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1 Turbo Assembler Version 2.0 12/15/08 00:20:36 Page 1
2 ASM_KST8.ASM
3
4 1 ;
5 2 ; Kestutis Stankevicius, II-06/3
6 3 ; Asemblerinis programavimas
7 4 ;
8 5 ; 8 Auditorijos darbas:
9 6 ;
10 7 ; x=a+b kur a,b ivedami skaiciai, reikia naudoti proceduras
11 8 ;
12 9 0000 stekas SEGMENT STACK
13 10 0000 0100*(??) DB 256 DUP (?) ; isskiriame atmintyje 256 baitus
14 11 0100 stekas ENDS
15 12
16 13 = 000D CR EQU 13
17 14 = 000A LF EQU 10
18 15
19 16 0000 duomenys SEGMENT
20 17 ; aprasome kintamuosius
21 18 0000 04 ?? 04*(??) ivsr DB 4, ?, 4 DUP(?)
22 19 0006 0D 0A 49 76 65 73 6B+ pra1 DB CR, LF, 'Iveskite skaiciu a: ','$'
23 20 69 74 65 20 73 6B 61+
24 21 69 63 69 75 20 61 3A+
25 22 20 24
26 23 001D 0D 0A 49 76 65 73 6B+ pra2 DB CR, LF, 'Iveskite skaiciu b: ','$'
27 24 69 74 65 20 73 6B 61+
28 25 69 63 69 75 20 62 3A+
29 26 20 24
30 27 0034 0D 0A 20 pra3 DB CR, LF, ' '
31 28 0037 0D 0A 20 20 52 65 7A+ DB CR, LF, ' Rezultatas: a+b=','$'
32 29 75 6C 74 61 74 61 73+
33 30 3A 20 61 2B 62 3D 24
34 31
35 32 004C 0D 0A 4B 6C 61 69 64+ klaidpr DB CR, LF, 'klaida!'
36 33 61 21
37 34
38 35 0055 00 a DB 0
39 36 0056 00 b DB 0
40 37
41 38 0057 03*(20) 24 x DB 3 DUP (' '), '$'
42 39
43 40 005B 0A desimt DB 10
44 41
45 42 005C duomenys ENDS
46 43
47 44 0000 programa SEGMENT
48 45 ASSUME CS:programa, DS:duomenys, SS:stekas
49 46
50 47 ; Procedura IVEDIMAS
51 48 0000 Ivedimas PROC
52 49 0000 BA 0000r LEA DX, ivsr
53 50 0003 B4 0A MOV AH, 0Ah
54 51 0005 CD 21 INT 21h
55 52 0007 C3 RET
56 53 0008 Ivedimas ENDP
57 54
58 55 ; Procedura KONVERTUOTI
59 56 0008 konvertuoti PROC
60 57
61 58 0008 8A 0E 0001r MOV CL, ivsr+1 ; ciklu skaicius
62 59 000C B5 00 MOV CH, 0
63 60 000E B4 00 MOV AH, 0
64 61 0010 BE 0002r LEA SI, ivsr+2
65 62 0013 8A 3C MOV BH, [SI]
66 63 ;
67 64 0015 E8 001A CALL Tikrinimas
68 65
69 66 0018 8A C7 MOV AL, BH
70 67 001A FE C9 DEC CL
71 68 001C 80 F9 00 CMP CL, 0
72 69 001F 74 10 JE Return

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73      70
74      71 0021 46      ciklas: INC SI
75      72 0022 8A 3C      MOV BH, [SI]
76      73      ;
77      74 0024 E8 000B      CALL Tikrinimas
78      75
79      76 0027 F6 26 005Br      MUL desimt
80      77 002B 02 C7      ADD AL, BH
81      78 002D 70 11      JO Klaida1
82      79 002F E2 F0      LOOP ciklas
83      80 0031      Return:
84      81 0031 C3      RET
85      82 0032      konvertuoti ENDP
86      83
87      84      ; Pcedura TIKRINIMAS
88      85 0032      Tikrinimas PROC
89      86
90      87 0032 80 FF 30      CMP BH, 30h
91      88 0035 7C 09      JL Klaida1
92      89 0037 80 FF 39      CMP BH, 39h
93      90 003A 7F 04      JG Klaida1
94      91 003C 80 EF 30      SUB BH, 30h
95      92 003F C3      RET
96      93 0040      Tikrinimas ENDP
97      94
98      95      ; I Klaida
99      96 0040 EB 73 90      Klaida1: JMP Klaida
100     97
101     98 0043      START:
102     99      ; pradzia
103     100 0043 B8 0000s      MOV AX, duomenys
104     101 0046 8E D8      MOV DS, AX
105     102
106     103      ; isvalyti ekrana
107     104 0048 B8 0002      MOV AX, 0002h
108     105 004B CD 10      INT 10h
109     106
110     107      ; pranesimas1
111     108 004D B4 09      MOV AH, 09h
112     109 004F BA 0006r      LEA DX, pra1
113     110 0052 CD 21      INT 21H
114     111
115     112      ; Ivedimas a
116     113 0054 E8 FFA9      CALL Ivedimas
117     114 0057 E8 FFAE      CALL Konvertuoti
118     115 005A A2 0055r      MOV a, AL
119     116
120     117      ; pranesimas2
121     118 005D B4 09      MOV AH, 09h
122     119 005F BA 001Dr      LEA DX, pra2
123     120 0062 CD 21      INT 21H
124     121
125     122      ; Ivedimas b
126     123 0064 E8 FF99      CALL Ivedimas
127     124 0067 E8 FF9E      CALL Konvertuoti
128     125 006A A2 0056r      MOV b, AL
129     126
130     127      ; a+b
131     128 006D 02 06 0055r      ADD AL, a ; a+b
132     129 0071 70 42      JO Klaida
133     130
134     131      ; kuriam rezultata
135     132 0073 88 26 0057r      MOV x, AH
136     133 0077 B4 00      MOV AH, 0
137     134      ; sveika dalis
138     135 0079 F6 36 005Br      DIV desimt
139     136 007D 88 26 0059r      MOV x+2,AH
140     137 0081 80 06 0059r 30      ADD x+2,30h
141     138 0086 B4 00      MOV AH, 0
142     139
143     140 0088 F6 36 005Br      DIV desimt
144     141 008C 88 26 0058r      MOV x+1,AH

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145      142 0090 80 06 0058r 30      ADD x+1,30h
146      143 0095 B4 00              MOV AH, 0
147      144
148      145 0097 F6 36 005Br        DIV desimt
149      146 009B 88 26 0057r        MOV x,AH
150      147 009F 80 06 0057r 30      ADD x,30h
151      148
152      149      ; pranesimas3
153      150 00A4 B4 09              MOV AH, 09h
154      151 00A6 BA 0034r          LEA DX, pra3
155      152 00A9 CD 21              INT 21h
156      153
157      154      ; spausdinimas
158      155 00AB B4 09              MOV AH, 09h
159      156 00AD BA 0057r          LEA DX, x
160      157 00B0 CD 21              INT 21h
161      158
162      159      ; sokam i Pabaiga
163      160 00B2 EB 08 90          JMP Pabaiga
164      161
165      162 00B5                  klaida:
166      163
167      164 00B5 B4 09              MOV AH, 09h
168      165 00B7 BA 004Cr          LEA DX, klaidpr
169      166 00BA CD 21              INT 21h
170      167
171      168 00BC                  Pabaiga:
172      169      ; paspausti bet koki klavisa
173      170 00BC B4 07              MOV AH, 07h
174      171 00BE CD 21              INT 21h
175      172
176      173      ; iseiti is programos
177      174 00C0 B4 4C              MOV AH, 4ch
178      175 00C2 CD 21              INT 21h
179      176
180      177 00C4                  programa ENDS
181      178
182      179      END START

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Symbol Table

Symbol Name	Type	Value
??DATE	Text	"12/15/08"
??FILENAME	Text	"ASM_KST8"
??TIME	Text	"00:20:36"
??VERSION	Number	0200
@CPU	Text	0101h
@CURSEG	Text	PROGRAMA
@FILENAME	Text	ASM_KST8
@WORDSIZE	Text	2
A	Byte	DUOMENYS:0055
B	Byte	DUOMENYS:0056
CIKLAS	Near	PROGRAMA:0021
CR	Number	000D
DESIMT	Byte	DUOMENYS:005B
IVEDIMAS	Near	PROGRAMA:0000
IVSR	Byte	DUOMENYS:0000
KLAIDA	Near	PROGRAMA:00B5
KLAIDA1	Near	PROGRAMA:0040
KLAIDPR	Byte	DUOMENYS:004C
KONVERTUOTI	Near	PROGRAMA:0008
LF	Number	000A
PABAIGA	Near	PROGRAMA:00BC
PRA1	Byte	DUOMENYS:0006
PRA2	Byte	DUOMENYS:001D
PRA3	Byte	DUOMENYS:0034
RETURN	Near	PROGRAMA:0031
START	Near	PROGRAMA:0043
TIKRINIMAS	Near	PROGRAMA:0032
X	Byte	DUOMENYS:0057

	Groups & Segments	Bit	Size	Align	Combine	Class
217						
218						
219	DUOMENYS	16	005C	Para		none
220	PROGRAMA	16	00C4	Para		none
221	STEKAS	16	0100	Para		Stack