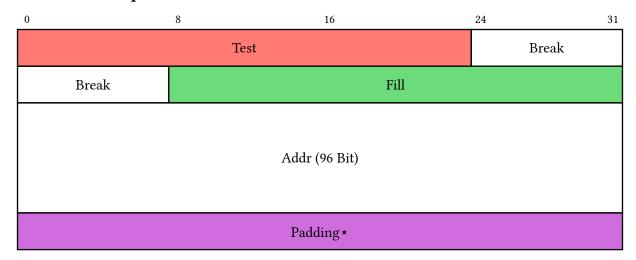
## Bytefield

## **Colored Example**



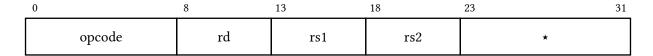
#### Show all bits in the bitheader

Show all bit headers with bitheader: "all"

| 15  |     |     |     |     |     |    |    | 7  |    |    |    |    |    |    |    | _ |
|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|---|
| B15 | B14 | B13 | B12 | B11 | B10 | В9 | B8 | B7 | B6 | B5 | B4 | B3 | B2 | B1 | B0 |   |

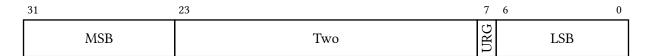
### Smart bit header

Show start bit of each bitbox with bitheader: "smart".



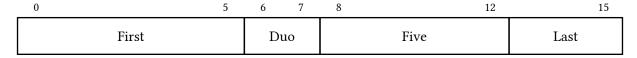
#### Reversed bit order

Select msb\_first: true for a reversed bit order.



### Custom bit header

Pass an array to specify each number.



Pass an integer to show all multiples of this number.

| 0 | 3     | 6   | 9    | 12 | 15   |
|---|-------|-----|------|----|------|
|   | First | Duo | Five |    | Last |

## IPv4

| 0                   |                | 8        | 16         |          | 24           | 31 |
|---------------------|----------------|----------|------------|----------|--------------|----|
| Version             | TTL            | TOS      | Total I    |          | Length       |    |
|                     | Identif        | ication  | Flags Frag |          | gment Offset |    |
| T                   | ΓL             | Protocol |            | Header C | Checksum     |    |
|                     | Source Address |          |            |          |              |    |
| Destination Address |                |          |            |          |              |    |
| Options             |                |          |            |          | Padding      |    |

## IPv6

| 0       | 8                             |  | 16          | 24        | 31 |  |  |  |
|---------|-------------------------------|--|-------------|-----------|----|--|--|--|
| Version | Traffic Class                 |  | Flowlabel   |           |    |  |  |  |
|         | Payload Length                |  | Next Header | Hop Limit |    |  |  |  |
|         | Source Address (128 Bit)      |  |             |           |    |  |  |  |
|         | Destination Address (128 Bit) |  |             |           |    |  |  |  |

# **ICMP**

| 0    | 8       | 16 24 3         |  |  |  |  |  |
|------|---------|-----------------|--|--|--|--|--|
| Туре | Code    | Checksum        |  |  |  |  |  |
| Iden | tifier  | Sequence Number |  |  |  |  |  |
|      | Optiona | ıl Data *       |  |  |  |  |  |

## ICMPv6

| 0    | 8                          | 16                       | 24 31 |   |
|------|----------------------------|--------------------------|-------|---|
| Туре | Code                       | Che                      | cksum |   |
| In   | ternet Header + 64 bits of | f Original Data Datagran | 1 *   | ] |

### **DNS**

| 0 | 8   | 16 | 24                       | 31 |  |  |  |
|---|---|----|--------------------------|----|--|--|--|
|   | Identification  |    | Flags                    |    |  |  |  |
|   | Number of Questions   |    | Number of answer RRs     |    |  |  |  |
|   | Number of authority RRs   |    | Number of additional RRs |    |  |  |  |
|   | Questions (64 Bit)  |    |                          |    |  |  |  |
|   | Answers (variable number of resource records) (64 Bit)                |    |                          |    |  |  |  |
|   | Authority (variable number of resource records) (64 Bit)              |    |                          |    |  |  |  |
|   | Additional information (variable number of resource records) (64 Bit) |    |                          |    |  |  |  |

| 0           | 8           |  | 16               |        | 24      | 31 |  |
|-------------|-------------|--|------------------|--------|---------|----|--|
|             | Source Port |  | Destinatino Port |        |         |    |  |
|             |             | Sequence                               | Number           |        |         |    |  |
|             |             | Acknowledgi                            | nent Number      |        |         |    |  |
| Data Offset | Reserved    | Flags                                  |                  | Win    | dow     |    |  |
|             | Checksum    |  |                  | Urgent | Pointer |    |  |
|             |             | Options                                |                  |        | Padding |    |  |
|             |             | DA                                     | ГА*              |        |         |    |  |
| 0 8         |             |  | 16               |        | 24 3    |    |  |
|             | Source Port |  | Destinatino Port |        |         |    |  |
|             |             | Sequence                               | Number           |        |         |    |  |
|             |             | Acknowledgi                            | nent Number      |        |         |    |  |
| Data Offset | Reserved    | URG<br>ACK<br>PSH<br>RST<br>SYN<br>FIN | Window           |        |         |    |  |
|             | Checksum    |  | Urgent Pointer   |        |         |    |  |
|             |             | Options                                |                  |        | Padding |    |  |
|             |             | DA                                     | ГА*              |        |         |    |  |
| UDP         |             |  |                  |        |         |    |  |
| 0           |             |  | 16               |        |         | 31 |  |
|             | Source Port |  | Destinatino Port |        |         |    |  |
|             | Length      |  | Checksum         |        |         |    |  |
|             |             | DA                                     | ·<br>ΓΑ*         |        |         |    |  |