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PROGRAM LIBRARY

DECUS NO.	FOCAL8-121
TITLE	PLAY GOLF WITH ARNOLD PALMER
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SOURCE LANGUAGE	FOCAL

PLAY GOLF WITH ARNOLD PALMER

DECUS Program Library Write-up

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ABSTRACT

Imagine that you are caddying for Arnold Palmer, but you have control over what club he uses after his drive. Palmer is playing a par 5, 550 yard hole. There are trees, water, and sand traps entering into the play of the hole.

Palmer has chances for fairway wood and iron shots as well as chip shots close to the green. This program tallies your score so that you don't lose track.

OPERATION

The program was written using multi-user FOCAL with LIBRA OVERLAY on a 8K PDP-8/I. To get the program, type "LIBRARY CALL GOLF," followed by a carriage return, then type "GO" followed by a carriage return. Type a carriage return following any response made to a question asked by the program. When asked what club you want Palmer to use, just type in the number of the club. To terminate the program at any time, type CTRL/C.

SPECIAL OPERATION

The random number function in FOCAL is biased to the range $.5 \leq |x| < 1$. If your random number function operates correctly, then make the following changes:

PROGRAM	LINE	CHANGE
GLF 1	1.12	S D = (FITR(4*FABS(FRAN()+5))*(39)
GLF 3	3.40	S I = FITR(4*FABS(FRAN()+5))
GLF 3	3.45	S Z = FITR((FITR(4*FABS(FRAN()+5))/3)
GLF 5	5.24	S Y = FITR(4*FABS(FRAN()+5)
GLF 5	5.36	S Z = FITR((FITR(4*FABS(FRAN()+5))/3)

01.05 T " "!!!
 01.10 T "THIS PROGRAM PLAYS GOLF"
 01.20 T "YOU ARE CADDYING FOR ARNOLD PALMER, BUT YOU HAVE TO PICK"
 01.30 T "WHAT CLUB HE USES AFTER HIS DRIVE. THE CLUBS AVAILABLE"
 01.40 T "ARE THE WOODS 1,3 AND THE IRONS 4,5,6,7,8,9,W."!!

02.10 T "HOLE NO. 1 550 YDS PAR 5"!!
 02.20 T "DO YOU WANT A MAP OF THE HOLE?"
 02.22 T "TYPE 0 IF NO, TYPE 1 IF YES"

02.24 ASK Q
 02.26 IF (Q)2.3,2.6,2.3
 02.30 T "--OUT OF BOUNDS--"
 02.31 T " SSSSS"
 02.32 T " SSSSSSS"
 02.33 T " SSGGGSS"
 02.34 T " G*G"
 02.35 T "550 GGG WWWWW S-SAND TRAP"
 02.36 T " F F W W W-WATER TRAP"
 02.37 T "500 F F WW W G-GREEN"
 02.38 T " F FF W W F-FAIRWAY"
 02.39 T "450 F F W W T-TREES"
 02.40 T " F F WWW X-TEE OFF"
 02.41 T "400 F F TTTT"
 02.42 T " F FFFF TTTT"
 02.43 T " 350 F F TTT"
 02.44 T " F F TT"
 02.45 T " 300 FF F T"
 02.46 T " FF F T"
 02.47 T " 250 FFF F"
 02.48 T " TTT F F"
 02.49 T " 200 TTTT F F"
 02.50 T " TTTTTF F"
 02.51 T " 150 TTTTTF F"
 02.52 T " F F"
 02.53 T " 100 F F"
 02.54 T " F F"
 02.55 T " 50 F F"
 02.56 T " F F"
 02.57 T " 0 XX"!!!

02.60 LIBRARY CALL GLF1
 02.61 GO

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 LIBRARY SAVE GOLF
 ERASE ALL

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01.05 S S=1
01.10 T "PALMER'S DRIVE WAS"
01.12 S D=((FITR(10*FABS(FRAN())))*39)
01.14 T %3.00 D, " YARDS"!
01.16 IF (D-234)1.18,1.24,1.30
01.18 T "PALMER HOOKED INTO THE WOODS AND IT COSTS HIM A STROKE"!
01.19 T "TO GET OUT. THERE IS 300 YDS LEFT."!; S S=2; GOTO 1.5
01.24 T "PALMER IS IN GOOD POSITION DOWN THE MIDDLE WITH ABOUT"!
01.26 T "300 YDS TO GO."!; GOTO 1.5
01.30 IF (D-312)1.32,1.38,1.44
01.32 T "PALMER IS TO THE LEFT WITH 275 YDS TO GO."!
01.33 S T=FCOM(0,S)
01.34 LIBRARY CALL GLF2; GO
01.38 T "PALMER SLICED INTO THE WOODS--CHIPPED OUT."!
01.40 T "HE LIES TWO WITH 200 YDS. TO GO."!
01.41 S U=FCOM(0,2)
01.42 GOTO 1.48
01.44 T "PALMER'S DRIVE LEFT HIM 200 YDS AWAY."!
01.46 S U=FCOM(0,S)
01.48 LIBRARY CALL GLF3; GO
01.50 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
01.52 A C
01.54 IF (C-3)1.56,1.62,1.68
01.56 T "THE DRIVER BOUNCED THE BALL 175 YDS, THERE "
01.57 T "IS 125 YDS LEFT."!
01.59 S V=FCOM(0,(1+S))
01.60 LIBRARY CALL GLF4; GO
01.62 T "PALMER HIT HIS 3 WOOD 225 YDS, CHIP FROM 75 YDS."!
01.65 S P=FCOM(0,(S+1))
01.66 LIBRARY CALL GLF5; GO
01.68 IF (C-7)1.7,1.76,1.76
01.70 T "PALMER'S BALL WENT 175 YDS"!
01.71 S V=FCOM(0,(S+1))
01.72 LIBRARY CALL GLF4; GO
01.76 T "PALMER TOOK TOO BIG OF A DIVOT, HIS BALL WENT ONLY "!
01.77 T "100 YDS. HE STILL HAS 200 YDS. TO GO."!
01.78 S U=FCOM(0,(1+S))
01.80 LIBRARY CALL GLF3
01.82 GO
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LIBRARY SAVE GLF1
ERASE ALL

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02.05 S T=FCOM(0)
02.10 T "WHAT CLUB DO YOU WANT PALMER TO USE?"!
02.12 ASK G
02.14 IF (G-3)2.16,2.24,2.3
02.16 T "THE DRIVER BOUNCED(NOT ENOUGH LIFT)THE BALL ONLY"
02.17 T " 150 YDS."!
02.18 T "THERE IS 125 YDS LEFT."!
02.19 S V=FCOM(0,(T+1))
02.20 LIBRARY CALL GLF4
02.22 GO
02.24 T "PALMER HIT HIS 3 WOOD 225 YDS, CHIP FROM 50 YDS."!
02.25 S P=FCOM(0,(T+1))
02.26 LIBRARY CALL GLF5
02.28 GO
02.30 IF (G-6)2.32,2.38,2.44
02.32 T "PALMER 'S BALL LANDED JUST INSIDE 100 YDS AWAY, "!"
02.33 T "HE CAN CHIP FROM THERE."!
02.34 S P=FCOM(0,(T+1))
02.36 LIBRARY CALL GLF5; GO
02.38 T "PALMER HIT HIS 6 IRON 150 YDS, HE IS 125 YDS AWAY."!
02.39 S V=FCOM(0,(T+1))
02.40 LIBRARY CALL GLF4; GO
02.44 T "PALMER LOOKED UP WHILE SWINGING, BALL WENT ONLY 75 YDS."!
02.46 T "PALMER IS 200 YDS FROM THE HOLE."!
02.47 S U=FCOM(0,(T+1))
02.48 LIBRARY CALL GLF3
02.50 GO
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LIBRARY SAVE GLF2
ERASE ALL

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03.05 S U=FCOM(0)
03.10 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
03.12 ASK H
03.14 IF (H-3)3.16,3.24,3.38
03.16 T "PALMER DUBS BALL INTO WATER - PENALTY 1 STROKE."!
03.18 T "PALMER DROPS NEW BALL 125 YDS FROM GREEN."!
03.19 S V=FCOM(0,(U+2))
03.20 LIBRARY CALL GLF4
03.22 GO
03.24 T "PALMER HIT THE GREEN AND ROLLED INTO THE SAND TRAP."!
03.26 T "PALMER BLASTED OUT AND TWO PUTTED."!
03.27 S B=(U+4)
03.28 T "PALMER TOOK ", %2.00 B," STROKES."!
03.30 LIBRARY CALL GOLF
03.32 GO
03.38 IF (H-6)3.4,3.58,3.58
03.40 SET I=FITR(10*FABS(FRAN()))
03.42 IF (I-8)3.44,3.52,3.52
03.44 T "PALMER IS ON THE GREEN"
03.45 S Z=FITR((FITR(10*FABS(FRAN())))/3)
03.46 T " HE TOOK ", %1.00 Z, " PUTT(S)."!
03.47 T "PALMER TOOK ", %2.00 (U+Z+1)," STROKES."!
03.48 LIBRARY CALL GOLF; GO
03.52 T "PALMER IS JUST A FEW YARDS OFF THE GREEN AND CAN CHIP"
03.53 T " ON"!
03.54 S P=FCOM(0,(U+1))
03.56 LIBRARY CALL GLF5; GO
03.58 T "PALMER IS ABOUT 75 YDS FROM THE GREEN, HE CAN CHIP ON."!
03.59 S P=FCOM(0,(U+1))
03.60 LIBRARY CALL GLF5
03.62 GO
*
LIBRARY SAVE GLF3
ERASE ALL

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04.05 S V=FCOM(0)
04.10 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
04.12 ASK J
04.14 IF (J-7)4.15,4.2,4.28
04.15 S V=V+2
04.16 T "YOU WENT OVER THE GREEN AND THE SAND-OUT OF BOUNDS--"!
04.17 T "PENALTY STROKE AND DISTANCE. DROP BALL."!; GOTO 4.1
04.20 T "PALMER LANDED IN THE SAND TRAP. HE CHIPPED OUT AND"!
04.21 T "ONE PUTTED."!
04.22 S V=V+3
04.23 T "PALMER TOOK ", %2.00 V," STROKES."!
04.24 LIBRARY CALL GOLF; GO
04.28 IF (J-9)4.3,4.38,4.46
04.30 T "PALMER IS ON THE GREEN WITH A VERY LONG PUTT."!
04.32 T "PALMER JUST MISSED IT BUT MADE HIS NEXT PUTT."!
04.33 T "PALMER TOOK ", %2.00 (V+3)," STROKES."!
04.34 LIBRARY CALL GOLF
04.36 GO
04.38 T "PALMER IS ON THE GREEN WITH A TWO FOOT PUTT--"!
04.40 T "HE MADE IT"!
04.41 T "PALMER TOOK ", %2.00 (V+2)," STROKES."!
04.42 LIBRARY CALL GOLF
04.44 GO
04.46 T "PALMER IS ABOUT 15 YDS OFF THE GREEN, HE CAN CHIP ON."!
04.47 S P=FCOM(0,(V+1))
04.48 LIBRARY CALL GLF5
04.50 GO

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LIBRARY SAVE GLF4
ERASE ALL

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05.05 S P=FCOM(0)
05.16 T "TO CHIP USE THE 7,8,9,W."!
05.18 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
05.20 ASK K
05.22 IF (K-7)5.16,5.24,5.24
05.24 SET Y=FTR(10*FABS(FRAN()))
05.26 IF (Y-6)5.31,5.28,5.34
05.28 T "PALMER SUNK HIS CHIP SHOT."!
05.29 T "PALMER TOOK ", %2.00 (P+1)," STROKES."!
05.30 LIBRARY CALL GOLF; GO
05.31 T "PALMER HIT HIS CHIP SHOT INTO THE SAND."!
05.32 T "HE CHIPPED OUT AND SUNK HIS PUTT."!
05.33 T "PALMER TOOK ", %2.00 (P+3)," STROKES."!
05.34 LIBRARY CALL GOLF; GO
05.35 T "PALMER IS ON THE GREEN"
05.36 S Z=FTR((FTR(10*FABS(FRAN())))/3)
05.38 T " HE TOOK ", %1.00 Z, " PUTT(S)."!
05.39 T "PALMER TOOK ", %2.00 (P+Z+1)," STROKES."!
05.40 LIBRARY CALL GOLF
05.42 GO
*
LIBRARY SAVE GLF5
ERASE ALL

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