

File - /Users/chadanlo/go/src/prr-labo2/labo2/utlis/utlis.go

```
1 /*
2 -----
3 Lab      : 02
4 File     : utlis.go
5 Authors  : François Burgener – Tiago P. Quinteiro
6 Date     : 03.12.2019
7
8 Goal     : Utility methods for conversions of the network layer
9 -----
10 */
11
12 package utlis
13
14 import (
15     "PRR-Labo2/labo2/config"
16     "encoding/binary"
17     "strconv"
18 )
19
20
21 /*****
22 *          UTILS METHODE          *
23 *****/
24
25 /**
26 * Method to convert an uint32 in byte array
27 * @param value we want to update
28 * @return the value converted in byte array
29 */
30 func uint32ToByteArray(i uint32) []byte{
31     buf := make([]byte, 4)
32     binary.LittleEndian.PutUint32(buf, i)
33     return buf
34 }
35
36 /**
37 * Method to convert an uint16 in byte array
38 * @param value we want to update
39 * @return the value converted in byte array
40 */
41 func uint16ToByteArray(i uint16) []byte{
42     buf := make([]byte, 2)
43     binary.LittleEndian.PutUint16(buf, i)
44     return buf
45 }
46
47 /**
48 * Method to init a message(REQ or OK). TYPE + Stamp + id
49 * @param message to convert
50 * @param message in byte array
51 */
52 func InitMessage(stamp uint32,id uint16, _type []byte) []byte{
53     var buf []byte
54
55     _id := uint16ToByteArray(id)
56     _stamp := uint32ToByteArray(stamp)
57
58     buf = append(buf, _type...)
59     buf = append(buf, _stamp...)
60     buf = append(buf, _id...)
61     buf = append(buf, '\n')
62     return buf
63 }
64
65 /**
66 * Method to init an update message (UPD + VALUE)
67 * @param buf we want to convert
68 * @return update message in byte array
69 */
70 func InitMessageUpdate(value uint32, _type []byte) []byte{
71     var buf []byte
72
73     _value := uint32ToByteArray(value)
74
75     buf = append(buf, _type...)
76     buf = append(buf, _value...)
77     buf = append(buf, '\n')
78
79     return buf
80 }
81
82 /**
83 * Method to convert a byte array to uint32
84 * @param buf we want to convert
85 * @return the value in uint32
86 */
87 func ConverByteArrayToUint32(buf []byte) uint32{
88     return binary.LittleEndian.Uint32(buf)
89 }
90
91 /**
```

File - /Users/chadanlo/go/src/prr-labo2/labo2/utlis/utlis.go

```
92 * Method to convert a byte array to uint16
93 * @param buf we want to convert
94 * @return the value in uint16
95 */
96 func ConverByteArrayToUint16(buf []byte) uint16{
97     return binary.LittleEndian.Uint16(buf)
98 }
99
100 /**
101 * Method to get the adress:port of the processus by id
102 * @param id of the processus
103 * @return address:port in string
104 */
105 func AddressByID(id uint16) string{
106     port := config.PORT + id
107     return config.ADDR + ":" + strconv.Itoa(int(port))
108 }
109
110
```