

Traffic control

```
tc qdisc [ add | change | replace | link ] dev DEV [ parent qdisc-id | root ] [ handle qdisc-id ] qdisc [ qdisc specific parameters ]
```

```
tc class [ add | change | replace ] dev DEV parent qdisc-id [ classid class-id ] qdisc [ qdisc specific parameters ]
```

```
tc filter [ add | change | replace ] dev DEV [ parent qdisc-id | root ] protocol protocol prio priority filtertype [ filtertype specific parameters ] flowid flow-id
```

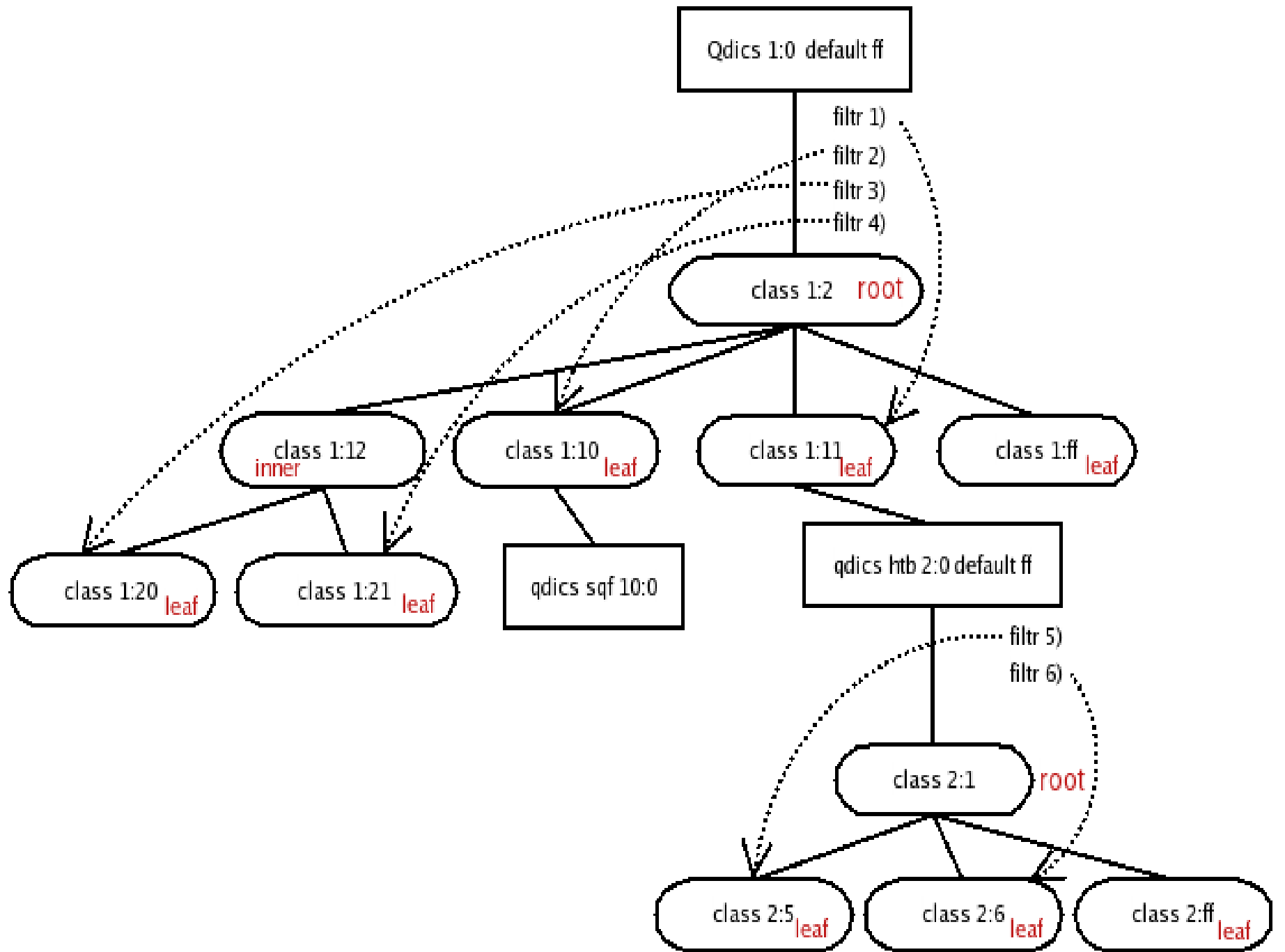
```
tc [-s | -d ] qdisc show [ dev DEV ]
```

```
tc [-s | -d ] class show dev DEV
```

```
tc filter show dev DEV
```

Classless qdiscs - [p|b]fifo, pfifo_fast, red, sfq, tbf

Classful qdiscs: cbq, htb, prio



Hierarchy Token Bucket

```
tc qdisc ... dev dev ( parent classid | root) [ handle major: ] htb [ default minor-id ]
```

```
tc class ... dev dev parent major:[minor] [ classid major:minor ] htb rate rate [ ceil rate ] [ burst bytes ] [ cburst bytes ] [ prio priority ]
```

stav třídy – HTB internal state

- < rate – HTB_CAN_SEND
- > rate, < ceil – HTB_MAY_BORROW
- > ceil – HTB_CANT_SEND