

HDLC, continued

All frames use the same flag.

Information (I) Frames

Control Frame

| | | | | | | | |
|---|------|---|---|-----|------|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 0 | N(S) | | | P/F | N(R) | | |

Bit-Stuffing

The transmitter inserts a 0 after 5 consecutive 1s.

When the receiver is receiving data, after seeing 5 consecutive 0s, it checks the next bit. If it is a 0, then it simply strips it out. If it is a 1, however, it knows it is the flag byte and acts accordingly.

Supervisory (S) Frames

The control frame is structured a little differently than the control field of the I-frame. It starts off with a 1 0, then two bits for S,

Control Frame

| | | | | | | | |
|---|---|------|---|-----|------|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 1 | 0 | CODE | | P/F | N(R) | | |

CODE can be SREJ, REJ, RR, RNR

RR = Receiver Ready

RNR = Receiver Not Ready

Unnumbered (U) Frames

Used for doing link establishment. When one side it wants to establish a link with the other side, it sends U frames that is used for negotiating.

Control Frame

| | | | | | | | |
|---|---|---|---|-----|---|---|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 1 | 1 | M | | P/F | M | | |

