

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

```
1  /*
2  -----
3  Lab      : 02
4  File     : main.go
5  Authors  : François Burgener – Tiago P. Quinteiro
6  Date     : 03.12.2019
7
8  Goal     : Little client using a mutex based on the Carvalho et Roucairol algorithm
9  -----
10 */
11
12 package main
13
14 import (
15     "PRR-Labo2/labo2/processus"
16     "bufio"
17     "flag"
18     "fmt"
19     "log"
20     "os"
21     "strconv"
22 )
23
24 func main(){
25     id,N := argValue()
26     p := processus.Process{}
27     p.Init(id,N)
28     log.Println("\nClient: Initialisation done\n")
29     console(&p)
30 }
31
32 func argValue() (uint16, uint16) {
33     var proc string
34     var procN string
35     flag.StringVar(&proc, "proc", "", "Usage")
36     flag.StringVar(&procN, "N", "", "Usage")
37     flag.Parse()
38     id,err :=strconv.Atoi(proc)
39     N,err :=strconv.Atoi(procN)
40     if err != nil {
41         log.Fatal("Client: Please put a number !")
42     }
43
44     return uint16(id),uint16(N)
45 }
46
47 func console(p *processus.Process) {
48     log.Println("Client: Choice (number)")
49     log.Println("Client: -----")
50
51     scanner := bufio.NewScanner(os.Stdin)
52
53     test := uint16(1)
54
55     for{
56         fmt.Println("1 - Read critical value")
57         fmt.Println("2 - Update critical value")
58         fmt.Println("3 - Quit")
59         fmt.Print("> ")
60
61         scanner.Scan()
62         choice := scanner.Text()
63
64         switch choice {
65             case "1":
66                 a := p.Mut.GetResource()
67                 fmt.Printf("The resource is %d \n", a)
68             case "2":
69                 p.Mut.Ask()
70                 fmt.Println("Process is asking for the resource")
71                 p.Mut.Wait()
72                 fmt.Println("Other Processes gave us permission")
73                 fmt.Print("You can now enter your value: ")
74
75                 scanner.Scan()
76                 a := scanner.Text()
77
78                 b, err := strconv.Atoi(a)
79
80                 if err != nil {
81                     fmt.Println("Enter a number please")
82                     continue
83                 }
84
85                 fmt.Println(" value is", b)
86
87                 p.Mut.Update(uint32(b))
88                 p.Mut.End()
89             case "3":
90
91
```

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```
92         os.Exit(0)
93     default:
94         fmt.Println("Choose 1 or 2")
95     }
96
97     test++
98 }
99
100 }
101
```