plugin provides protocol/port sorted frequency statistics about the observed OSI layer 4 protocols and ports to the file named `PREFIX_protocols`. Protocols numbers are decoded via a `proto.txt` file, automatically installed with the plugin.

### 1.2 Dependencies

#### 1.2.1 Required Files

The following files are required:

- `PST_L2ETHFILE ("ethertypes.txt")`
- `PST_PORTFILE ("portmap.txt")`
- `PST_PROTOFILE ("proto.txt")`

### 1.3 Configuration Flags

The following flags can be used to control the output of the plugin:

Name	Default	Description
<code>PST_ETH_STAT</code>	1	Output layer 2 statistics
<code>PST_SCTP_STAT</code>	0	Output SCTP statistics
<code>PST_UDPLITE_STAT</code>	0	Output UDP-Lite statistics
<code>PST_SUFFIX</code>	<code>"_protocols.txt"</code>	Suffix for output file

#### 1.3.1 Environment Variable Configuration Flags

The following configuration flags can also be configured with environment variables (`ENVCTRL>0`):

- `PST_SUFFIX`
- `PST_L2ETHFILE`
- `PST_PORTFILE`
- `PST_PROTOFILE`

### 1.4 Flow File Output

None.

### 1.5 Additional Output

- `PREFIX_protocols.txt`: protocol statistics

## 1.6 Post-Processing

The `protStat` script can be used to sort the `PREFIX_protocols.txt` file for the most or least occurring protocols (in terms of number of packets or bytes). It can output the top or bottom  $N$  protocols or only those with at least a given percentage.

- list all the options: `protStat --help`
- for better readability, use `protStat` with `tcot`: `protStat ... | tcot`
- sorted list of protocols (by packets): `protStat PREFIX_protocols.txt`
- sorted list of protocols (by bytes): `protStat PREFIX_protocols.txt -b`
- top 10 protocols (by packets): `protStat PREFIX_protocols.txt -n 10`
- bottom 5 protocols (by bytes): `protStat PREFIX_protocols.txt -n -5 -b`
- protocols with packets percentage greater than 20%: `protStat PREFIX_protocols.txt -p 20`
- protocols with bytes percentage smaller than 5%: `protStat PREFIX_protocols.txt -b -p -5`
- TCP and UDP statistics only: `protStat PREFIX_protocols.txt -udp -tcp`