

Connect to N2K network

Before we can transmit N2K packages, we have to connect our device to the N2K network. We do this with the PGN 60928 - ISO Address Claim.

The PGN 60928 - ISO Address Claim sends the NAME data from our device with the sender address we have chosen.

If the address is already in use, the device with this address will compare its NAME data with ours. If it is smaller it will choose another address, else it will send its own PGN 60928 and we must change our sender address.

If a device comes online with our sender address, we will do the compare.

ISO Commanded Address

After we announced ourself a networkmanager can assign us an address. This happens through a PGN 65240 - ISO Commanded Address message.

After receiving this message we change our address to the commanded address and set the arbitrary address field in the NAME data to false.

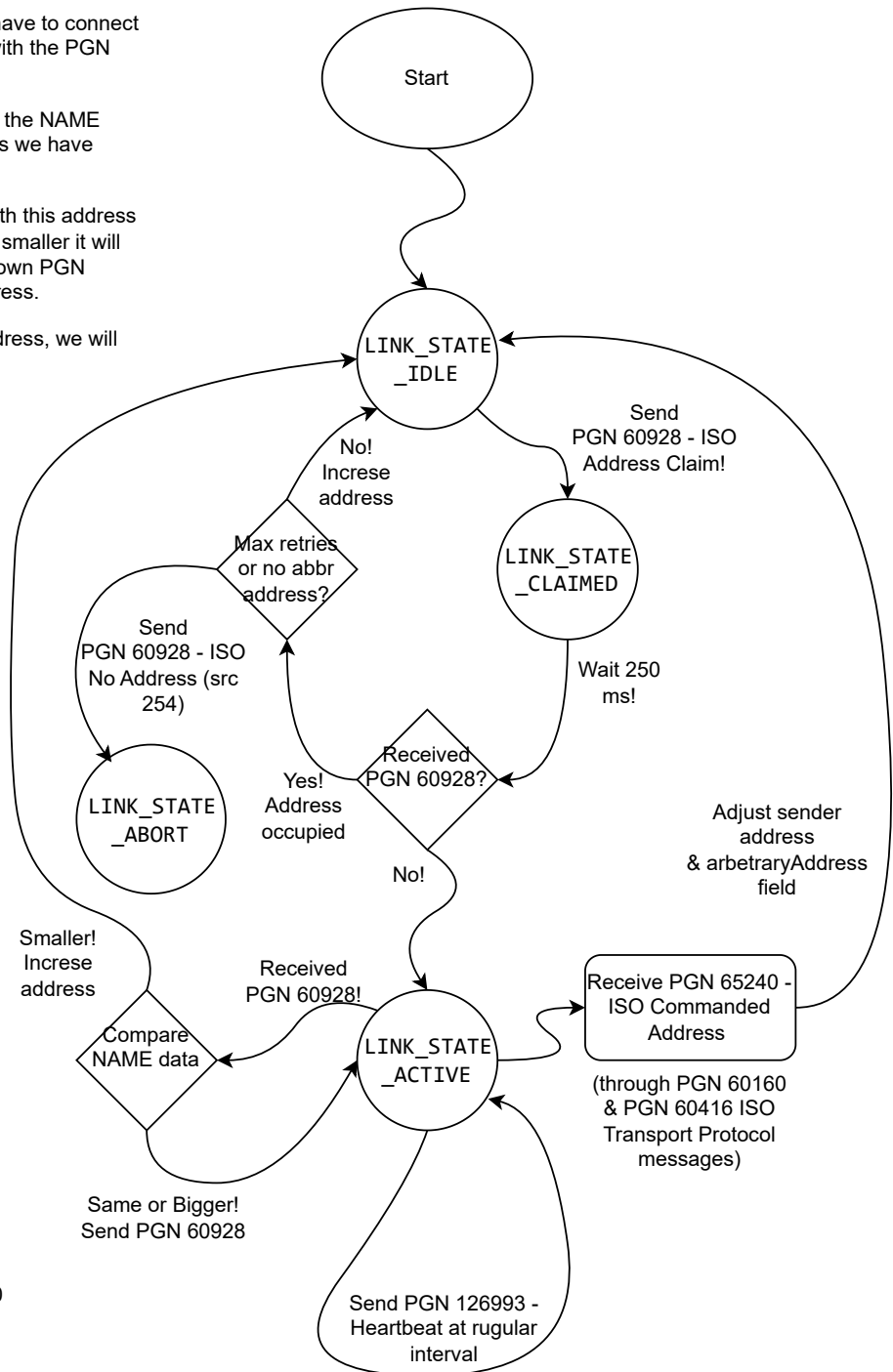
We acknowledge this message by sending a PGN 60928 with the new sender address.

Because PGN 65240 is a J1939 message and its payload is 9 bytes long, it has to be transmitted using the PGN 60160 & PGN 60416 ISO Transport Protocol messages using the BAM protocol.

Connection upkeep

The protocol expects our device to send a PGN 126993 - Heartbeat package at regular intervals.

The interval period can be set between 1000 and 60000 ms



URL's

<https://embeddedflakes.com/network-management-in-sae-j1939>