

## Sources in iKommunicate

Each Signal K Source has a label and a sibling which is the "src" (Can address) for NMEA2000 or the talker ID for NMEA0183. Highlighted in Yellow are the critical parts of the JSON that must be present to allow Sources to work properly within the Schema.

The label can be any string but I think this should be the physical interface, clearly named so that the user can know which physical device and cable they need to look at.

So acceptable Labels will be....

<b>"NMEA2000-1"</b>	<b>The first NMEA2000 interface</b>
<b>"NMEA0183-2"</b>	<b>The second NMEA0183 port</b>
"J1939-1"	The J1939 interface of iKommunicate that is not currently used
"I2C-1"	A future I2C interface implementation
"RS232-1"	An RS232 interface on a future product
"ETH-1-TCP"	A TCP connection on Ethernet Port 1, say bringing Autopilot data from an App

NOTE – Only the first two Labels in bold will be used for iKommunicate V1, plus the 1<sup>st</sup> and 3<sup>rd</sup> NMEA0183 ports

In the Namespace we will store these sources as shown...

```
{
  "vessels": {},
  "sources": {
    "NMEA2000-1": {
      "036": {
        "n2k": {
          "src": "036",
          "manufacturer": {
            "id": 437,
            "name": "Digital Yacht",
            "productId": "1739",
            "modelId": "N2NET NMEA 2000 AIS",
            "softwareVersion": "040200.08.03.00",
            "hardwareVersion": "0",
            "serialNumber": "0000000"
          }
        },
      },
      "label": "NMEA2000-1",
      "type": "NMEA2000"
    },
    "NMEA2000-1": {
      "023": {
        "n2k": {
          "src": "023",
```

```

    "manufacturer": {
      "id": 353,
      "name": "Yamaha",
      "productId": "2789",
      "modelId": "Outboard EMU",
      "softwareVersion": "040200.08.03.00",
      "hardwareVersion": "0",
      "serialNumber": "0000000"
    },
  },
  "label": "NMEA2000-1",
  "type": "J1939"
},
"NMEA0183-1": {
  "GP": {
    "talker": "GP",
  },
  "label": "NMEA0183-1",
  "type": "NMEA0183"
}
}
}
}

```

The Deltas must have the Source Label, the sibling (src/talker), type and PGN/Sentence as show...

```

{"context": "vessels.urn:mrn:imo:mmsi:555555555", "updates": [{"source": {"type": "NMEA2000", "label": "NMEA2000-1", "pgn": "130577", "src": "036" }, "values": [{"path": "navigation.headingMagnetic", "value": 2.6405999660491943}, {"path": "navigation.headingVariation", "value": 0.303600013256073}]}]}

```

```

{"context": "vessels.urn:mrn:imo:mmsi:555555555", "updates": [{"source": {"type": "NMEA0183", "sentence": "DBT", "label": "NMEA0183-2", "talker": "II" }, "values": [{"path": "environment.depth.belowTransducer", "value": 9.68}]}]}

```