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TRANSLIMS

Transfer Lims Data to Other Formats

version 1.0

J. Brunt

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INTERNATIONAL SOIL REFERENCE AND INFORMATION CENTRE

ISRIC LIBRARY
S 12
92
Wageningen, The Netherlands

1. Introduction

SOILIMS is a Laboratory Information and Management System that produces data in a standard report form as thoroughly discussed with the head of the laboratory and analysts.

SOILIMS stores all its data in 200 to 275 different databases, depending on the capacity of the laboratory. These databases can be linked together as SOILIMS is build up in a relational way, thus saving disk space. They have fixed attributes which can not be changed.

It may happen however, that a client requests the soil analyses results in a database digital form (on disk) with the extra condition that the attributes should meet his requirements (and not the requirements of SOILIMS). Such a request can only be honoured when the client is a regular client. An interface has then to be built between the SOILIMS and Client requirements.

At this time the NASREC Project is such a regular client for ISRIC's laboratory. Moreover, the data requested by NASREC and produced by SOILIMS will be stored in ISIS which is also developed at ISRIC.

TRANSLIM is a user friendly tool which TRANSports LIMs data to a client defined database structure. In the case of NASREC's request TRANSLIM picks the requested data out of its 250 databases, combines most of them and stores results in ISIS format (2 databases), performing the requested ISIS calculations and storing the number " -1 " in non measured values.

Taken into account are the latest modifications made in ISIS 4 (February 1993) SOILIMS data are now available for both ISIS 4 and SOCLIDA 1.1.

TRANSLIM is developed in such a way, that possible other requested and still unknown formats can be added to the programme.

Appendix 1 shows the main module of TRANSLIMS.

2. How to use TRANSLIMS?

As soon as Translims is started (type TRANSLIMS followed by <ENTER>) the following menu appears:

```
T R A N S L I M S  M A I N  M E N U

A. Transport data to ISIS
B. Transport data to FAO-ISRIC DBS
C. Transport data to SOTER
X. eXit

Type letter of your choice or X to eXit
```

Choosing option A from this menu results in a pick list of SOILIMS work orders together with the client name. User has to choose the work order to be transferred to ISIS format.

In SOILIMS data have undergone a scrutinized computerized quality control check on both first and second line level.

Data will automatically be copied to two files on a floppy disk in a drive of your choice and are ready for dispatch. The files are named XXCHEM.DBF and XXPHYS.DBF respectively. The two letters "XX" stand for the international country code of the soil profiles involved. Diskette should be labelled with the name of the client, work order number and type of format (e.g. ISIS). It is advised to accompany the diskette with the standardized report form of SOILIMS in order to confirm these data on paper.

```
* Programme: TRANSLIMS.PRG
* Author   : J. Brunt
* Purpose  : Main Module SOILIMS -> ISIS data transfer
* Date     : March 1993


PUBLIC drive,mworkorder,limsfile,tempfile,parawaarde,isisveld,notready
set stat on
yesno="N"
@10,20 SAY "Is work order still pending? " get yesno pict "YN"
read
clear
define window workorder from 5,3 to 21,29
set talk off
close data
@5,40 SAY "1. Choose workorder to be transferred"
if yesno="N"
  use c:\soilims\donesam index c:\soilims\datewo
else
  use c:\soilims\pendsam index c:\soilims\wo
endif
do zkorder2
if mworkorder=0
  clear
  return
endif
sele a
use xdonesam
set safety off
zap
if yesno="N"
  append from c:\soilims\donesam for workorder=mworkorder
else
  append from c:\soilims\pendsam for workorder=mworkorder
endif
a=reccount()
go top
sele b
use isischem
zap
sele c
use isisphys
zap
E=1
@6,40 SAY "2. Defractionning Client sample ID"
```

```
do while E<a+1
  sele a
  mlabcode=str(labcode,6,0)
  msecondline=secondline
  msecondappr=secondappr
  misis_id=substr(samplecode,1,5)
  pos1  = at(" ",samplecode)
  pos2  = at(",",samplecode)
  pos3  = at("-",samplecode)
  mhori = substr(samplecode,pos1+1,pos2-pos1-1)
  mtop  = substr(samplecode,pos2+1,pos3-pos2-1)
  mbot  = substr(samplecode,pos3+1,3)
  skip
  sele b  && isischem
  append blank
  replace sampleno with mlabcode,editdatum with msecondline,phh2o with -1,;
  phkcl with -1,caco3 with -1,orgc with -1,orgn with -1,ca with -1,;
  mg with -1,k with -1,na with -1,sum with -1,exacid with -1,;
  exal with -1,cecsoil with -1,cecclay with -1,cecorg with -1,;
  ecec with -1,bs with -1,als with -1,ec with -1,isis_id with misis_id,;
  hori with val(mhori),top with val(mtop),bot with val(mbot),ok with .T.
  if yesno="N"
    replace remarks with "Data produced and cross-checked by SOILIMS. Final approval by
"+msecondappr
  else
    replace remarks with "Data produced by SOILIMS. Data not cross checked"
  endif
sele c
  append blank
  replace sampleno with mlabcode,editdatum with msecondline,s1 with -1,s2 with -1,;
  s3 with -1, s4 with -1,s5 with -1,tsi with -1,si1 with -1,si2 with -1,tsi with -1,tsa with -1,dispcl
with -1,clay with -1,bulk with -1,pf0 with -1,;
  pf1 with -1,pf15 with -1,pf2 with -1,pf23 with -1, pf27 with -1,pf34 with -1,;
  pf42 with -1,isis_id with misis_id,hori with val(mhori),;
  top with val(mtop),bot with val(mbot),ok with .T.
  if yesno="N"
    replace remarks with "Data produced and cross-checked by SOILIMS. Final approval by
"+msecondappr
  else
    replace remarks with "Data produced by SOILIMS. Data not cross checked"
  endif
  E=E+1
enddo
E=1
@7,40 SAY "3. Extracting data from SOILIMS"
```

```
 do while E<24
    do cases
    sele e
    use &tempfile
    zap
    if yesno="N"
      append from c:\soilims\&limsfile for workorder=mworkorder
    else
      append from c:\soilims\&notready for workorder=mworkorder
    endif
    e=e+1
 enddo
 set safety on

 ********** Procedure to fill isisphys.dbf file
 @8,40 SAY "4. Filling isisphys database"
 E=11
 do while E<21
    sele c   && use isisphys
    go top
    do cases
    sele e
    use &tempfile
   if reccount()=0
      e=e+1
      loop
    endif
    do while .not.eof()
      sele c
      mlabcode1=val(sampleno)
      sele e
      mlabcode2=labcode
      mparawaarde=&parawaarde
      sele c
      if mlabcode1<mlabcode2  && nieuwe if statement
        skip
        loop
      endif
      if mlabcode1=mlabcode2
        replace &isisveld with mparawaarde
        skip
        sele e
        skip
      endif
    enddo
    E=E+1
 enddo
 sele c
 go top
 sele e
 use x8fract
```

```
if reccount()<>0
  do while .not.eof()
    sele c
    mlabcode1=val(sampleno)
    sele e
    mlabcode2=labcode
    mclay=clay
    msilt1=silt1
    msilt2=silt2
    msand1=sand1
    msand2=sand2
    msand3=sand3
    msand4=sand4
    msand5=sand5
    sele c
    if mlabcode1<mlabcode2
      skip
      loop
    endif
    if mlabcode1=mlabcode2
      replace clay with mclay,si1 with msilt1,si2 with msilt2,tsi with si1+si2,;
      s1 with msand1,s2 with msand2,s3 with msand3,s4 with msand4,s5 with msand5,;
      tsa with s1+s2+s3+s4+s5
      skip
      sele e
      skip
    endif
  enddo
endif

********************** Procedure to fill isischem.dbf file
@9,40 SAY "5. Filling isischem database"
E=1
do while E<11
  sele b &&use isischem
  go top
  do cases
  sele e
  use &tempfile
  if reccount()=0
    e=e+1
    loop
  endif
  do while .not.eof()
    sele b
    mlabcode1=val(sampleno)
    sele e
    mlabcode2=labcode
    mparawaarde=&parawaarde
    sele b
```

```
      if mlabcode1<mlabcode2  && nieuwe if statement
        skip
        loop
      endif
      if mlabcode1=mlabcode2
        replace &isisveld with mparawaarde
        skip
        sele e
        skip
      endif
    enddo
    E=E+1
enddo



********** Procedure for exch. bases
@10,40 SAY "6. Calculations"
sele b &&use isischem
go top
sele c  && use isisphys
go top
sele e
use xcecbas
if reccount()<>0
  do while .not.eof()
    sele c
    mclay=clay
    sele b
    mlabcode1=val(sampleno)
    sele e
    mlabcode2=labcode
    mex_ca = ex_ca
    mex_mg = ex_mg
    mex_na = ex_na
    mex_k  = ex_k
    mbases = ex_ca+ex_mg+ex_na+ex_k
    sele b
    if mlabcode1<mlabcode2  && nieuwe if statement
      skip
      loop
    endif
    if mlabcode1=mlabcode2
      replace ca with mex_ca,mg with mex_mg,k with mex_k,na with mex_na,sum with mbases
      if cecsoil>0
        if 100*mbases/cecsoil>999
          replace bs with 999
        else
          replace bs with 100*mbases/cecsoil
        endif
```

```
            if mclay>0
              mcecclay = 100*cecsoil/mclay
              if mcecclay>999
                replace cecclay with 999
              else
                replace cecclay with mcecclay
              endif
            endif
          endif
          if exacid<>-1
            replace ecec with ca+mg+k+na+exacid
          endif
          if orgc>-1
            replace cecorg with round(3.5*orgc,1)
          endif
          skip
          sele c
          skip
          sele e
          skip
        endif
      enddo
    endif
    do while .T.
      drive= " "
      @12,42 SAY "Copy files to which drive (A/B)? " get drive pict "!"
      read
      if drive $"AB"
        exit
      endif
    enddo
    sele b
    go top
    x=substr(isis_id,1,2)
    set safety off
    @14,40 SAY "7. Copying "+x+"CHEM.DBF"
    chem="&x"+"chem.dbf"
    copy to &drive:&chem
    phys="&x"+"phys"
    @15,40 SAY "8. Copying "+x+"PHYS.DBF"
    sele c
    copy to &drive:&phys
    set safety on
    @17,43 SAY "R E A D Y"
    close data
    do continue
    set stat off
    clear
```