遗传力

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfnrm.exe

PRIMES : 239851 239849 FOR 240000

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PROGRAM "MTDFNRM" - Calculate A-1 for "MTFRUN" and recode IDs for "MTDFPREP"

Version to use Westell grouping strategy

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OPTION FOR CALCULATION OF A-1

FOR ANIMAL SIRE DAM TYPE .... 0

FOR ANIMAL SIRE MGS TYPE .... 1

0

MAXIMUM ANIMAL ID IN PEDIGREE FILE ?

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS

18000000

MAXIMUM ID = 18000000

ENTER MINIMUM ANIMAL ID

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS - ZERO CAN BE USED

1

MINIMUM ID = 1

FILE NAME FOR FREE FORMATTED PEDIGREE FILE ?

pig2.txt

PEDIGREE FILE OPENED, IUN33 = pig2.txt

REORDERED ANIMAL FILE OPENED, IUN11 = MTDF11

FILE FOR A-1 ELEMENTS OPENED, IUN44 = MTDF44

WRITE PEDIGREE FILE WITH ORIGINAL AND RECODED IDS AND INBREEDING COEFFICIENTS?

NO = 0

YES = 1

1

FILE FOR IDS AND INBREEDING COEFFICIENTS OPENED

THIS FILE WILL CONTAIN ANIMAL, SIRE, AND DAM

RECODED AND ORIGINAL IDS FOLLOWED BY THE

INBREEDING COEFFICIENT FOR EACH

NO. INTEGER FIELDS IN FIXED VECTOR OF FILE IUN33?

3

POSITION IN VECTOR OF ANIMAL (CAN BE A SIRE) ID ?

1

POSITION IN FIXED VECTOR OF SIRE (OR SIRE OF SIRE ?

2

POSITION IN FIXED VECTOR OF DAM (OR MGS OF SIRE) ?

3

ENTER NO. OF GENETIC GROUPS TO PRECEDE ANIMAL ID'S

GROUPS MUST BE ORDERED 1,2,3,...,N -- THAT IS THE

GROUP NUMBERS MUST BE CONSECUTIVE AND START WITH 1

WESTELL GROUPING \*\*CANNOT\*\* BE USED FOR AN, SIRE, MGS OPTION

IF NO GROUPS ENTER 0 (ZERO)

0

NOW THE RECORDS. . . . . . .

The current time is: 18:09:16.87

DAM ID .GT. AN ID, SET DAM = 0 13001402 12021302 13034101

SIRE ID .GT. AN ID, SET SIRE = 0 13001802 13035808 12032306

DAM ID .GT. AN ID, SET DAM = 0 13001902 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13001904 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13002204 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002206 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002704 12021302 13036901

READING RECORD 100

NO. OF PEDIGREES READ = 190

NO. OF DIFFERENT ANIMALS = 266

INCLUDES NO. OF GENETIC GROUPS = 0

END OF FIRST PASS

The current time is: 18:09:16.88

END OF SORT

The current time is: 18:09:16.88

FIRST 10 REORDERED IDs 1 12002507

FIRST 10 REORDERED IDs 2 12009009

FIRST 10 REORDERED IDs 3 12011205

FIRST 10 REORDERED IDs 4 12015203

FIRST 10 REORDERED IDs 5 12015204

FIRST 10 REORDERED IDs 6 12016409

FIRST 10 REORDERED IDs 7 12020602

FIRST 10 REORDERED IDs 8 12020604

FIRST 10 REORDERED IDs 9 12020606

FIRST 10 REORDERED IDs 10 12020802

ID VECTOR WRITTEN IN ORDER TO IUN11

The current time is: 18:09:16.89

PARENT ID .GT. ANIMAL ID 4 13 52 13001402

12021302 13034101

HAVE SET RECODED PARENT ID = 0

SIRE NOT IN LIST, SET = 0 5 13001802 13035808 12032306

PARENT ID .GT. ANIMAL ID 6 5 70 13001902

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 7 5 70 13001904

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 8 5 69 13002204

12015204 13047303

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 9 5 69 13002206

12015204 13047303

HAVE SET RECODED PARENT ID = 0

DAM NOT IN LIST, SET = 0 10 13002704 12021302 13036901

SIRE AND DAM IN PEDIGREE REORDERED IN IVECS AND IVECD

The current time is: 18:09:16.92

CALCULATION OF A-1 FROM ANIMAL SIRE DAM (IOPT = 0)

NON-ZERO HS ELEMENTS FOR NRM INVERSE = 822

LOG DETERMINANT OF NRM = -128.85970855

NO. OF INBRED ANIMALS = 0

... WITH AVERAGE INBREEDING COEFFICIENT = .00000000

TOTAL NO. OF ANIMALS INCLUDING BASE

AND GENETIC GROUPS = 266

The current time is: 18:09:16.93

The elapsed time was: 00:00:00.06

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ mtdfprep.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

ENTER THE NAME OF THE DATA FILE

pig2.txt

LOGICAL UNIT NO. = 33

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = pig2.txt

LOGICAL UNIT NO. = 21

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF21

LOGICAL UNIT NO. = 22

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF22

LOGICAL UNIT NO. = 50

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF66

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PROGRAM "MTDFPREP" - Setup W=X:Z matrix for MT-IAM

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DESCRIPTION FOR THIS ANALYSIS:

type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

\*

NO. OF COMMENT LINES READ = 0

DATA IN FILE IUN33 MUST BE IN FREE FORMAT:

INTEGER (FIX. & RAND.) THEN REAL (COV. & TRAITS)

No. of integer variables per record in file IUN33?

5

No. of real variables per record in file IUN33?

3

No. of traits in analysis?

1

INTERACTIVE INPUT FOR EACH OF 1 TRAITS:

TRAIT # 1 ....

Name (<20 chars.) for trait 1 ?

EYE

position of observed trait EYE

in real variable string of length 3 ?

3

Value in data file to indicate missing

observation for trait EYE

(e.g., 0.0 or -9999.9) ?

0.0

FIXED EFFECT PART FOR TRAIT 1 EYE ...

No. of covariates for trait 1 EYE ?

0

No. of fixed effects for trait 1 EYE ?

1

Name (<20 chars.) for fixed effect no. 1 ?

ChangNianJi

position of fixed effect ChangNianJi

in integer variable string of length 5

5

Write recoded fixed effects for ChangNianJi

to unit 66 ?

0 ... no

1 ... yes

1

RANDOM EFFECT PART FOR TRAIT 1 EYE ...

EACH TRAIT HAS AN ANIMAL EFFECT

position of animal effect for trait 1 EYE

in integer variable string of length 5 ?

1

No. of animals in A-1 matrix (value from DFNRM) ?

266

want to write out code for "second animal" effect ?

0 ... no

1 ... yes

0

No. of uncorrelated random effects for trait 1 EYE ?

0

Do you want to write information to allow

matching of covariates and fixed effects with

solutions in MTDFRUN?

YES = 1

NO = 0

1

and away we go !!!

The current time is: 18:24:46.19

Reading pedigree from MTDF11 of DFNRM ...

No. animals in pedigree written by MTDFNRM = 266

First read of data ...

at record 100

Sorting lists of fixed and uncorrelated random effects

Second read of data ...

At record 100( 52.63%)

Done processing data ... output results

The current time is: 18:24:46.20

The elapsed time was: 00:00:00.01

Results written to MTDF66

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfrun.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

LOGICAL UNIT NO. = 44

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF44

LOGICAL UNIT NO. = 50

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 54

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF54

LOGICAL UNIT NO. = 58

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF58

LOGICAL UNIT NO. = 59

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF59

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF76

LOGICAL UNIT NO. = 68

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF68

LOGICAL UNIT NO. = 67

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF67

LOGICAL UNIT NO. = 72

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF72

LOGICAL UNIT NO. = 77

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF77

LOGICAL UNIT NO. = 78

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF78

LOGICAL UNIT NO. = 79

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF79

LOGICAL UNIT NO. = 4

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF4

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PROGRAM "MTDFRUN" - Estimate Covariance Components for MT-IAM

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type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

\*

TYPE OF ANALYSIS:

Is this a continuation of previous run?

For variance components chose (continue) to read

in existing simplex and continue iteration to

improve local convergence or chose (start or

restart) to ignore previous simplex and look

for global maximum

For solutions to MME and standard errors of

solutions chose (continue) to use previous final

estimate from variance component estimation to

build MME or chose (start or restart) to enter

new variance components

0 ... no (start or restart)

1 ... yes (continue)

0

OPTION FOR THIS RUN:

1 ... iterate for variance components

2 ... solutions for MME only

3 ... solutions for sampling variance only

4 ... solutions for MME then sampling variances

For expectations of solutions use options 3 or 4

After contrasts are completed, you will be asked if expectations wanted

1

CONSTRAINTS TO MAKE MME FULL RANK:

This version uses Kachman modification of SOLVE5

Constraints imposed automatically if you answer 0

You may choose equations to CONSTRAIN any way

No. of constraints for this analysis?

0

REORDERING OF MME:

Have mme for this analysis already been ordered?

( NB: IUN58 MUST EXIST! )

0 ... no

1 ... yes (e.g., another trait)

0

STRUCTURE OF ANIMAL EFFECTS COVARIANCE MATRIX:

(a - direct; m - second animal, e.g, maternal)

a1

a1 : 1

Enter matrix position and value for NONZERO priors,

e.g., 1 20.d0 for variance of a1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 20.d0

0 0.d0

Values entered:

a1

a1 : 20.000

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero animal effect

(co)variances to be held constant during search?

0

STRUCTURE OF RESIDUAL EFFECTS COVARIANCE MATRIX:

e1

e1 : 1

Enter matrix position and value for NONZERO

priors, e.g., 1 20.d0 for variance of e1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 20.d0

0 0.d0

Values entered:

e1

e1 : 20.000

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero residual effect

(co)variances to be held constant during search?

0

Do you want to write solutions for covariates and fixed effects?

0 = NO

1 = YES

1

Do you want to write original data codes with the solutions?

NOTE: This option MUST have been requested when MTDFPREP was run!!

0 = NO

1 = YES

1

Do you want to write solutions for animal effects?

Traits are written within animals

0 = NO

1 = YES

1

convergence criterion : minimum v(-2 log l) ?

SUGGEST 1.D-6 OR LESS TO START AND 1.D-9 LATER

1.D-6

maximum no. of simplex iterates allowed ?

SUGGEST 1 FOR FIRST USERS TO ESTABLISH TIME

PER LIKELIHOOD, DOES NO. PARAMETERS+1, FIRST RND

900

The current time is: 18:27:33.95

Evaluating likelihood for initial priors

The current time is: 18:27:34.09

\*\* reordering called \*\*

\*\* reordering completed \*\*

The current time is: 18:27:34.09

The elapsed time was: 00:00:00.00

The current time is: 18:27:34.11

\*\* solve5 called \*\*

\*\* solve5 completed \*\*

The current time is: 18:27:34.11

The elapsed time was: 00:00:00.02

--> ROUND 2 ( 900) Simplex var. 4.140841218444397 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 8

0.000000000000000E+000

The current time is: 18:27:34.26

EVALUATION 10 FVALUE 882.819004877379700

--> ROUND 4 ( 900) Simplex var. 8.988459781945527E-001 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 13

-9.266409266409266E-003

--> ROUND 6 ( 900) Simplex var. 1.254619546684360E-001 <--

--> ROUND 8 ( 900) Simplex var. 3.273250308683312E-002 <--

The current time is: 18:27:34.42

EVALUATION 20 FVALUE 880.343334956803500

--> ROUND 10 ( 900) Simplex var. 3.636642242671265E-003 <--

--> ROUND 12 ( 900) Simplex var. 5.185088845353816E-005 <--

The current time is: 18:27:34.60

EVALUATION 30 FVALUE 879.931081923156900

--> ROUND 14 ( 900) Simplex var. 1.107974759878717E-004 <--

+ 1 879.9297759 4.3297 35.0736 var. 5.015897891966215E-007 <--

2 879.9310819 3.8354 35.6241

3 879.9299540 4.3050 35.3540

Minimum function value = 879.929775945328200

Var(-2 log L) = 5.015897891966215E-007

End of iteration - solutions to IUN77

LOGICAL UNIT NO. = 21

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF21

Files written:

MTDF4 (ascii): Parameter file (IUN5) for "cold" restart

MTDF54 (ascii): Last simplex

MTDF58 (binary): SPARSPAK reordering

MTDF59 (ascii): Constraints imposed

MTDF68 (ascii): Likelihoods by rounds

MTDF67 (ascii): Sampling variances if requested

MTDF72 (ascii): Predicted BVs and PEVs if requested

MTDF76 (ascii): Program log file

MTDF77 (ascii): Solutions for covariates and fixed effects if requested

MTDF78 (ascii): Solutions for trait within animal if requested

MTDF79 (ascii): Solutions for independent random effects if requested

Total time of analysis

The elapsed time was: 00:00:00.77

Stop - Program terminated.

excerpted from FILE MTDF76

Estimates:

GENETIC VARIANCES AND COVARIANCES :

a1

a1 : 4.32971

ENVIRONMENTAL VARIANCES AND COVARIANCES :

e1

e1 : 35.07358

PHENOTYPIC VARIANCES AND COVARIANCES :

p1

p1 : 39.40329

HERITABILITIES AND GENETIC CORRELATIONS

a1

a1 : **.11**

ENVIRONMENTAL PROPORTION OF TOTAL VARIANCE AND CORRELATIONS

e1

e1 : .89

校正100公斤眼肌厚与第一胎总产仔数性状遗传相关

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfnrm.exe

PRIMES : 239851 239849 FOR 240000

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PROGRAM "MTDFNRM" - Calculate A-1 for "MTFRUN" and recode IDs for "MTDFPREP"

Version to use Westell grouping strategy

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OPTION FOR CALCULATION OF A-1

FOR ANIMAL SIRE DAM TYPE .... 0

FOR ANIMAL SIRE MGS TYPE .... 1

0

MAXIMUM ANIMAL ID IN PEDIGREE FILE ?

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS

18000000

MAXIMUM ID = 18000000

ENTER MINIMUM ANIMAL ID

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS - ZERO CAN BE USED

1

MINIMUM ID = 1

FILE NAME FOR FREE FORMATTED PEDIGREE FILE ?

pig2.txt

PEDIGREE FILE OPENED, IUN33 = pig2.txt

REORDERED ANIMAL FILE OPENED, IUN11 = MTDF11

FILE FOR A-1 ELEMENTS OPENED, IUN44 = MTDF44

WRITE PEDIGREE FILE WITH ORIGINAL AND RECODED IDS AND INBREEDING COEFFICIENTS?

NO = 0

YES = 1

1

FILE FOR IDS AND INBREEDING COEFFICIENTS OPENED

THIS FILE WILL CONTAIN ANIMAL, SIRE, AND DAM

RECODED AND ORIGINAL IDS FOLLOWED BY THE

INBREEDING COEFFICIENT FOR EACH

NO. INTEGER FIELDS IN FIXED VECTOR OF FILE IUN33?

3

POSITION IN VECTOR OF ANIMAL (CAN BE A SIRE) ID ?

1

POSITION IN FIXED VECTOR OF SIRE (OR SIRE OF SIRE ?

2

POSITION IN FIXED VECTOR OF DAM (OR MGS OF SIRE) ?

3

ENTER NO. OF GENETIC GROUPS TO PRECEDE ANIMAL ID'S

GROUPS MUST BE ORDERED 1,2,3,...,N -- THAT IS THE

GROUP NUMBERS MUST BE CONSECUTIVE AND START WITH 1

WESTELL GROUPING \*\*CANNOT\*\* BE USED FOR AN, SIRE, MGS OPTION

IF NO GROUPS ENTER 0 (ZERO)

0

NOW THE RECORDS. . . . . . .

The current time is: 18:34:28.78

DAM ID .GT. AN ID, SET DAM = 0 13001402 12021302 13034101

SIRE ID .GT. AN ID, SET SIRE = 0 13001802 13035808 12032306

DAM ID .GT. AN ID, SET DAM = 0 13001902 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13001904 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13002204 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002206 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002704 12021302 13036901

READING RECORD 100

NO. OF PEDIGREES READ = 190

NO. OF DIFFERENT ANIMALS = 266

INCLUDES NO. OF GENETIC GROUPS = 0

END OF FIRST PASS

The current time is: 18:34:28.79

END OF SORT

The current time is: 18:34:28.80

FIRST 10 REORDERED IDs 1 12002507

FIRST 10 REORDERED IDs 2 12009009

FIRST 10 REORDERED IDs 3 12011205

FIRST 10 REORDERED IDs 4 12015203

FIRST 10 REORDERED IDs 5 12015204

FIRST 10 REORDERED IDs 6 12016409

FIRST 10 REORDERED IDs 7 12020602

FIRST 10 REORDERED IDs 8 12020604

FIRST 10 REORDERED IDs 9 12020606

FIRST 10 REORDERED IDs 10 12020802

ID VECTOR WRITTEN IN ORDER TO IUN11

The current time is: 18:34:28.80

PARENT ID .GT. ANIMAL ID 4 13 52 13001402

12021302 13034101

HAVE SET RECODED PARENT ID = 0

SIRE NOT IN LIST, SET = 0 5 13001802 13035808 12032306

PARENT ID .GT. ANIMAL ID 6 5 70 13001902

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 7 5 70 13001904

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 8 5 69 13002204

12015204 13047303

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 9 5 69 13002206

12015204 13047303

HAVE SET RECODED PARENT ID = 0

DAM NOT IN LIST, SET = 0 10 13002704 12021302 13036901

SIRE AND DAM IN PEDIGREE REORDERED IN IVECS AND IVECD

The current time is: 18:34:28.83

CALCULATION OF A-1 FROM ANIMAL SIRE DAM (IOPT = 0)

NON-ZERO HS ELEMENTS FOR NRM INVERSE = 822

LOG DETERMINANT OF NRM = -128.85970855

NO. OF INBRED ANIMALS = 0

... WITH AVERAGE INBREEDING COEFFICIENT = .00000000

TOTAL NO. OF ANIMALS INCLUDING BASE

AND GENETIC GROUPS = 266

The current time is: 18:34:28.84

The elapsed time was: 00:00:00.06

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ mtdfprep.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

ENTER THE NAME OF THE DATA FILE

pig2.txt

LOGICAL UNIT NO. = 33

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = pig2.txt

LOGICAL UNIT NO. = 21

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF21

LOGICAL UNIT NO. = 22

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF22

LOGICAL UNIT NO. = 50

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF66

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PROGRAM "MTDFPREP" - Setup W=X:Z matrix for MT-IAM

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DESCRIPTION FOR THIS ANALYSIS:

type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

\*

NO. OF COMMENT LINES READ = 0

DATA IN FILE IUN33 MUST BE IN FREE FORMAT:

INTEGER (FIX. & RAND.) THEN REAL (COV. & TRAITS)

No. of integer variables per record in file IUN33?

5

No. of real variables per record in file IUN33?

3

No. of traits in analysis?

2

INTERACTIVE INPUT FOR EACH OF 2 TRAITS:

TRAIT # 1 ....

Name (<20 chars.) for trait 1 ?

100

position of observed trait 100

in real variable string of length 3 ?

2

Value in data file to indicate missing

observation for trait 100

(e.g., 0.0 or -9999.9) ?

0.0

FIXED EFFECT PART FOR TRAIT 1 100 ...

No. of covariates for trait 1 100 ?

0

No. of fixed effects for trait 1 100 ?

2

Name (<20 chars.) for fixed effect no. 1 ?

Tai1

position of fixed effect Tai1

in integer variable string of length 5

4

Write recoded fixed effects for Tai1

to unit 66 ?

0 ... no

1 ... yes

1

Name (<20 chars.) for fixed effect no. 2 ?

Year1

position of fixed effect Year1

in integer variable string of length 5

5

Write recoded fixed effects for Year1

to unit 66 ?

0 ... no

1 ... yes

1

RANDOM EFFECT PART FOR TRAIT 1 100 ...

EACH TRAIT HAS AN ANIMAL EFFECT

position of animal effect for trait 1 100

in integer variable string of length 5 ?

1

No. of animals in A-1 matrix (value from DFNRM) ?

266

want to write out code for "second animal" effect ?

0 ... no

1 ... yes

0

No. of uncorrelated random effects for trait 1 100 ?

0

TRAIT # 2 ....

Name (<20 chars.) for trait 2 ?

Son1

position of observed trait Son1

in real variable string of length 3 ?

1

Value in data file to indicate missing

observation for trait Son1

(e.g., 0.0 or -9999.9) ?

0.0

FIXED EFFECT PART FOR TRAIT 2 Son1 ...

No. of covariates for trait 2 Son1 ?

0

No. of fixed effects for trait 2 Son1 ?

2

Name (<20 chars.) for fixed effect no. 1 ?

Tai1

position of fixed effect Tai1

in integer variable string of length 5

4

Write recoded fixed effects for Tai1

to unit 66 ?

0 ... no

1 ... yes

1

Name (<20 chars.) for fixed effect no. 2 ?

Son1

position of fixed effect Son1

in integer variable string of length 5

5

Write recoded fixed effects for Son1

to unit 66 ?

0 ... no

1 ... yes

1

RANDOM EFFECT PART FOR TRAIT 2 Son1 ...

266 ANIMALS FOR TRAIT 2 Son1

ANIM ID IN POSITION 1

IN INTEGER VARIABLE STRING OF LENGTH 5

want to write out code for "second animal" effect ?

0 ... no

1 ... yes

0

No. of uncorrelated random effects for trait 2 Son1 ?

0

Do you want to write information to allow

matching of covariates and fixed effects with

solutions in MTDFRUN?

YES = 1

NO = 0

1

and away we go !!!

The current time is: 18:43:03.06

Reading pedigree from MTDF11 of DFNRM ...

No. animals in pedigree written by MTDFNRM = 266

First read of data ...

at record 100

Sorting lists of fixed and uncorrelated random effects

Second read of data ...

At record 100( 52.63%)

Done processing data ... output results

The current time is: 18:43:03.07

The elapsed time was: 00:00:00.01

Results written to MTDF66

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfrun.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

LOGICAL UNIT NO. = 44

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF44

LOGICAL UNIT NO. = 50

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 54

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF54

LOGICAL UNIT NO. = 58

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF58

LOGICAL UNIT NO. = 59

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF59

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF76

LOGICAL UNIT NO. = 68

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF68

LOGICAL UNIT NO. = 67

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF67

LOGICAL UNIT NO. = 72

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF72

LOGICAL UNIT NO. = 77

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF77

LOGICAL UNIT NO. = 78

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF78

LOGICAL UNIT NO. = 79

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF79

LOGICAL UNIT NO. = 4

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF4

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

PROGRAM "MTDFRUN" - Estimate Covariance Components for MT-IAM

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

\*

TYPE OF ANALYSIS:

Is this a continuation of previous run?

For variance components chose (continue) to read

in existing simplex and continue iteration to

improve local convergence or chose (start or

restart) to ignore previous simplex and look

for global maximum

For solutions to MME and standard errors of

solutions chose (continue) to use previous final

estimate from variance component estimation to

build MME or chose (start or restart) to enter

new variance components

0 ... no (start or restart)

1 ... yes (continue)

0

OPTION FOR THIS RUN:

1 ... iterate for variance components

2 ... solutions for MME only

3 ... solutions for sampling variance only

4 ... solutions for MME then sampling variances

For expectations of solutions use options 3 or 4

After contrasts are completed, you will be asked if expectations wanted

1

CONSTRAINTS TO MAKE MME FULL RANK:

This version uses Kachman modification of SOLVE5

Constraints imposed automatically if you answer 0

You may choose equations to CONSTRAIN any way

No. of constraints for this analysis?

0

REORDERING OF MME:

Have mme for this analysis already been ordered?

( NB: IUN58 MUST EXIST! )

0 ... no

1 ... yes (e.g., another trait)

0

STRUCTURE OF ANIMAL EFFECTS COVARIANCE MATRIX:

(a - direct; m - second animal, e.g, maternal)

a1 a2

a1 : 1

a2 : 2 3

Enter matrix position and value for NONZERO priors,

e.g., 1 20.d0 for variance of a1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 1.38

2 -1.58

3 2.98

0 0.d0

Values entered:

a1 a2

a1 : 1.3800

a2 : -1.5800 2.9800

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero animal effect

(co)variances to be held constant during search?

0

STRUCTURE OF RESIDUAL EFFECTS COVARIANCE MATRIX:

e1 e2

e1 : 1

e2 : 2 3

Enter matrix position and value for NONZERO

priors, e.g., 1 20.d0 for variance of e1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 1.38

2 -1.58

3 2.98

0 0.d0

Values entered:

e1 e2

e1 : 1.3800

e2 : -1.5800 2.9800

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero residual effect

(co)variances to be held constant during search?

0

Do you want to write solutions for covariates and fixed effects?

0 = NO

1 = YES

1

Do you want to write original data codes with the solutions?

NOTE: This option MUST have been requested when MTDFPREP was run!!

0 = NO

1 = YES

1

Do you want to write solutions for animal effects?

Traits are written within animals

0 = NO

1 = YES

1

convergence criterion : minimum v(-2 log l) ?

SUGGEST 1.D-6 OR LESS TO START AND 1.D-9 LATER

1.D-6

maximum no. of simplex iterates allowed ?

SUGGEST 1 FOR FIRST USERS TO ESTABLISH TIME

PER LIKELIHOOD, DOES NO. PARAMETERS+1, FIRST RND

1000

The current time is: 18:46:12.10

Evaluating likelihood for initial priors

The current time is: 18:46:12.23

\*\* reordering called \*\*

\*\* reordering completed \*\*

The current time is: 18:46:12.24

The elapsed time was: 00:00:00.01

The current time is: 18:46:12.26

\*\* solve5 called \*\*

\*\* solve5 completed \*\*

The current time is: 18:46:12.26

The elapsed time was: 00:00:00.02

The current time is: 18:46:12.44

EVALUATION 10 FVALUE 1196.639958009475000

--> ROUND 2 ( 1000) Simplex var. 30984.333885554840000 <--

--> ROUND 4 ( 1000) Simplex var. 24193.852270793660000 <--

--> ROUND 6 ( 1000) Simplex var. 15143.409320561760000 <--

--> ROUND 8 ( 1000) Simplex var. 4678.914024759522000 <--

The current time is: 18:46:12.64

EVALUATION 20 FVALUE 1011.513990808111000

--> ROUND 10 ( 1000) Simplex var. 2829.276402927537000 <--

--> ROUND 12 ( 1000) Simplex var. 613.393958356368200 <--

--> ROUND 14 ( 1000) Simplex var. 36.670485748719490 <--

The current time is: 18:46:12.87

EVALUATION 30 FVALUE 1002.679139196539000

--> ROUND 16 ( 1000) Simplex var. 7.138440812953215 <--

--> ROUND 18 ( 1000) Simplex var. 4.289374381172014 <--

--> ROUND 20 ( 1000) Simplex var. 15.234986506327170 <--

--> ROUND 22 ( 1000) Simplex var. 11.568985381506320 <--

The current time is: 18:46:13.08

EVALUATION 40 FVALUE 994.379551498316100

--> ROUND 24 ( 1000) Simplex var. 5.814418777209942 <--

--> ROUND 26 ( 1000) Simplex var. 3.245577205454230 <--

--> ROUND 28 ( 1000) Simplex var. 4.902829052619561 <--

--> ROUND 30 ( 1000) Simplex var. 6.532016551826589 <--

The current time is: 18:46:13.30

EVALUATION 50 FVALUE 995.680646983757000

--> ROUND 32 ( 1000) Simplex var. 4.983866415516002 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 54

6.981168388974567E-001 -2.340593226234131E-001

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 55

6.303948381680418E-001 -5.812148237278916E-003

--> ROUND 34 ( 1000) Simplex var. 5.460013542930047 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 58

6.293322584735430E-001 -4.187056673725595E-002

--> ROUND 36 ( 1000) Simplex var. 3.353872453798957 <--

The current time is: 18:46:13.47

EVALUATION 60 FVALUE 986.372383036772900

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 61

6.251953769237417E-001 -1.198650186013722E-001

--> ROUND 38 ( 1000) Simplex var. 1.406355245883876 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 65

6.247680608400573E-001 -5.078421305092721E-002

--> ROUND 40 ( 1000) Simplex var. 8.274031730062745E-001 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 69

6.177985613618131E-001 -2.480965582228861E-002

The current time is: 18:46:13.62

EVALUATION 70 FVALUE 986.418844610966700

--> ROUND 42 ( 1000) Simplex var. 2.087436575151426E-001 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 71

-1.048080255291277

--> ROUND 44 ( 1000) Simplex var. 1.260156211597566E-001 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 75

-1.059879379907029

--> ROUND 46 ( 1000) Simplex var. 9.541125048575294E-002 <--

The current time is: 18:46:13.80

EVALUATION 80 FVALUE 985.233376104863700

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 81

6.202833778826534E-001 -3.065291921007625E-002

--> ROUND 48 ( 1000) Simplex var. 1.220195640022538E-001 <--

--> ROUND 50 ( 1000) Simplex var. 9.433934968329190E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 86

-2.169145188837081

--> ROUND 52 ( 1000) Simplex var. 4.810967823639123E-002 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 88

6.237462577134305E-001 -5.588212608077724E-003

The current time is: 18:46:13.95

EVALUATION 90 FVALUE 985.344676964314400

--> ROUND 54 ( 1000) Simplex var. 1.009339712478052E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 91

-1.236252613927152

--> ROUND 56 ( 1000) Simplex var. 4.106481694387052E-003 <--

--> ROUND 58 ( 1000) Simplex var. 3.673139007868559E-003 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 98

-1.108862481873118

The current time is: 18:46:14.13

EVALUATION 100 FVALUE 985.329946043101800

--> ROUND 60 ( 1000) Simplex var. 2.523177292228789E-003 <--

--> ROUND 62 ( 1000) Simplex var. 3.004596127136237E-003 <--

--> ROUND 64 ( 1000) Simplex var. 2.332280800848610E-003 <--

The current time is: 18:46:14.34

EVALUATION 110 FVALUE 984.890185079086700

--> ROUND 66 ( 1000) Simplex var. 1.056986996369519E-002 <--

--> ROUND 68 ( 1000) Simplex var. 1.006633050100538E-002 <--

--> ROUND 70 ( 1000) Simplex var. 8.284638113485539E-003 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 118

-1.132061905089085

--> ROUND 72 ( 1000) Simplex var. 5.513395999904811E-003 <--

The current time is: 18:46:14.54

EVALUATION 120 FVALUE 984.621918700097900

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 121

-1.097051198513941

--> ROUND 74 ( 1000) Simplex var. 4.722785014083464E-003 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 125

-1.224018479514944

--> ROUND 76 ( 1000) Simplex var. 6.578000134402980E-003 <--

--> ROUND 78 ( 1000) Simplex var. 6.401359624155075E-003 <--

The current time is: 18:46:14.70

EVALUATION 130 FVALUE 984.658107919921800

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 131

-1.071966435590774

--> ROUND 80 ( 1000) Simplex var. 3.660055987355896E-003 <--

--> ROUND 82 ( 1000) Simplex var. 1.462990157224472E-003 <--

--> ROUND 84 ( 1000) Simplex var. 6.718740496599965E-004 <--

--> ROUND 86 ( 1000) Simplex var. 6.326237655976581E-004 <--

The current time is: 18:46:14.89

EVALUATION 140 FVALUE 984.547716483953500

--> ROUND 88 ( 1000) Simplex var. 1.167773935977223E-003 <--

--> ROUND 90 ( 1000) Simplex var. 1.037059515482645E-003 <--

--> ROUND 92 ( 1000) Simplex var. 5.679844640224344E-004 <--

The current time is: 18:46:15.11

EVALUATION 150 FVALUE 984.523744123690900

--> ROUND 94 ( 1000) Simplex var. 2.541442142215411E-004 <--

--> ROUND 96 ( 1000) Simplex var. 2.684399667924146E-004 <--

--> ROUND 98 ( 1000) Simplex var. 2.274509895102694E-004 <--

The current time is: 18:46:15.34

EVALUATION 160 FVALUE 984.452648867348800

--> ROUND 100 ( 1000) Simplex var. 2.116353469791369E-004 <--

--> ROUND 102 ( 1000) Simplex var. 1.253738325060298E-004 <--

--> ROUND 104 ( 1000) Simplex var. 6.931626227557608E-005 <--

The current time is: 18:46:15.57

EVALUATION 170 FVALUE 984.455189133055100

--> ROUND 106 ( 1000) Simplex var. 3.489045354099218E-005 <--

--> ROUND 108 ( 1000) Simplex var. 1.771326065081273E-004 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 179

-1.010808638153356

The current time is: 18:46:15.77

EVALUATION 180 FVALUE 984.406735490393200

--> ROUND 110 ( 1000) Simplex var. 3.887853990929650E-004 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 182

-1.006831561446452

--> ROUND 112 ( 1000) Simplex var. 3.121359706891683E-004 <--

--> ROUND 114 ( 1000) Simplex var. 1.881009877976458E-004 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 187

-1.022691136274827

--> ROUND 116 ( 1000) Simplex var. 1.271477599662137E-004 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 189

-1.015125882370914

The current time is: 18:46:15.93

EVALUATION 190 FVALUE 984.391323970307900

--> ROUND 118 ( 1000) Simplex var. 6.039342619242512E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 195

-1.018897259546414

--> ROUND 120 ( 1000) Simplex var. 7.813817899071651E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 197

-1.014311425173195

--> ROUND 122 ( 1000) Simplex var. 5.426467290226000E-005 <--

The current time is: 18:46:16.10

EVALUATION 200 FVALUE 984.380575786085600

--> ROUND 124 ( 1000) Simplex var. 2.866935076741480E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 201

-1.026659026784306

--> ROUND 126 ( 1000) Simplex var. 1.610771267673838E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 205

-1.016890343333621

--> ROUND 128 ( 1000) Simplex var. 7.013051792570391E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 209

-1.006636659918488

The current time is: 18:46:16.24

EVALUATION 210 FVALUE 984.373557319931600

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 211

-1.001888246511830

--> ROUND 130 ( 1000) Simplex var. 3.930498638541705E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 215

-1.000555913159214

--> ROUND 132 ( 1000) Simplex var. 3.165717000745231E-006 <--

--> ROUND 134 ( 1000) Simplex var. 2.945592214605626E-006 <--

The current time is: 18:46:16.42

EVALUATION 220 FVALUE 984.373472865114500

--> ROUND 136 ( 1000) Simplex var. 2.049786128425583E-006 <--

--> ROUND 138 ( 1000) Simplex var. 4.258688753274361E-006 <--

--> ROUND 140 ( 1000) Simplex var. 6.333642401379347E-006 <--

The current time is: 18:46:16.64

EVALUATION 230 FVALUE 984.362249437949200

--> ROUND 142 ( 1000) Simplex var. 8.030112616167854E-006 <--

--> ROUND 144 ( 1000) Simplex var. 1.888993045212617E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 236

-1.000350973000528

--> ROUND 146 ( 1000) Simplex var. 1.365269908741122E-005 <--

--> ROUND 148 ( 1000) Simplex var. 1.192634814062288E-005 <--

The current time is: 18:46:16.85

EVALUATION 240 FVALUE 984.357577914854800

--> ROUND 150 ( 1000) Simplex var. 9.184829236767259E-006 <--

--> ROUND 152 ( 1000) Simplex var. 3.689731815637032E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 247

-1.001842502086291

--> ROUND 154 ( 1000) Simplex var. 2.594829205872691E-005 <--

The current time is: 18:46:17.04

EVALUATION 250 FVALUE 984.342530808021400

--> ROUND 156 ( 1000) Simplex var. 2.611944955062858E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 252

-1.000006131146194

--> ROUND 158 ( 1000) Simplex var. 1.138805659680238E-005 <--

--> ROUND 160 ( 1000) Simplex var. 1.807515047754412E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 258

-1.002259115580906

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 260

-1.003778624780147

--> ROUND 162 ( 1000) Simplex var. 1.164820984754048E-005 <--

--> ROUND 164 ( 1000) Simplex var. 1.408353791881867E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 266

-1.002212260078106

--> ROUND 166 ( 1000) Simplex var. 1.158456693894916E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 269

-1.000726375886685

The current time is: 18:46:17.37

EVALUATION 270 FVALUE 984.336091106053100

--> ROUND 168 ( 1000) Simplex var. 3.576625037693404E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 271

-1.000552863063775

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 274

-1.001583049488706

--> ROUND 170 ( 1000) Simplex var. 3.362797437363637E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 275

-1.002343866976057

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 277

-1.000937912466959

--> ROUND 172 ( 1000) Simplex var. 1.770595273305660E-006 <--

The current time is: 18:46:17.52

EVALUATION 280 FVALUE 984.330022708038500

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 281

-1.001994072916187

--> ROUND 174 ( 1000) Simplex var. 1.609160383830854E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 284

-1.000220437660693

--> ROUND 176 ( 1000) Simplex var. 1.082154146755017E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 286

-1.001397595704059

--> ROUND 178 ( 1000) Simplex var. 7.573903708461375E-007 <--

1 984.3316782 3.3374 -.9234 .2575 1.7444 .4868 6.2016

+ 3 984.3288597 3.3521 -.9292 .2577 1.7272 .4908 6.1906

4 984.3302389 3.3375 -.9297 .2594 1.7397 .4848 6.1867

5 984.3301896 3.3493 -.9247 .2573 1.7399 .4946 6.1898

6 984.3300227 3.3446 -.9247 .2557 1.7343 .4860 6.2023

7 984.3297032 3.3163 -.9321 .2630 1.7584 .4931 6.2055

Minimum function value = 984.328859692460600

Var(-2 log L) = 7.573903708461375E-007

End of iteration - solutions to IUN77

LOGICAL UNIT NO. = 21

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF21

Files written:

MTDF4 (ascii): Parameter file (IUN5) for "cold" restart

MTDF54 (ascii): Last simplex

MTDF58 (binary): SPARSPAK reordering

MTDF59 (ascii): Constraints imposed

MTDF68 (ascii): Likelihoods by rounds

MTDF67 (ascii): Sampling variances if requested

MTDF72 (ascii): Predicted BVs and PEVs if requested

MTDF76 (ascii): Program log file

MTDF77 (ascii): Solutions for covariates and fixed effects if requested

MTDF78 (ascii): Solutions for trait within animal if requested

MTDF79 (ascii): Solutions for independent random effects if requested

Total time of analysis

The elapsed time was: 00:00:05.55

Stop - Program terminated.

exerpted FILE MTDF76

Estimates:

GENETIC VARIANCES AND COVARIANCES :

a1 a2

a1 : 3.35214 -.92925

a2 : -.92925 .25769

ENVIRONMENTAL VARIANCES AND COVARIANCES :

e1 e2

e1 : 1.72725 .49077

e2 : .49077 6.19065

PHENOTYPIC VARIANCES AND COVARIANCES :

p1 p2

p1 : 5.07939 -.43847

p2 : -.43847 6.44834

HERITABILITIES AND GENETIC CORRELATIONS

a1 a2

a1 : .66

a2 : -**1.00** .04

ENVIRONMENTAL PROPORTION OF TOTAL VARIANCE AND CORRELATIONS

e1 e2

e1 : .34

e2 : .15 .96

校正100公斤眼肌厚与校正100公斤背膘厚性状遗传相关

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfnrm.exe

PRIMES : 239851 239849 FOR 240000

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

PROGRAM "MTDFNRM" - Calculate A-1 for "MTFRUN" and recode IDs for "MTDFPREP"

Version to use Westell grouping strategy

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

OPTION FOR CALCULATION OF A-1

FOR ANIMAL SIRE DAM TYPE .... 0

FOR ANIMAL SIRE MGS TYPE .... 1

0

MAXIMUM ANIMAL ID IN PEDIGREE FILE ?

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS

18000000

MAXIMUM ID = 18000000

ENTER MINIMUM ANIMAL ID

THIS VALUE IS USED ONLY FOR CHECKING VALIDITY OF IDS - ZERO CAN BE USED

1

MINIMUM ID = 1

FILE NAME FOR FREE FORMATTED PEDIGREE FILE ?

pig2.txt

PEDIGREE FILE OPENED, IUN33 = pig2.txt

REORDERED ANIMAL FILE OPENED, IUN11 = MTDF11

FILE FOR A-1 ELEMENTS OPENED, IUN44 = MTDF44

WRITE PEDIGREE FILE WITH ORIGINAL AND RECODED IDS AND INBREEDING COEFFICIENTS?

NO = 0

YES = 1

1

FILE FOR IDS AND INBREEDING COEFFICIENTS OPENED

THIS FILE WILL CONTAIN ANIMAL, SIRE, AND DAM

RECODED AND ORIGINAL IDS FOLLOWED BY THE

INBREEDING COEFFICIENT FOR EACH

NO. INTEGER FIELDS IN FIXED VECTOR OF FILE IUN33?

3

POSITION IN VECTOR OF ANIMAL (CAN BE A SIRE) ID ?

1

POSITION IN FIXED VECTOR OF SIRE (OR SIRE OF SIRE ?

2

POSITION IN FIXED VECTOR OF DAM (OR MGS OF SIRE) ?

3

ENTER NO. OF GENETIC GROUPS TO PRECEDE ANIMAL ID'S

GROUPS MUST BE ORDERED 1,2,3,...,N -- THAT IS THE

GROUP NUMBERS MUST BE CONSECUTIVE AND START WITH 1

WESTELL GROUPING \*\*CANNOT\*\* BE USED FOR AN, SIRE, MGS OPTION

IF NO GROUPS ENTER 0 (ZERO)

0

NOW THE RECORDS. . . . . . .

The current time is: 18:51:39.11

DAM ID .GT. AN ID, SET DAM = 0 13001402 12021302 13034101

SIRE ID .GT. AN ID, SET SIRE = 0 13001802 13035808 12032306

DAM ID .GT. AN ID, SET DAM = 0 13001902 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13001904 12015204 13047304

DAM ID .GT. AN ID, SET DAM = 0 13002204 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002206 12015204 13047303

DAM ID .GT. AN ID, SET DAM = 0 13002704 12021302 13036901

READING RECORD 100

NO. OF PEDIGREES READ = 190

NO. OF DIFFERENT ANIMALS = 266

INCLUDES NO. OF GENETIC GROUPS = 0

END OF FIRST PASS

The current time is: 18:51:39.12

END OF SORT

The current time is: 18:51:39.12

FIRST 10 REORDERED IDs 1 12002507

FIRST 10 REORDERED IDs 2 12009009

FIRST 10 REORDERED IDs 3 12011205

FIRST 10 REORDERED IDs 4 12015203

FIRST 10 REORDERED IDs 5 12015204

FIRST 10 REORDERED IDs 6 12016409

FIRST 10 REORDERED IDs 7 12020602

FIRST 10 REORDERED IDs 8 12020604

FIRST 10 REORDERED IDs 9 12020606

FIRST 10 REORDERED IDs 10 12020802

ID VECTOR WRITTEN IN ORDER TO IUN11

The current time is: 18:51:39.13

PARENT ID .GT. ANIMAL ID 4 13 52 13001402

12021302 13034101

HAVE SET RECODED PARENT ID = 0

SIRE NOT IN LIST, SET = 0 5 13001802 13035808 12032306

PARENT ID .GT. ANIMAL ID 6 5 70 13001902

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 7 5 70 13001904

12015204 13047304

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 8 5 69 13002204

12015204 13047303

HAVE SET RECODED PARENT ID = 0

PARENT ID .GT. ANIMAL ID 9 5 69 13002206

12015204 13047303

HAVE SET RECODED PARENT ID = 0

DAM NOT IN LIST, SET = 0 10 13002704 12021302 13036901

SIRE AND DAM IN PEDIGREE REORDERED IN IVECS AND IVECD

The current time is: 18:51:39.15

CALCULATION OF A-1 FROM ANIMAL SIRE DAM (IOPT = 0)

NON-ZERO HS ELEMENTS FOR NRM INVERSE = 822

LOG DETERMINANT OF NRM = -128.85970855

NO. OF INBRED ANIMALS = 0

... WITH AVERAGE INBREEDING COEFFICIENT = .00000000

TOTAL NO. OF ANIMALS INCLUDING BASE

AND GENETIC GROUPS = 266

The current time is: 18:51:39.16

The elapsed time was: 00:00:00.04

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ mtdfprep.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

ENTER THE NAME OF THE DATA FILE

pig2.txt

LOGICAL UNIT NO. = 33

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = pig2.txt

LOGICAL UNIT NO. = 21

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF21

LOGICAL UNIT NO. = 22

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF22

LOGICAL UNIT NO. = 50

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF66

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

PROGRAM "MTDFPREP" - Setup W=X:Z matrix for MT-IAM

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

DESCRIPTION FOR THIS ANALYSIS:

type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

\*

NO. OF COMMENT LINES READ = 0

DATA IN FILE IUN33 MUST BE IN FREE FORMAT:

INTEGER (FIX. & RAND.) THEN REAL (COV. & TRAITS)

No. of integer variables per record in file IUN33?

5

No. of real variables per record in file IUN33?

3

No. of traits in analysis?

2

INTERACTIVE INPUT FOR EACH OF 2 TRAITS:

TRAIT # 1 ....

Name (<20 chars.) for trait 1 ?

100kg

position of observed trait 100kg

in real variable string of length 3 ?

2

Value in data file to indicate missing

observation for trait 100kg

(e.g., 0.0 or -9999.9) ?

0.0

FIXED EFFECT PART FOR TRAIT 1 100kg ...

No. of covariates for trait 1 100kg ?

0

No. of fixed effects for trait 1 100kg ?

2

Name (<20 chars.) for fixed effect no. 1 ?

Tai1

position of fixed effect Tai1

in integer variable string of length 5

4

Write recoded fixed effects for Tai1

to unit 66 ?

0 ... no

1 ... yes

1

Name (<20 chars.) for fixed effect no. 2 ?

Year1

position of fixed effect Year1

in integer variable string of length 5

5

Write recoded fixed effects for Year1

to unit 66 ?

0 ... no

1 ... yes

1

RANDOM EFFECT PART FOR TRAIT 1 100kg ...

EACH TRAIT HAS AN ANIMAL EFFECT

position of animal effect for trait 1 100kg

in integer variable string of length 5 ?

1

No. of animals in A-1 matrix (value from DFNRM) ?

266

want to write out code for "second animal" effect ?

0 ... no

1 ... yes

0

No. of uncorrelated random effects for trait 1 100kg ?

0

TRAIT # 2 ....

Name (<20 chars.) for trait 2 ?

Yanji1

position of observed trait Yanji1

in real variable string of length 3 ?

3

Value in data file to indicate missing

observation for trait Yanji1

(e.g., 0.0 or -9999.9) ?

0.0

FIXED EFFECT PART FOR TRAIT 2 Yanji1 ...

No. of covariates for trait 2 Yanji1 ?

0

No. of fixed effects for trait 2 Yanji1 ?

2

Name (<20 chars.) for fixed effect no. 1 ?

tai

position of fixed effect tai

in integer variable string of length 5

4

Write recoded fixed effects for tai

to unit 66 ?

0 ... no

1 ... yes

1

Name (<20 chars.) for fixed effect no. 2 ?

Year1

position of fixed effect Year1

in integer variable string of length 5

5

Write recoded fixed effects for Year1

to unit 66 ?

0 ... no

1 ... yes

1

RANDOM EFFECT PART FOR TRAIT 2 Yanji1 ...

266 ANIMALS FOR TRAIT 2 Yanji1

ANIM ID IN POSITION 1

IN INTEGER VARIABLE STRING OF LENGTH 5

want to write out code for "second animal" effect ?

0 ... no

1 ... yes

0

No. of uncorrelated random effects for trait 2 Yanji1 ?

0

Do you want to write information to allow

matching of covariates and fixed effects with

solutions in MTDFRUN?

YES = 1

NO = 0

1

and away we go !!!

The current time is: 18:55:59.70

Reading pedigree from MTDF11 of DFNRM ...

No. animals in pedigree written by MTDFNRM = 266

First read of data ...

at record 100

Sorting lists of fixed and uncorrelated random effects

Second read of data ...

At record 100( 52.63%)

Done processing data ... output results

The current time is: 18:55:59.71

The elapsed time was: 00:00:00.01

Results written to MTDF66

Stop - Program terminated.

Microsoft Windows [版本 10.0.18362.836]

Rhantolk@HISTORIA C:\Users\RhantolkYtriHistoria\tmp\bio\pig

$ Mtdfrun.exe

LOGICAL UNIT NO. = 11

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF11

LOGICAL UNIT NO. = 44

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF44

LOGICAL UNIT NO. = 50

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF50

LOGICAL UNIT NO. = 51

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF51

LOGICAL UNIT NO. = 52

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF52

LOGICAL UNIT NO. = 54

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF54

LOGICAL UNIT NO. = 58

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF58

LOGICAL UNIT NO. = 59

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF59

LOGICAL UNIT NO. = 66

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF76

LOGICAL UNIT NO. = 68

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF68

LOGICAL UNIT NO. = 67

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF67

LOGICAL UNIT NO. = 72

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF72

LOGICAL UNIT NO. = 77

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF77

LOGICAL UNIT NO. = 78

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF78

LOGICAL UNIT NO. = 79

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF79

LOGICAL UNIT NO. = 4

"STANDARD" FILE HAS BEEN OPENED

FILE = MTDF4

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

PROGRAM "MTDFRUN" - Estimate Covariance Components for MT-IAM

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

type comments (<6 lines & <80 chars. per line)

terminate input with "\*" in column 1 !

0

1

\*

TYPE OF ANALYSIS:

Is this a continuation of previous run?

For variance components chose (continue) to read

in existing simplex and continue iteration to

improve local convergence or chose (start or

restart) to ignore previous simplex and look

for global maximum

For solutions to MME and standard errors of

solutions chose (continue) to use previous final

estimate from variance component estimation to

build MME or chose (start or restart) to enter

new variance components

0 ... no (start or restart)

1 ... yes (continue)

0

OPTION FOR THIS RUN:

1 ... iterate for variance components

2 ... solutions for MME only

3 ... solutions for sampling variance only

4 ... solutions for MME then sampling variances

For expectations of solutions use options 3 or 4

After contrasts are completed, you will be asked if expectations wanted

1

CONSTRAINTS TO MAKE MME FULL RANK:

This version uses Kachman modification of SOLVE5

Constraints imposed automatically if you answer 0

You may choose equations to CONSTRAIN any way

No. of constraints for this analysis?

0

REORDERING OF MME:

Have mme for this analysis already been ordered?

( NB: IUN58 MUST EXIST! )

0 ... no

1 ... yes (e.g., another trait)

0

STRUCTURE OF ANIMAL EFFECTS COVARIANCE MATRIX:

(a - direct; m - second animal, e.g, maternal)

a1 a2

a1 : 1

a2 : 2 3

Enter matrix position and value for NONZERO priors,

e.g., 1 20.d0 for variance of a1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 1.48

2 -1.58

3 2.68

0 0.d0

Values entered:

a1 a2

a1 : 1.4800

a2 : -1.5800 2.6800

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero animal effect

(co)variances to be held constant during search?

0

STRUCTURE OF RESIDUAL EFFECTS COVARIANCE MATRIX:

e1 e2

e1 : 1

e2 : 2 3

Enter matrix position and value for NONZERO

priors, e.g., 1 20.d0 for variance of e1

(enter: 0 0.d0 to end input):

(enter: -1 0.d0 to redisplay positions):

1 1.48

2 -1.58

3 2.68

0 0.d0

Values entered:

e1 e2

e1 : 1.4800

e2 : -1.5800 2.6800

Are these values correct?

0 ... no (i.e., reenter some values)

1 ... yes

2 ... redisplay values

1

Number of nonzero residual effect

(co)variances to be held constant during search?

0

Do you want to write solutions for covariates and fixed effects?

0 = NO

1 = YES

1

Do you want to write original data codes with the solutions?

NOTE: This option MUST have been requested when MTDFPREP was run!!

0 = NO

1 = YES

1

Do you want to write solutions for animal effects?

Traits are written within animals

0 = NO

1 = YES

1

convergence criterion : minimum v(-2 log l) ?

SUGGEST 1.D-6 OR LESS TO START AND 1.D-9 LATER

1.D-6

maximum no. of simplex iterates allowed ?

SUGGEST 1 FOR FIRST USERS TO ESTABLISH TIME

PER LIKELIHOOD, DOES NO. PARAMETERS+1, FIRST RND

1000

The current time is: 18:58:25.14

Evaluating likelihood for initial priors

The current time is: 18:58:25.28

\*\* reordering called \*\*

\*\* reordering completed \*\*

The current time is: 18:58:25.29

The elapsed time was: 00:00:00.01

The current time is: 18:58:25.31

\*\* solve5 called \*\*

\*\* solve5 completed \*\*

The current time is: 18:58:25.31

The elapsed time was: 00:00:00.02

The current time is: 18:58:25.49

EVALUATION 10 FVALUE 3115.601572800164000

--> ROUND 2 ( 1000) Simplex var. 717864.532602240900000 <--

--> ROUND 4 ( 1000) Simplex var. 655338.519934627100000 <--

--> ROUND 6 ( 1000) Simplex var. 413777.555145521200000 <--

--> ROUND 8 ( 1000) Simplex var. 155607.410634581100000 <--

The current time is: 18:58:25.70

EVALUATION 20 FVALUE 1862.601952605772000

--> ROUND 10 ( 1000) Simplex var. 108639.160448314200000 <--

--> ROUND 12 ( 1000) Simplex var. 39789.095504027360000 <--

--> ROUND 14 ( 1000) Simplex var. 22299.381456347120000 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 28

-1.026443872472690

The current time is: 18:58:25.90

EVALUATION 30 FVALUE 1598.012581172108000

--> ROUND 16 ( 1000) Simplex var. 6747.320801363496000 <--

--> ROUND 18 ( 1000) Simplex var. 3455.368582620898000 <--

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 34

-5.733893515542089E-003 3.908731862282131E-001

--> ROUND 20 ( 1000) Simplex var. 743.637230977728200 <--

The current time is: 18:58:26.11

EVALUATION 40 FVALUE 1541.729741621043000

--> ROUND 22 ( 1000) Simplex var. 897.046230372307700 <--

--> ROUND 24 ( 1000) Simplex var. 497.014625953608000 <--

--> ROUND 26 ( 1000) Simplex var. 883.063825267447300 <--

--> ROUND 28 ( 1000) Simplex var. 1062.953442190713000 <--

The current time is: 18:58:26.32

EVALUATION 50 FVALUE 1485.055217067706000

HERITABILITY NON-PERMISSIBLE !!

EVALUATION 52

-1.822313682038021E-002 3.756789322012954E-001

--> ROUND 30 ( 1000) Simplex var. 854.016328434056500 <--

--> ROUND 32 ( 1000) Simplex var. 1173.417167022833000 <--

--> ROUND 34 ( 1000) Simplex var. 1327.320082231061000 <--

The current time is: 18:58:26.51

EVALUATION 60 FVALUE 1390.654798602388000

--> ROUND 36 ( 1000) Simplex var. 1038.469754230797000 <--

--> ROUND 38 ( 1000) Simplex var. 806.617947872669600 <--

--> ROUND 40 ( 1000) Simplex var. 514.421928957164800 <--

--> ROUND 42 ( 1000) Simplex var. 382.917187595039200 <--

The current time is: 18:58:26.73

EVALUATION 70 FVALUE 1332.840656695139000

--> ROUND 44 ( 1000) Simplex var. 91.805127203048300 <--

--> ROUND 46 ( 1000) Simplex var. 7.682489961358219 <--

--> ROUND 48 ( 1000) Simplex var. 6.227864010064730 <--

--> ROUND 50 ( 1000) Simplex var. 4.061344835897615 <--

The current time is: 18:58:26.94

EVALUATION 80 FVALUE 1327.761428355633000

--> ROUND 52 ( 1000) Simplex var. 3.569658407199052 <--

--> ROUND 54 ( 1000) Simplex var. 3.351416851842018 <--

--> ROUND 56 ( 1000) Simplex var. 1.510570449497239 <--

The current time is: 18:58:27.15

EVALUATION 90 FVALUE 1327.331845033213000

--> ROUND 58 ( 1000) Simplex var. 3.309305047668764E-001 <--

--> ROUND 60 ( 1000) Simplex var. 3.889402348818017E-001 <--

--> ROUND 62 ( 1000) Simplex var. 2.576414253708729E-001 <--

The current time is: 18:58:27.37

EVALUATION 100 FVALUE 1326.732380501670000

--> ROUND 64 ( 1000) Simplex var. 3.546871799336061E-001 <--

--> ROUND 66 ( 1000) Simplex var. 2.010164292436727E-001 <--

--> ROUND 68 ( 1000) Simplex var. 6.742152991449479E-002 <--

--> ROUND 70 ( 1000) Simplex var. 9.979943142326159E-002 <--

The current time is: 18:58:27.59

EVALUATION 110 FVALUE 1325.121177057848000

--> ROUND 72 ( 1000) Simplex var. 1.199389757839535E-001 <--

--> ROUND 74 ( 1000) Simplex var. 6.322793432719653E-002 <--

The current time is: 18:58:27.80

EVALUATION 120 FVALUE 1325.348778966372000

--> ROUND 76 ( 1000) Simplex var. 6.347277759181544E-002 <--

--> ROUND 78 ( 1000) Simplex var. 4.981333668236110E-002 <--

--> ROUND 80 ( 1000) Simplex var. 1.656386908746070E-001 <--

--> ROUND 82 ( 1000) Simplex var. 1.480788616606120E-001 <--

The current time is: 18:58:28.02

EVALUATION 130 FVALUE 1324.369365982934000

--> ROUND 84 ( 1000) Simplex var. 3.811964719566395E-001 <--

--> ROUND 86 ( 1000) Simplex var. 3.859811785401613E-001 <--

--> ROUND 88 ( 1000) Simplex var. 2.543663836797843E-001 <--

The current time is: 18:58:28.22

EVALUATION 140 FVALUE 1322.114100495478000

--> ROUND 90 ( 1000) Simplex var. 2.138905553120796E-001 <--

--> ROUND 92 ( 1000) Simplex var. 1.381117027713078E-001 <--

--> ROUND 94 ( 1000) Simplex var. 1.314790605068845E-001 <--

--> ROUND 96 ( 1000) Simplex var. 2.399295400621357E-001 <--

The current time is: 18:58:28.43

EVALUATION 150 FVALUE 1322.074851929260000

--> ROUND 98 ( 1000) Simplex var. 1.775247993418122E-001 <--

--> ROUND 100 ( 1000) Simplex var. 1.502508429631758E-001 <--

--> ROUND 102 ( 1000) Simplex var. 9.276175229858741E-002 <--

--> ROUND 104 ( 1000) Simplex var. 2.833565066008358E-001 <--

The current time is: 18:58:28.65

EVALUATION 160 FVALUE 1321.386907250871000

--> ROUND 106 ( 1000) Simplex var. 2.414167783135991E-001 <--

--> ROUND 108 ( 1000) Simplex var. 1.751411519814520E-001 <--

--> ROUND 110 ( 1000) Simplex var. 2.327064804007165E-001 <--

--> ROUND 112 ( 1000) Simplex var. 1.794694746847859E-001 <--

The current time is: 18:58:28.87

EVALUATION 170 FVALUE 1319.632108014865000

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 173

-1.059134994869071

--> ROUND 114 ( 1000) Simplex var. 1.673558396940366E-001 <--

--> ROUND 116 ( 1000) Simplex var. 1.074472863776042E-001 <--

The current time is: 18:58:29.07

EVALUATION 180 FVALUE 1319.518387082758000

--> ROUND 118 ( 1000) Simplex var. 5.865498212351117E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 182

-1.022971197704022

--> ROUND 120 ( 1000) Simplex var. 2.487504210982779E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 185

-1.139203001982019

--> ROUND 122 ( 1000) Simplex var. 1.340205607650374E-002 <--

The current time is: 18:58:29.24

EVALUATION 190 FVALUE 1319.169909857845000

--> ROUND 124 ( 1000) Simplex var. 1.122401070623399E-002 <--

--> ROUND 126 ( 1000) Simplex var. 6.613118882486094E-003 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 193

-1.019623766022453

--> ROUND 128 ( 1000) Simplex var. 4.192143951031688E-003 <--

--> ROUND 130 ( 1000) Simplex var. 3.970870924289731E-003 <--

The current time is: 18:58:29.43

EVALUATION 200 FVALUE 1319.275736608569000

--> ROUND 132 ( 1000) Simplex var. 8.743889076556228E-004 <--

--> ROUND 134 ( 1000) Simplex var. 3.200441597608353E-004 <--

The current time is: 18:58:29.66

EVALUATION 210 FVALUE 1319.002033230412000

--> ROUND 136 ( 1000) Simplex var. 5.411316888435124E-004 <--

--> ROUND 138 ( 1000) Simplex var. 5.198351477665232E-004 <--

--> ROUND 140 ( 1000) Simplex var. 1.669945403293426E-004 <--

The current time is: 18:58:29.87

EVALUATION 220 FVALUE 1318.969710344839000

--> ROUND 142 ( 1000) Simplex var. 5.434936127275315E-005 <--

--> ROUND 144 ( 1000) Simplex var. 1.158485261930356E-004 <--

The current time is: 18:58:30.08

EVALUATION 230 FVALUE 1318.937432490388000

--> ROUND 146 ( 1000) Simplex var. 1.880008799552101E-004 <--

--> ROUND 148 ( 1000) Simplex var. 1.271084496475925E-004 <--

--> ROUND 150 ( 1000) Simplex var. 5.581245503620547E-005 <--

The current time is: 18:58:30.31

EVALUATION 240 FVALUE 1318.919348629156000

--> ROUND 152 ( 1000) Simplex var. 9.505872959377285E-005 <--

--> ROUND 154 ( 1000) Simplex var. 7.321722025221272E-005 <--

--> ROUND 156 ( 1000) Simplex var. 5.339293366342252E-005 <--

--> ROUND 158 ( 1000) Simplex var. 6.609511926529189E-005 <--

The current time is: 18:58:30.52

EVALUATION 250 FVALUE 1318.917321130602000

--> ROUND 160 ( 1000) Simplex var. 4.139382051207563E-005 <--

--> ROUND 162 ( 1000) Simplex var. 3.432641416247865E-005 <--

--> ROUND 164 ( 1000) Simplex var. 7.722048228585993E-005 <--

The current time is: 18:58:30.74

EVALUATION 260 FVALUE 1318.911875467979000

--> ROUND 166 ( 1000) Simplex var. 6.546417315304171E-005 <--

--> ROUND 168 ( 1000) Simplex var. 6.518335870497188E-005 <--

--> ROUND 170 ( 1000) Simplex var. 4.432720472872381E-005 <--

The current time is: 18:58:30.94

EVALUATION 270 FVALUE 1318.867273226517000

--> ROUND 172 ( 1000) Simplex var. 6.714992578675527E-005 <--

--> ROUND 174 ( 1000) Simplex var. 5.463206808853371E-005 <--

The current time is: 18:58:31.16

EVALUATION 280 FVALUE 1318.863906482801000

--> ROUND 176 ( 1000) Simplex var. 6.768502824800367E-005 <--

--> ROUND 178 ( 1000) Simplex var. 1.548697847746777E-004 <--

--> ROUND 180 ( 1000) Simplex var. 1.021030945386516E-004 <--

The current time is: 18:58:31.37

EVALUATION 290 FVALUE 1318.824128463613000

--> ROUND 182 ( 1000) Simplex var. 1.256027658303275E-004 <--

--> ROUND 184 ( 1000) Simplex var. 1.588629179696081E-004 <--

--> ROUND 186 ( 1000) Simplex var. 7.475434113962027E-004 <--

The current time is: 18:58:31.60

EVALUATION 300 FVALUE 1318.790235481864000

--> ROUND 188 ( 1000) Simplex var. 4.666973806255470E-004 <--

--> ROUND 190 ( 1000) Simplex var. 5.063478470304453E-004 <--

--> ROUND 192 ( 1000) Simplex var. 6.431645625581313E-004 <--

The current time is: 18:58:31.83

EVALUATION 310 FVALUE 1318.715797476976000

--> ROUND 194 ( 1000) Simplex var. 6.766017694351904E-004 <--

--> ROUND 196 ( 1000) Simplex var. 3.372078462517580E-003 <--

--> ROUND 198 ( 1000) Simplex var. 3.294004179097180E-003 <--

--> ROUND 200 ( 1000) Simplex var. 6.150538382678206E-003 <--

The current time is: 18:58:32.06

EVALUATION 320 FVALUE 1318.385411838852000

--> ROUND 202 ( 1000) Simplex var. 1.000714058792614E-002 <--

--> ROUND 204 ( 1000) Simplex var. 1.668769029707343E-002 <--

--> ROUND 206 ( 1000) Simplex var. 3.677796515584431E-002 <--

--> ROUND 208 ( 1000) Simplex var. 2.876191377629339E-002 <--

The current time is: 18:58:32.28

EVALUATION 330 FVALUE 1317.922309945541000

--> ROUND 210 ( 1000) Simplex var. 6.274842114641346E-002 <--

--> ROUND 212 ( 1000) Simplex var. 4.840842487240457E-002 <--

--> ROUND 214 ( 1000) Simplex var. 3.210592064579709E-002 <--

The current time is: 18:58:32.49

EVALUATION 340 FVALUE 1317.297187123126000

--> ROUND 216 ( 1000) Simplex var. 2.981268221851308E-002 <--

--> ROUND 218 ( 1000) Simplex var. 6.979647870992306E-002 <--

--> ROUND 220 ( 1000) Simplex var. 3.862985963875894E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 349

-1.200183106903848

The current time is: 18:58:32.68

EVALUATION 350 FVALUE 1317.192915788749000

--> ROUND 222 ( 1000) Simplex var. 2.466317516983623E-002 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 353

-1.035550195165665

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 355

-1.068245682351981

--> ROUND 224 ( 1000) Simplex var. 1.128160953315770E-002 <--

--> ROUND 226 ( 1000) Simplex var. 7.630907495245346E-003 <--

The current time is: 18:58:32.85

EVALUATION 360 FVALUE 1316.864454369958000

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 361

-1.008823897377330

--> ROUND 228 ( 1000) Simplex var. 5.078561527256657E-003 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 364

-1.038407976508101

--> ROUND 230 ( 1000) Simplex var. 4.971936773099372E-004 <--

--> ROUND 232 ( 1000) Simplex var. 4.559718124250179E-004 <--

The current time is: 18:58:33.02

EVALUATION 370 FVALUE 1316.781475729908000

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 371

-1.008775194675749

--> ROUND 234 ( 1000) Simplex var. 1.145087420808974E-003 <--

--> ROUND 236 ( 1000) Simplex var. 6.955442448531163E-004 <--

--> ROUND 238 ( 1000) Simplex var. 4.049311287590840E-004 <--

The current time is: 18:58:33.21

EVALUATION 380 FVALUE 1316.870310769504000

--> ROUND 240 ( 1000) Simplex var. 1.959230668877413E-004 <--

--> ROUND 242 ( 1000) Simplex var. 1.975182526020210E-004 <--

The current time is: 18:58:33.42

EVALUATION 390 FVALUE 1316.780084281970000

--> ROUND 244 ( 1000) Simplex var. 1.120967739098773E-004 <--

--> ROUND 246 ( 1000) Simplex var. 6.573094900059565E-005 <--

--> ROUND 248 ( 1000) Simplex var. 3.491214808621727E-005 <--

The current time is: 18:58:33.63

EVALUATION 400 FVALUE 1316.752842547128000

--> ROUND 250 ( 1000) Simplex var. 5.539827355321991E-005 <--

--> ROUND 252 ( 1000) Simplex var. 3.836284356189175E-005 <--

--> ROUND 254 ( 1000) Simplex var. 2.888282383378682E-005 <--

--> ROUND 256 ( 1000) Simplex var. 2.269067313390161E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 410

-1.004911721314944

--> ROUND 258 ( 1000) Simplex var. 2.073486334572272E-005 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 414

-1.002603338940891

--> ROUND 260 ( 1000) Simplex var. 2.171068713538449E-005 <--

--> ROUND 262 ( 1000) Simplex var. 1.465940870057358E-005 <--

The current time is: 18:58:34.02

EVALUATION 420 FVALUE 1316.745638620333000

--> ROUND 264 ( 1000) Simplex var. 5.130096276737920E-006 <--

--> ROUND 266 ( 1000) Simplex var. 3.521717672622104E-006 <--

GENETIC CORRELATION NON-PERMISSIBLE !!

EVALUATION 425

-1.003179120710534

--> ROUND 268 ( 1000) Simplex var. 2.146058042662435E-006 <--

--> ROUND 270 ( 1000) Simplex var. 6.212853944920216E-007 <--

1 1316.741758 1.6878 -2.5262 4.0449 2.4242 2.0962 35.8787

2 1316.742942 1.6413 -2.4868 3.9638 2.4385 2.0547 36.0636

+ 4 1316.741466 1.6757 -2.4662 3.9259 2.4056 2.0491 35.9132

5 1316.741627 1.6658 -2.5041 3.9198 2.4153 2.0988 35.8589

6 1316.742262 1.6950 -2.5190 3.8048 2.4218 2.1035 36.1525

7 1316.742434 1.6590 -2.4837 3.9521 2.4380 2.0780 35.9684

Minimum function value = 1316.741466061022000

Var(-2 log L) = 6.212853944920216E-007

End of iteration - solutions to IUN77

LOGICAL UNIT NO. = 21

"STANDARD" FILE EXISTS & HAS BEEN OPENED

FILE = MTDF21

The current time is: 18:58:34.24

EVALUATION 430 FVALUE 1316.741466061022000

Files written:

MTDF4 (ascii): Parameter file (IUN5) for "cold" restart

MTDF54 (ascii): Last simplex

MTDF58 (binary): SPARSPAK reordering

MTDF59 (ascii): Constraints imposed

MTDF68 (ascii): Likelihoods by rounds

MTDF67 (ascii): Sampling variances if requested

MTDF72 (ascii): Predicted BVs and PEVs if requested

MTDF76 (ascii): Program log file

MTDF77 (ascii): Solutions for covariates and fixed effects if requested

MTDF78 (ascii): Solutions for trait within animal if requested

MTDF79 (ascii): Solutions for independent random effects if requested

Total time of analysis

The elapsed time was: 00:00:09.11

Stop - Program terminated.

exerpted FILE MTDF76

Estimates:

GENETIC VARIANCES AND COVARIANCES :

a1 a2

a1 : 1.67569 -2.46620

a2 : -2.46620 3.92592

ENVIRONMENTAL VARIANCES AND COVARIANCES :

e1 e2

e1 : 2.40557 2.04913

e2 : 2.04913 35.91324

PHENOTYPIC VARIANCES AND COVARIANCES :

p1 p2

p1 : 4.08126 -.41707

p2 : -.41707 39.83917

HERITABILITIES AND GENETIC CORRELATIONS

a1 a2

a1 : .41

a2 : -**.96** .10

ENVIRONMENTAL PROPORTION OF TOTAL VARIANCE AND CORRELATIONS

e1 e2

e1 : .59

e2 : .22 .90