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PLAY GOLF WITH ARNOLD PALMER

DECUS Program Library Write-up

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 an 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 $0.5 \leq |x| < 1$. If your random number function operates correctly, then make the following changes:

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>LINE</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLF 1</td>
<td>1.12</td>
<td>S  D = (FITR(4*FABS(FRAN())+5))*39</td>
</tr>
<tr>
<td>GLF 3</td>
<td>3.40</td>
<td>S  I = FITR(4*FABS(FRAN())+5)</td>
</tr>
<tr>
<td>GLF 3</td>
<td>3.45</td>
<td>S  Z = FITR((FITR(4*FABS(FRAN())+5))/3)</td>
</tr>
<tr>
<td>GLF 5</td>
<td>5.24</td>
<td>S  Y = FITR(4*FABS(FRAN())+5)</td>
</tr>
<tr>
<td>GLF 5</td>
<td>5.36</td>
<td>S  Z = FITR((FITR(4*FABS(FRAN())+5))/3)</td>
</tr>
</tbody>
</table>
31.65 T "!!!
31.66 T "THIS PROGRAM PLAYS GOLF"!
31.69 T "YOU ARE CADDYING FOR ARNOLD PALMER, BUT YOU HAVE TO PICK"!
31.72 T "WHAT CLUB HE USES AFTER HIS DRIVE, THE CLUBS AVAILABLE"!
31.75 T "ARE THE WOODS 1,3 AND THE IRONS 4,5,6,7,8,9,10"!!

32.10 T "HOLE NO. 1  550 YDS   PAR 5"!!
32.20 T "DO YOU WANT A MAP OF THE HOLE?"!
32.30 T "TYPE 0 IF NO, TYPE 1 IF YES"
32.40 ASK Q
32.45 IF (Q)2,3,2,6,2,3
32.50 T "--OUT OF BOUNDS--"!
32.55 T "SSSSS"!
32.60 T "SSSSSSS"!
32.65 T "SSGGSSS"!
32.70 T "G*G"!
32.75 T "550 GGG WWWW S=SAND TRAP"!
32.80 T "F F W W W=WATER TRAP"!
32.85 T "500 F F WW W G=GREEN"!
32.90 T "F FF W W F=FIRERAY"!
32.95 T "450 F F W W T=TREES"!
32.00 T "F F WWW X-TEE OFF"!
32.10 T "400 F F TTTT"!
32.20 T "F FFFFF TTTT"!
32.30 T "350 F F TTTT"!
32.40 T "F F TT"!
32.45 T "300 FF T T"!
32.50 T " FF F T"!
32.55 T "250 FFFF F"!
32.60 T "TTT F F"!
32.65 T "200 TTTT F F"!
32.70 T "TTTTTF F"!
32.75 T "150 TTTTTF F"!
32.80 T " F F"!
32.85 T "100 F F"!
32.90 T " F F"!
32.95 T "50 F F"!
32.00 T " F F"!
32.05 T "0 XX"!!
32.10 LIBRARY CALL GLF1
32.15 GO
*
LIBRARY SAVE GOLF
ERASE ALL
...
02.45 S T=FCOM(0)
02.49 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
02.52 ASK G
02.54 IF (G-3)2.16,2.24,2.3
02.56 T "THE DRIVER BOUNCED (NOT ENOUGH LIFT) THE BALL ONLY"
02.58 T " 150 YDS."
02.60 T " THERE IS 125 YDS LEFT."
02.62 S V=FCOM(0,(T+1))
02.64 LIBRARY CALL GLF4
02.67 GO
02.69 T " PALMER hit his 3 wood 225 YDS, chip from 50 YDS."!
02.77 S P=FCOM(0,(T+1))
02.79 LIBRARY CALL GLF5
02.82 GO
02.84 IF (G-6)2.32,2.38,2.44
02.86 T " PALMER's ball landed just inside 100 YDS away, "!
02.88 T " HE CAN CHIP FROM THERE."
02.90 S P=FCOM(0,(T+1))
02.92 LIBRARY CALL GLF5; GO
02.94 T " PALMER HIT HIS 6 IRON 150 YDS, HE IS 125 YDS AWAY."
02.96 S V=FCOM(0,(T+1))
02.98 LIBRARY CALL GLF4; GO
02.99 T " PALMER looked up while swinging, ball went only 75 YDS."
03.01 T " PALMER IS 200 YDS FROM THE HOLE."
03.03 S U=FCOM(0,(T+1))
03.05 LIBRARY CALL GLF3
03.07 GO
*
LIBRARY SAVE GLF2
ERASE ALL
WHAT CLUB DO YOU WANT PALMER TO USE?

PALMER DUBS BALL INTO WATER - PENALTY 1 STROKE.
PALMER DROPS NEW BALL 125 YDS FROM GREEN.
PALMER DROPS NEW BALL 125 YDS FROM GREEN.
PALMER HIT THE GREEN AND ROLLED INTO THE SAND TRAP.
PALMER BLASTED OUT AND TWO PUTTED.
PALMER TOOK "2.00 B," STROKES.
PALMER TOOK "2.00 (U+Z+1)," STROKES.
PALMER TOOK 1STROKE.
PALMER BLASTED OUT AND TWO PUTTED.
PALMER TOOK "2.00 B," STROKES.
PALMER TOOK 1STROKE.
PALMER TOOK 1STROKE.
PALMER TOOK 1STROKE.
PALMER TOOK 1STROKE.
PALMER TOOK 1STROKE.
PALMER TOOK 1STROKE.
PALMER IS JUST A FEW YARDS OFF THE GREEN AND CAN CHIP.
PALMER IS ABOUT 75 YDS FROM THE GREEN, HE CAN CHIP ON.
L4.W5
S
V=FCOM(0)
L4.10 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
L4.12 ASK J
L4.14 IF (J-7)4.15,4.2,4.28
L4.15 S V=V+2
L4.16 T "YOU WENT OVER THE GREEN AND THE SAND-OUT OF BOUNDS--"!
L4.17 T "PENALTY STROKE AND DISTANCE DROP BALL."!; GOTO 4.1
L4.20 T "PALMER LANDED IN THE SAND TRAP. HE CHIPPED OUT AND"
L4.21 T "ONE PUTTED."!
L4.22 S V=V+3
L4.23 T "PALMER TOOK ", %2.00 V," STROKES."!
L4.24 LIBRARY CALL GOLF; GO
L4.25 IF (J-9)4.3,4.38,4.46
L4.30 T "PALMER IS ON THE GREEN WITH A VERY LONG PUTT."!
L4.32 T "PALMER JUST MISSED IT BUT MADE HIS NEXT PUTT."!
L4.33 T "PALMER TOOK ", %2.00 (V+3)," STROKES."!
L4.34 LIBRARY CALL GOLF
L4.36 GO
L4.38 T "PALMER IS ON THE GREEN WITH A TWO FOOT PUTT--"!
L4.40 T "HE MADE IT"!
L4.41 T "PALMER TOOK ", %2.00 (V+2)," STROKES."!
L4.42 LIBRARY CALL GOLF
L4.44 GO
L4.46 T "PALMER IS ABOUT 15 YDS OFF THE GREEN, HE CAN CHIP ON."!
L4.47 S P=FCOM(0,(V+1))
L4.48 LIBRARY CALL GLF5
L4.50 GO

LIBRARY SAVE GLF4
ERASE ALL
G5.05 S P = FCON(0)
G5.16 T "TO CHIP USE THE 7,8,9,W."
G5.18 T "WHAT CLUB DO YOU WANT PALMER TO USE?"
G5.20 ASK K
G5.22 IF (K=7)5.16,5.24,5.24
G5.24 SET Y = FITR(10*FABS(FRAN(0)))
G5.26 IF (Y-6)5.31,5.28,5.34
G5.28 T "PALMER SUNK HIS CHIP SHOT."!
G5.29 T "PALMER TOOK ", %2.00 (P+1)," STROKES."!
G5.30 LIBRARY CALL GOLF; GO
G5.31 T "PALMER HIT HIS CHIP SHOT INTO THE SAND."!
G5.32 T "HE CHIPPED OUT AND SUNK HIS PUTT."!
G5.33 T "PALMER TOOK ", %2.00 (P+3)," STROKES."!
G5.34 LIBRARY CALL GOLF; GO
G5.35 T "PALMER IS ON THE GREEN"
G5.36 S Z = FITR((FITR(10*FABS(FRAN(0)))/3)
G5.38 T "HE TOOK ", %1.00 Z, " PUTT(S)."!
G5.39 T "PALMER TOOK ", %2.00 (P+Z+1)," STROKES."!
G5.40 LIBRARY CALL GOLF
G5.42 GO
*
LIBRARY SAVE GLF5
ERASE ALL