

dumping data on serial port ...

00 ff ff 04 00 52 00 41

← TinyOS Serial Forwarder Header

20 01 06 38 07 09 12 34 00 00 00 ff fe 04 00

04 01 d2 04 00 2f 9e 9e

04 27 16 01 00 00 04 80 a0 00 02 f0 aa 00 aa 80 a1 00 02 f0 aa 00 aa 80

```
serial_input_ipv6_compressed()
```

```
--- select() fired ---
```

```
---select() fired---
```

```
--- select() fired ---
```

```
--- select() fired ---
```

dumping data on serial port ...

00 ff ff 04 00 38 00 41

← TinyOS Serial Forwarder Header

20 01 06 38 07 09 12 34 00 00 00 ff fe 04 00

04 01 d2 04 00 15 00 d9

08 0d 17 01 f5 01 ce 00 01 d4 c2 04 00

← Payload with TinyTPFIX message including Data Record

```
serial_input()
```

```
--- select() fired ---
```


Data - Packet

60	00	00	00	00	15	11	41	← TinyOS Serial Forwarder Header
fe	c0	00	00	00	00	00	00	
	00	00	00	00	00	00	04 4f	← Source node: 1103
fe	c0	00	00	00	00	00	00	
	00	00	00	00	00	00	00 64	← Destination: base station
50	c7	← Source port: 20679						
12	83	← Destination port = IPFIX: 4739						
00	15	← Payload length: 21 Bytes						
41	94	← Checksum						
<u>08 0d 05 01 d2 01 e7 00 00 9c 43 04 4f</u>								

↑
Tiny IPFIX Data packet als Payload (13 Bytes)

TinyOS Serial Forwarder Header:

docs.tinyos.net/tinyos-2.x/doc/tinyserialforwarder.html
Mik-PC - Serial-Communication - end - Serial Forwarder - (pic-T2.1.1)

60	00	00	00	00	15	11	41
↑ Destination address			↑ Link source addr.		↑ msg length: 21 Byte	↑ Group ID	
							↑ Active Message handler type

Payload

3B	2B	2B	4B	2B
08 0d 05	01 d2	01 e7	00 00 9c 43	04 4f
Tiny IPFIX header	Sound 466	Temperatur 487 → 22.96°C	Node Time → 40003/1024 = 39.065 sec	Node ID → 1103

→ Länge induziert Compressions techniq. hier also aggressive approach

Zusätzliche Verifikation durch:

Folder Thomas BA: code/nodes/src/ipfix/index.h

#define COMPRESSED_HEADER 0 → aggressiv

#define COMPRESSED_HEADER 1 → default (20 Bytes)