

AutoNetwork log record from PIC18 project

Used software on PC to connect to PIC18:

*Terminal [1] has been used for the captured log.
Docklight [2] can be also used.*

Used firmware on TR modules:

*1 x GeneralHWP Coordinator UART with the CustomDpaHandler-Coordinator-AutoNetwork
5 x GeneralHWP Node with the CustomDpaHandler-AutoNetwork*

(Do not forget to enable custom handler in TR configuration for HWP)

Captured log from terminal:

>S60,1,1,35,1\r

(command to start AutoNetwork algorithm where:

60=temporaryAddressTimeout

1=authorizeRetries

1=discoveryRetries

35=prebondingInterval

1=TXpower)

Algorithm round 1:

```
1:35:16.975> Automatic network construction started
1:35:16.975> Getting initial network info
1:35:17.519>
1:35:17.519> Round=1, Nodes=0, New nodes=0
1:35:17.519> Enable prebonding at coordinator, mask=0, time=60
1:35:17.630> Waiting for prebonding for 10 seconds
1:35:28.873> Disable prebonding at coordinator
1:35:29.095> Coordinator prebonded MID=81003A28, UserData=00F6
1:35:29.095> Authorizing node MID=81003A28, address 1
1:35:29.420> OK, nodes count=1
1:35:29.420> Running FRC to check new nodes
1:35:29.858> Running discovery
1:35:31.169> Discovered nodes=1
1:35:31.169> Waiting for coordinator to finish discovery
```

Algorithm round 2:

```
1:35:32.592> Round=2, Nodes=1, New nodes=1
1:35:32.592> Enable prebonding at nodes, mask=1, time=60, LEDR=1
1:35:32.806> Enable prebonding at coordinator, mask=1, time=60
1:35:32.917> Waiting for prebonding for 10 seconds
1:35:44.163> Disable prebonding at coordinator
1:35:44.382> Coordinator prebonded MID=81003A2D, UserData=0000
1:35:44.382> Running FRC to disable and check for prebonding
1:35:45.256> Node 1 prebonded MID=81003A30, UserData=00BC
1:35:45.256> Authorizing node MID=81003A2D, address 2
1:35:45.584> OK, nodes count=2
1:35:45.584> Authorizing node MID=81003A30, address 3
1:35:46.019> OK, nodes count=3
1:35:46.019> Running FRC to check new nodes
1:35:46.674> Running discovery
1:35:48.098> Discovered nodes=3
1:35:48.098> Waiting for coordinator to finish discovery
```

Algorithm round 3:

```
1:35:49.512> Round=3, Nodes=3, New nodes=3
1:35:49.512> Enable prebonding at nodes, mask=3, time=60, LEDR=1
1:35:50.058> Enable prebonding at coordinator, mask=3, time=60
1:35:50.167> Waiting for prebonding for 11 seconds
1:36:01.417> Disable prebonding at coordinator
1:36:01.635> Running FRC to disable and check for prebonding
1:36:02.835> Node 2 prebonded MID=81003A2C, UserData=0064
1:36:03.163> Node 3 prebonded MID=81003A2A, UserData=000A
1:36:03.163> Authorizing node MID=81003A2C, address 4
1:36:03.601> OK, nodes count=4
1:36:03.601> Authorizing node MID=81003A2A, address 5
1:36:04.039> OK, nodes count=5
1:36:04.039> Running FRC to check new nodes
1:36:05.019> Running discovery
1:36:06.661> Discovered nodes=5
1:36:06.661> Waiting for coordinator to finish discovery
```

Algorithm round 4:

```
1:36:07.968> Round=4, Nodes=5, New nodes=5
1:36:07.968> Enable prebonding at nodes, mask=7, time=60, LEDR=1
1:36:08.843> Enable prebonding at coordinator, mask=7, time=60
1:36:08.955> Waiting for prebonding for 11 seconds
1:36:20.201> Disable prebonding at coordinator
1:36:20.417> Running FRC to disable and check for prebonding
1:36:21.726> No new node prebonded
```

Reference:

- [1] <https://sites.google.com/site/terminalbpp/>
- [2] <http://docklight.de/>