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RACOM
RADIO DATA NETWORKS

Async Link protocol for MORSE

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1. Introduction

The Async Link is the simplest protocol that creates an asynchronous link between two points. The target address is determined by the protocol parameter. Data is transferred to the radio channel without being modified and no CRC is used.

2. Data Format

Data is created by a arbitrary combination of bytes of length 1 to 1550 bytes, (the optimum length of the packet for transmission through the radio network is 100 to 500 bytes).

3. Implementation in Morse

Below is an example of processing data inserted to port SCC2, which is set with the Async Link protocol:

```
>>
Monitoring: source 690F5501|2.
10:58:29.039 rxsim   2 | S02
AAAA
CNI mon     |toa      frm     |dst      src      |           size|TT N
10:58:29.040|                 |00005502 00005501|S02I   OUT    2||89 0user
AAAA
RF mon      |toa      frm     |dst      src      |lNo!DQ!RSS size|TT N
10:58:29.040|690F5502 690F5501|690F5502 690F5501|002  RFTX    2 89 1dat
AAAA
```

• first monitoring contains inserted data AAAA

• second monitoring contains unchanged data after transfer through the protocol. A destination address is added according to the parameter.

• the third record represents a packet sent via the radio channel already furnished with all addresses

4. Configuration Parameters

The protocol uses a single parameter, which defines the address of the opposite station.

```
ASYNC LINK parameters:
link destination
(a)ddress:5502h
(q)uit
>>
```

The parameter only contains the lower two bytes of the address. Therefore it is necessary in the SIe menu to set address conversion with a mask of max. length 16 bits. The rest of address is then added from the node´s own address.

Note - the Async.link++ protocol contains the whole MORSE address in the parameter.