UNIVERSIDAD NACIONAL DE INGENIERIA
FACULTAD DE INGENIERIA GEOLOGICA
MINERA Y METALURGICA

"Sistema de Información para una Unidad de Producción Minera"

T E S I S

Para Optar el Título Profesional de:

INGENIERO DE MINAS

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Promoción 89–1

Lima – Perú
1991

```
* MENU PRINCIPAL DE MODULO DE MINAS - SIMI000.prg
* cjmm
set fixe on
set safe off
set talk off
set dele on
set messa to 23
set color on
do while .t.
 CLEAR
 SET COLOR TO W+/GR
          @    1          ,          0   S          A          Y
'╔═══════════════════════════════════════════════════════════════════════
═══════╗'
 @ 2,0 SAY '║
                                                                          ‖'
          @    3          ,          0   S          A          Y
'╚═══════════════════════════════════════════════════════════════════════
═══════╝'
 SET COLOR TO GR+/GR
 @ 2,1  SAY ' SIMI                    * SISTEMA DE INFORMACION PARA
MINA *                  SIMI'
 set color to w
 @ 8,28 to 21,79 clear
 close proce
 SET COLOR TO W+/BG
 @ 5,30 TO 7,49 DOUBLE
 @ 6,31 SAY '         MINAS
 set color to w
 set color to w+/bg+
 @ 9,0 prom  '1-Actualizar Tablas 'mess '
Actualiza  Factor de Tonelaje por Carro
 @ 10,0 prom '2-Estimado de  Produccion  'mess '
Registro Mensual de Estimados de recursos por labor
 @ 11,0 prom '3-Controlar Perforacion 'mess '
Registra Taladros Perforados y Reporte Mensual
 @ 12,0 prom '4-Controlar  Extraccion  'mess '
Registro Diario  de Carros Jalados y Reporte Mensual

 @ 13,0 prom '5-Controlar  Relleno Hidraul.'mess '
Registro de Labores Rellenadas y Reportes
 @ 14,0 prom '6-Controlar Consumo Mater.'mess '
Registro de Codigo - Consumo de Materiales por Labor y Cuentas  y
Reportes
 @ 15,0 prom '7-Controlar  Equipo Mina 'mess '
Registra Hrs de Parada y Calcula Disponibilidad de Equipo

 @ 16,0 prom '8-Reportar Indices Tecnicos  'mess '
Reporte de Indices Tecnicos
 @ 17,0 prom  '9-Controlar Personal Mina'mess '
Registra personal de Mina y Tareas Normales y Sobretiempos

 @ 20,0 say space(26)
```

```
 @ 21,0 say '  ESC ---- Para salir ----  '
 menu to wopcion1
 save scree to wscreen
 do case
  case wopcion1=0
   retur
  case wopcion1=1
   do while .t.
    set color to w+/bg+
    @ 9,30 say space(34)
    @ 10,30 say '       * ACTUALIZAR TABLAS *       '
    @ 11,30 say space(34)
    @ 12,30 prom '1-Registro de Factor por Carro    ' mess '
   Registro del tonelaje que jala cada carro segun su tipo
    '
    @ 13,30 say space(34)
    @ 14,30 prom '2-Consulta al Maestro de Labor    ' mess '
Se presenta  un  listado de  todas  las Labores  autorizadas  po
Ingenieria   '
    @ 15,30 say space(34)
    @ 16,30 prom '3-Consulta al Maestro de Cuentas  ' mess '
Se  presenta  un listado  de todas  las Cuentas  autorizadas para
Minas        '
    @ 17,30 say space(34)
    @ 18,30 say '       ESC ---- Para salir ----      '
    menu to wopcion2
    if wopcion2=0
     @ 9,30 clear
     exit
    endi
    wprog='SIMI01'+str(wopcion2,1)
    set proce to &wprog
    do &wprog
    resto scree from wscreen
   enddo
  case wopcion1=2
   do while .t.
    set color to g+/bg+
    @ 9,30 say space(34)
    @ 10,30 say '  *   ESTIMADOS DE PRODUCCION   *  '
    @ 11,30 say space(34)
    @ 12,30 prom '1-Estimado Mensual de Produccion  '
    @ 13,30 prom '2-Estimado Diario de Produccion   '
    @ 14,30 prom '3-Estimado Mensual de Equipo      '
    @ 15,30 prom '6-Reporte Mensual Est-Produccion  '
    @ 16,30 prom '7-Reporte Mensual Est-Produc-Mina '
    @ 19,30 say space(34)
    @ 20,30 say '       ESC ---- Para salir ----      '
    @ 21,30 say space(34)
    menu to wopcion2
    if wopcion2=0
     @ 9,30 clear
     exit
    endi
```

```
     set color to g+
     wprog='SIMI02'+str(wopcion2,1)
     set proce to &wprog
     do &wprog
     resto scree from wscreen
    enddo
   case wopcion1=3
    do while .t.
     set color to w+/bg+
     @  9,30 say      *   CONTROLAR PERFORACION    *
     @ 10,30 say space(34)
     @ 11,30 prom '1-Reg.Diario Taladros Perforados     mess
     Registra Taladros Perforados y Reporte Diario

     @ 12,30 say space(34)
     @ 13,30 prom '2-Reporte Mensual Mts. Perforados ' mess '
Calculo y Reporte Mensual de Metros Perforados por Labor

     @ 14,30 say space(34)
     @ 15,30 prom '3-Reporte Anual Mts. Perforados   ' mess '
Calculo y Reporte Anual de Metros Perforados por Labor

     @ 16,30 say space(34)
     @ 17,30 say          ESC ---- Para salir ----
     @ 18,30 say space(34)
     menu to wopcion2
     if wopcion2=0
      set color to w,,
      @ 9,30 clear
      exit
     endi
     wprog='SIMI03'+str(wopcion2,1)
     set proce to &wprog
     do &wprog
     resto scree from wscreen
    enddo
   case wopcion1=4
    do while .t.
     set color to w+/bg+
     @ 9,30 say space(34)
     @ 10,30 say         * CONTROLAR EXTRACCION  *
     @ 11,30 say space(34)
     @ 12,30 prom '1-Reg.Diario Carros Jalados          mess
Registro Diario de Carros Jalados y Reporte Diario

     @ 13,30 say space(34)
     @ 14,30 prom '2-Reporte Mensual Tonelaje Jalado ' mess
Calculo y Reporte Mensual de Ton.Jalados por labor

     @ 15,30 say space(34)
     @ 16,30 prom '3-Reporte Anual de Tonelaje Jalado' mess
Calculo y Reporte Anual de Ton.Jalados por labor

     @ 17,30 say space(34)
```

```
  @ 18,30 say '       ESC ---- Para salir ----       '
  menu to wopcion2
  if wopcion2=0
   @ 9,30 clear
   exit
  endi
  wprog='SIMI04'+str(wopcion2,1)
  set proce to &wprog
  do &wprog
  resto scree from wscreen
 enddo
case wopcion1=5
 do while .t.
  set color to g+/bg+
  @ 9,30 say space(34)
  @ 10,30 say  ' * CONTROLAR RELLENO HIDRAULICO * '
  @ 11,30 say space(34)
  @ 12,30 prom '1-Programa Labores por Bomba      '
  @ 13,30 prom '2-Registro Labores en Relleno     '
  @ 14,30 prom '3-Registro Horas Parada de Bomba  '
  @ 15,30 prom '4-Reporte Mensual de Relleno      '
  @ 16,30 prom '5-Reporte Mensual de Disp. Bomba  '
  @ 17,30 say space(34)
  @ 18,30 say '       ESC ---- Para salir ----       '
  @ 19,30 say space(34)
  menu to wopcion2
  if wopcion2=0
   @ 9,30 clear
   exit
  endi
  set color to g+
  wprog='SIMI05'+str(wopcion2,1)
  set proce to &wprog
  do &wprog
  resto scree from wscreen
 enddo
case wopcion1=6
 do while .t.
  set color to g+/bg+
  @ 9,30 say space(34)
  @ 10,30 say  ' * CONTROLAR CONSUMO MATERIALES * '
  @ 11,30 say space(34)
  @ 12,30 prom '1-Registro Codigo Materiales      ' mess '
   Registra Codigo de Materiales a controlar
      '
  @ 13,30 prom '2-Registro Diario Consumo/ Labor  ' mess '
   Registro Diario y Reporte de Consumo por labor
      '
  @ 14,30 prom '3-Registro Diario Consumo/ Cuenta ' mess '
   Registro Diario y Reporte de Consumo por cuenta
      '
  @ 15,30 prom '4-Reporte Mensual por Labor       ' mess '
   Reporte Mensual de Consumo por Labor
      '
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```
  @ 16,30 prom '5-Reporte Mensual por Cuenta        ' mess '
   Reporte Mensual de Consumo por cuenta
   '
  @ 17,30 prom '6-Reporte Mensual Costo Mat.Cons.  ' mess '
   Reporte Mensual del Costo por Material consumido
   '
  @ 18,30 prom '7-Reporte Mensual Consumo Explos.  ' mess '
   Reporte Mensual del Consumo de Explosivos por Etapas
   '
  @ 19,30 prom '8-Reporte Mensual Consumo Barrenos' mess '
   Reporte Mensual del Consumo de Barrenos por Etapas
   '
  @ 20,30 say space(34)
  @ 21,30 say '      ESC ---- Para salir ----      '
  menu to wopcion2
  if wopcion2=0
   @ 9,30 clear
   exit
  endi
  set color to g+
  wprog='SIMI06'+str(wopcion2,1)
  set proce to &wprog
  do &wprog
  resto scree from wscreen
 enddo
case wopcion1=7
 do while .t.
  set color to g+/bg+
  @ 9,30 say space(34)
  @ 10,30 say '  *    CONTROLAR EQUIPO MINA    *  '
  @ 11,30 say space(34)
  @ 12,30 prom '1-Registro Equipo de Mina          '
  @ 13,30 prom '2-Registro Horas de Parada         '
  @ 14,30 prom '3-Reporte Mensual Disponib. Equipo'
  @ 15,30 say space(34)
  @ 16,30 say '      ESC ---- Para salir ----      '
  @ 17,30 say space(34)
  menu to wopcion2
  if wopcion2=0
   @ 9,30 clear
   exit
  endi
  set color to g+
  wprog='SIMI07'+str(wopcion2,1)
  set proce to &wprog
  do &wprog
  resto scree from wscreen
 enddo
case wopcion1=8
 do while .t.
  set color to g+/bg+
  @ 9,30 say space(34)
  @ 10,30 say ' *  REPORTAR INDICES TECNICOS  *  '
  @ 11,30 say space(34)
```

```
    @ 12,30 prom '1-Reporte por Etapas                '
    @ 13,30 prom '2-Reporte por Cuentas               '
    @ 14,30 prom '3-Reporte Anualizado                '
    @ 15,30 say space(34)
    @ 16,30 say '      ESC ---- Para salir ----       '
    @ 17,30 say space(34)
    menu to wopcion2
    if wopcion2=0
     @ 9,30 clear
     exit
    endi
    set color to g+
    wprog='SIMI08'+str(wopcion2,1)
    set proce to &wprog
    do &wprog
    resto scree from wscreen
   enddo
  case wopcion1=9
   do while .t.
    set color to g+/bg+
    @ 9,30 say space(34)
    @ 10,30 say '  *  CONTROLAR PERSONAL MINA  *    '
    @ 11,30 say space(34)
    @ 12,30 prom '1-Registro Personal Mina            '
    @ 13,30 prom '2-Registro de Horas  Trabajadas     '
    @ 14,30 prom '3-Reporte Tareas por seccion        '
    @ 15,30 prom '4-Reporte Mensual Tareas/Seccion    '
    @ 16,30 prom '5-Reporte Mensual Tareas/Colectivo'
    @ 17,30 say space(34)
    @ 18,30 say '      ESC ---- Para salir ----       '
    @ 19,30 say space(34)
    menu to wopcion2
    if wopcion2=0
     @ 9,30 clear
     exit
    endi
    set color to g+
    wprog='SIMI09'+str(wopcion2,1)
    set proce to &wprog
    do &wprog
    resto scree from wscreen
   enddo
  endc
enddo
set color to
close proc
return
```

```
*  CONSULTAR A LA MAESTRA DE LABORES SIMI012.prg
*  cjmm
proce simi012
do while .t.
CLEAR
text
═══════════════════════════════════════════════════════════════════════
═══════
SIMI                    *    SISTEMA DE INFORMACION PARA MINA    *
     SIMI012
═══════════════════════════════════════════════════════════════════════
═══════
endt
set color to w+/n
@    2        2        ,        0        0    s        a        y
'═══════════════════════════════════════════════════════════════════════
═══════'
@ 23,00 say '                                [F5] Consulta [F6] Reporte [F10]
Sale'
@ 24,00  say '                 Presione una de las Teclas para realizar
su opcion'
wkey=0
  do WHILE wkey=0
   wkey=inkey()
  endDO
  do case
     case wkey=-9
          clear
          exit
     case wkey=-4
          do sin124
     case wkey=-5
          do sin125
  endcase
enddo
return

*  Consulta de Labores
Proce simi121
DO WHILE .t.
WSECCION='  '
@ 4,0 CLEAR
@ 4,20 SAY '* CONSULTA POR SECCIONES *'
@ 6,25 SAY ' SECCION : ' GET WSECCION
READ
IF WSECCION='  '
 RETURN
ENDIF
use  silabo index silaboX2,silaboX1
SEEK WSECCION
IF .NOT. FOUND()
 @ 23,0
 WAIT 'NO EXISTE LABORES EN ESTA SECCION ....PRESIONE UNA TECLA'
 @ 24,0
```

```
 loop
ENDIF
@  5                ,                1   s                a                y
'=============================================================================
=========================='
@ 6,1 say '                                   METO   P.E.    P.E.
FECHA                A '
@ 7,1 say 'SECC NIV   NOMBRE LABOR     DO    VETA    ROCA  ETAPA
INICIO    NRO.CTA  CARGO'
@  8                ,                1   s                a                y
'=============================================================================
=========================='
wsec='y'
wlin=9
do while .not.eof().and.seccion=wseccion
 if wsec='y'
  @ wlin,2 say seccion
  wsec='n'
 endif
 @ wlin,7  say nivel
 @ wlin,12 say nomlabor
 @ wlin,28 say metodo
 @ wlin,33 say peveta pict '999.99'
 @ wlin,41 say peroca pict '999.99'
 @ wlin,50 say etapa
 @ wlin,55 say fecinic
 @ wlin,77 say cargo
 wlin=wlin+1
 if wlin>22
  @ 23,0
  wait ' CONSULTA  OK .....'
  @ 9,0 CLEAR
  wlin=9
 endif
 skip
enddo
@ 23,0
wait 'CONSULTA OK .....DAR ENTER'
@ 24,0
enddo
close data
return

*  REPORTE DE LABORES
proce simi122
CLEAR
store '  /  /  ' to wwdate
wseccion='  '
wresp='S'
text
SIMI                *   SISTEMA DE INFORMACION PARA MINA   *
     SIMI012
```

```
endt
@ 4,25  say 'Reporte de labores'
@  18,2  say  'Asegurese de que  la impresora este  prendida y el
papel colocado'
@  20,2  say 'Ingrese la  fecha del reporte  =  ' get wwdate pict
'99/99/99'
@ 22,2  say 'Desea el listado de labores ? = ' get wresp pict '!'
@ 24,2  say 'Ingrese seccion a listar ' get wseccion
read
if wresp='S'
 set devi to print
 set print on
else
 return
endif
wnomlabor=' '
wlin=60
wpagina=1
use  silabo  index silaboX2,silaboX1
SEEK WSECCION
do while .not.eof()
 wseccion=seccion
 wsec='y'
 do while .not.eof().and.seccion=wseccion
  if wlin>55
   @ 1,42 say 'R E P O R T E    D E    L A B O R E S'
   @ 2,54 say wwdate
   @ 2,76 say wpagina pict '999'
                          @   3       ,       1   s       a       y
'=============================================================================
=========================================='
   @ 4,1 say '                                                    METO   P.E.
P.E.          FECHA                    A       '
   @ 5,1 say 'SECCION   NIVEL      NOMBRE LABOR       DO    VETA
ROCA  ETAPA   INICIO    NRO.CTA   CARGO    '
                          @   6       ,       1   s       a       y
'=============================================================================
=========================================='
   wlin=7
   wpagina=wpagina+1
  endif
  if wsec='y'
   @ wlin,3 say seccion
   wsec='n'
  endif
  if nomlabor<>wnomlabor
   @ wlin,11 say nivel
   @ wlin,20 say nomlabor
   @ wlin,39 say metodo
   @ wlin,44 say peveta pict '999.99'
   @ wlin,52 say peroca pict '999.99'
   wnomlabor=' '
  endif
  @ wlin,60 say etapa
```

```
   @ wlin,66 say fecinic
   @ wlin,76 say nrocta
   @ wlin,88 say cargo
   wnomlabor=nomlabor
   wlin=wlin+1
   if wlin>55
    eject
    set prin off
    set devi to scre
    @ 22,0
    wait ' Coloque otro papel y presione ENTER ....'
    @ 23,0
    set devi to print
    set prin on
   endif
   skip
  enddo
  exit
enddo
close data
eject
set prin off
set devi to scre
return
* FIN DEL PROGRAMA SIMI012
```

```
* Estimado Mensual de Produccion y/o Labor - SIMI021.prg
* cjmm
proc simi021
close database
do while .t.
clear
text
SIMI                *    SISTEMA DE INFORMACION PARA MINA    *
     SIMI021
=============================================================================
=============
* - Estimado Mensual de Produccion y/o Labor - *

fecha  (aamm)      :      aamm                    El  estimado   es  de
(P)roduccion/(L)abor ==> ?
endt
wfecha=space(4)
wnewlab='P'
@ 05,17 get wfecha
@ 05,71 get wnewlab pict '!'
read
if Wfecha='     ' .or. Wfecha='aamm'
   clear
   exit
endif
wfecha = wfecha + '28'
i                                                                        f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
   @ 23,0
   wait ' Fecha errada.. modificar..presione ENTER'
   @ 24,0
   EXIT
endif
wfecha = subs(wfecha,1,4) + '  '
if .not. wnewlab $'LP'
   loop
endif
clear
text
SIMI              *  ESTIMADO MENSUAL DE RECURSOS POR LABOR  *
     SIMI021

Labor : XXXXXXXXXXXXXXX        Seccion : xx          Etapa  : xx
                               Nivel   : xxxx        Metodo : xx
=============================================================================
=============
ESTIMADO DE PRODUCCION    Mineral  Roto    : 99999     Desmonte Roto
 : 99999
                                   Jalado  : 99999
Jalado : 99999
                                                       Avance  (Mts)
: 9999
                                                       Relleno  (m3)
```

```
: 9999
                                                    No.Colectivo
: 9999
                                Ancho de Labor : 99.99
                                      Veta  : 99.99      %-Dilucion :
99.99
=============================================================================
=============
ESTIMADO DE RECURSOS        No. Tareas : 9999        No.Hombres  G.A
: 999
                                                                 G.B
: 999
                                                                 G.C
: 999
=============================================================================
=============
endt
@ 22,0 say repli('=',79)
@ 23,0 say '          [F2] Ingreso  [F3] Modifica [F4] Elimina [F5]
Consulta [F10] Sale'
@ 24,25 say 'Presione opcion requerida'
wkey=0
do while wkey=0
 wkey=inkey()
enddo
if wkey=-9
 exit
endif
if wkey<=-1 .and. wkey>=-4
   wkey1 = wkey * -1
 wprog='simi21'+str(wkey1,1)
 do &wprog
endif
enddo
clear
close data
retu

* Ingreso de Estimado por Labor
proce simi211
@ 22,0 clear
sele 1
use silabo inde silabox1
sele 3
use siestm inde siestmx1,siestmx2
DO WHILE .t.
wlabor = space(15)
wtpoeta = space(2)
@ 3,8  get wlabor pict '@!'
@ 3,59 get wtpoeta pict '!!'
read
if wlabor = space(15)
   close data
   exit
```

```
endif
seek wfecha+wlabor+wtpoeta
if .not. eof()
 @ 23,0
 wait ' Labor ya Estimada, presione ... ENTER                    '
 @ 24,0
 loop
endif
sele 1
if wnewlab = 'F'
    seek wlabor+wtpoeta
    if eof()
     @ 23,0
     wait ' No esta registrada esta Labor, presione.... ENTER'
     @ 24,0
     loop
    else
     wseccion = seccion
     wmetodo  = metodo
     wnivel   = nivel
     wtpoeta  = tpoeta
     wetapa   = etapa
     wnrocta  = nrocta
     @ 3,40 say wseccion
     @ 3,59 say wetapa
     @ 4,40 say wnivel
     @ 4,59 say wmetodo
    endif
else
    seek wlabor+wtpoeta
    if .not. eof()
     @ 23,0
     wait ' Labor existe en Maestra Labor, presione.... ENTER'
     @ 24,0
     loop
    else
     wseccion = '  '
     wmetodo  = '  '
     wnivel   = '    '
     wtpoeta  = '  '
     wetapa   = '  '
     wnrocta  = '         '
     @ 3,40 get wseccion  pict '!!'
     @ 3,59 get wetapa    pict '!!'
     @ 4,40 get wnivel    pict '!!!!'
     @ 4,59 get wmetodo   pict '!!'
    endif
endif
 store 0 to wavance,wcolec,wrelleno,wprod_ro,wprod_ja
           s        t        o        r        e    0    t        o
wprod_dro,wprod_dja,wguard_A,wguard_B,wguard_C,wtareas
 store 0.00 to wdiluc,wefici,wancho_L,wancho_V
 wley_eq = ' '
@ 6,43   get  wprod_ro pict '99999'
```

```
@ 6,70   get  wprod_dro pict '99999'
@ 7,43   get  wprod_ja pict '99999'
@ 7,70   get  wprod_dja pict '99999'
@ 8,68   get  wavance  pict '99999'
@ 9,67   get  wrelleno pict '999999'
@ 10,69  get  wcolec   pict '9999'
@ 11,43  say  wancho_L pict '99.99'
@ 12,43  say  wancho_V pict '99.99'
@ 14,39  get  wtareas  pict '9999'
@ 14,68  get  wguard_A pict '999'
@ 15,68  get  wguard_B pict '999'
@ 16,68  get  wguard_C pict '999'
read
if  wancho_L > 0
    wdiluc = (wancho_V / wancho_L) * 100
else
    wdiluc = 0
endif
@ 12,65  say  wdiluc   pict '99.99'
sele 3
append blank
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
replace tipo_est  with wnewlab,seccion with  wseccion,tpoeta with
wtpoeta,etapa with wetapa
replace  nivel  with  wnivel,metodo  with  wmetodo,nomlabor  with
wlabor,nrocta with wnrocta
replace  fecha  with  wfecha,colec  with  wcolec,guard_A      with
wguard_A
replace guard_B  with wguard_B,guard_C with  wguard_C,tareas with
wtareas
replace  efici  with  wefici,relleno  with  wrelleno,avance  with
wavance
replace prod_ro with wprod_ro,prod_ja with wprod_ja
replace prod_dro with wprod_dro,prod_dja with wprod_dja
replace  ancho_l with  wancho_l,ancho_v with  wancho_v,diluc with
wdiluc
unlock
 @ 23,0
 wait ' Se grabo OK..... presione ... ENTER'
 @ 24,0
enddo
retu

* Modificacion
proce simi212
@ 22,0 clear
sele 3
use siestm inde siestmx1
DO WHILE .t.
wlabor = space(15)
wtpoeta = space(2)
```

```
@ 3,8  get wlabor pict '@!'
@ 3,59 get wtpoeta pict '!!'
read
if wlabor = space(15)
   exit
endif
seek wfecha+wlabor+wtpoeta
if eof()
 @ 23,0
 wait ' Labor no Estimada, presione ... ENTER'
 @ 24,0
 loop
endif
 wseccion = seccion
 wmetodo  = metodo
 wnivel   = nivel
 wtpoeta  = tpoeta
 wetapa   = etapa
 wavance  = avance
 wcolec   = colec
 wrelleno = relleno
 wprod_ro = prod_ro
 wprod_ja = prod_ja
 wprod_dro= prod_dro
 wprod_dja= prod_dja
 wguard_A = guard_A
 wguard_B = guard_B
 wguard_C = guard_C
 wtareas  = tareas
 wefici   = 0,0
 wancho_L = ancho_L
 wancho_V = ancho_V
if wnewlab = 'P'
     @ 3,40 say wseccion
     @ 3,59 say wetapa
     @ 4,40 say wnivel
     @ 4,59 say wmetodo
else
     @ 3,40 get wseccion  pict '!!'
     @ 3,59 get wetapa    pict '!!'
     @ 4,40 get wnivel    pict '!!!!'
     @ 4,59 get wmetodo   pict '!!'
endif
@ 6,43   get  wprod_ro pict '99999'
@ 6,70   get  wprod_dro pict '99999'
@ 7,43   get  wprod_ja pict '99999'
@ 7,70   get  wprod_dja pict '99999'
@ 8,68   get  wavance  pict '99999'
@ 9,67   get  wrelleno pict '999999'
@ 10,69  get  wcolec   pict '9999'
@ 11,43  say  wancho_L pict '99,99'
@ 12,43  say  wancho_V pict '99,99'
@ 14,39  get  wtareas  pict '9999'
@ 14,68  get  wguard_A pict '999'
```

```
@ 15,68  get  wguard_B pict '999'
@ 16,68  get  wguard_C pict '999'
read
if  wancho_L > 0
    wdiluc = (wancho_V / wancho_L) * 100
else
    wdiluc = 0
endif
@ 12,65  say  wdiluc   pict '99,99'
sele 3
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
replace  tipo_est with wnewlab,seccion  with wseccion,tpoeta with
wtpoeta,etapa with wetapa
replace  nivel  with  wnivel,metodo  with  wmetodo,nomlabor  with
wlabor
replace  fecha  with  wfecha,colec  with   wcolec,guard_A    with
wguard_A
replace  guard_B with wguard_B,guard_C  with wguard_C,tareas with
wtareas
replace  efici  with  wefici,relleno  with  wrelleno,avance  with
wavance
replace prod_ro with wprod_ro,prod_ja with wprod_ja
replace prod_dro with wprod_dro,prod_dja with wprod_dja
replace ancho_l with  wancho_l,ancho_v with  wancho_v,diluc with
wdiluc
unlock
 @ 23,0
 wait ' Se grabo OK.......,  presione ... ENTER'
 @ 24,0
enddo
retu

* Eliminacion
proce simi213
@ 22,0 clear
sele 3
use siestm inde siestmx1,siestmx2
DO WHILE .t.
wlabor = space(15)
wtpoeta = space(2)
@ 3,8  get wlabor pict '@!'
@ 3,59 get wtpoeta pict '!!'
read
if wlabor = space(15)
   exit
endif
seek wfecha+wlabor+wtpoeta
if eof()
 @ 23,0
 wait ' Labor no Estimada, presione ... ENTER'
 @ 24,0
```

```
 loop
endif
 wseccion = seccion
 wmetodo  = metodo
 wnivel   = nivel
 wtpoeta  = tpoeta
 wetapa   = etapa
 wavance  = avance
 wcolec   = colec
 wrelleno = relleno
 wprod_ro = prod_ro
 wprod_ja = prod_ja
 wprod_dro= prod_dro
 wprod_dja= prod_dja
 wguard_A = guard_A
 wguard_B = guard_B
 wguard_C = guard_C
 wtareas  = tareas
 wefici   = 0.0
 wancho_L = ancho_L
 wancho_V = ancho_V
 if  wancho_L > 0
     wdiluc = (wancho_V / wancho_L) * 100
 else
     wdiluc = 0
 endif
 @ 3,40 say wseccion
 @ 3,59 say wetapa
 @ 4,40 say wnivel
 @ 4,59 say wmetodo
@ 6,43   say  wprod_ro pict '99999'
@ 6,70   say  wprod_dro pict '99999'
@ 7,43   say  wprod_ja pict '99999'
@ 7,70   say  wprod_dja pict '99999'
@ 8,68   say  wavance  pict '99999'
@ 9,67   say  wrelleno pict '999999'
@ 10,69  say  wcolec   pict '9999'
@ 11,43  say  wancho_L pict '99.99'
@ 12,43  say  wancho_V pict '99.99'
@ 12,65  say  wdiluc   pict '99.99'
@ 14,39  say  wtareas  pict '9999'
@ 14,68  say  wguard_A pict '999'
@ 15,68  say  wguard_B pict '999'
@ 16,68  say  wguard_C pict '999'
wrep = 'N'
@ 20,2 say 'Desea eliminarlo (S/N) ==> ' get wrep pict '!'
read
if wrep = 'S'
   sele 3
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
   delete
```

```
    unlock
     @ 23,0
     wait ' Se elimio OK.......  presione ... ENTER'
     @ 24,0
endif
enddo
retu

* Consulta de Labores Estimadas
proce simi214
set color to w+/bg+
DIMENSION wsel(15,4),WLAB (15,4),wtpe (15,4)
wopcion=' '
sele 3
use siestm inde siestmx1
set filter to fecha = wfecha .and. tipo_est = wnewlab
go top
wfinlab = space(15)
wfintpe = space(2)
DO WHILE .T.
clear
text
SIMI                 *    SISTEMA DE INFORMACION PARA MINA    *
      SIMI021
=============================================================================
* - Estimado Mensual de Produccion y/o Labor - *

fecha  (aamm)      :      aamm                    El  estimado  es  de
(P)roduccion/(L)abor ==> ?
endt
@ 05,17 say wfecha
@ 05,71 say wnewlab
i = 0
j = 1
k = 0
WLIN = 6
wcol = 0
wfin = ' '
if  wfinlab # space(15)
    seek wfecha+wfinlab+wfintpe
endif
DO WHILE .not. eof()
   i = i + 1
   if i > 15
      i = 1
      wlin = 6
      wcol = wcol + 21
      j = j + 1
      if j > 4
         exit
      endif
   endif
   k = k + 1
```

```
    wsel (i,j) = k
    wlab (i,j) = nomlabor
    wtpe (i,j) = tpoeta
    wfinlab    = nomlabor
    wfintpe    = tpoeta
    @ wlin+i,wcol   say str(k,2,0)
    @ wlin+i,wcol+3 say wlab (i,j)
    skip
ENDDO
 if eof()
    wfin = 'S'
 endif
if i = 0
   exit
endif
wrep = 0
@ 23,0 say 'Seleccione una labor y de ENTER ' get wrep pict '99'
read
 if  wrep = 0
    wrep = 'N'
    @ 23,0 say  ' Desea continuar (S/N) ==> ' get wrep pict '!'
    read
    if wrep = 'S'
    loop
    else
     exit
    endif
 endif
if wrep > k
   loop
endif
j = int(wrep / 15) + 1
i = wrep - ((j - 1) * 15)
seek wfecha+wlab (i,j)+wtpe (i,j)
clear
text
SIMI              *  ESTIMADO MENSUAL DE RECURSOS POR LABOR  *
     SIMI021

Labor : XXXXXXXXXXXXXXX        Seccion : xx          Etapa  : xx
                               Nivel   : xxxx        Metodo : xx
```

```
ESTIMADO DE PRODUCCION   Mineral  Roto    : 99999     Desmonte Roto
 : 99999
                                  Jalado : 99999
Jalado : 99999
                                                      Avance  (Mts)
:  99999
                                                      Relleno  (m3)
: 999999
                                                      No.Colectivo
:   9999
                          Ancho de Labor : 99.99
```

```
                                        Veta   : 99.99       %-Dilucion :
99.99
═══════════════════════════════════════════════════════════════════════════
═══════════
ESTIMADO DE RECURSOS        No. Tareas : 9999        No.Hombres   G.A
: 999
                                                                 G.B
: 999
                                                                 G.C
: 999
═══════════════════════════════════════════════════════════════════════════
═══════════
endt
 wlabor    = nomlabor
 wseccion  = seccion
 wmetodo   = metodo
 wnivel    = nivel
 wtpoeta   = tpoeta
 wetapa    = etapa
 wavance   = avance
 wcolec    = colec
 wrelleno  = relleno
 wprod_ro  = prod_ro
 wprod_ja  = prod_ja
 wprod_dro= prod_dro
 wprod_dja= prod_dja
 wguard_A  = guard_A
 wguard_B  = guard_B
 wguard_C  = guard_C
 wtareas   = tareas
 wefici    = 0.0
 wancho_L  = ancho_L
 wancho_V  = ancho_V
 if   wancho_L > 0
      wdiluc = (wancho_V / wancho_L) * 100
 else
      wdiluc = 0
 endif
 @ 3,40 say wseccion
 @ 3,59 say wetapa
 @ 4,40 say wnivel
 @ 4,59 say wmetodo
@ 3,8    say  wlabor
@ 6,43   say  wprod_ro pict '99999'
@ 6,70   say  wprod_dro pict '99999'
@ 7,43   say  wprod_ja pict '99999'
@ 7,70   say  wprod_dja pict '99999'
@ 8,68   say  wavance  pict '99999'
@ 9,67   say  wrelleno pict '999999'
@ 10,69  say  wcolec   pict '9999'
@ 11,43  say  wancho_L pict '99.99'
@ 12,43  say  wancho_V pict '99.99'
@ 12,65  say  wdiluc   pict '99.99'
@ 14,39  say  wtareas  pict '9999'
```

```
@ 14,68  say  wguard_A pict '999'
@ 15,68  say  wguard_B pict '999'
@ 16,68  say  wguard_C pict '999'
@ 23,0
 wait 'Presione  Enter
@ 24,0
 if wfin = 'S'
    go top
 endif
enddo
return
*-------------------------------------------------------------------------------
   FROC CHKBLOCK
*-------------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
       do while  .not. rlock()
*------>    loop sin comandos para esperar
       enddo
return
```

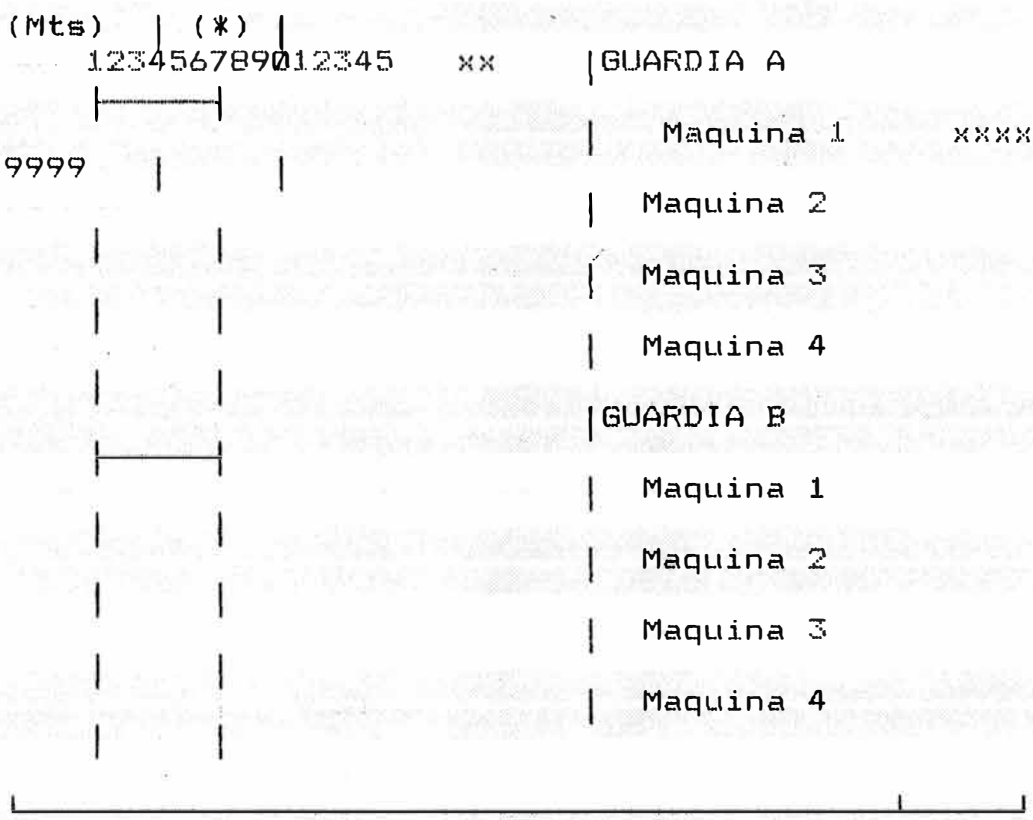
```
* REGISTRO DE TALADROS PERFORADOS  SIMI031.prg
* c:imm
proce simi031
close database
do while .T.
 CLEAR
  text
SIMI                    Registro Diario de Taladros Perforados
      SIMI031

  Fecha de  Cierre (ANO-MES) :                        Fecha  de Informe
(aammdd) :
endt
maamm='aamm
wfecha='aammdd'
 @ 3,30 get maamm
 @ 3,70 get wfecha
read
if maamm='        .or. maamm='aamm'
  exit
endif
maamm = maamm+'28'
i
dtoc(ctod(subs(maamm,1,2)+'/'+subs(maamm,3,2)+'/'+subs(maamm,5,2)
)) = '          '
  @ 23,0
  wait ' Fecha errada.. modificar..presione ENTER'
  @ 24,0
  loop
endif
maamm = subs(maamm,1,4)
                                        i                          f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '
  @ 23,0
    wait 'Fecha errada.... modificar

  @ 24,0
  loop
 endif
*------------------------- SEGUNDA PARTE ------------------------------------
 CLEAR
  text
SIMI                    Registro Diario de Taladros Perforados
      SIMI031

  Fecha  de Cierre (ANO-MES)  :                       Fecha de Informe
(aammdd) :


 ____________
|     Nombre Labor   Etapa                    Codigo      Nro.
TOTAL |ERROR|
 ------------------------------------------  Maquina  Taladros
```




```
endt
 @ 3,30 say maamm
 @ 3,70 say wfecha
@ 22,0 say repli('=',79)
@  23,0  say  ' [F2]  Ingreso  [F3]  Modifica  [F4] Elimina  [F5]
Consulta [F6] Reporte [F10] Sale'
@ 24,25 say 'Presione opcion requerida'
wkey=0
do while wkey=0
 wkey=inkey()
enddo
if wkey<=-1.and.wkey>=-5.or.wkey=-9
 if wkey=-9
  clear
  retur
 endif
 wkey1=wkey*-1
 wprog='SIMI31'+str(wkey1,1)
 do &wprog
endif
*------------------------- FIN SEGUNDA PARTE ------------------------------------
enddo
close data
clear
retu

*  INGRESO DE TALADROS
proce simi311
sele 1
use silabo index silabox1
sele 2
```

```
use sitala index sitalax1,sitalax2
sele 3
use mpmasper index mpmaspe1
wlin = 22
@ 23,0 clear
do while .T.
 if wlin > 21
    @ 7,0 to 21,25 clear
    wlin = 7
 endif
 wnomlab=space(15)
 wtpoeta=space(2)
 @ wlin,4    get wnomlab pict '@!'
 @ wlin,22   get wtpoeta pict '!!'
 read
 if  wnomlab = space(15)
     exit
 endif
 sele 1
 seek wnomlab + wtpoeta
 if EOF()
  @ 23,0
  wait 'Labor no existe en la maestra..... Modificar '
  @ 24,0
  loop
 endif
 wseccion=seccion
 wtpoeta=tpoeta
 wetapa =etapa
 wmetodo=metodo
 wnrocta=nrocta
 wfelabg= wfecha+wnomlab+wtpoeta
 sele 2
 seek wfelabg
 if .not. EOF()
  @ 23,0
  wait ' La labor ya tiene datos de esta fecha          '
  @ 24,0
  loop
 endif
do while .t.
store '     ' to wcodmaq1A, wcodmaq1B,wcodmaq2A, wcodmaq2B
store '     ' to wcodmaq3A, wcodmaq3B,wcodmaq4A, wcodmaq4B
store  'PF.'  to wtpomaq1A,  wtpomaq1B,  wtpomaq4A,wtpomaq2A,
wtpomaq2B, wtpomaq4B
store 'PF.' to wtpomaq3A, wtpomaq3B
WIN = ' '
store 0 to wnrotal1A, wnrotal1B, wnrotal2A, wnrotal2B, wnrotal3A,
wnrotal3B
store 0 to wnrotal4A, wnrotal4B
 @ 8,44  get wcodmaq1A
 @ 8,49  get wtpomaq1A pict '@!'
 @ 8,54  get wnrotal1A pict '999'
 @ 9,44  get wcodmaq2A
```

```
 @ 9,49  get wtpomaq2A pict '@!'
 @ 9,54  get wnrota12A pict '999'
 @ 10,44 get wcodmaq3A
 @ 10,49 get wtpomaq3A pict '@!'
 @ 10,54 get wnrota13A pict '999'
 @ 11,44 get wcodmaq4A
 @ 11,49 get wtpomaq4A pict '@!'
 @ 11,54 get wnrota14A pict '999'
 @ 13,44 get wcodmaq1B
 @ 13,49 get wtpomaq1B pict '@!'
 @ 13,54 get wnrota11B pict '999'
 @ 14,44 get wcodmaq2B
 @ 14,49 get wtpomaq2B pict '@!'
 @ 14,54 get wnrota12B pict '999'
 @ 15,44 get wcodmaq3B
 @ 15,49 get wtpomaq3B pict '@!'
 @ 15,54 get wnrota13B pict '999'
 @ 16,44 get wcodmaq4B
 @ 16,49 get wtpomaq4B pict '@!'
 @ 16,54 get wnrota14B pict '999'
 read
 if    wcodmaq1A  = space(4)  .and.  wcodmaq2A  = space(4)  .and.
wcodmaq3A = space(4) .and. wcodmaq4A = space(4) .and.;
      wcodmaq1B  =  space(4)  .and.  wcodmaq2B  =  space(4)  .and.
wcodmaq3B = space(4) .and. wcodmaq4B = space(4)
      wlin = wlin - 1
      exit
 endif
 i=1
  win=' '
 do whil i <=2
  if i=1
   wlin1= 7
   wt='A'
  else
   wlin1= 12
   wt='B'
  endif
  k=1
  do whil k <= 4
   wcod='wcodmaq'+str(k,1)+wt
   wtpo='wtpomaq'+str(k,1)+wt
   if &wcod <> spac(4)
    sele 3
*    wco='3'+rtrim(&wcod)
    wco=&wcod + &wtpo
    seek wco
    if eof()
     @ wlin1+k,74 say '*'
     win='*'
    else
     @ wlin1+k,74 say ' '
     wdesmaq= marca+' '+modelo
    endif
```

```
    endif
    k=k+1
   enddo
   i=i+1
  enddo
  if win='*'
   @ 23,0
   wait 'Maquinas no inventariadas..... presionar ENTER '
   @ 24,0
   loop
  endif
  sele 2
  appe blank
*---------------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wnomlab+wtpoeta
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
  repl    anomes  with   maamm,seccion  with   wseccion,fecha  with
wfecha,metodo with wmetodo;
     ,    tpoeta  with   wtpoeta,etapa   with  wetapa,nrocta   with
wnrocta,nomlabor with wnomlab
  repl cotima1a with space(7),cotima2a with space(7),cotima3a with
space(7),cotima4a with space(7);
     , cotima1b with space(7),cotima2b with space(7),cotima3b with
space(7),cotima4b with space(7)
  repl nrotal1a with  0,nrotal2a with  0,nrotal3a with  0,nrotal4a
with 0;
     ,  nrotal1b with 0,nrotal2b  with 0,nrotal3b  with 0,nrotal4b
with 0
  unlock
  do pies
  exit
enddo
wlin = wlin + 1
enddo
close data
retu

* INGRESO DE TALADROS
proce pies
i=1
do whil i<=2
  if i=1
   wlin1= 7
   wt='A'
  else
   wlin1= 12
   wt='B'
  endif
  k=1
  do whil k <=4
   wcoti='cotima'+str(k,1)+wt
   wwcodi='wcodmaq'+str(k,1)+wt
   wwtpoi='wtpomaq'+str(k,1)+wt
```

```
   wtala='nrotal'+str(k,1)+wt
   wwtala='wnrotal'+str(k,1)+wt
   wpies = 'nropie'+str(k,1)+wt
*------------ aqui va el RLOCK ()
            chk_rf  =  wfecha+wnomlab+wtpoeta
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
   repla &wcoti with &wwcodi+&wwtpoi,&wtala with &wwtala
   unlock
   do case
    case subs(wtpoeta,1,1)='1' .or. wtpoeta='21'
*------------ aqui va el RLOCK ()
            chk_rf  =  wfecha+wnomlab+wtpoeta
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
     repla &wpies with &wwtala* 7*0.3054
     @ wlin1+k,64 say str(&wwtala*7*0.3054,4,0)
     unlock
    case wtpoeta='23' .or. subs(wtpoeta,1,1)='3'
*------------ aqui va el RLOCK ()
            chk_rf  =  wfecha+wnomlab+wtpoeta
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
     repla &wpies with round(&wwtala*6.5*.3054,0)
     @ wlin1+k,64 say str(&wwtala*6.5.3054,4,0)
     unlock
   endc
   k=k+1
  enddo
  i=i+1
enddo
return

*  MODIFICACION DE TALADROS
proce simi312
sele 2
use sitala index sitalaX1, sitalaX2
wlin = 22
@ 23,0 clear
do while .T.
  if wlin > 21
     @ 7,0 to 21,25 clear
     wlin = 7
  endif
  wnomlab=space(15)
  wtpoeta=space(2)
  @ wlin,4    get wnomlab pict '@!'
  @ wlin,22   get wtpoeta pict '!!'
  read
  if  wnomlab = space(15)
      exit
  endif
  wfelabg= wfecha+wnomlab+wtpoeta
   seek wfelabg
```

```
 if EOF()
  @ 23,0
  wait 'La Labor no tiene datos de esta fecha'
  @ 24,0
  loop
 else
  wcodmaq1A=SUBS(cotima1A,1,4)
  wcodmaq2A=SUBS(cotima2A,1,4)
  wcodmaq3A=SUBS(cotima3A,1,4)
  wcodmaq4A=SUBS(cotima4A,1,4)
  wcodmaq1B=SUBS(cotima1B,1,4)
  wcodmaq2B=SUBS(cotima2B,1,4)
  wcodmaq3B=SUBS(cotima3B,1,4)
  wcodmaq4B=SUBS(cotima4B,1,4)
  wtpomaq1A=SUBS(cotima1A,5,3)
  wtpomaq2A=SUBS(cotima2A,5,3)
  wtpomaq3A=SUBS(cotima3A,5,3)
  wtpomaq4A=SUBS(cotima4A,5,3)
  wtpomaq1B=SUBS(cotima1B,5,3)
  wtpomaq2B=SUBS(cotima2B,5,3)
  wtpomaq3B=SUBS(cotima3B,5,3)
  wtpomaq4B=SUBS(cotima4B,5,3)
  wnrotal1A=NROTAL1A
  wnrotal2A=NROTAL2A
  wnrotal3A=NROTAL3A
  wnrotal4A=NROTAL4A
  wnrotal1B=NROTAL1B
  wnrotal2B=NROTAL2B
  wnrotal3B=NROTAL3B
  wnrotal4B=NROTAL4B
@ 8,44  get wcodmaq1A
@ 8,49  get wtpomaq1A pict '@!'
@ 8,54  get wnrotal1A pict '999'
@ 9,44  get wcodmaq2A
@ 9,49  get wtpomaq2A pict '@!'
@ 9,54  get wnrotal2A pict '999'
@ 10,44 get wcodmaq3A
@ 10,49 get wtpomaq3A pict '@!'
@ 10,54 get wnrotal3A pict '999'
@ 11,44 get wcodmaq4A
@ 11,49 get wtpomaq4A pict '@!'
@ 11,54 get wnrotal4A pict '999'
@ 13,44 get wcodmaq1B
@ 13,49 get wtpomaq1B pict '@!'
@ 13,54 get wnrotal1B pict '999'
@ 14,44 get wcodmaq2B
@ 14,49 get wtpomaq2B pict '@!'
@ 14,54 get wnrotal2B pict '999'
@ 15,44 get wcodmaq3B
@ 15,49 get wtpomaq3B pict '@!'
@ 15,54 get wnrotal3B pict '999'
@ 16,44 get wcodmaq4B
@ 16,49 get wtpomaq4B pict '@!'
@ 16,54 get wnrotal4B pict '999'
```

```
    read
    if   wcodmaq1A =  space(4) .and.  wcodmaq2A  = space(4)   .and.
wcodmaq3A = space(4) .and. wcodmaq4A = space(4) .and.;
         wcodmaq1B  =  space(4) .and.  wcodmaq2B  = space(4)   .and.
wcodmaq3B = space(4) .and. wcodmaq4B = space(4)
         @ 23,0
         wait ' El numero de maquinas debe ser  >  0 ..... presione
ENTER'
         @ 24,0
         loop
    endif
    do pies
   endif
   wlin = wlin + 1
enddo
retu

* ELIMINACION DE TALADROS
proce simi313
sele 2
use sitala index sitalaX1, sitalaX2
wlin = 22
@ 23,0 clear
do while .T.
 if wlin > 21
    @ 7,0 to 21,25 clear
    wlin = 7
 endif
 wnomlab=space(15)
 wtpoeta=space(2)
 @ wlin,4   get wnomlab pict '@!'
 @ wlin,22  get wtpoeta pict '!!'
 read
 if  wnomlab = space(15)
     exit
 endif
 wfelabg= wfecha+wnomlab+wtpoeta
 seek wfelabg
 if EOF()
  @ 23,0
  wait ' La Labor no existe '
  @ 24,0
  loop
 else
  @ 8,44  say subs(cotima1A,1,4)
  @ 8,49  say subs(cotima1A,5,3)
  @ 8,54  say nrotal1A PICT '999'
  @ 8,64  say nropie1A PICT '9999'
  @ 9,44  say subs(cotima2A,1,4)
  @ 9,49  say subs(cotima2A,5,3)
  @ 9,54  say nrotal2A PICT '999'
  @ 9,64  say nropie2A PICT '9999'
  @ 10,44 say subs(cotima3A,1,4)
  @ 10,49 say subs(cotima3A,5,3)
```

```
   @ 10,54 say nrotal3A PICT '999'
   @ 10,64 say nropie3A PICT '9999'
   @ 11,44 say subs(cotima4A,1,4)
   @ 11,49 say subs(cotima4A,5,3)
   @ 11,54 say nrotal4A PICT '999'
   @ 11,64 say nropie4A PICT '9999'
   @ 13,44 say subs(cotima1B,1,4)
   @ 13,49 say subs(cotima1B,5,3)
   @ 13,54 say nrotal1B PICT '999'
   @ 13,64 say nropie1B PICT '9999'
   @ 14,44 say subs(cotima2B,1,4)
   @ 14,49 say subs(cotima2B,5,3)
   @ 14,54 say nrotal2B PICT '999'
   @ 14,64 say nropie2B PICT '9999'
   @ 15,44 say subs(cotima3B,1,4)
   @ 15,49 say subs(cotima3B,5,3)
   @ 15,54 say nrotal3B PICT '999'
   @ 15,64 say nropie3B PICT '9999'
   @ 16,44 say subs(cotima4B,1,4)
   @ 16,49 say subs(cotima4B,5,3)
   @ 16,54 say nrotal4B PICT '999'
   @ 16,64 say nropie4B PICT '9999'
     wresp='N'
     @ 22,0 to 24,79 clear
     @ 23,10 say ' Desea eliminar este registro (S/N) ?' get wresp
pict '!'
     read
     if wresp='S'
*------------ aqui va el RLOCK ()
          chk_rf  =  wfecha+wnomlab+wtpoeta
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
        dele
        unlock
      endif
 endif
 wlin = wlin + 1
enddo
return

* CONSULTA DE TALADROS
proce simi314
sele 2
use sitala index sitalaX2
CLEAR
 text
SIMI                    Consulta Diaria de Taladros Perforados
      SIMI031

  Fecha  de Cierre (ANO-MES)  :                          Fecha de Informe
(aammdd) :
```

```
|                          |    GUARDIA  A    |    GUARDIA  B    |
TOTAL |
|                          |  Nro.     TOTAL  |  Nro.     TOTAL  |
Nro.          |
|   Nombre Labor    Etapa  |  Taladros  (Mts) |  Taladros  (Mts) |
Taladros  (Mts)|
|__________________________|__________________|__________________|
_____________|
endtext
 @ 3,30 say maamm
 @ 3,70 say wfecha
wlin = 9
wtalA = 0
wtalB = 0
wmtsA = 0
wmtsB = 0
@ 9,0 clear
do while .not. eof()
 if wlin > 19
    wresp='N'
    @ 23,10 say ' Desea terminar (S/N) ?' get wresp pict '!'
    read
    if wresp='S'
       exit
    endif
    @ 9,0 clear
    wlin = 9
 endif
 if WFECHA = FECHA
    wtottalA = nrotal1A + nrotal2A + nrotal3A + nrotal4A
    wtottalB = nrotal1B + nrotal2B + nrotal3B + nrotal4B
    wtottal  = wtottalA + wtottalB
    wtalA    = wtalA    + wtottalA
    wtalB    = wtalB    + wtottalB
    wtalAB   = wtalA    + wtal B
    wtotmtsA = nropie1A + nropie2A + nropie3A + nropie4A
    wtotmtsB = nropie1B + nropie2B + nropie3B + nropie4B
    wtotmts  = wtotmtsA + wtotmtsB
    wmtsA    = wmtsA + wtotmtsA
    wmtsB    = wmtsB + wtotmtsB
    wmtsAB   = wmtsA    + wmtsB
    @ wlin,1   say nomlabor pict '@!'
    @ wlin,19  say tpoeta pict '!!'
    @ wlin,27 say wtottalA PICT '9999'
    @ wlin,37 say wtotmtsA PICT '9999'
    @ wlin,46 say wtottalB PICT '9999'
    @ wlin,56 say wtotmtsB PICT '9999'
    @ wlin,64 say wtottal  PICT '9999'
    @ wlin,74 say wtotmts  PICT '9999'
    wlin = wlin + 1
 endif
 skip
```

```
if wlin > 9
*  WLIN = WLIN + 1
                @    w    l    i    n    ,    1         S    A    Y
'┌──────────────────────┬──────────────────────┬──────────────────────┐
└──────────────────────┘'
   WLIN = WLIN + 1
   @ wlin,1  SAY '| TOTAL  DEL  DIA      |                      |
                 |                      |'
   @ wlin,26 say wtalA PICT '99999'
   @ wlin,36 say wmtsA PICT '99999'
   @ wlin,45 say wtalB PICT '99999'
   @ wlin,55 say wmtsB PICT '99999'
   @ wlin,63 say wtalAB  PICT '99999'
   @ wlin,73 say wmtsAB  PICT '99999'
   WLIN = WLIN + 1
                @    w    l    i    n    ,    1         S    A    Y
'┌──────────────────────┬──────────────────────┬──────────────────────┐
└──────────────────────┘'
  @ 23,0
  wait ' Consulta  OK .....presione ENTER'
  @ 24,0
else
  @ 23,0
  wait ' No existen mas registros...presione ENTER'
  @ 24,0
endif
return

* REPORTE DIARIO DE TALADROS PERFORADOS
proce simi315
sele 2
use sitala index sitalaX2
 @ 4,0 TO 21,79 CLEAR
 @ 23,0
 wait ' Coloque el papel en la impresora....Presione  ENTER....
    '
 @ 24,0
 SET DEVICE TO PRINT
 SET PRINT ON
wlin = 60
wpag = 0
wtalA = 0
wtalB = 0
wmtsA = 0
wmtsB = 0
@ 9,0 clear
do while .not. eof()
    if wlin >= 55
      if wpag > 0
        eject
      endif
      wpag = wpag + 1
      @ 1,1  SAY 'SIMI                          Reporte Diario  de Taladros
Perforados                  Pag.= '
```

```
    @ 1,77 say str(wpag,3)
    @ 2,72 SAY 'SIMI031'
    @ 3,1  SAY '  Fecha de Cierre (ANO-MES) :                    Fecha
de Informe (aammdd) :'
    @ 3,30 say maamm
    @ 3,70 say wfecha
                          @   4   ,   1       S   A   Y   '
-------------------------------------------------------------------------
-------------'
    @ 5,1  SAY ' I                          I   GUARDIA  A   I
GUARDIA  B    I    T O T A L  I'
    @ 6,1   SAY ' I                         I    Nro.     TO TA LI
Nro.     TOTAL  I  Nro.          I'
    @ 7,1   SAY ' I  Nombre Labor    Etapa I Taladros   (Mts)  I
Taladros  (Mts)  ITaladros  (Mts)I'
                          @   8   ,   1       S   A   Y   '
-------------------------------------------------------------------------
-------------'
    WLIN=9
  endif
  if WFECHA = FECHA
     wtottalA = nrotal1A + nrotal2A + nrotal3A + nrotal4A
     wtottalB = nrotal1B + nrotal2B + nrotal3B + nrotal4B
     wtottal  = wtottalA + wtottalB
     wtalA    = wtalA    + wtottalA
     wtalB    = wtalB    + wtottalB
     wtalAB   = wtalA    + wtalB
     wtotmtsA = nropie1A + nropie2A + nropie3A + nropie4A
     wtotmtsB = nropie1B + nropie2B + nropie3B + nropie4B
     wtotmts  = wtotmtsA + wtotmtsB
     wmtsA    = wmtsA + wtotmtsA
     wmtsB    = wmtsB + wtotmtsB
     wmtsAB   = wmtsA    + wmtsB
     @ wlin,1   say nomlabor pict '@!'
     @ wlin,19  say tpoeta pict '!!'
     @ wlin,27 say wtottalA PICT '9999'
     @ wlin,37 say wtotmtsA PICT '9999'
     @ wlin,46 say wtottalB PICT '9999'
     @ wlin,56 say wtotmtsB PICT '9999'
     @ wlin,64 say wtottal  PICT '9999'
     @ wlin,74 say wtotmts  PICT '9999'
     wlin = wlin + 1
  ENDIF
 skip
enddo
WLIN = WLIN + 1
@     w     1     i     n     ,     1         S     A     Y     '
-------------------------------------------------------------------------
-------------'
WLIN = WLIN + 1
@ wlin,1  SAY ' I TOTAL DEL DIA         I                    I
          I                  I'
@ wlin,26 say wtalA PICT '99999'
@ wlin,36 say wmtsA PICT '99999'
```

```
@ wlin,45 say wtalB PICT '99999'
@ wlin,55 say wmtsB PICT '99999'
@ wlin,63 say wtalAB  PICT '99999'
@ wlin,73 say wmtsAB  PICT '99999'
WLIN = WLIN + 1
@     w     l     i     n     ,     1     S     A     Y     '
-------------------------------------------------------------------------------
-------------------'
@ wlin+1,1 say ' '
 SET DEVICE TO SCREEN
 SET PRINT OFF
 @ 23,0
 wait ' Termino la impresion .....Presione  ENTER.....'
 @ 24,0
return
*-------------------------------------------------------------------------------
   PROC CHKBLOCK
*-------------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
      do while  .not. rlock()
*------>    loop sin comandos para esperar
      enddo
return
* FIN DEL PROGRAMA SIMI031
```

```
*  REGISTRO DE CARROS JALADOS  SIMI041.prg
*  cjmm
proce simi041
close databases
do while .t.
CLEAR
text
SIMI                    *    Registro Diario Carros Jalados    *
     SIMI041
═══════════════════════════════════════════════════════════════════
═══════════

Fecha (aammdd) : aammdd
═══════════════════════════════════════════════════════════════════
═══════════
                                   Nro. de  CARROS                          TIPO DE
CARRO Y TONELAJE
 LABOR                        MINERAL              DESMONTE                  G-A
G-B         G-C
                          G-A    G-B   G-C     G-A   G-B   G-C      TC  TMS    TC
TMS    TC   TMS
═══════════════════════════════════════════════════════════════════
═══════════
endt
*                         999   999   999     999   999   999      99 9999    99
9999    99 9999
Wfecha='aammdd'
@ 4,17 get Wfecha
read
if Wfecha='      ' .or. Wfecha='aammdd'
   exit
endif
                                          i                                   f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
  @ 23,0
  wait ' Fecha errada.. modificar..presione ENTER'
  @ 24,0
  loop
 endif
 @ 22,0 say replic ('=',78)
 @ 23,0  say  '[F2] Ingreso  [F3] Modifica  [F4] Elimina  [F5]
Consulta [F6] Reporte [F10] Sale'
 @ 24,25 say 'Presione opcion requerida'
 wkey=0
 do while wkey=0
  wkey=inkey()
 enddo
 if wkey=-9
  close data
  clear
  exit
 endif
 sele 1
```

```
 use silabo index silabox1
 sele 2
 use sifaca inde sifacax1
 sele 3
 use sicarr inde sicarrx1,sicarrx2
 if wkey<=-1.and.wkey>=-5
  if wkey=-3
   wkey2=-2
  else
   wkey2=wkey
  endif
  wkey1=wkey2*-1
  wprog='SIMI41'+str(wkey1,1)
  do &wprog
  sele 1
  use
  sele 2
  use
  sele 3
  use
 else
  loop
 endif
enddo
close data
clear
retur

* INGRESO DE CARROS JALADOS
proce simi411
sele 4
use siesti index siestix1
wlin = 10
@ 10,0 clear
do while .T.
store 0 to wcarmin1,wcarmin2,wcarmin3,wcardes1,wcardes2,wcardes3
store ' ' to wtpocar1,wtpocar2,wtpocar3
store 0   to wtoncar1,wtoncar2,wtoncar3
store 0000.000 to wfacar1,wfacar2,wfacar3
 wnomlab= space(15)
 @ wlin,1  get wnomlab pict '@!'
 read
 if Wnomlab=space(15)
  return
 endif
 sele 1
 seek wnomlab
 if EOF()
  @ 23,0
  wait '  Labor no existe en la maestra .... Presione ENTER...'
  @ 24,0
  RETURN
 else
   wseccion= seccion
```

```
   wmetodo = metodo
   wtpoeta = tpoeta
   wetapa  = etapa
 endif
 sele 4
 seek wfecha+wnomlab
 if EOF()
  west_min = 0
  west_des = 0
 else
   west_min= prod_ja
   west_des= prod_dja
 endif
 @ wlin,18 get wcarmin1 picture '999'
 @ wlin,23 get wcarmin2 picture '999'
 @ wlin,28 get wcarmin3 picture '999'
 @ wlin,35 get wcardes1 picture '999'
 @ wlin,40 get wcardes2 picture '999'
 @ wlin,45 get wcardes3 picture '999'
 @ wlin,52 get wtpocar1
 @ wlin,62 get wtpocar2
 @ wlin,72 get wtpocar3
 read
 wloop = 'n'
 i = 1
 sele 2
 do while i < 4
    wcarro = 'wtpocar'+str(i,1,0)
    wfacto = 'wfacar'+str(i,1,0)
    seek &wcarro
    if EOF()
       @ 23,0
       wait  '  Tipo de  carro no definido  en Maestra,, Presione
ENTER,,,'
       @ 24,0
       wloop = 'y'
       exit
    else
       store car_fact  to  &wfacto
    endif
    i = i + 1
 enddo
 if wloop = 'y'
    loop
 endif
 wfeclab=wfecha+wnomlab
 sele 3
 seek wfeclab
 if EOF()
  appe blank
*---------- aqui va el RLOCK ()
          chk_rf  =  wfeclab
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
```

```
  repl  seccion with  wseccion,fecha  with  Wfecha,nomlabor  with
wnomlab,tpoeta with wtpoeta;
      ,  wetapa  with  wetapa,metodo  with   wmetodo,est_min  with
west_min,est_des with west_des
  repl car_cod1 with  wtpocar1,carmin1 with wcarmin1,cardes1 with
wcardes1,facar1 with wfacar1;
      ,  car_cod2 with wtpocar2,carmin2 with wcarmin2,cardes2 with
wcardes2,facar2 with wfacar2;
      , car_cod3 with wtpocar3,carmin3 with  wcarmin3,cardes3 with
wcardes3,facar3 with wfacar3
  unlock
  wtoncar1 = round(wcarmin1 * wfacar1,0)
  wtoncar2 = round(wcarmin2 * wfacar2,0)
  wtoncar3 = round(wcarmin3 * wfacar3,0)
 @ wlin,52 say wtpocar1
 @ wlin,55 say str(wtoncar1,5,0)
 @ wlin,62 say wtpocar2
 @ wlin,65 say str(wtoncar2,5,0)
 @ wlin,72 say wtpocar3
 @ wlin,75 say str(wtoncar3,5,0)
 else
  @ 23,0
  wait ' La labor ya tiene datos de esta fecha '
  @ 24,0
  loop
 endif
 wlin = wlin + 1
 if wlin >= 24
    @ 10,0 clear
    wlin = 10
 endif
enddo
return

* MODIFICACION Y ELIMINACION DE CARROS JALADOS
proce simi412
@ 10,0 clear
wlin = 10
store '   ' to wtpocar1,wtpocar2,wtpocar3
store 0     to wtoncar1,wtoncar2,wtoncar3
do while .t.
 wnomlab=space(15)
 @ wlin,1  get wnomlab pict '@!'
 read
 if wnomlab = '
  exit
 endif
 wfeclab=wfecha+wnomlab
 sele 3
 seek wfeclab
 if EOF()
  @ 23,0
  wait ' No existe esta labor en esta fecha... presione Enter '
  @ 24,0
```

```
  loop
 else
  wtpocar1=car_cod1
  wcarmin1=carmin1
  wcardes1=cardes1
  wfacar1 =facar1
  wtpocar2=car_cod2
  wcarmin2=carmin2
  wcardes2=cardes2
  wfacar2 =facar2
  wtpocar3=car_cod3
  wcarmin3=carmin3
  wcardes3=cardes3
  wfacar3 =facar3
  wtoncar1 = round(wcarmin1 * wfacar1,0)
  wtoncar2 = round(wcarmin2 * wfacar2,0)
  wtoncar3 = round(wcarmin3 * wfacar3,0)
 endif
 IF WKEY = -2
    @ wlin,18 get wcarmin1 picture '999'
    @ wlin,23 get wcarmin2 picture '999'
    @ wlin,28 get wcarmin3 picture '999'
    @ wlin,35 get wcardes1 picture '999'
    @ wlin,40 get wcardes2 picture '999'
    @ wlin,45 get wcardes3 picture '999'
    @ wlin,52 get wtpocar1
    @ wlin,55 say str(wtoncar1,5,0)
    @ wlin,62 get wtpocar2
    @ wlin,65 say str(wtoncar2,5,0)
    @ wlin,72 get wtpocar3
    @ wlin,75 say str(wtoncar3,5,0)
  READ
 wloop = 'n'
 i = 1
 sele 2
 do while i < 4
    wcarro = 'wtpocar'+str(i,1,0)
    wfacto = 'wfacar'+str(i,1,0)
    seek &wcarro
    if EOF()
       @ 23,0
       wait  '  Tipo de  carro no definido  en Maestra.. Presione
ENTER...'
      @ 24,0
       wloop = 'y'
       exit
    else
       store car_fact  to  &wfacto
    endif
    i = i + 1
 enddo
 if wloop = 'y'
    loop
 endif
```

```
  wtoncar1 = round(wcarmin1 * wfacar1,0)
  wtoncar2 = round(wcarmin2 * wfacar2,0)
  wtoncar3 = round(wcarmin3 * wfacar3,0)
 sele 3
*------------ aqui va el RLOCK ()
          chk_rf  =  wfeclab
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
  repl car_cod1 with wtpocar1,carmin1 with  wcarmin1,cardes1 with
wcardes1,facar1 with wfacar1;
     , car_cod2 with  wtpocar2,carmin2 with wcarmin2,cardes2 with
wcardes2,facar2 with wfacar2;
     ,  car_cod3 with wtpocar3,carmin3 with wcarmin3,cardes3 with
wcardes3,facar3 with wfacar3
  unlock
 ENDIF
    @ wlin,18 say str(wcarmin1,3,0)
    @ wlin,23 say str(wcarmin2,3,0)
    @ wlin,28 say str(wcarmin3,3,0)
    @ wlin,35 say str(wcardes1,3,0)
    @ wlin,40 say str(wcardes2,3,0)
    @ wlin,45 say str(wcardes3,3,0)
    @ wlin,52 say wtpocar1
    @ wlin,55 say str(wtoncar1,5,0)
    @ wlin,62 say wtpocar2
    @ wlin,65 say str(wtoncar2,5,0)
    @ wlin,72 say wtpocar3
    @ wlin,75 say str(wtoncar3,5,0)
 IF WKEY = -3
    wresp='N'
    @ 22,10  say ' Desea eliminar  este carro (S/N) ?'  get wresp
pict '!'
    read
    if wresp='S'
*------------ aqui va el RLOCK ()
          chk_rf  =  wfeclab
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
       DELE
       unlock
    ENDIF
 ENDIF
 wlin = wlin + 1
 if wlin >= 24
    @ 10,0 clear
    wlin = 10
 endif
enddo
return

* CONSULTA DE CARROS JALADOS
proce simi413
@ 4,0 clear
@ 3,22  say 'Consulta de Carros Jalados     '
```

```
*wfecha='aammdd'
 @ 5,1 say 'Fecha : '  get wfecha
 @ 7,1  say 'Indicar  la fecha  de consulta,  puede ser (aamm)  o
(aammdd)'
 read
if Wfecha='       ' .or. Wfecha='aammdd'
 return
endif
if subs(Wfecha,5,2) ='   ' .or. subs(Wfecha,5,2) ='dd'
    wfchlong = 4
    Wfecha = subs(Wfecha,1,4) + '28'
else
    wfchlong = 6
endif
                                          i                                  f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
  @ 23,0
  wait ' Fecha errada.. modificar..presione ENTER'
  @ 24,0
  return
 endif
sele 3
if wfchlong = 4
    Wfecha = subs(Wfecha,1,4)
    set filter to  subs(fecha,1,4) = subs(wfecha,1,4)
else
    set filter to  subs(fecha,1,6) = subs(wfecha,1,6)
endif
seek wfecha
 IF .NOT. FOUND()
  @ 23,0
  wait ' No existe LABOR en esta fecha... presione ENTER ... '
  @ 24,0
  RETURN
 endif
@   6          ,          0       s            a            y
 ═══════════════════════════════════════════════════════════════
 ═══════'
@ 7,0  say '                                Nro.  de CARROS
TIPO DE CARRO Y TONELAJE    '
@ 8,0  say ' LABOR                  MINERAL          DESMONTE
G-A       G-B       G-C    '
@ 9,0  say '                      G-A  G-B  G-C      G-A  G-B  G-C
TC  TMS   TC  TMS   TC  TMS '
@    1          0          ,          0   s           a           y
 ═══════════════════════════════════════════════════════════════
 ═══════'
wlin = 11
do while .not.eof()
  wtoncar1 = round(carmin1 * facar1,0)
  wtoncar2 = round(carmin2 * facar2,0)
  wtoncar3 = round(carmin3 * facar3,0)
 @ wlin,1   say nomlabor
```

```
 @ wlin,18 say str(carmin1,5,0)
 @ wlin,23 say str(carmin2,5,0)
 @ wlin,28 say str(carmin3,5,0)
 @ wlin,35 say str(cardes1,3,0)
 @ wlin,40 say str(cardes2,3,0)
 @ wlin,45 say str(cardes3,3,0)
 @ wlin,52 say car_cod1
 @ wlin,55 say str(wtoncar1,5,0)
 @ wlin,62 say car_cod2
 @ wlin,65 say str(wtoncar2,5,0)
 @ wlin,72 say car_cod3
 @ wlin,75 say str(wtoncar3,5,0)
 wlin=wlin+1
 if wlin>22
    wresp='N'
    @ 23,10 say ' Desea terminar (S/N) ?' get wresp pict '!'
    read
    if wresp='S'
       exit
    endif
  @ 11,0 CLEAR
  wlin=11
 endif
 skip
enddo
  @ 23,0
  wait ' Consulta Ok .... presione ENTER ... '
  @ 24,0
return
********
*wfactor='    1.302.733.903.00'
*wfactor1=val(subs(wfactor,val(wtpocar1)*4,4))
*wfactor2=val(subs(wfactor,val(wtpocar2)*4,4))
*wfactor3=val(subs(wfactor,val(wtpocar3)*4,4))

* REPORTE DIARIO DE CARROS CON MINERAL
proce simi414
sele 3
use sicarr inde sicarrx2
wlin= 55
s          t          o          r          e    0    t          o
wcarminAt,wcarminBt,wcarminCt,wcardiat,wcarmest,westdiat,westmest
store 0  to  wcarroat, wcarrobt, wcarrdiat, wcarrmest,wpag
store 0  to  wtondiat , wtonmest ,wcastmest
wclave= SUBS(wfecha,1,4)
seek wclave
if EOF()
 @ 23,0
 wait ' No hay datos del mes... Presione cualquier tecla        '
 @ 24,0
 retu
endif
* wfchtit = wfecha
* wfecha= fecha
```

```
 @ 23,0
   wait 'Asegurese de que  la impresora este prendida y  el papel
colocado'
 @ 24,0
 set DEVICE to print
 set print on
do while .not.eof()
 if subs(fecha,1,4)=wclave
  wseccion=seccion
                    s        t        o        r        e    0    t        o
wcarminAs,wcarminBs,wcarminCs,wcardias,wcarmess,westmess
  store 0 to wtondias,wtonmess,wcastmess,westdias
  windical='si'
  do while .not. EOF().and.seccion=wseccion
   wnomlab=nomlabor
   store 0 to wcarmes,wtonmes,westmes
   do while .not. EOF().and.seccion=wseccion.and.nomlabor=wnomlab
                              s        t        o        r        e    0    t        o
wcarminA,wcarminB,wcarminC,wcardia,wtondia,west_min
     if subs(fecha,1,4) = subs(wfecha,1,4)
      if fecha=wfecha
       westdia =est_min
       wcarminA=carmin1
       wcarminB=carmin2
       wcarminC=carmin3
       wcardia=wcarminA+wcarminB+wcarminC

wtondia=round(carmin1*facar1,0)+round(carmin2*facar2,0)+round(car
min3*facar3,0)
       wdifdia=westdia - wtondia
       wpordia=(wtondia / westdia) * 100
      endif
      westmes= westmes + est_min
      wcarmes=carmin1+carmin2+carmin3+wcarmes

wtonmes=round(carmin1*facar1,0)+round(carmin2*facar2,0)+round(car
min3*facar3,0)+wtonmes
     endif
     skip
    enddo
    if wlin >= 55
     if wpag > 0
      if wrep = 'si'
       eject
      endif
     endif
     CLEAR
     wpag=wpag+1
     @ 1,1 say 'SIMI'+space(85)+'Pag. ' + str(wpag,3)
     @  2,1 SAY 'MINAS                          REPORTE  DIARIO DE CARROS
JALADOS Y TONELADAS JALADAS DE MINERAL'
                              @   3       ,       1    s       a       y
SUBS(wfecha,5,2)+'/'+SUBS(wfecha,3,2)+'/'+SUBS(wfecha,1,2)
     @ 3,93 say 'SIMI041'
```

```
                                @   4       ,       1   s       a
'-------------------------------------------------------------------------------
                                                                               '
    @ 5,1 say '                                C A R R O S  J A L A D O S
 |         T O N E L A D A S   J A L A D A S                          |'
    @ 6,1 say 'SEC     L A B O R                GUARDIAS                T O T A
L   |------------------ TMS-DIA ------------|------------------ TMS-MES ----------|'
    @  7,1 say '                                    A        B       C      DIA
MES |   EST.    REAL    Dif.    %   |  EST.    REAL    Dif.    %   |'
                                @   8       ,       1   s       a       y
'-------------------------------------------------------------------------------
-------------------------------------------------------------------------------'
*                      XX 12345678901234S    99999 99999 99999 999999
9999999   99999   99999   99999 99,99   99999   99999   99999 99,99
*
1234567890123456789012345678901234567890123456789012345678901234567890123456
6789012345678901234567890123456789012345678901234567890
*                              1         2         3         4         5
        6         7         8         9         0         1
     wlin= 9
    endif
    if windical = 'si'
     @ wlin,1 say wseccion
     windical= 'no'
     windica2= 'no'
    endif
    wdifmes=westmes - wtonmes
    wpormes=(wtonmes / westmes) * 100
    @ wlin,04 say wnomlab
    @ wlin,22 say wcarminA PICT '99999'
    @ wlin,28 say wcarminB PICT '99999'
    @ wlin,34 say wcarminC PICT '99999'
    @ wlin,40 say wcardia PICT '999999'
    @ wlin,47 say wcarmes PICT '9999999'
    @ wlin,56 say westdia  PICT '99999'
    @ wlin,63 say wtondia  PICT '99999'
    @ wlin,70 say wdifdia  PICT '99999'
    @ wlin,76 say wpordia  PICT '999,99'
    @ wlin,83 say westmes  PICT '99999'
    @ wlin,90 say wtonmes  PICT '99999'
    @ wlin,97 say wdifmes  PICT '99999'
    @ wlin,103 say wpormes  PICT '999,99'
    wcarminAs=wcarminAs+wcarminA
    wcarminBs=wcarminBs+wcarminB
    wcarminCs=wcarminCs+wcarminC
    wcardias=wcardias+wcardia
    wcarmess=wcarmess+wcarmes
    westdias=westdias+westdia
    wtondias=wtondias+wtondia
    westmess=westmess+westmes
    wtonmess=wtonmess+wtonmes
*   wcastmess=WCASTMESS+WCASTMES
    wlin=wlin+1
  enddo
```

```
 wlin=wlin+1
    wdifdia=westdias - wtondias
    wpordia=(wtondias / westdias) * 100
    wdifmes=westmess - wtonmess
    wpormes=(wtonmess / westmess) * 100
 @ wlin,1   say 'SUB-TOTAL '
 @ wlin,22 say wcarminAs PICT '99999'
 @ wlin,28 say wcarminBs PICT '99999'
 @ wlin,34 say wcarminCs PICT '99999'
 @ wlin,40 say wcardias PICT '999999'
 @ wlin,47 say wcarmess PICT '9999999'
    @ wlin,56 say westdias PICT '99999'
    @ wlin,63 say wtondias PICT '99999'
    @ wlin,70 say wdifdia  PICT '99999'
    @ wlin,76 say wpordia  PICT '999.99'
    @ wlin,83 say westmess PICT '99999'
    @ wlin,90 say wtonmess PICT '99999'
    @ wlin,97 say wdifmes  PICT '99999'
    @ wlin,103 say wpormes  PICT '999.99'
 wlin=wlin+2
 wcarminAt=wcarminAt+wcarminAs
 wcarminBt=wcarminBt+wcarminBs
 wcarminCt=wcarminCt+wcarminCs
 wcardiat=wcardiat+wcardias
 wcarmest=wcarmest+wcarmess
 westdiat=westdiat+westdias
 wtondiat=wtondiat+wtondias
 westmest=westmest+westmess
 wtonmest=wtonmest+wtonmess
*wcastmest=WCASTMEST+WCASTMESS
else
 go bott
endif
enddo
    wdifdia=westdiat - wtondiat
    wpordia=(wtondiat / westdiat) * 100
    wdifmes=westmest - wtonmest
    wpormes=(wtonmest / westmest) * 100
@ wlin,02 say 'T O T A L'
@ wlin,22 say wcarminAt PICT '99999'
@ wlin,28 say wcarminBt PICT '99999'
@ wlin,34 say wcarminCt PICT '99999'
@ wlin,40 say wcardiat  PICT '999999'
@ wlin,47 say wcarmest  PICT '9999999'
    @ wlin,56 say westdiat PICT '99999'
    @ wlin,63 say wtondiat PICT '99999'
    @ wlin,70 say wdifdia  PICT '99999'
    @ wlin,76 say wpordia  PICT '999.99'
    @ wlin,83 say westmest PICT '99999'
    @ wlin,90 say wtonmest PICT '99999'
    @ wlin,97 say wdifmes  PICT '99999'
    @ wlin,103 say wpormes  PICT '999.99'
@ wlin+1,1 say ' '
 set print off
```

```
 set cons on
 set DEVI to screen
 sele 3
 use
 sele 3
 use sicarr inde sicarrx1,sicarrx2
return
*- ---------------------------------------------------------------------------
    PROC CHKBLOCK
*---------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
       do while  .not. rlock()
*------>    loop sin comandos para esperar
       enddo
return
* FINAL DIARIO DE CARROS JALADOS  SIMI041
```

```
   if wkey =-1 .or. wkey =-2 .or. wkey=-4 .or. wkey=-9
    if wkey=-9
     clear
     exit
    endif
    wkey1=wkey*-1
    wprog='SIMI52'+str(wkey1,1)
    do &wprog
   endif
endDO
close data
clear
retu

* INGRESO DE LABORES A RELLENAR POR BOMBA
procedure simi521
set color to w+/bg+
sele 4
use sirehi inde sirehix1,sirehix2
DO WHILE .T.
whomba =
clear
text
SIMI                    *    SISTEMA DE INFORMACION PARA MINA    *
     SIMI052
================================================================================
 ==========
* - INGRESO  de Labores a Rellenar por Bomba - *

fecha (aammdd) : aammdd
================================================================================
 ==========
                                          CAPACIDAD MAX.      PROGRAMADO
RELLENADO
CODIGO  BOMBA                             x DIA en (M3)       DIA en (M3)
DIA en (M3)
================================================================================
 ==========
endt
* xx     12345678901234567890         9999.99             9999.99
 9999.99
@ 05,17 say wfecha
 sele 2
 go top
 wlin = 10
 wb_min = cod_bomba
 do while .not. eof()
    wb_max = cod_bomba
    @ wlin,2  say cod_bomba
    @ wlin,8  say nom_bomba
    @ wlin,35 say CAP_MAX
    @ wlin,52 say CAP_EXI
    @ wlin,68 say CAP_EJE
    wlin = wlin + 1
```

```
   skip
 enddo
 @ 23,0
    wait 'Presione ENTER '
 @ 24,0
clear
text
SIMI                 *   SISTEMA DE INFORMACION PARA MINA   *
     SIMI052
=============================================================================
=============
* - INGRESO  de Labores a Rellenar por Bomba - *

fecha (aammdd) : aammdd
=============================================================================
=============
       BOMBA  ==> xx  ...............     xx ...............     xx
...............
                    Horas  por Guardia          Horas por  Guardia
Horas por Guardia
   LABOR          (A)     (B)     (C)      (A)     (B)     (C)      (A)
 (B)     (C)
=============================================================================
=============
endt
*23456789012345 hh.mm   hh.mm   hh.mm    hh.mm   hh.mm   hh.mm    hh.mm
hh.mm   hh.mm
@ 05,17 say wfecha
 wlin = 11
 wcol = 17
 wtotrell= 0
 sele 1
 go top
 do while .not. eof()
    wlabor  = nomlabor
    wsecc   = seccion
    wmetodo = metodo
    wbomba  = cod_bomba
    sele 2
    SEEK WBOMBA
    wflujo = flujo
    wnom_bo= nom_bomba
    @ wlin,0  say wlabor
    @ 07,wcol say wbomba pict '!!'
    @ 07,wcol+3 say wnom_bo pict '@!'
    sele 1
    seek wfecha+wlabor+wbomba
    whrs_ga = 0.0
    whrs_gb = 0.0
    whrs_gc = 0.0
    do case
       case wcol = 17
       @ wlin,16  get whrs_ga  pict '999.99'
       @ wlin,23  get whrs_gb  pict '999.99'
```

```
        @ wlin,30  get whrs_gc  pict '999.99'
        case wcol = 39
        @ wlin,38  get whrs_ga  pict '999.99'
        @ wlin,45  get whrs_gb  pict '999.99'
        @ wlin,52  get whrs_gc  pict '999.99'
        case wcol = 61
        @ wlin,61  get whrs_ga  pict '999.99'
        @ wlin,67  get whrs_gb  pict '999.99'
        @ wlin,74  get whrs_gc  pict '999.99'
     endcase
     read
     if whrs_ga > 0.0 .or. whrs_gb > 0.0 .or. whrs_gc > 0.0
        sele 2
        whrsrel = int(whrs_ga)  + ((whrs_ga - int(whrs_ga)) / 60)
        whrsrel  =   whrsrel     +  int(whrs_gb)  +   ((whrs_gb  -
int(whrs_gb)) / 60)
        whrsrel  =   whrsrel     +  int(whrs_gc)  +   ((whrs_gc  -
int(whrs_gc)) / 60)
        wrell_tms= (whrsrel * wflujo * 0.0037854)
        wrell_m3= wrell_tms / 1.4
        if wrell_m3 >= CAP_EXI
           wsw_sele = 'R'
        else
           wsw_sele = ' '
        endif
*-------------- aqui va el RLOCK ()
          chk_rf  =  wBOMBA
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
        replace CAP_EJE with WRELL_m3
        unlock
        sele 3
        seek wfecha+wlabor
*-------------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
        replace sw_sele with wsw_sele
        unlock
        sele 4
        seek wfecha+wlabor+wbomba
        if eof()
           append blank
        endif
  -------------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor+wbomba
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
        replace fecha with  wfecha,seccion with wsecc,metodo  with
wmetodo
        replace cod_bomba with wbomba,nomlabor with wlabor
        replace  hrs_ga  with  whrs_ga,hrs_gb with  whrs_gb,hrs_gc
with whrs_gc
        replace rell_m3 with wrell_m3,rell_tms with wrell_tms
```

```
      unlock
    endif
    sele 1
    skip
    if wlabor = nomlabor .and. wfecha = fecha
       wcol = wcol + 22
       if  wcol <= 61
           loop
       endif
    endif
    @ 07,17 to 07,79 clear
    wlin = wlin + 1
    wcol = 17
    if wlin > 21
      wrep = 'N'
      @ 23,0 say  ' Desea continuar (S/N) ==> ' get wrep pict '!'
      if wrep = 'S'
       @ 10,0 clear
       loop
      else
       exit
      endif
    endif
 enddo
  @ 23,0
  wait ' No hay mas Labores a Rellenar...presione ENTER'
  @ 24,0
  EXIT
enddo
RETURN

* MODIFICACION DE LABORES A RELLENAR POR BOMBA
procedure simi522
set color to w+/bg+
sele 4
use sirehi inde sirehix1,sirehix2
    set filter to wfecha = fecha
    go top
if eof()
  @ 23,0
  wait ' No hay Labores Rellenadas...presione ENTER'
  @ 24,0
  return
endif
DO WHILE .T.
wbomba = '  '
clear
text
SIMI                *   SISTEMA DE INFORMACION PARA MINA   *
     SIMI052
```

```
* - INGRESO  de Labores a Rellenar por Bomba - *
```

```
fecha (aammdd) : aammdd
═══════════════════════════════════════════════════════════════════════
═══════════════

                                        CAPACIDAD MAX.     PROGRAMADO
RELLENADO
CODIGO  BOMBA                            x DIA en (M3)     DIA en (M3)
DIA en (M3)
═══════════════════════════════════════════════════════════════════════
═══════════════
endt
* xx     12345678901234567890          9999.99           9999.99
 9999.99
@ 05,17 say wfecha
 sele 2
 go top
 wlin = 10
 wb_min = cod_bomba
 do while .not. eof()
    wb_max = cod_bomba
    @ wlin,2  say cod_bomba
    @ wlin,8  say nom_bomba
    @ wlin,35 say CAP_MAX
    @ wlin,52 say CAP_EXI
    @ wlin,68 say CAP_EJE
    wlin = wlin + 1
    skip
 enddo
 @ 23,0
    wait 'Presione ENTER '
 @ 24,0
clear
text
SIMI                 *   SISTEMA DE INFORMACION PARA MINA    *
     SIMI052
═══════════════════════════════════════════════════════════════════════
═══════════════
* - INGRESO  de Labores a Rellenar por Bomba - *

fecha (aammdd) : aammdd
═══════════════════════════════════════════════════════════════════════
═══════════════
       BOMBA  ==> xx  ...............     xx ...............      xx
 ...............
                    Horas  por Guardia          Horas por  Guardia
Horas por Guardia
   LABOR          (A)     (B)     (C)      (A)     (B)     (C)      (A)
 (B)     (C)
═══════════════════════════════════════════════════════════════════════
═══════════════
endt
*2345678901234 hh.mm   hh.mm   hh.mm    hh.mm   hh.mm   hh.mm    hh.mm
hh.mm   hh.mm
@ 05,17 say wfecha
 wlin = 11
```

```
 wcol = 17
 wtotrell= 0
 sele 4
 go top
 do while .not. eof()
    wlabor  = nomlabor
    wsecc   = seccion
    wmetodo = metodo
    wbomba  = cod_bomba
    whrs_ga = hrs_ga
    whrs_gb = hrs_gb
    whrs_gc = hrs_gc
    wrell_m3  = rell_m3
    wrell_tms = rell_tms
    sele 2
    SEEK WBOMBA
    wflujo = flujo
    wnom_bo= nom_bomba
    @ wlin,0  say wlabor
    @ 07,wcol say wbomba pict '!!'
    @ 07,wcol+3 say wnom_bo pict '@!'
    do case
       case wcol = 17
       @ wlin,16  get whrs_ga  pict '999.99'
       @ wlin,23  get whrs_gb  pict '999.99'
       @ wlin,30  get whrs_gc  pict '999.99'
       case wcol = 39
       @ wlin,38  get whrs_ga  pict '999.99'
       @ wlin,45  get whrs_gb  pict '999.99'
       @ wlin,52  get whrs_gc  pict '999.99'
       case wcol = 61
       @ wlin,61  get whrs_ga  pict '999.99'
       @ wlin,67  get whrs_gb  pict '999.99'
       @ wlin,74  get whrs_gc  pict '999.99'
    endcase
    read
    if whrs_ga > 0.0 .or. whrs_gb > 0.0 .or. whrs_gc > 0.0
       sele 2
       whrsrel = int(whrs_ga)  + ((whrs_ga - int(whrs_ga)) / 60)
       whrsrel  =   whrsrel     +  int(whrs_gb)  +   ((whrs_gb  -
int(whrs_gb)) / 60)
       whrsrel  =   whrsrel     +  int(whrs_gc)  +   ((whrs_gc  -
int(whrs_gc)) / 60)
       wrell_tms= (whrsrel * wflujo * 0.0037854)
       wrell_m3= wrell_tms / 1.4
       if wrell_m3 >= CAP_EXI
          wsw_sele = 'R'
       else
          wsw_sele = ' '
       endif
*------------ aqui va el RLOCK ()
         chk_rf  =  wBOMBA
         chk_ndx =  space(8)
         do CHKBLOCK with  'R',chk_rf,chk_ndx
```

```
      *
      wrell_m3 = CAP_EJ E+ WRELL_m3
      replace CAP_EJE with WRELL_m3
      unlock
      sele 3
      seek wfecha+wlabor
*------------ aqui va el RLOCK ()
        chk_rf  =  wfecha+wlabor
        chk_ndx =  space(8)
        do CHKBLOCK with  'R',chk_rf,chk_ndx
      replace sw_sele with wsw_sele
      unlock
      sele 4
      seek  wfecha+wlabor+wbomba
*------------ aqui va el RLOCK ()
        chk_rf  =  wfecha+wlabor+wbomba
        chk_ndx =  space(8)
        do CHKBLOCK with  'R',chk_rf,chk_ndx
      replace  hrs_ga  with  whrs_ga,hrs_gb with  whrs_gb,hrs_gc
with whrs_gc
      replace rell_m3 with wrell_m3,rell_tms with wrell_tms
      unlock
   else
      sele 2
      wsw_sele = ' '
      wrell_m3 = CAP_EJE - WRELL_m3
*------------ aqui va el RLOCK ()
        chk_rf  =  wBOMBA
        chk_ndx =  space(8)
        do CHKBLOCK with  'R',chk_rf,chk_ndx
      replace CAP_EJE with WRELL_m3
      unlock
      sele 3
      seek wfecha+wlabor
*------------ aqui va el RLOCK ()
        chk_rf  =  wfecha+wlabor
        chk_ndx =  space(8)
        do CHKBLOCK with  'R',chk_rf,chk_ndx
      replace sw_sele with wsw_sele
      unlock
      sele 4
      seek  wfecha+wlabor+wbomba
*------------ aqui va el RLOCK ()
        chk_rf  =  wfecha+wlabor+wbomba
        chk_ndx =  space(8)
        do CHKBLOCK with  'R',chk_rf,chk_ndx
      delete
      unlock
   endif
   sele 4
   skip
   if wlabor = nomlabor .and. wfecha = fecha
      wcol = wcol + 22
      if  wcol <= 61
          loop
```

```
      endif
    endif
    wlin = wlin + 1
    @ 07,17 to 07,79 clear
    wcol = 17
    if wlin > 21
      wrep = 'N'
      @ 23,0 say  ' Desea continuar (S/N) ==> ' get wrep pict '!'
      if wrep = 'S'
       @ 10,0 clear
       loop
      else
       exit
      endif
    endif
 enddo
  @ 23,0
  wait ' No hay mas Labores a Rellenar...presione ENTER'
  @ 24,0
  EXIT
enddo
RETURN

* CONSULTA DE LABORES RELLENADAS POR BOMBA
procedure simi523
set color to w+/bg+
sele 4
use sirehi inde sirehix1,sirehix2
    set filter to wfecha = fecha
    go top
if eof()
  @ 23,0
  wait ' No hay Labores a Rellenadas...presione ENTER'
  @ 24,0
  return
endif
DO WHILE .T.
wbomba = '  '
clear
text
SIMI                *   SISTEMA DE INFORMACION PARA MINA   *
     SIMI052
    ==========
    ==========
* - INGRESO  de Labores a Rellenar por Bomba - *

fecha (aammdd) : aammdd
    ==========
    ==========
                                    CAPACIDAD MAX.     PROGRAMADO
RELLENADO
CODIGO  BOMBA                       x DIA en (M3)      DIA en (M3)
DIA en (M3)
    ==========
```

```
endt
* xx      12345678901234567890          9999.99              9999.99
 9999.99
@ 05,17 say wfecha
 sele 2
 go top
 wlin = 10
 wb_min = cod_bomba
 do while .not. eof()
     wb_max = cod_bomba
     @ wlin,2  say cod_bomba
     @ wlin,8  say nom_bomba
     @ wlin,35 say CAP_MAX
     @ wlin,52 say CAP_EXI
     @ wlin,68 say CAP_EJE
     wlin = wlin + 1
     skip
 enddo
 @ 23,0
     wait 'Presione ENTER '
 @ 24,0
clear
text
SIMI                  *    SISTEMA DE INFORMACION PARA MINA    *
      SIMI052
```

```
* - INGRESO  de Labores a Rellenar por Bomba - *

fecha (aammdd) : aammdd
```

```
        BOMBA   ==>   xx ................     xx ................      xx
 ................
                      Horas  por Guardia          Horas por  Guardia
Horas por Guardia
   LABOR            (A)     (B)     (C)       (A)     (B)     (C)       (A)
 (B)     (C)
```

```
endt
*23456789012345 hh.mm   hh.mm   hh.mm    hh.mm   hh.mm   hh.mm    hh.mm
hh.mm   hh.mm
@ 05,17 say wfecha
 wlin = 11
 wcol = 17
 wtotrell= 0
 sele 4
 go top
 do while .not. eof()
     wlabor  = nomlabor
     wsecc   = seccion
     wmetodo = metodo
```

```
   wbomba   = cod_bomba
   whrs_ga = hrs_ga
   whrs_gb = hrs_gb
   whrs_gc = hrs_gc   .
   wrell_m3   = rell_m3
   wrell_tms = rell_tms
   sele 2
   SEEK WBOMBA
   wflujo = flujo
   wnom_bo= nom_bomba
   @ wlin,0  say wlabor
   @ 07,wcol say wbomba pict '!!'
   @ 07,wcol+3 say wnom_bo pict '@!'
   do case
      case wcol = 17
      @ wlin,16  say whrs_ga  pict '999.99'
      @ wlin,23  say whrs_gb  pict '999.99'
      @ wlin,30  say whrs_gc  pict '999.99'
      case wcol = 39
      @ wlin,38  say whrs_ga  pict '999.99'
      @ wlin,45  say whrs_gb  pict '999.99'
      @ wlin,52  say whrs_gc  pict '999.99'
      case wcol = 61
      @ wlin,61  say whrs_ga  pict '999.99'
      @ wlin,67  say whrs_gb  pict '999.99'
      @ wlin,74  say whrs_gc  pict '999.99'
   endcase
   sele 4
   skip
   if wlabor = nomlabor .and. wfecha = fecha
      wcol = wcol + 22
      if  wcol <= 61
          loop
      endif
   endif
   @ 23,0
   wait ' Verifique la Bomba informada...presione ENTER'
   @ 24,0
   wlin = wlin + 1
   @ 07,17 to 07,79 clear
   wcol = 17
   if wlin > 21
     wrep = 'N'
     @ 23,0 say  ' Desea continuar (S/N) ==> ' get wrep pict '!
     if wrep = 'S'
      @ 10,0 clear
      loop
     else
      exit
     endif
   endif
enddo
 @ 23,0
 wait ' No hay mas Labores a Rellenar..presione ENTER'
```

```
   @ 24,0
   EXIT
enddo
RETURN
*-------------------------------------------------------------------------------
    PROC CHKBLOCK
*-------------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
       do while  .not. rlock()
*------>    loop sin comandos para esperar
       enddo
return
* FIN DEL PROGRAMA SIMI052
```

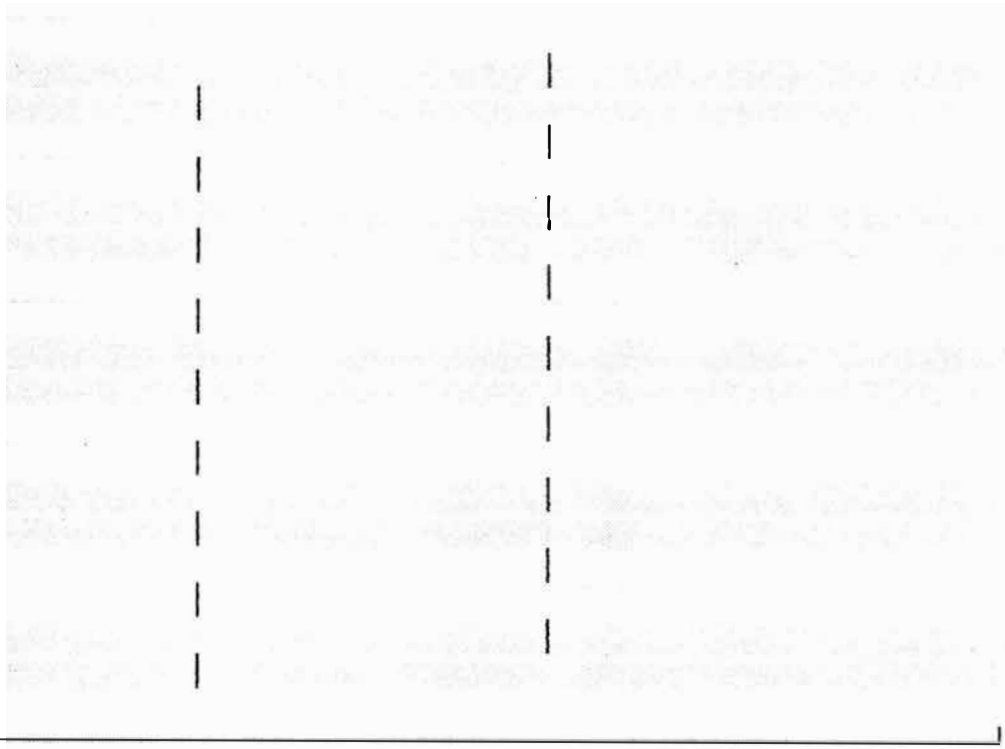
```
* Relleno Hidraulico de Labores por Bomba - SIMI052.prg
* cjmm
proc simi052
close database
do while .t.
clear
text
SIMI                    *    SISTEMA DE INFORMACION PARA MINA    *
     SIMI052
=============================================================
=============
* - Labores en Relleno Hidraulico por Bomba - *

fecha (aammdd) : aammdd
endt
wfecha=space(6)
wkey = 0
wnewlab='P'
@ 05,17 get wfecha
read
if Wfecha='      ' .or. Wfecha='aammdd'
   clear
   exit
endif
i                                                                  f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  /  /  '
   @ 23,0
   wait ' Fecha errada... modificar...presione ENTER'
   @ 24,0
   loop
endif
sele 1
use siprbo index siprbox2,siprbox1
     set filter to wfecha = fecha
     go top
if eof()
   @ 23,0
   wait ' No hay Labores  Programadas...presione ENTER'
   @ 24,0
   loop
endif
sele 2
use sibomb index sibombx1
sele 3
use siesti inde siestix1
   @ 22,0 say repli('=',79)
   @ 23,20 say ' [F2]  Ingreso [F3] Modifica [F5] Consulta    [F10]
Sale'
   @ 24,25 say 'Presione opcion requerida'
   do WHILE wkey=0
    wkey=inkey()
   endDO
```

```
* REGISTRO DIARIO DE CONSUMO POR LABOR  SIMI062.prg
* cjmm
proc simi062
close database
sele 1
use sinoma index sinomax1
wtabmat='('
do while .not. eof()
    wtabmat = wtabmat+tipomat
    skip
    if eof()
        wtabmat = wtabmat+')'
    else
        wtabmat = wtabmat+'/'
    endif
enddo
sele 1
use
sele 1
use simcon  inde simconx1,simconx2,simconx3,simconx4,SIMCONX5
sele 2
use silabo inde silabox1
sele 3
use sicta     inde sictax1
sele 4
use simate    inde simatex1
wSetapa=' DECHSNROJA'
wTetapa='          DESARROLLOCHIMENEA   SUBNIVEL   ROTURA     JALE
 '
do WHILE .t.
 clear
 text
SIMI                *  REGISTRO DIARIO DE CONSUMO POR LABOR  *
    SIMI062
```

Ano-Mes de PROCESO : Fecha (aammdd) :

Nombre labor	ETAPA	MAT	MATERIAL	DESCRIPCION	UNIDAD	CONSUMO
1234567890123456	XX	XXX	XXXXX	1234567890123456789	XXX	9999.99



```
   endt
   maamm='aamm'
   @ 4,22 get maamm
   read
if maamm='      ' .or. maamm='aamm'
    EXIT
endif
maamm = maamm+'28'
i                                                                    f
dtoc(ctod(subs(maamm,1,2)+'/'+subs(maamm,3,2)+'/'+subs(maamm,5,2)
\) = '  .  .  '
   @ 23,0
   wait ' Fecha errada.. modificar..presione ENTER'
   @ 24,0
   LOOP
endif
maamm = subs(maamm,1,4)
 wfecha=SPACE(6)
 @ 4,59 get wfecha
 read
 if wfecha=SPACE(6)
    exit
 endif
                                        i                            f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
   @ 23,0
     wait 'Fecha errada.... modificar
   '
   @ 24,0
   loop
 endif
   set colo to w+/n
   @ 22,0 say repli('=',79)
```

```
  @ 23,0 say '[F2] Ingreso [F3] Modifica [F4] Elimina [F5]
Consulta [F6] Reporte [F10] Sale'
  @ 24,25 say 'Presione Opción requerida'
  wlin=13
  wcodigo= '     '
  wconsumo=0
  wkey=0
  do WHILE wkey=0
   wkey=inkey()
  endDO
  if wkey<=-1 .and. wkey>=-4
   wsubti='                          INGRESO      MODIFICACIONELIMINACION
CONSULTA'
   wsubti=subs(wsubti,wkey*-12,12)
   set color to gw+
   @ 3,35 say wsubti
  endif
  set colo to bg+/b,w+/r
  if wkey<=-1 .and. wkey>=-5 .or. wkey=-9
   if wkey=-9
    close data
    clear
    retu
   endif
   if wkey=-2 .or. wkey=-4
     wkey1=2
   else
     wkey1=wkey*-1
   endif
   wprog='simi62'+str(wkey1,1)
   do &wprog
  endif
endDO
CLOSE DATA
CLEAR
retu

*   S   U   B   R   U   T   I   N   A   A   D   I   C   I   O   N
 ---------------------------------------------------------------

proce simi621
set color to
@ 23,0 clear
@ 23,0 say 'Tipos de Materiales Validos ==> '+wtabmat
wlin = 8
do while .t.
 wlabor=space(15)
 wtipoeta=space(2)
 @ wlin,1  get wlabor pict '@!'
 @ wlin,18 get wtipoeta  pict '!!'
 read
 if wlabor=space(15)
    exit
 endif
 sele 2
```

```
seek wlabor+wtipoeta
if EOF()
 @ 23,0
 wait 'Labor no existe en la maestra..... Modificar '
 @ 24,0
 loop
endif
wseccion=seccion
wtpoeta=tpoeta
wetapa =etapa
wmetodo=metodo
wnrocta=nrocta
do while .t.
wtipomat=space(3)
@ wlin,24 get wtipomat  pict '!!!'
read
if wtipomat = space(3)
   exit
endif
sele 4
set filter to  wtipomat = tipomat
go top
if eof()
 @ 23,0 say 'Tipos de Materiales Validos ==> 'wtabmat
   wait ' '
 @ 24,0
 exit
endif
do while .not. eof()
   wlin1= 8
   @ 8,30 to 21,77 clear
   do while wlin1<=21 .and. .not. eof()
      k=wlin1 - 7
      wcodmat = 'wcod1'+str(k,1,0)
      wcodcon = 'wconsu1'+str(k,1,0)
      wcoduni = 'wcoduni'+str(k,1,0)
      wcodtg  = 'wcodtg1'+str(k,1,0)
      &wcodmat = codmat
      wdesmat  = descrip
      &wcoduni = unid_mina
      &wcodcon = 0.0
      &wcodtg  = tip_gasto
      @ wlin1,30 say &wcodmat
      @ wlin1,39 say wdesmat
      @ wlin1,62 say &wcoduni
      sele 1
      seek wfecha+wlabor+wtpoeta+&wcodmat
      if .not. eof()
         &wcodcon = consumo
      endif
      @ wlin1,69 get &wcodcon  pict '9999.99'
      wlin1 = wlin1 + 1
      sele 4
      skip
```

```
    enddo
    read
    i = 0
    do while i < k
        i = i + 1
        wcodmat = 'wcodi'+str(i,1,0)
        wcodcon = 'wconsui'+str(i,1,0)
        if  &wcodcon # 0.0
            wcodtg  = 'wcodtg1'+str(i,1,0)
            wcoduni = 'wcoduni'+str(i,1,0)
            wnrocta = subs(wnrocta,1,6)+ &wcodtg
            sele 1
            seek wfecha+wlabor+wtpoeta+&wcodmat
            if eof()
                append blank
*---------------- aqui va el RLOCK ()
            chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
                repla anomes with maamm,cod_rep with '1',fecha with
wfecha
                repla seccion with wseccion,metodo with wmetodo
                repla    nomlabor     with    wlabor,tpoeta    with
wtpoeta,etapa with wetapa
                repla    nrocta     with    wnrocta,tipomat    with
wtipomat,codmat with &wcodmat;
                      , consumo with &wcodcon,unidad with &wcoduni
                unlock
            else
*---------------- aqui va el RLOCK ()
            chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
                repla anomes with maamm,cod_rep with '1',fecha with
wfecha
                repla seccion with wseccion,metodo with wmetodo
                repla    nomlabor     with    wlabor,tpoeta    with
wtpoeta,etapa with wetapa
                repla    nrocta     with    wnrocta,tipomat    with
wtipomat,codmat with &wcodmat;
                      , consumo with &wcodcon,unidad with &wcoduni
                unlock
            endif
        else
            sele 1
            seek wfecha+wlabor+wtpoeta+&wcodmat
            if .not. eof()
*---------------- aqui va el RLOCK ()
            chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
                delete
                unlock
            endif
```

```
        endif
        sele 4
    enddo
 enddo
 sele 4
 use
 sele 4
 use simate    inde simatex1
 enddo
 wlin = wlin + 1
 if wlin >= 21
    @ 8,30 to 23,77 clear
    wlin= 8
 endif
enddo
retu

*       SUBRUTINA       DE       MODIFICACION       Y       CONSULTA
*-------------------------------------------------------------------

proce simi622
set color to
@ 23,0 clear
@ 23,0 say 'Tipos de Materiales Validos ==> '+wtabmat
wlin = 8
do while .t.
 wlabor=space(15)
 wtipoeta=space(2)
 @ wlin,1  get wlabor pict '@!'
 @ wlin,18 get wtipoeta  pict '!!'
 read
 if wlabor=space(15)
    exit
 endif
 sele 1
 seek wfecha+wlabor+wtipoeta
 if EOF()
  @ 23,0
  wait 'Labor no existe en esta fecha..... Modificar '
  @ 24,0
  loop
 endif
 wseccion=seccion
 wtpoeta=tpoeta
 wetapa =etapa
 wmetodo=metodo
 wnrocta=nrocta
do while .t.
 wtipomat=space(3)
 @ wlin,24 get wtipomat  pict '!!!'
 read
 if wtipomat = space(3)
    exit
 endif
 sele 4
```

```
set filter to  wtipomat = tipomat
go top
if eof()
 @ 23,0 say 'Tipos de Materiales Validos ==> 'wtabmat
   wait ' '
 @ 24,0
 exit
endif
do while .not. eof()
   wlin1= 8
   @ 8,30 to 21,77 clear
   do while wlin1<=21 .and. .not. eof()
      k=wlin1 - 7
      wcodmat = 'wcod1'+str(k,1,0)
      wcodcon = 'wconsu1'+str(k,1,0)
      wcoduni = 'wcoduni'+str(k,1,0)
      wcodtg  = 'wcodtg1'+str(k,1,0)
      &wcodmat = codmat
      wdesmat  = descrip
      &wcoduni = unid_mina
      &wcodcon = 0.0
      &wcodtg  = tip_gasto
      @ wlin1,30 say &wcodmat
      @ wlin1,39 say wdesmat
      @ wlin1,62 say &wcoduni
      sele 1
      seek wfecha+wlabor+wtpoeta+&wcodmat
      if .not. eof()
         &wcodcon = consumo
      endif
      if wkey = -2
         @ wlin1,69 get &wcodcon   pict '9999.99'
      else
         @ wlin1,69 say &wcodcon   pict '9999.99'
      endif
      wlin1 = wlin1 + 1
      sele 4
      skip
   enddo
   read
   i = 0
   if wkey = -2
   do while i < k
      i = i + 1
      wcodmat = 'wcod1'+str(i,1,0)
      wcodcon = 'wconsu1'+str(i,1,0)
      if  &wcodcon # 0.0
          wcodtg  = 'wcodtg1'+str(i,1,0)
          wcoduni = 'wcoduni'+str(i,1,0)
          wnrocta = subs(wnrocta,1,6)+ &wcodtg
          sele 1
          seek wfecha+wlabor+wtpoeta+&wcodmat
          if eof()
             append blank
```

```
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
               repla anomes with maamm,cod_rep with '1',fecha with
wfecha
               repla seccion with wseccion,metodo with wmetodo
               repla    nomlabor      with    wlabor,tpoeta     with
wtpoeta,etapa with wetapa
               repla    nrocta        with    wnrocta,tipomat   with
wtipomat,codmat with &wcodmat;
                    , consumo with &wcodcon,unidad with &wcoduni
               unlock
            else
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
               repla anomes with maamm,cod_rep with '1',fecha with
wfecha
               repla seccion with wseccion,metodo with wmetodo
               repla    nomlabor      with    wlabor,tpoeta     with
wtpoeta,etapa with wetapa
               repla    nrocta        with    wnrocta,tipomat   with
wtipomat,codmat with &wcodmat;
                    , consumo with &wcodcon,unidad with &wcoduni
               unlock
            endif
        else
            sele 1
            seek wfecha+wlabor+wtpoeta+&wcodmat
            if .not. eof()
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wlabor+wtpoeta+&wcodmat
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
               delete
               unlock
            endif
        endif
        sele 4
    enddo
    endif
 enddo
 sele 4
 use
 sele 4
 use simate    inde simatex1
 enddo
 wlin = wlin + 1
 if wlin >= 21
    @ 8,30 to 23,77 clear
  ' wlin= 8
 endif
```

```
enddo
retu

* SUBRUTINA DE ELIMINACION  ----------------------------------------
proce simi623
set color to
@ 23,0 clear
@ 23,0 say 'Tipos de Materiales Validos ==> '+wtabmat
 clear
 text
SIMI              *  REGISTRO DIARIO DE CONSUMO POR LABOR  *
   SIMI062
=============================================================================
==========

 Ano-Mes de PROCESO :                              Fecha (aammdd) :

 Nombre labor      ETAPA        Nombre labor      ETAPA        Nombre
labor     ETAPA
-----------------------------------------------------------------------------
-------------------------
 ENDT
*12345678901234S    XX                12345678901234S    XX
12345678901234S   XX
@ 4,22 say maamm
@ 4,59 say wfecha
@ 22,0 say repli('=',79)
wlin = 8
wcol = 0
do while .t.
 wlabor=space(15)
 wtipoeta=space(2)
 @ wlin,wcol+1  get wlabor pict '@!'
 @ wlin,wcol+18 get wtipoeta  pict '!!'
 read
 if wlabor=space(15)
    exit
 endif
 sele 1
 seek wfecha+wlabor+wtipoeta
 if EOF()
  @ 23,0
  wait 'Labor no existe en esta fecha..... Modificar '
  @ 24,0
  loop
 endif
  wresp='N'
  @ 23,10  say ' Desea eliminar  SUS CONSUMOS (S/N) ?'  get wresp
pict '!'
  read
  if wresp='S'
*---------- aqui va el RLOCK ()
          chk_rf  =  wcodmat
          chk_ndx =  space(8)
```

```
          do CHKBLOCK with  'R',chk_rf,chk_ndx
   delete     FOR wfecha  = FECHA  .AND.  wlabor =  NOMLABOR .AND.
wtpoeta = TPOETA
   unlock
 wlin = wlin + 1
 if wlin >= 21
    wlin= 8
    wcol = wcol + 29
 endif
enddo
retu

* REPORTE DE CONSUMO POR LABOR
proc simi624
@ 3,13 say 'REPORTE DIARIO DEL CONSUMO DE MATERIALES POR LABOR'
@ 5,0 TO 21,79 CLEAR
SELE 1
use
sele 1
use simcon  inde SIMCONX5,simconx1,simconx2,simconx3,simconx4
   SET FILTER TO wfecha = FECHA .and. cod_rep = '1'
   go top
if EOF()
   @ 12,0
   wait ' No hay datos del mes...Presione cualquier tecla
      '
   @ 13,0
   EXIT
endif
 @ 23,0
 wait ' Coloque el papel en la impresora....Presione  ENTER....
    '
 @ 24,0
SET DEVICE TO PRINT
SET PRINT ON
wlin = 55
wpag = 0
store 0 to wcost_c,wcost_l,wcost_s,wcost_t
wcuenta=space(8)
wmeses='ENERO      FEBRERO  MARZO      ABRIL      MAYO       JUNIO
JULIO     AGOSTO    SETIEMBRENOVIEMBREDICIEMBRE'
  T R F C H =        S U B S ( W F E C H A , 5 , 2 ) + '        D E
'+SUBSTR(wmeses,(((VAL(SUBSTR(wfecha,3,2)))*9)-       8),9)       +
'19'+substr(wfecha,1,2)
 wpag = wpag + 1
 @ 1,6 SAY '   REPORTE  DIARIO  DEL  CONSUMO  DE  MATERIALES  POR
LABOR                  PAG.- '
 @ 1,87 say str(wpag,3)
 @ 2,22 say TRFCH
 @ 2,84 say 'SIMI062'
          @    3          ,          1   S        A
'_____________________________________________________________________
_____________________________'
 @ 4,1 SAY '       SECCION            C U E N T A            M A T E
```

```
R I A L          CONSUMO    SIGLA       COSTO'
 @ 5,1 SAY '       Nombre Labor     Codigo    Descripcion       Codigo
Descripcion    Reportado  Unidad          $'
               @    6          ,          1    S          A          Y
'_____________________________________________________________________
_____________________________________'
 wlin=7
 WCOST_T = 0.00
SELE 1
do while .not.eof()
  wseccion=seccion
  WCOST_S = 0.00
  wsec='y'
  if wsec='y'
    @ wlin,1 say 'SECCION '+ wseccion
    wlin=wlin+1
  endif
  SELE 1
  do while .not.eof() .and.seccion=wseccion
     WLABOR = NOMLABOR
     WCOST_L = 0.00
     @ wlin,6  say wlabor
     SELE 1
     do  while .not.eof() .and.seccion=wseccion  .AND. NOMLABOR =
WLABOR
        wcuenta=nrocta
        sele 3
        seek wcuenta
        if eof()
           wdescta='No activa'
        else
           wdescta=descrip
        endif
        @ wlin,20 say wcuenta
        @ wlin,30 say wdescta
        SELE 1
        do while .not.eof() .and.seccion=wseccion  .AND. NOMLABOR
= WLABOR .AND. WCUENTA = NROCTA
           wcodmat = codmat
           wcoduni = unidad
           WCOST_C = 0.00
           sele 4
           seek wcodmat
           if eof()
              wdesmat='No activa'
              wunid  = space(2)
              wfact  = 0.00
              wtip_g = space(2)
              WCOST_MINA = 0.00
           else
              wdesmat= descrip
              wunid  = unid_mina
              wfact  = factor
              wtip_g = tip_gasto
```

```
                WCOST_MINA = COST_MINA
            endif
            @ wlin,46 say wcodmat
            @ wlin,55 say wdesmat
            wconsumo = 0
            wcost_u  = 0
            SELE 1
            do   while   .not.eof()   .and.seccion=wseccion    .AND.
NOMLABOR = WLABOR .AND. WCUENTA = NROCTA .AND. WCODMAT = CODMAT
*             if  wcoduni # wunid
*                 wconsumo = wconsumo + (consumo * wfact)
*             else
                  wconsumo = wconsumo + consumo
*             endif
              wcost_u = wcost_u + (WCOST_MINA * WCONSUMO)
              skip
            ENDDO
            @ wlin,70 say wconsumo pict '9999999.99'
            @ wlin,82 say wunid
            @ wlin,87 say wcost_u  pict '9999999.99'
            wlin=wlin+1
            if wlin>55
             wpag = wpag + 1
             @ 1,6  SAY '      REPORTE  DIARIO   DEL   CONSUMO   DE
MATERIALES  POR  LABOR                      PAG.= '
             @ 1,87 say str(wpag,3)
             @ 2,22 say TRFCH
             @ 2,84 say 'SIMI062'
                                    @      3  ,  1       S  A  Y
'_____________________________________________________________________
_____________________________________'
             @ 4,1 SAY '      SECCION            C U E N T A
  M A T E R I A L        CONSUMO   SIGLA      COSTO'
             @ 5,1 SAY '      Nombre Labor     Codigo  Descripcion
 Codigo    Descripcion   Reportado  Unidad       $'
                                    @      6  ,  1       S  A  Y
'_____________________________________________________________________
_____________________________________'
             wlin=7
         *
6789012345678901234567890123456789012345678901234567890123456789012345678901
12345678901234567890123456789
         *                          1         2         3         4
     5         6         7         8         9
            endif
            wcost_c = wcost_c + WCOST_U
            wcost_l = wcost_l + WCOST_U
            wcost_s = wcost_s + WCOST_U
            wcost_t = wcost_t + WCOST_U
          ENDDO
          @ wlin,22 say 'TOTAL-CUENTA'
          @ wlin,87 say wcost_c  pict '9999999.99'
          wlin=wlin+1
          wcost_c  = 0.00
```

```
      ENDDO
      @ wlin,6 say 'TOTAL-LABOR '
      @ wlin,87 say wcost_l  pict '9999999.99'
      wlin=wlin+1
      wcost_l  = 0.00
   ENDDO
   @ wlin,1 say 'TOTAL-SECC. '+ wseccion
   @ wlin,87 say wcost_s  pict '9999999.99'
   wlin=wlin+1
   wcost_s  = 0.00
ENDDO
@ wlin,1 say 'TOTAL-GRAL. '
@ wlin,87 say wcost_t  pict '9999999.99'
wlin=wlin+1
SET PRINT OFF
SET DEVICE TO SCREEN
SELE 1
use
sele 1
use simcon  inde simconx1,simconx2,simconx3,simconx4,SIMCONX5
set colo to
   @ 12,0
   wait ' Termino el reporte ....Presione cualquier tecla
      '
   @ 13,0
clea
retur
*
*-------------------------------------------------------------------------------
   PROC CHKBLOCK
*-------------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
      do while  .not. rlock()
*-------->    loop sin comandos para esperar
      enddo
return
* FIN DE PROGRAMA SIMI062
```

```
* Registro Diario Horas Parada Equipo Mina - SIMI072.prg
* cjmm
proc simi072
close database
* public wya,wclase,wfecha,wequipo
do while .T.
clear
text
SIMI                    *     REGISTRO  DE  HORAS  DE  PARADA     *
     SIMI072
=============================================================================
=================

Fecha(aammdd) : aammdd
TIPO-EQUIPO  (L/P) :  X          Codigo-Equipo  : xxxxx       Nombre :
x....................x

MOTIVO DE  PARADA                    Hrs-Acumuladas       Hrs-guardia
Hrs-Total
_____________________                _____________________  _____________
_____________
  A) Mant. Preventivo                    HHH.MM             -HH.MM
HHH.MM
  B) Repar.Mecanico-Electrico
     Reparacion Mecanico                 HHH.MM             -HH.MM
HHH.MM
     Reparacion Electrica                HHH.MM             -HH.MM
HHH.MM
DEMORAS
  C) Otras                               HHH.MM             -HH.MM
HHH.MM
  D) Operativas                          HHH.MM             -HH.MM
HHH.MM
  E) Fijas                               HHH.MM
HHH.MM
     Refrigerio                                            -HH.MM
     Hrs.llegada al Equipo                                 -HH.MM
     Hrs.de abandono de Equipo                             -HH.MM
HORAS PROGRAMADAS :                    HHH.MM
OBSERVACION : x.....................................x
endt
wfecha=space(6)
@ 04,16 get wfecha
read
if Wfecha='      ' .or. Wfecha='aammdd'
  exit
endif
i                                                                      f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
  @ 23,0
  wait ' Fecha errada.. modificar..presione ENTER'
  @ 24,0
  EXIT
```

```
endif
set color to w+/n
@ 22,0 say repli('=',79)
@ 23,0 say ' [F2] Ingreso [F3] Modifica [F4] Elimina [F5]
Consulta [F6] Reporte [F10] Sale'
@ 24,25 say 'Presione opcion requerida'
wkey=0
do while wkey=0
 wkey=inkey()
enddo
if wkey=-9
  clear
  exit
endif
if wkey<=-1 .and. wkey>=-5
 if wkey=-1 .or. wkey=-2
    wkey1=1
 endif
 if wkey=-3 .or. wkey=-4
    wkey1=3
 endif
 if wkey=-5
    wkey1=5
 endif
 wprog='simi72'+str(wkey1,1)
 do &wprog
endif
enddo
retu

* Ingreso de Horas de Parada
proce simi721
@ 23,0 clear
sele 1
use sihoeq inde sihoeqx1,sihoeqx2,sihoeqx3
sele 2
use siequi inde siequix2
do while .T.
 wequipo='       '
 wtip_eq=' '
 wclase ='  '
      s     t     o     r     e     0     ,     0     0     t     o
wrepmeca,wrepelec,wmanprev,wdemoper,wdemfija,wotrdemo,whrspro
      s     t     o     r     e     0     ,     0     0     t     o
grepmeca,grepelec,gmanprev,gdemoper,gdemfija,gotrdemo,grefrige,gl
legada,gabandon
      s     t     o     r     e     0     ,     0     0     t     o
trepmeca,trepelec,tmanprev,tdemoper,tdemfija,totrdemo
 wobserva=space(20)
 wnombre= space(20)
 @ 5,20 get wtip_eq pict '!'
 @ 5,42 get wequipo pict '@!'
 read
 if wtip_eq=' ' .or. wequipo = '       '
```

```
    exit
endif
if  .not. wtip_eq $'LP'
    exit
endif
wya='n'
do verifica
if wya='y'
    exit
endif
@ 5,59    say wnombre
@ 9,35    say str(wmanprev,7,2)
@ 11,35   say str(wrepmeca,7,2)
@ 12,35   say str(wrepelec,7,2)
@ 14,35   say str(wotrdemo,7,2)
@ 15,35   say str(wdemoper,7,2)
@ 16,35   say str(wdemfija,7,2)
@ 9,51   get gmanprev pict '9999.99'
@ 11,51 get grepmeca pict '9999.99'
@ 12,51 get grepelec pict '9999.99'
@ 14,51 get gotrdemo pict '9999.99'
@ 15,51 get gdemoper pict '9999.99'
@ 17,51 get grefrige pict '9999.99'
@ 18,51 get gllegada pict '9999.99'
@ 19,51 get gabandon pict '9999.99'
@ 20,35 get whrspro  pict '9999.99'
@ 21,14 get wobserva pict '@!'
read
wmanprev= (int(wmanprev)  * 60)  + (wmanprev -  int(wmanprev)) *
100
gmanprev= (int(gmanprev)  * 60)  + (gmanprev -  int(gmanprev)) *
100
tmanprev = wmanprev + gmanprev
tmanprev=  int(tmanprev / 60) + ((tmanprev  - int(tmanprev / 60)
* 60) / 100)

wrepmeca= (int(wrepmeca)  * 60)  + (wrepmeca -  int(wrepmeca)) *
100
grepmeca= (int(grepmeca)  * 60)  + (grepmeca -  int(grepmeca)) *
100
trepmeca = wrepmeca + grepmeca
trepmeca=  int(trepmeca / 60) + ((trepmeca  - int(trepmeca / 60)
* 60) / 100)

wrepelec= (int(wrepelec)  * 60)  + (wrepelec -  int(wrepelec)) *
100
grepelec= (int(grepelec)  * 60)  + (grepelec -  int(grepelec)) *
100
trepelec = wrepelec + grepelec
trepelec=  int(trepelec / 60) + ((trepelec  - int(trepelec / 60)
* 60) / 100)

wotrdemo= (int(wotrdemo)  * 60)  + (wotrdemo -  int(wotrdemo)) *
100
```

```
 gotrdemo= (int(gotrdemo)  * 60)  + (gotrdemo -  int(gotrdemo)) *
100
 totrdemo = wotrdemo + gotrdemo
 totrdemo=  int(totrdemo / 60) + ((totrdemo  - int(totrdemo / 60)
* 60) / 100)

 wdemoper= (int(wdemoper)  * 60)  + (wdemoper -  int(wdemoper)) *
100
 gdemoper= (int(gdemoper)  * 60)  + (gdemoper -  int(gdemoper)) *
100
 tdemoper = wdemoper + gdemoper
 tdemoper=  int(tdemoper / 60) + ((tdemoper  - int(tdemoper / 60)
* 60) / 100)

 wdemfija= (int(wdemfija)  * 60)  + (wdemfija -  int(wdemfija)) *
100
 grefrige= (int(grefrige)  * 60)  + (grefrige -  int(grefrige)) *
100
 gllegada= (int(gllegada)  * 60)  + (gllegada -  int(gllegada)) *
100
 gabandon= (int(gabandon)  * 60)  + (gabandon -  int(gabandon)) *
100
 tdemfija = wdemfija + grefrige + gllegada + gabandon
 tdemfija=  int(tdemfija / 60) + ((tdemfija  - int(tdemfija / 60)
* 60) / 100)

 @ 9,67   say str(tmanprev,6,2)
 @ 11,67  say str(trepmeca,6,2)
 @ 12,67  say str(trepelec,6,2)
 @ 14,67  say str(totrdemo,6,2)
 @ 15,67  say str(tdemoper,6,2)
 @ 16,67  say str(tdemfija,6,2)
 read
 wrep = ' '
 @ 21,45  say 'Se graba (S/N)? ' get wrep  pict '!'
 read
 if wrep = 'S'
    sele 1
    seek wfecha+wtip_eq+wequipo
*---------- aqui va el RLOCK ()
          chk_rf  =  wfecha+wtip_eq+wequipo
          chk_ndx =  space(8)
          do CHKBLOCK with  'R',chk_rf,chk_ndx
    repl  tip_eq   with  wtip_eq,fecha  with   wfecha,clase  with
wclase,equipo with wequipo;
         ,  repmeca  with  trepmeca,repelec with  trepelec,manprev
with tmanprev
    repl demoper with tdemoper,demfija with tdemfija,otrdemo with
totrdemo;
         , hrspro with whrspro,observa with wobserva
    unlock
 endif
enddo
retu
```

```
* Eliminacion y Consulta de Horas de Parada
proce simi723
@ 23,0 clear
sele 1
use sihoeq inde sihoeqx1,sihoeqx2
sele 2
use siequi inde siequix2
do while .T.
 wtip_eq=' '
 wclase =' '
 wequipo='      '
 wnombre= space(20)
 @ 5,20 get wtip_eq pict '!'
 @ 5,42 get wequipo pict '@!'
 read
 if wtip_eq=' ' .or. wequipo = '      '
    exit
 endif
 if .not. wtip_eq $'LP'
    exit
 endif
 wya='n'
      s     t     o     r     e     0     ,     0     0     t     o
wrepmeca,wrepelec,wmanprev,wdemoper,wdemfija,wotrdemo,whrspro
 wobserva=space(20)
 do verifica
 if wya='y'
    loop
 endif
 @ 5,59   say wnombre
 @ 9,35   say str(wmanprev,6,2)
 @ 11,35  say str(wrepmeca,6,2)
 @ 12,35  say str(wrepelec,6,2)
 @ 14,35  say str(wotrdemo,6,2)
 @ 15,35  say str(wdemoper,6,2)
 @ 16,35  say str(wdemfija,6,2)
 @ 20,35  say str(whrspro,6,2)
 @ 21,15  say wobserva
 if wkey=-3
   wrep = ' '
   @ 23,45  say 'BORRA TODO en esa fecha (S/N)? '  get wrep  pict
'!'
   read
   if wrep = 'S'
*---------- aqui va el RLOCK ()
           chk_rf  =  wfecha+wtip_eq+wequipo
           chk_ndx =  space(8)
           do CHKBLOCK with  'R',chk_rf,chk_ndx
      DELETE
      UNLOCK
   endif
 else
   @ 23,0
   wait '
```

```
presione..... ENTER'
   @ 24,0
 endif
enddo
retu

* SUBRUTINA DE REPORTE
proc simi724
sele 1
use sihoeq inde sihoeqx2
seek wfecha
if eof()
 @ 23,0
 wait ' No hay  registro en esta fecha ................,presione
ENTI ER
 @ 24,0
 retu
endif
set color to w+r+
@ 3,0 clear
  set color to r+
  @  8,0
  wait ' Coloque el papel en la impresora.....Presione  ENTER.....
'
  @  9,0
  @ 12,35 say 'R E P O R T E '
 wtab_eq1= 'Perforadora          Wincha              Palas
    Caterpila           Carro               Carro Metalero
'
 wtab_eqp= 'Scoops               Jumbo               Cavos
    Locomotoras         '
 wmeses='ENERO    FEBRERO   MARZO    ABRIL     MAYO      JUNIO
JULIO    AGOSTO   SETIEMBRENOVIEMBREDICIEI MBRE
  T R F C H =      S U B S ( W F E C H A , 5 , 2 ) + '      D E
'+SUBSTR(wmeses,(((VAL(SUBSTR(wfecha,3,2))*9)-      8),9)       +
'19'+substr(wfecha,1,2)
SET DEVICE TO PRINT
SET PRINT ON
wpag = 1
@ 1,70 say 'Pag. ' + str(wpag,3)
@ 2,1  say 'SIMI              * REPORTE DISPONIBILIDAD  DIARIA DE
EQUIPO MINA  *          SIMI072'
@ 4,26 say TRFCH
@   5             ,          1      s          a         y
'------------------------------------------------------------------------
---------------'
@ 6,1  say '        HRS   MANT    REPARACION        D E M O R A S
    HRS   DISPO   UTILI'
@ 7,1  say 'EQUIPO  PROG   PREV    MECA    ELEC    OPER.   FIJA
OTRA   OPER   NIBIL  ZACIOI N'
@   8             ,          1      s          a         y
'------------------------------------------------------------------------
---------------'
WLIN=10
```

```
wtip_eq = '
do while .not. EOF() .and. fecha = wfecha
 windical='si'
 if wtip_eq # tip_eq
   if tip_eq = 'L'
    @ wlin,2  say 'EQUIPOS LIGEROS MINA'
    wtitcla = wtab_eql
   else
     if tip_eq = 'P'
      @ wlin,2  say 'EQUIPOS PESADOS MINA'
      wtitcla = wtab_eqp
     endif
   endif
   wlin=wlin+1
   wtip_eq = tip_eq
 endif
 @ wlin,1  say subs(wtitcla,((val(clase)*20)-20)+1,20)
 wlin = wlin + 1
 wclase = clase
          s        t        o        r        e        0        t        o
snumhrs,smanprev,srepmeca,srepelec,sdemoper,sdemfija,sotrdemo,IS,
sutiliz
 store 0  to  shrsope,sdispon
 do while .not. EOF() .and. fecha=wfecha .and. clase=wclase
                    s      t      o      r      e      0      t      o
wnumhrs,wmanprev,wrepmeca,wrepelec,wdemope,wdemfija,wotrdemo,wuti
liz
   wequipo =equipo
   if wlin >= 55
     if wpag > 0
       eject
     endif
     CLEAR
     wpag = wpag + 1
     @ 1,70 say 'Pag. ' + str(wpag,3)
     @ 2,1  say 'SIMI          * REPORTE  DISPONIBILIDAD DIARIA DE
EQUIPO MINA  *          SIMI072'
     @ 4,26 say TRFCH
                                  @   5     ,     1     s     a     y
'_____________________________________________________________________
_____'
     @ 6,1  say '         HRS   MANT    REPARACION        D E M O R
A S        HRS   DISPO   UTILI'
     @ 7,1  say 'EQUIPO   PROG  PREV    MECA   ELEC   OPER.   FIJA
  OTRA   OPER   NIBIL  ZACION'
                                  @   8     ,     1     s     a     y
'_____________________________________________________________________
_____'
     WLIN=10
    endif
 wnumhrs = HRSPRO
 wrepmeca= (int(repmeca) * 60) + (repmeca - int(repmeca)) * 100
 wrepelec= (int(repelec) * 60) + (repelec - int(repelec)) * 100
 wdemoper= (int(demoper) * 60) + (demoper - int(demoper)) * 100
```

```
  wdemfija= (int(demfija) * 60) + (demfija - int(demfija)) * 100
  wotrdemo= (int(otrdemo) * 60) + (otrdemo - int(otrdemo)) * 100
  wmanprev= (int(manprev) * 60) + (manprev - int(manprev)) * 100

    wnumhrs = (int(wnumhrs) * 60) + (wnumhrs - int(wnumhrs)) * 100
    wdispon  = ((wnumhrs  - (wmanprev  +  wrepmeca +  wrepelec)) /
wnumhrs) * 100
    wutiliz  =  ((wnumhrs -  (wmanprev  +  wrepmeca +  wrepelec  +
wotrdemo  +  wdemoper  +  wdemfija))  /  (wnumhrs -  (wmanprev  +
wrepmeca + wrepelec))) * 100
    whrsope  = (wnumhrs  -  (wmanprev  +  wrepmeca  +  wrepelec  +
wotrdemo + wdemoper + wdemfija))
    IS = IS + 1
*------ TOTALES POR CLASE   ------------
    snumhrs  = snumhrs  + wnumhrs
    smanprev = smanprev + wmanprev
    srepmeca = srepmeca + wrepmeca
    srepelec = srepelec + wrepelec
    sdemoper = sdemoper + wdemoper
    sdemfija = sdemfija + wdemfija
    sotrdemo = sotrdemo + wotrdemo

    shrsope  = shrsope  + whrsope
    sdispon  = sdispon  + wdispon
    sutiliz  = sutiliz  + wutiliz
*-------------------------------------------------------------------
    wnumhrs =  int(wnumhrs  / 60) + ((wnumhrs  - int(wnumhrs / 60)
* 60) / 100)
    wrepmeca= int(wrepmeca  / 60) +  ((wrepmeca  -  int(wrepmeca /
60) * 60) / 100)
    wrepelec= int(wrepelec /  60) + ((wrepelec  - int(wrepelec  /
60) * 60) / 100)
    wdemoper=  int(wdemoper / 60)  + ((wdemoper   - int(wdemoper /
60) * 60) / 100)
    wdemfija= int(wdemfija  / 60) +  ((wdemfija  -  int(wdemfija /
60) * 60) / 100)
    wotrdemo= int(wotrdemo /  60) + ((wotrdemo   - int(wotrdemo  /
60) * 60) / 100)
    wmanprev= int(wmanprev  / 60) +  ((wmanprev  -  int(wmanprev /
60) * 60) / 100)
    whrsope = int(whrsope  /  60) + ((whrsope    - int(whrsope   /
60) * 60) / 100)
    @ wlin,2 say wequipo
    @ wlin,9 say str(wnumhrs,6,2)
    @ wlin,15 say str(wmanprev,6,2)
    @ wlin,22 say str(wrepmeca,6,2)
    @ wlin,29 say str(wrepelec,6,2)
    @ wlin,37 say str(wdemoper,6,2)
    @ wlin,45 say str(wdemfija,6,2)
    @ wlin,52 say str(wotrdemo,6,2)
    @ wlin,59 say str(whrsope,6,2)
    @ wlin,67 say str(wdispon,6,2)
    @ wlin,75 say str(wutiliz,6,2)
    skip
```

```
   wlin=wlin+1
 enddo
  SDISPON = SDISPON / IS
  SUTILIZ = SUTILIZ / IS
  IS = 0
   snumhrs = int(snumhrs   / 60) +  ((snumhrs   - int(snumhrs   /
60) * 60) / 100)
   srepmeca= int(srepmeca  / 60) +  ((srepmeca  -  int(srepmeca /
60) * 60) / 100)
   srepelec= int(srepelec /  60) + ((srepelec   - int(srepelec  /
60) * 60) / 100)
   sdemoper= int(sdemoper  / 60) +  ((sdemoper  -  int(sdemoper /
60) * 60) / 100)
   sdemfija= int(sdemfija  / 60) +  ((sdemfija  -  int(sdemfija /
60) * 60) / 100)
   sotrdemo= int(sotrdemo /  60) + ((sotrdemo   - int(sotrdemo  /
60) * 60) / 100)
   smanprev=  int(smanprev / 60)  + ((smanprev   - int(smanprev /
60) * 60) / 100)
   shrsope = int(shrsope   / 60) + ((shrsope    - int(shrsope   /
60) * 60) / 100)
  @ wlin,1  say 'TOTAL '
  @ wlin,9 say str(snumhrs,6,2)
  @ wlin,15 say str(smanprev,6,2)
  @ wlin,22 say str(srepmeca,6,2)
  @ wlin,29 say str(srepelec,6,2)
  @ wlin,37 say str(sdemoper,6,2)
  @ wlin,45 say str(sdemfija,6,2)
  @ wlin,52 say str(sotrdemo,6,2)
  @ wlin,59 say str(shrsope,6,2)
  @ wlin,67 say str(sdispon,6,2)
  @ wlin,75 say str(sutiliz,6,2)
  wlin = wlin + 2
enddo
@ wlin+1,1 say ' '
eject
SET DEVICE TO SCREEN
SET PRINT OFF
retur

* PROCESO VERIFICA
proce verifica
sele 2
seek wtip_eq+wequipo
if eof()
 @ 23,0
 wait   ' No esta registrado en la Maestra' + wequipo +'
presione... ENTER'
 @ 24,0
 wya='y'
 retu
endif
 wnombre=nombre
 wclase=clase
```

```
 wya='n'
sele 1
seek wfecha+wtip_eq+wequipo
if eof()
        s       t       o       r       e       0       ,       0       0       t       o
wrepmeca,wrepelec,wmanprev,wdemoper,wdemfija,wotrdemo,whrspro
 wobserva=space(20)
 if wkey=-3.or.wkey=-4
    @ 23,0
    wait ' No esta registrado este equipo ' + wequipo +'
presione.... ENTER'
    @ 24,0
    wya='y'
 else
    append blank
*------------ aqui va el RLOCK ()
            chk_rf  =  wfecha+wtip_eq+wequipo
            chk_ndx =  space(8)
            do CHKBLOCK with 'R',chk_rf,chk_ndx
    replace  tip_eq with wtip_eq,clase with space(2),fecha with
wfecha,equipo with wequipo,hrspro with whrspro;
            ,  repmeca with wrepmeca,repelec with wrepelec,demoper
with wdemoper;
            ,  demfija with wdemfija,otrdemo with wotrdemo,manprev
with wmanprev;
            , observa with wobserva
    unlock
*   seek wfecha+wtip_eq+wequipo
 endif
endif
    whrspro =hrspro
    wrepmeca=repmeca
    wrepelec=repelec
    wdemoper=demoper
    wdemfija=demfija
    wotrdemo=otrdemo
    wmanprev=manprev
    wobserva=observa
retu

*-------------------------------------------------------------------------------
    PROC CHKBLOCK
*-------------------------------------------------------------------------------
PARAMETERS RF,chk_rf,chk_ndx
        do while .not. rlock()
*------->    loop sin comandos para esperar
        enddo
return
```

```
* REPORTE DE INDICE TECNICOS POR CUENTAS - SIMI082.prg
* cjmm
PROC SIMI082
do while .t.
clear
text
SIMI                    *    SISTEMA DE INFORMACION PARA MINA    *
     SIMI082
=============================================================================
                    * REPORTE DE INDICES TECNICOS POR CUENTA *

 FECHA :
endt
wanomes='aamm'
@ 5,09 GET WANOMES
READ
if wanomes='     '.OR. wanomes='aamm'
 clear
 retu
endif
wfecha=wanomes+'01'
i                                                                        f
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  .  .  '
 @ 23,0
 wait ' FECHA ERRADA... MODIFICAR... PRESIONE ENTER'
 @ 24,0
 loop
endif
wmes='          ENERO     FEBRERO  MARZO     ABRIL     MAYO      JUNIO
 JULIO     AGOSTO    SETIEMBREOCTUBRE  NOVIEMBREDICIEMBRE'
wmes=trim(subs(wmes,val(subs(wanomes,3,2))*9,9))
use siproc inde siprocx1
sum tonroto to wtonroto1 for anomes=wanomes.and.flag='M'
use
SELE 1
use siproc inde siprocx1
sele 2
use simate inde simatex1
sele 3
use siconm inde siconmx3,SICONMX2
set filter to anomes=wanomes.and.subs(nrocta,2,3)>'116'
go top
sele 4
use sinoma inde sinomax1
sele 3
if eof()
 @ 23,0
 wait ' NO EXISTE DATOS DE ESTE MES '+WANOMES+ ' ....'
 @ 24,0
 loop
endif
 @ 23,0
```

```
 wait ' Coloque el papel en la impresora.....Presione  ENTER.....
 @ 24,0
wtitulo='y'
wpag=1
WTONROTOT=0
SET DEVI TO PRINT
do while .not.eof()
 wseccion=seccion
 sele 1
  s u m      T o n r o t o      t o      w t o n r o t o      f o r
anomes=wanomes.and.seccion=wseccion.and.flag='M'
 if wtonroto=0
  wtonroto=wtonroto1
 endif
 sele 3
 wnsec='y'
 do while .not.eof().and.seccion=wseccion
  wnrocta=nrocta
  wncta='y'
  do while .not.eof().and.seccion=wseccion.and.nrocta=wnrocta
   WCONSUMO=0
   WCODM=subs(CODMAT,1,3)
   if tipomat='EXP'.and.wcodm<>'DIN'
    sele 2
    seek c->codmat
    wdesmat=descrip
    sele 3
   else
    if wcodm='DIN'
     wdesmat='DINAMITA'
    else
     sele 4
     seek c->tipomat
     wdesmat=nom_mat
    endif
   endif
   wunid=unidad
-                  d      o                  w      h      i      l      e
.not.eof().and.seccion=wseccion.and.nrocta=wnrocta.and.subs(codma
t,1,3)=wcodm
    if wtitulo='y'
     @ 1,1 SAY CHR(15)
     @ 1,01 SAY 'SIMI                          REPORTE MENSUAL DE  INDICES
TECNICOS                  PAG.-'
     @ 1,76 SAY WPAG PICT '99'
     @ 2,25 SAY 'POR CUENTA -  '+wmes+'-19'+subs(wanomes,3,2)
     @ 4,01 say repli('=',87)
@ 5,1 say '             M.ROTO
                          INDICE'
@ 6,1 say 'SECCION     (TMS)       CUENTA              M A T E R I A L
      CONSUMO  UNID    UNID/TMS'
*  XX          99999      X-XXX-XX-XX       12345678901234567890
99999.99    XXX      999.99
```

```
* 3        11         21                  37                                  62
        73       81
       @ 7,01 say repli('=',87)
       wtitulo='n'
       wlin=8
       wpag=wpag+1
      endif
      if wnsec='y'
       @ wlin,3 say wseccion
       @ wlin,11 say wtonroto pict '99999'
       wtonrotot=wtonrotot+wtonroto
       wnsec='n'
      endif
      if wncta='y'
                          @     w    l    i    n    ,    2    l         s    a    y
subs(wnrocta,1,1)+'-'+subs(wnrocta,2,3)+'-'+subs(wnrocta,5,2)+'-'
+subs(wnrocta,7,2)
       wncta='n'
      endif
      wconsumo=wconsumo+consumo
      skip
     enddo
     @ wlin,37 say wdesmat
     @ wlin,62 say wconsumo pict '99999,99'
     @ wlin,73 say wunid
     @ wlin,81 say round(wconsumo/wtonroto,2) pict '999,99'
     wlin=wlin+1
     IF WLIN>55
      @ WLIN,1 SAY ' '
      EJECT
      SET DEVI TO SCRE
      @ 23,0
      WAIT ' COLOQUE OTRO PAPEL Y PRESIONE ENTER ....'
      @ 24,0
      SET DEVI TO PRINT
     ENDIF
    enddo
    wlin=wlin+1
 enddo
 wlin=wlin+1
enddo
@ wlin,1 say repli('-',87)
wlin=wlin+1
@ wlin,1 say 'MINA'
@ wlin,11 say wtonroto1 pict '99999'
sele 3
SET INDE TO siconmx2
do while .not.eof()
 wconsumo=0
 wcodm=subs(codmat,1,3)
 wunid=unidad
 if tipomat='EXP'.and.wcodm<>'DIN'
  sele 2
  seek c->codmat
```

```
   wdesmat=descrip
   sele 3
  else
   if wcodm='DIN'
    wdesmat='DINAMITA'
   else
    sele 4
    seek c->tipomat
    wdesmat=nom_mat
   endif
  endif
  do while .not.eof().and.subs(codmat,1,3)=wcodm
   wconsumo=wconsumo+consumo
   skip
  enddo
  @ wlin,37 say wdesmat
  @ wlin,62 say wconsumo pict '99999.99'
  @ wlin,73 say wunid
  @ wlin,81 say round(wconsumo/wtonroto1,2) pict '999.99'
  wlin=wlin+1
enddo
@ wlin,1 say repli('=',87)
wlin=wlin+1
@ wlin,1 say ' '
EJECT
set filter to
close data
set devi to scre
retu
enddo
```

```
* CONTROL DE TAREAS DE MINA SIMI092.prg
* cjmm
PROC SIMI092
Do while .t.
 clear
 text
SIMI                *   SISTEMA DE INFORMACION PARA MINA    *
     SIMI092
================================================================================
================
                              REGISTRO DE TAREAS DE MINA


FECHA (AAMMDD) :
================================================================================
================
         No                                                          No HORAS
No      NUMERO
 PREF FICHA      T R A B A J A D O R                    GDA   NORMAL   SOBRET
COLEC   CUENTA
================================================================================
================
 endt
* XXX XXXXX  12345678901234567890123456789O  X    999.99   999.99
XXX    XXXXXX
* 2   6       13                             45   49       57
67     73
 @ 22,0 say repli('=',79)
 @ 23,0 say '       [F2]  Ingreso [F3] Modifica [F4]  Elimina [F5]
Consulta [F10] Sale'
 @ 24,25 say 'Presione Opción requerida'
 wlin=11
 wkey=inkey(0)
 if wkey<=-1.and.wkey>=-4
- wsubti='                          INGRESO      MODIFICACIONELIMINACION
CONSULTA'
  wsubti=subs(wsubti,wkey*-12,12)
  @ 4,31 say wsubti
 endif
 if wkey<=-1.and.wkey>=-5.or.wkey=-9
  if wkey=-9
   close data
   clear
   retu
  endif
  if wkey>=-3
   sele 1
   use sihrst inde sihrstx1,sihrstx2,sihrstx3
   sele 2
   use sipers inde sipersx1
   wkey1=1
  else
   wkey1=2
  endif
```

```
   wprog='SIMI92'+str(wkey1,1)
   do &wprog
  endif
endDO
retu

* SUBRUTINA ADICION-MODIFICACION-ELIMINACION
PROC  SIMI921
@ 23,0 clear
wfecha='aammdd'
@ 6,19 get wfecha
read
if wfecha='      '.or.wfecha='aammdd'
  retu
endif
i
dtoc(ctod(subs(wfecha,1,2)+'/'+subs(wfecha,3,2)+'/'+subs(wfecha,5
,2))) = '  /  /  '
 @ 23,0
 wait 'Fecha errada.... modificar
'
 @ 24,0
 retu
endif
wprefijo='   '
sele 1
do while wlin<=21
 wnficha='      '
 @ wlin,2 get wprefijo
 @ wlin,6 get wnficha
 read
 if wNficha = '      '.or.wprefijo='   '
  close data
  retu
endif
 sele 2
 seek wnficha
 if eof()
  @ 23,0
  wait ' No existe esta ficha en la maestra de personal ...'
  @ 24,0
  loop
 endif
 wplan_secc=planilla+seccion
 wap_nom=ap_nom
 wguardia=guardia
 sele 1
 seek wfecha+wnficha
 if .not.eof()
  if wkey=-1
   @ 22,0
   wait ' Ya existe las hrs de  '+trim(wnficha)+' presione ENTER'
   @ 23,0
   loop
```

```
   endif
  else
   if wkey=-2 .or. wkey=-3
    @ 22,0
    wait ' No existe esta las hrs '+trim(wnficha)+'  .... presione
ENTER'
    @ 23,0
    loop
   eLSE
    APPE BLANK
   ENDIF
  endif
  wh_normal = h_normal
  wh_sobret = h_sobret
  wnrocta= nrocta
  wcolec= colec
  @ wlin,13 say wap_nom
  sele 1
  if wkey>=-2
   @ wlin,45 get wguardia
   @ wlin,49 get wh_normal pict '999.99'
   @ wlin,57 get wh_sobret pict '999.99'
   @ wlin,67 get wcolec
   @ wlin,73 get wnrocta
   read
   *------- aqui va el RLOCK ()
            chk_rf  =  wnficha
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
   if wkey=-1
    repla plan_secc with  wplan_secc,prefijo with  wprefijo,nficha
with wnficha;
        , fecha with wfecha
   endif
 * if wkey<>-3
    repla  h_normal  with wh_normal,h_sobret  with wh_sobret,colec
with wcolec;
        , nrocta with wnrocta,guardia with wguardia
    unlock
   endif
  else
   @ wlin,45 say wh_normal pict '999.99'
   @ wlin,53 say wh_sobret pict '999.99'
   @ wlin,63 say wcolec
   @ wlin,71 say wnrocta
   *------------- aqui va el RLOCK ()
            chk_rf  =  wnficha
            chk_ndx =  space(8)
            do CHKBLOCK with  'R',chk_rf,chk_ndx
   dele
   pack
   @ 23,0
   wait ' ELIMINACION Ok
   @ 24,0
```

```
  unlock
 endif
 wlin=wlin+2
 if wlin>21
  wlin= 11
  @ 10,0 to 21,79 clear
 endif
enddo
retu

* CONSULTA
PROC SIMI922
@ 23,0 clear
@ 6,0 say 'FECHA  (AAMMDD) :                    PLANILLA (D/M/P) :
SECCION :'
@  7                    ,                    0   s                    a                    y
'==================================================================================
====================='
@ 8,0 say '                                                                          No HORAS
          ACUMULADO                          '
@  9,0 say ' No FICHA         A P E L   L I D O S                     NORMAL
SOBRET     NORMAL    SOBRET'
@  1              0                    ,           0   s              a              .   y
'==================================================================================
====================='
*XXX-xxxxx  123456789012345678901234567890    999.99      999.99
99999.99  99999.99
*1         11                                     43        52          61
    71
wplanilla=' '
wseccion='  '
wfecha='aammdd'
@ 6,16 get wfecha
@ 6,44 get wplanilla pict '!' valid( wplanilla $'DMP ')
@ 6,62 get wseccion
read
if   wplanilla='   '.or.wseccion='     '.or.wfecha='
'.or.wfecha='aammdd'
 close data
 retu
endif
sele 1
use sipers inde sipersx1
sele 2
use sihrst inde sihrstx2
sele 2
seek wplanilla+wseccion
if eof()
 @ 24,0
 @ 23,0
 wait ' No existe datos de esta seccion ....'
 @ 24,0
 retu
endif
```

```
wlin=11
do while .not.eof().and.plan_secc=wplanilla+wseccion
 wguardia=guardia
 @ wlin,0 say '% GUARDIA '+wguardia
 wlin=wlin+1
 wh_normala=0
 wh_sobreta=0
 wh_normalf=0
 wh_sobretf=0
       d       o                              w       h       i       l       e
.not.eof().and.plan_secc=wplanilla+wseccion.and.guardia=wguardia
  wnficha=nficha
  @ wlin,1 say prefijo+'-'+nficha
  sele 1
  seek wnficha
  @ wlin,11 say ap_nom
  sele 2
  wh_normal=0
  wh_sobret=0
              d       o                              w       h       i       l       e
.not.eof().and.plan_secc=wplanilla+wseccion.and.guardia=wguardia.
and.nficha=wnficha
    if fecha<=wfecha
     wh_normal=wh_normal+h_normal
     wh_sobret=wh_sobret+h_sobret
     if fecha=wfecha
      @ wlin,43 say h_normal pict '999.99'
      @ wlin,52 say h_sobret pict '999.99'
      wh_normalf=wh_normalf+h_normal
      wh_sobretf=wh_sobretf+h_sobret
     endif
    endif
    skip
  enddo
  @ wlin,61 say wh_normal pict '99999.99'
  @ wlin,71 say wh_sobret pict '99999.99'
  wh_normala=wh_normala+wh_normal
  wh_sobreta=wh_sobreta+wh_sobret
  wlin=wlin+1
  if wlin>21
   @ 23,0
   wait 'Consulta Ok...'
   @ 24,0
   @ 11,0 to 21,79 clear
   wlin=11
  endif
 enddo
 @ wlin,1 say ' TOTAL GUARDIA '+wguardia
 @ wlin,43 say wh_normalf pict '999.99'
 @ wlin,52 say wh_sobretf pict '999.99'
 @ wlin,61 say wh_normala pict '99999.99'
 @ wlin,71 say wh_sobreta pict '99999.99'
 wlin=wlin+2
 if wlin>21
```

```
   @ 23,0
   wait 'Consulta Ok...'
   @ 24,0
   @ 11,0 to 21,79 clear
   wlin=11
  endif
enddo
@ 23,0
wait 'Consulta Ok...'
@ 24,0
close data
retu

*-------------------------
 PROC CHKBLOCK
*-------------------------
PARAMETERS RF,chk_rf,chk_ndx
       do while  .not. rlock()
*------>   loop sin comandos para esperar
       enddo
return
* FIN DE PROGRAMA SIMI092
```