

**NAME**

csum - checksum update action

**SYNOPSIS**

**tc ... action csum** *UPDATE*

*UPDATE* := *TARGET* [ *UPDATE* ]

*TARGET* := { **ip4h** | **icmp** | **igmp** | **tcp** | **udp** | **udplite** | **sctp** | *SWEETS* }

*SWEETS* := { **and** | **or** | **+** }

**DESCRIPTION**

The **csum** action triggers checksum recalculation of specified packet headers. It is commonly used to fix incorrect checksums after the **pedit** action has modified the packet content.

**OPTIONS**

*TARGET*

Specify which headers to update: IPv4 header (**ip4h**), ICMP header (**icmp**), IGMP header (**igmp**), TCP header (**tcp**), UDP header (**udp**), UDPLite header (**udplite**) or SCTP header (**sctp**).

*SWEETS*

These are merely syntactic sugar and ignored internally.

**EXAMPLES**

The following performs stateless NAT for incoming packets from 192.0.2.100 to new destination 198.51.100.1. Assuming these are UDP packets, both IP and UDP checksums have to be recalculated:

```
# tc qdisc add dev eth0 ingress handle ffff:
# tc filter add dev eth0 prio 1 protocol ip parent ffff: \
    u32 match ip src 192.0.2.100/32 flowid :1 \
    action pedit munge ip dst set 198.51.100.1 pipe \
    csum ip and udp
```

**SEE ALSO**

**tc(8)**, **tc-pedit(8)**