

Primary procedures of MS Excel VBA software 'anore2006book1.xls': the file 'anore2006book1.txt' is opened in MS Windows Notepad, copied in all and pasted in a VBA macro codes window of a newly opened MS Excel Book, and run, as detailed in REMARKS () of the file.

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s1z0()      Sheet1 divided into 288 zones each comprising 300 rows with a marginal zone s1zU8 left at the bottom.
s1z0a()     Boundary and base rows of zones, with the comments, to be recovered without the zone contents cleared.
s1z0b()     Comments on zone boundary and base rows to be recovered without the zone contents cleared.
s1z0c()     Boundary and base rows of specific zone divisions to be recovered without the zone contents cleared.
s1z1()      Input Template 1 (s1z1) prepared for Treatments Matrix.
s1z1a()     Input Template 1 (s1z1) (after rewritten manually) preprocessed and parametrized.
s1z2()      Input Template 2 (s1z2) prepared for basically postulated EffectComponents List.
s1z2a()     Input Template 2 (s1z2) (after rewritten manually) preprocessed and parametrized.
s1zj() (j=4-7) Input data (s1z1) (rewritten), rows or column specified, levels enumerated and summarized.
s1z9()      EffectElements List (s1z9) for effect-components list (s1z2) and treatments matrix (s1z1).
s1zAi(),s1zAia() (i=0-3) Design matrix (ldgn) built of effect-elements (s1zSj, j=4-7) and treatments (s1zTi)
                    with zone specification (s1zUj), and (as rewritten) adjusted.
s1zAj(),s1zAja() (j=4-7) Identity matrix prepared and adjusted for response column vector (s1zAi, i=0-3).
s1zBi() (i=0-3) Normal equation coefficients matrix (lnrm): summed coefficients of effect-element of normal equation.
s1zBj() (j=4-7) Normal equation responses matrix (lnrs): summed coefficients of response of normal equation.
s1zCi() (i=0-3) Canonically constrained normal equation coefficients matrix (lnrh).
s1zCj,s1zCj0 (lambda, nu) (j=4-7) Main (continued) or outset (initiated) iteration (nu) cycles with (lambda) fed back.
s1zCj0a,s1zCj0o () (j=4-7) Responses effect-elements conversion matrix (onrt) iteration, main and initial.
-----
s1zCjco,s1zCjmb () (j=4-7) Conversion matrix (onrt) (s1zCj) or imbalance residues matrix (bdrs) (s1zPj) selected on LCD.
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s1zCpa,s1zCpb (zzw) Normal equation imbalance residues matrix (bdrs) (s1zPj, j=4-7) commented and parametrized.
s1zQi() (i=0-3) Refined off-diagonal diagonally unitarized canonically constrained normal equation coefficients matrix (onrc).
s1zQj() (j=4-7) Refined diagonally unitarized canonically constrained normal equation responses matrix (onrs).
s1zRi() (i=0-3) Diagonally unitarized canonically constrained normal equation coefficients matrix (unrh).
s1zRj() (j=4-7) Diagonally unitarized canonically constrained normal equation responses matrix (unrs).
s1zSj() (j=4-7) Effect-elements list (s1zSj) built of effect-components (s1zTj) and treatments (s1zTi, i=0-3).
s1zTi,s1zTia () (i=0-3), s1zTj,s1zTja() (j=4-7) Input Template 1 or 2 prepared and processed;
s1zTi-0,s1zTia-0 () (i=0-3), s1zTj-0,s1zTja-0 () (j=4-7) particularly on the basis of s1z1,s1z2 and s1zj.
s1zU0(),s1zU0-MM00() Basically postulated zone specifications list and a mockup.
s1zU0a(),s1zU0b() Specifications (s1zU0) dispatched to zones (s1zTi, i=0-3, s1zTj, j=4-7) , or collected from zones (s1zUj).
s1zUj() (j=4-7) Input data (s1zTi, i=0-3) preprocessed, levels enumerated and summarized (s1zUj).
-----
s1zX00(zzw); s1zX00aa(zzk, aak), etc. A new zone (s1zzw) with a row (s1zzk) for the legend (aak = zzwtitle etc.).
s1zX01(zzt) Input Template 1 (s1zzt) prepared for treatments matrix.
s1zX01-M00(zzt), -M01(zzt), -M02(zzt), -M03(zzt) Template 1 -A mockup (s1zzt).
s1zX01a(zzt) Input Template 1 (s1zzt) (as rewritten) processed and parametrized.
s1zX01b, s1zX01b-0 (zzw, zzt) Input Template 1 (s1zzt) (or) (s1z1) checked and summarized (s1zzw) (or) (s1zj, j=4-7).
s1zX02(zzu, zzt) Input Template 2 for basically postulated effect-components list prepared (s1zzu) of treatments matrix (s1zzt).
s1zX02-M00(zzu), -M01(zzu), -M02(zzu), -M03(zzu) Mockup - Input Template 2 (s1zzu).
s1zX02a(zzu, zzt) Input Template 2 (s1zzu) (as rewritten) processed and parametrized on the basis of treatments matrix (s1zzt).
s1zX03, 03a, 03b, 03c (zzw, zzz) Row contents (s1zzw) copied from other rows (s1zzx).
s1zX09(zzv, zzu, zzt) Effect-elements list (s1zzv) built of effect-components (s1zzu) and treatments (s1zzt).
s1zX11, 11a(zzw, zzp) Identity matrix (1rsn) (s1zzw) prepared and adjusted for response column vector (s1zzp).
s1zX12, 12a(zzw, zzv, zzt) Dsgn matrix (ldgn) (s1zzw) built and adjusted for effect-elements (s1zzv) and treatments (s1zzt).
s1zX13(zzw, zzu) Normal equation coefficients matrix (lnrm): summed coefficients of effect-element of the normal equation.
s1zX13a(zzw, zzv, zzu, zzt) Normal equation responses matrix (lnrs).
s1zX14(zzw, zzv, zzu, zzq, zzt) Canonically constrained normal equation coefficients matrix (lnrh).
s1zX14a(zzw, zzu) Diagonally unitarized canonically constrained normal equation coefficients matrix (unrh).
s1zX14a1(zzw, zzv, zzu) Diagonally unitarized canonically constrained normal equation responses matrix (unrs).
s1zX15(zzw, zzu) Responses effect-elements conversion matrix (onrt) preparation
s1zX15a(zzw, zzv, zzu, zzt) Refined off-diagonal diagonally unitarized canon. constr. normal eqn coefficients matrix (onrc).
s1zX15a1(zzw, zzv, zzu, zzt) Refined diagonally unitarized canonically constrained normal equation responses matrix (onrs).
s1zX15a3lambda(zzw, zzu, lambda) Values (s1zzw) := Values (s1zzw) * (1-lambda) + Values (s1zzu) * lambda (say).
s1zX15o(zzw, zzv, zzu) Matrix (s1zzw) := Matrix (s1zzv) * Matrix (s1zzu)..
s1zX15o1(zzw, zzv, zzu) Matrix (s1zzw) := Matrix (s1zzv) - Matrix (s1zzu).
s1zX61, 61a, 61b, 62, 62a, 62b, 63, 63a (zzw, zzu), 63b(zzw) Square matrix (ih, ih) prepared (on the basis) (of) (s1zzu).
s1zX71, 71a, 71b, 72, 72a, 72b (zzw, zzt), 73, 73a (zzw, zzv, zzt), 73b(zzw) Design matrix (ih, jh) prepared.
s1zX81, 81a, 81b, 82, 82a, 82b, 83, 83a (zzw, zzu), 83b(zzw) Matrix (jh, ih) transposed (of) (s1zzu).
s1zX86, 86a, 86b, 87, 87a, 87b, 88, 88a (zzw, zzu), 88b(zzw) Matrix (jh, ih) copied (of) (s1zzu).
s1zX91, 91a, 91b, 92, 92a, 92b, 93, 93a (zzw, zzu), 93b(zzw) Matrix (jh, jh) prepared (on the basis) (of) (s1zzu).
s1zXo0(zzw) Zone specification (s1zzw) worked out and captioned at the head.
s1zXo1(zzw, zzo) Zone specification, date & task number copied (from) (s1zzo), worked out and captioned at the head.
s1zXo1a(zzw, zzo),b(zzw, zzo) Zone specification and/or date & task number (s1zzw) copied (from) (s1zzo).
s1zXolu(zzw, ww) Zone specification (s1zU0, ww=0-3) dispatched (to) (s1zzw) to be worked out and captioned at the head.
s1zXolub(zzw, ww) Zone specification (s1zUj, j=ww+4, ww=0-3) collected (to) (s1zU0) to be tabulated.

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Composite procedures of MS Excel VBA software '**anore2006book1.xls**'. For example, the most typical one **slzzXXz()** in default calls procedures **slzzXXy4**, etc. generating four Streams, then **slzzXXy4a**, etc. accomplishing the Streams giving solution of the exercises.

```
slzy00()      slz1 slz1a slz2 slz2a slz9
slzy00a()     slz4 slz5 slz6 slz7
slzyAA()      slzA0 slzA1 slzA2 slzA3
Design matrix (slzAi, i=0-3) built of effect-elements (slzSj, j=4-7) and treatments (slzTi) -- by slzX12().
slzyAAa()     slzA0a slzA1a slzA2a slzA3a
Design matrix (slzAi, i=0-3) adjusted to effect-elements (slzSj, j=4-7) and treatments (slzTi) -- by slzX12().
slzyAX()      slzA4 slzA5 slzA6 slzA7
Identity matrix (slzAj, j=4-7) built of treatments (slzAi, i=0-3) -- by slzX11().
slzyAXa()     slzA4a slzA5a slzA6a slzA7a
Identity matrix (slzAj, j=4-7) adjusted to treatments (slzAi, i=0-3) -- by slzX11a().
slzyBB()      slzB0 slzB1 slzB2 slzB3
Normal equation coefficients matrix (slzBi, i=0-3) built of design matrix (slzAi, i=0-3) -- by slzX13().
slzyBX()      slzB4 slzB5 slzB6 slzB7
Normal equation responses matrix (slzBj, j=4-7) built of design matrix (slzAi, i=0-3) -- by slzX13a().
slzyCC()      slzC0 slzC1 slzC2 slzC3
The can. constr. matrix (slzCi, i=0-3) built of norm. eqn coefficients matrix (slzBi, i=0-3) -- by slzX14(). To slzyRR.
slzyCX0a()    slzC40a slzC50a slzC60a slzC70a
Responses effect-elements conversion matrix (onrt) (slzCj, j=4-7) (main iteration continued).
slzyCX0o()    slzC40o slzC50o slzC60o slzC70o
Responses effect-elements conversion matrix (onrt) (slzCj, j=4-7) (outset iteration initiated).
-----
slzCjco()     slzC4co slzC5co slzC6co slzC7co
Responses effect-elements conversion matrix (onrt) (slzCj, j=4-7) selected on LCD.
slzCjmb()     slzC4mb slzC5mb slzC6mb slzC7mb
Normal equation imbalance residues matrix (bdrs) (slzPj, j=4-7) selected in LCD.
-----
slzyQQ()      slzQ0 slzQ1 slzQ2 slzQ3
Refined off-diagonal diagonally unitarized can. constr. normal eqn coefficients matrix (slzQi, i=0-3) -- by slzX15a().
slzyQX()      slzQ4 slzQ5 slzQ6 slzQ7
Refined diagonally unitarized can. constr. normal equation responses matrix (slzQj, j=4-7) -- by slzX15a1. To slzC4, etc.
slzyRR()      slzR0 slzR1 slzR2 slzR3
Diag. unitarized can. constr. normal eqn coefficients matrix (slzRi, i=0-3) built of can. constr. normal eqn coefficients matrix (slzCi).
slzyRX()      slzR4 slzR5 slzR6 slzR7
Diagonally unitarized can. constr. normal eqn responses matrix (slzRj, j=4-7) built of normal eqn responses matrix (slzBj).
-----
slzySX()      slzS4 slzS5 slzS6 slzS7      slzyUX'7> '8 >slzyAA'10
slzyTT()      slzT0 slzT1 slzT2 slzT3      slzU0'0 (Start)> '1 >slzyTX'2
slzyTT-0()    slzT0-0 slzT1-0 slzT2-0 slzT3-0      slzy00a'00a> '01 >slzyTX-0'02
slzyTTa()     slzU0b slzU0a slzT0a slzT1a slzT2a slzT3a      slzyUX'3> '4'4a'5 >slzyTXa'6
slzyTTa-0()   slzU0b slzU0a slzT0a-0 slzT1a-0 slzT2a-0 slzT3a-0      slzyUX'3> '4'4a'05 >slzyTXa-0'06
slzyTX()      slzT4 slzT5 slzT6 slzT7      slzyTT'1> '2 >slzyUX'3
slzyTX-0()    slzT4-0 slzT5-0 slzT6-0 slzT7-0      slzyTT-0'01> '02 >slzyUX'3
slzyTXa()     slzT4a slzT5a slzT6a slzT7a      slzyTTa'5> '6 >slzyUX'7
slzyTXa-0()   slzT4a-0 slzT5a-0 slzT6a-0 slzT7a-0      slzyTTa_0'05> '06 >slzyUX'7
slzyUX()      slzU4 slzU5 slzU6 slzU7      '3 >slzU0b'4,slzU0a'4a,slzyTTa'5 /slzyTTa-0'05      '7 >slzySX'8
-----
slzzXX()      slzU0'0 slzyTT'1 slzyTX'2 slzyUX'3
slzzXXa()     slzU0b'4 slzU0a'4a slzyTTa'5 slzyTXa'6 slzyUX'7 slzySX'8
slzyAA'10 slzyAAa'11 slzyAX'12 slzyAXa'13 slzyBB'14 slzyBX'15 slzyCC'16 slzyRR'17 slzyRX'18
slzyQQ'19 slzyQX'20 slzyCX0o'21 slzyCX0a'22
slzzXX-0()    slzU0'0 slzy00'00 slzy00a'00a slzyTT-0'01 slzyTX-0'02 slzyUX'3
slzzXXa-0()   slzU0b'4 slzU0a'4a slzyTTa-0'05 slzyTXa-0'06 slzyUX'7 slzySX'8
slzyAA'10 slzyAAa'11 slzyAX'12 slzyAXa'13 slzyBB'14 slzyBX'15 slzyCC'16 slzyRR'17 slzyRX'18
slzyQQ'19 slzyQX'20 slzyCX0o'21 slzyCX0a'22
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slzzXXyj(j=4-7) slzU0'0 slzTi(i=0-3)'1 slzTj'2 slzUj'3
slzzXXyja(j=4-7) slzU0b'4 slzU0a'4a slzTia(i=0-3)'5 slzTja'6 slzUj'7 slzSj'8
slzAi'10 slzAia'11 slzAj'12 slzAja'13 slzBi'14 slzBj'15 slzCi'16 slzRi'17 slzRj'18
slzQi'19 slzQj'20 slzCj0o'21 slzCj0a'22
slzzXXyj-0(j=4-7) slzU0'0 slzy00'00 slzj'00a slzTi-0(i=0-3)'01 slzTj-0'02 slzUj'3
slzzXXyja-0(j=4-7) slzU0b'4 slzU0a'4a slzTia-0(i=0-3)'05 slzTja-0'06 slzUj'7 slzSj'8
slzAi'10 slzAia'11 slzAj'12 slzAja'13 slzBi'14 slzBj'15 slzCi'16 slzRi'17
slzRj'18 slzQi'19 slzQj'20 slzCj0o'21 slzCj0a'22
-----
slzzXXz()      slzzXXyj(j=4-7) slzzXXyja(j=4-7)
slzzXXz-0()    slzzXXyj-0(j=4-7) slzzXXyja-0(j=4-7)
```

Selection procedures for a zone to be displayed on LCD.

```
Sub slz-(): z0 = 0: 'Procedures for selection of zones to be displayed on LCD.:  
Worksheets("Sheet1").Select: Cells(z0 + 10 - 1, 4).Select: End Sub  
Sub slz-A(): zA0 = 3000:  
Worksheets("Sheet1").Select: Cells(zA0 + 10 - 1, 4).Select: End Sub  
Sub slz-B(): zB0 = 6000:  
Worksheets("Sheet1").Select: Cells(zB0 + 10 - 1, 4).Select: End Sub  
Sub slz-C(): zC0 = 9000:  
Worksheets("Sheet1").Select: Cells(zC0 + 10 - 1, 4).Select: End Sub  
Sub slz-D(): zD0 = 12000:  
Worksheets("Sheet1").Select: Cells(zD0 + 10 - 1, 4).Select: End Sub  
Sub slz-E(): zE0 = 15000:  
Worksheets("Sheet1").Select: Cells(zE0 + 10 - 1, 4).Select: End Sub  
Sub slz-F(): zF0 = 18000:  
Worksheets("Sheet1").Select: Cells(zF0 + 10 - 1, 4).Select: End Sub  
Sub slz-G(): zG0 = 21000:  
Worksheets("Sheet1").Select: Cells(zG0 + 10 - 1, 4).Select: End Sub  
Sub slz-H(): zH0 = 24000:  
Worksheets("Sheet1").Select: Cells(zH0 + 10 - 1, 4).Select: End Sub  
Sub slz-I(): zI0 = 27000:  
Worksheets("Sheet1").Select: Cells(zI0 + 10 - 1, 4).Select: End Sub  
Sub slz-J(): zJ0 = 30000:  
Worksheets("Sheet1").Select: Cells(zJ0 + 10 - 1, 4).Select: End Sub  
Sub slz-K(): zK0 = 33000:  
Worksheets("Sheet1").Select: Cells(zK0 + 10 - 1, 4).Select: End Sub  
Sub slz-L(): zL0 = 36000:  
Worksheets("Sheet1").Select: Cells(zL0 + 10 - 1, 4).Select: End Sub  
Sub slz-M(): zM0 = 39000:  
Worksheets("Sheet1").Select: Cells(zM0 + 10 - 1, 4).Select: End Sub  
Sub slz-N(): zN0 = 42000:  
Worksheets("Sheet1").Select: Cells(zN0 + 10 - 1, 4).Select: End Sub  
Sub slz-O(): zO0 = 45000:  
Worksheets("Sheet1").Select: Cells(zO0 + 10 - 1, 4).Select: End Sub  
Sub slz-P(): zP0 = 48000:  
Worksheets("Sheet1").Select: Cells(zP0 + 10 - 1, 4).Select: End Sub  
Sub slz-Q(): zQ0 = 51000:  
Worksheets("Sheet1").Select: Cells(zQ0 + 10 - 1, 4).Select: End Sub  
Sub slz-R(): zR0 = 54000:  
Worksheets("Sheet1").Select: Cells(zR0 + 10 - 1, 4).Select: End Sub  
Sub slz-S(): zS0 = 57000:  
Worksheets("Sheet1").Select: Cells(zS0 + 10 - 1, 4).Select: End Sub  
Sub slz-T(): zT0 = 60000:  
Worksheets("Sheet1").Select: Cells(zT0 + 10 - 1, 4).Select: End Sub  
Sub slz-U(): zU0 = 63000:  
Worksheets("Sheet1").Select: Cells(zU0 + 10 - 1, 4).Select: End Sub
```

```
Sub slz-X1(): 'Procedure slz-Xi (i=1-9) offsets any zone currently on LCD by i*300 Rows forward.:  
'Often that may be run immediately after the procedure slz-A() or so above.:
```

```
Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=300, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X2(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=600, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X3(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=900, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X4(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=1200, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X5(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=1500, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X6(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=1800, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X7(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=2100, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X8(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=2400, ColumnOffset:=0): myRng2.Select: End Sub  
Sub slz-X9(): Dim myRng1 As Range: Dim myRng2 As Range: Set myRng1 = Selection:  
Set myRng2 = myRng1.Offset(RowOffset:=2700, ColumnOffset:=0): myRng2.Select: End Sub
```