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FORTRAN VIIO: LICENSED RESTRICTED RIGHTS AS STATED IN LICENSE ***** SEE DOCUMENTATION PACKAGE, 04-101M99.
1 000000I PROGRAM CNS3D 1
2 C BY: Y. S. CHEN CN: 8/13/1985 2
3 C 3
4 C*****[ CLRVILINEAR N-S CODE FOR 3-D INCOMPRESSIBLE FLOWS ]***** 4
5 C 5
6 000006I COMMON 6
7 1/VAR/U(21,18,10),V(21,18,10),P(21,18,10),DK(21,18,10), 7
8 2 DE(21,18,10),ERRU,ERRV,ERRM,ERRK,ERRE,ERRW, 8
9 3 PF(21,18,10),W(21,18,10),TM(21,18,10) 9
10 1/PRCP/ VISE(21,18,10),DEN(21,18,10),VISC,DENIN,FLOWIN 10
11 1/PCCR/ DU(21,18,10),DV(21,18,10),DW(21,18,10) 11
12 1/TUR/ SIGK,SIGE,CMU,C1,C2,CMU1,CMU2,E,CK,HINUM,SMNUM,ANV1(800), 12
13 2 YN(800),YN1(800),SINX(800),SINY(800),SINZ(800),ANW1(800), 13
14 3 YPLN(800),TAUN(800),IAC(800),JBC(800),KBC(800),IITY(800), 14
15 4 TALW(800),GEN(21,18,10),MC(21,18,10),IJLO(21,18,10),IITO 15
16 1/COEF/ AP(21,18,10),SU(21,18,10),SP(21,18,10),SUK(21,18,10), 16
17 2 SPK(21,18,10),AE(21,18,10),AW(21,18,10),AN(21,18,10), 17
18 3 AS(21,18,10),AT(21,18,10),AB(21,18,10),APC(21,18,10) 18
19 000006I COMMON 19
20 1/TRAN/ X(21,18,10),Y(21,18,10),Z(21,18,10),TJO(21,18,10), 20
21 2 CX(21,18,10),CY(21,18,10),CZ(21,18,10), 21
22 3 EX(21,18,10),EY(21,18,10),EZ(21,18,10), 22
23 4 SX(21,18,10),SY(21,18,10),SZ(21,18,10) 23
24 1/LIMIT/ L,M,LT,MT,L1,L2,M1,M2,L0,M0,ISWU,ISWV,ISWP,ISWK,ISWE, 24
25 2 ALU,ALV,ALP,ALK,ALE,ALVIS,ALW,N,N1,N2,N0,ISWW,IG,NT,ALC,DTT 25
26 000006I COMMON 26
27 1/TTRAN/TXXE(21,18,10),TXXW(21,18,10),TYYN(21,18,10), 27
28 2 TYYS(21,18,10),TZZT(21,18,10),TZZB(21,18,10), 28
29 3 TYXE(21,18,10),TYXW(21,18,10),TYZT(21,18,10), 29
30 4 TYZS(21,18,10),TYYN(21,18,10),TYYS(21,18,10), 30
31 5 TXZT(21,18,10),TXZB(21,18,10),TZXE(21,18,10), 31
32 6 TZXW(21,18,10),TZYN(21,18,10),TZYS(21,18,10) 32
33 1/UNSTDY/UQ(21,18,10),VC(21,18,10),W0(21,18,10),DK0(21,18,10), 33
34 2 CEO(21,18,10),DENO(21,18,10),TMO(21,18,10) 34
35 000006I LOGICAL INSCU,INSOV,INSCP,INSOK,INSOE,INPRO,INSOW,INSOT 35
36 C*****[ INPUT DATA GUIDE ]***** 36
37 C 37
38 C NLIMIT : MAXIMUM NO. OF ITERATIONS LIMIT 38
39 C 39
40 C IG = 1 : LAMINAR 40
41 C 2 : TURBULENT (K-E MODEL) 41
42 C 42
43 C ISWP : NO. OF SWEEPS FOR SOLVING THE P' EQUATION (PP). 43
44 C 44
45 C ITT : TOTAL NO. OF TIME STEPS. 45
46 C 46
47 C ALU,ALV,ALW,ALP,ALK,ALE,ALVIS,ALC : UNDER-RELAXATION FACTORS 47
48 C 48
49 C RENL : REFERENCE REYNOLDS NUMBER. 49
50 C 50
51 C DTT : TIME STEP FOR UNSTEADY PROBLEMS. 51
52 C 52
53 C***** 53
54 C-----INPUT DATA (PROBLEM CONTROL SETTING) 54
55 000006I REAC(5,100) NLIMIT,IG,ISWP,ITT 55 1
56 000030I REAC(5,200) ALU,ALV,ALW,ALP,ALK,ALE,ALVIS,ALC 56 2
57 00006CI REAC(5,200) RENL,DTT 57 3

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