

SOLUTION EXERCICE N°5
LIBRAIRIES ET MULTITACHE

Programme start()

```
begin
  bRobotPret=false
  bRobotEnCycle=false
  bRobotEnPause=false
  bDemandeFCY=false
  resetMotion()
  restartMove()

  taskCreate "Superviseur", 100, superV()
end
```

Programme superV()

```
begin

  call initMenu()

  do
    call affichMenu()

    l_key=getKey()
    switch l_key
      case 271
        if !bRobotPret and !bRobotEnCycle
          taskCreate "robot" , 100, repli()
          title("Cycle de repli")
          wait(taskStatus("robot")==-1)
          title("")
          bRobotPret=true
        endif
        break
      case 272
        if !bRobotEnCycle
          if prg.libLoad("dessin")==0
            gotoxy(0,11)
            put("Dessin chargee      ")
          endif
        endif
        break
      case 273
        if !bRobotEnCycle
          if prg.libLoad("echange")==0
            gotoxy(0,11)
            put("Echange chargee      ")
          endif
        endif
      endif
    endIf
```

```
break
case 274
  if !bRobotEnCycle
    if prg:libLoad("palette")==0
      gotoxy(0,11)
      put("Palette chargee      ")
    endif
  endif
break
case 275
  if bRobotPret and !bRobotEnCycle
    bRobotEnCycle=true
    bDemandeFCY=false
    taskCreate "robot" , 100, cycle()
  endif
break
case 276
  if bRobotEnCycle
    if !bRobotEnPause
      stopMove()
      bRobotEnPause=true
    else
      restartMove()
      bRobotEnPause=false
    endif
  endif
break
case 277
  if bRobotEnCycle
    bDemandeFCY=true
  endif
break
endSwitch

bRobotEnCycle=(taskStatus("robot")!=-1)
if !bRobotEnCycle
  bDemandeFCY=false
endif

delay(0)
until (l_key==278)
taskKill("robot")
cls()
title("")

end
```

Programme initMenu()

```
begin
  cls()
  userPage()
  getKey()

  // Refresh page display
  putln("")
  putln(" F1 POSITION REPLI ")
```

```
putln(" F2 CHARGEMENT 'DESSIN'")
putln(" F3 CHARGEMENT 'ECHANGE'")
putln(" F4 CHARGEMENT 'PALETTE'")
putln(" F5 START")
putln(" F6 PAUSE")
putln(" F7 FCY")
putln(" F8 QUITTER IMMEDIATEMENT")

nErr=prg:libLoad("dessin")
if nErr==0
    gotoxy(0,11)
    put("Dessin chargee      ")
else
    cls()
    popUpMsg("erreur de chargement de dessin, arret du programme")
    delay(1)
    taskKill("Superviseur")
endif
end
```

Programme AffichMenu()

```
begin

//1er menu de démarrage
gotoxy(0,13)
if !bRobotPret and !bRobotEnCycle and !bRobotEnPause
    put(" F1  F2  F3  F4          F8 ")
endif
//cycle init effectué
if bRobotPret and !bRobotEnCycle
    gotoxy(0,13)
    put("   F2  F3  F4  F5          F8 ")
endif

if bRobotEnCycle
    //efface START, affiche PAUSE et FCY
    gotoxy(0,13)
    put("              ")
    title("Robot en cycle")
    if !bRobotEnPause
        gotoxy(0,6)
        putln(" F6 PAUSE              ")
        gotoxy(27,13)
        put("F6")
    else
        gotoxy(0,6)
        putln(" F6 REPRISE => ROBOT EN PAUSE... ")
    endif
    if !bDemandeFCY
        gotoxy(32,13)
        put("F7")
    else
        gotoxy(0,7)
        putln(" F7 FCY    => ARRET EN COURS... ")
        gotoxy(31,13)
        put(" ")
    endif
endif
```

```
else
  //affiche Robot pas en cycle
  title("Cycle termine")
  gotoxy(25,13)
  put(" ")
  gotoxy(30,13)
  put(" ")
  gotoxy(0,7)
  putln(" F7 FCY ")

endif

//affichage etat du systeme
gotoxy(0,10)
if esStatus()==2
  put("ARU enclenche ")
else
  nMode=workingMode(nEtat)
  if nMode!=3
    put("Passez en mode auto ")
  else
    if !isPowered()
      put("Bras hors puissance ")
    else
      if nEtat!=0
        put("Appuyez sur MOVE/HOLD ")
      else
        put(" ")
      endif
    endif
  endif
endif
endif

end
```

Programme cycle()

```
begin
do
  call prg:start()
until bDemandeFCY
end
```

Programme repli()

```
begin
  resetMotion(jDepart)
end
```