

ภาคผนวก ช.

โปรแกรม Basic ที่ใช้ในการหาค่า k

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10 'programme de recherché de l'optimum des valeurs de coefficients de ruisslem
nt par minimization de function objectif
20 'f objectif = somme des carrès des écarts
30 DIM S(10,8) ,K(8) ,K2(8) ,QP(10) ,A(10) ,B(10) ,C(10)
40 DATA 0.8191,.1809,.0000 : ' X.111
50 DATA 1.0000,.0000,.0000 : ' X.113
60 DATA 0.7938,.1562,.0500 : ' X.90
70 DATA 0.8974,.1026,.0000 : ' X.112
80 DATA 0.4763,.3162,.2055 : ' X.71
121 DATA 0.1110,.0420,.0730,.0740,.0750 : ' april1987
122 'DATA 0.1160,.0160,.0240,.0940,.0540 : ' may
123 'DATA 0.0750,.1120,.0720,.0770,.1570 : ' june
124 'DATA 0.1640,.0420,.0360,.0800,.1410 : ' july
125 'DATA 0.1280,.1140,.0660,.1210,.1890 : ' august
126 'DATA 0.2850,.2180,.1490,.2540,.1950 : ' sep
127 'DATA 0.5490,.3400,.3120,.5240,.3250 : ' oct
128 'DATA 0.1160,.0160,.0240,.0940,.0540 : ' novem
129 'DATA 0.9900,.4160,.4960,.7000,.8590 : ' dec
130 'DATA 0.7800,.7600,.9290,.2760,.7640 : ' jan
131 'DATA 0.9800,.4460,.3410,.8620,.5890 : ' feb
132 'DATA 0.2390,.0770,.1970,.1690,.2280 : ' march
139 VEG = 3 : BV = 5
140 FOR I = 1 TO BV
150     FOR J = 1 TO VEG

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160         READ S ( I,J)
170     NEXT J
180     NEXT I
190 FOR I = 1 TO BV : READ QP (I) : NEXT I
200 *****calcul*****
205 INPUT "valeur d' initialization ?" ,V
210 FOR J = 1 TO 3 : K (J) = V : NEXT J
211 GOSUB 450
230 GOSUB 540 : OBJ = RESULT
240 DELTAK = .5
250     MODIF = 0
260 FOR J = 1 TO 3
265         KANCIEN = K(J)
270         IF K (J) > .999 THEN 330
280         K (J) = KANCIEN+ DELTAK : IF K (J) > THEN K (J) = 1
290         GOSUB 450 : GOSUB 540
300         IF RESULT > OBJ THEN K(J) = KANCIEN : GOTO 330
310             OBJ = RESULT
320             MODIF = MODIF +1
330         IF K(J) <.001 THEN 390
335         KANCIEN = K(J)
340         K (J) = KANCIEN- DELTAK : IF K(J) <0 THEN K(J) = 0
350         GOSUB 450 : GOSUB 540
360         IF RESULT > OBJ THEN K(J) = KANCIEN : GOTO 390
370             OBJ = RESULT
380             MODIF = MODIF +1
390 NEXT J
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400 IF MODIF > 0 THEN 250
410 DELTAK = DELTAK/2
420 PRINT "deltak = " ; DELTAK : INPUT " Ctrl C pour arreter sinon RETURN ",R$
430 PRINT "programme termin "
440 END
450 *****calcul des a(i) ,b(i) ,c(i)*****
460 FOR II = 1 TO BV
470     A(II) = 0
480     FOR JJ = 1 TO VEG
490         A( II ) = A( II )+S( II,JJ )*K( JJ )
500     NEXT JJ
510 B( II ) = A( II ) - 2*QP( II ) : C( II ) = QP( II )*QP( II )
520 NEXT II
530 RETURN
540 *****function objectif*****
550 RESULT = 0
560 FOR II = 1 TO BV
570     SOMME = 0
580     FOR JJ = 1 TO VEG
590         SOMME = SOMME + S(II,JJ) *K(JJ)
600     NEXT JJ
610 RESULT = RESULT +C(II) + B(II)*SOMME
615 NEXT II
616 IF RESULT > OBJ THEN 620
617     FOR JJ =1 TO VEG:PRINT USING " #.### ";K(JJ);:NEXT JJ:PRINT USING
"#####.#####  #####.##### "; RESULT ,OBJ
620 RETURN

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