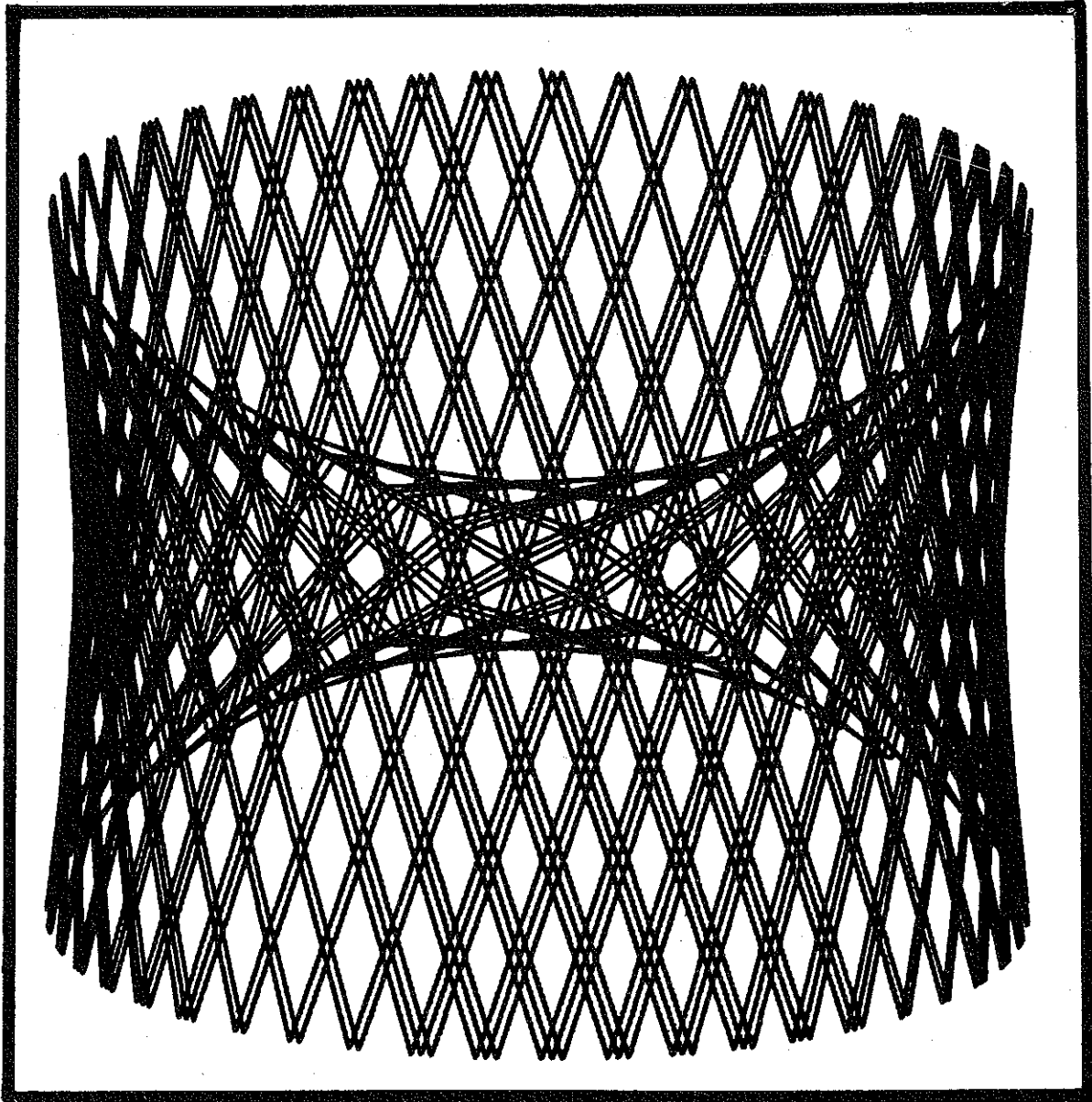
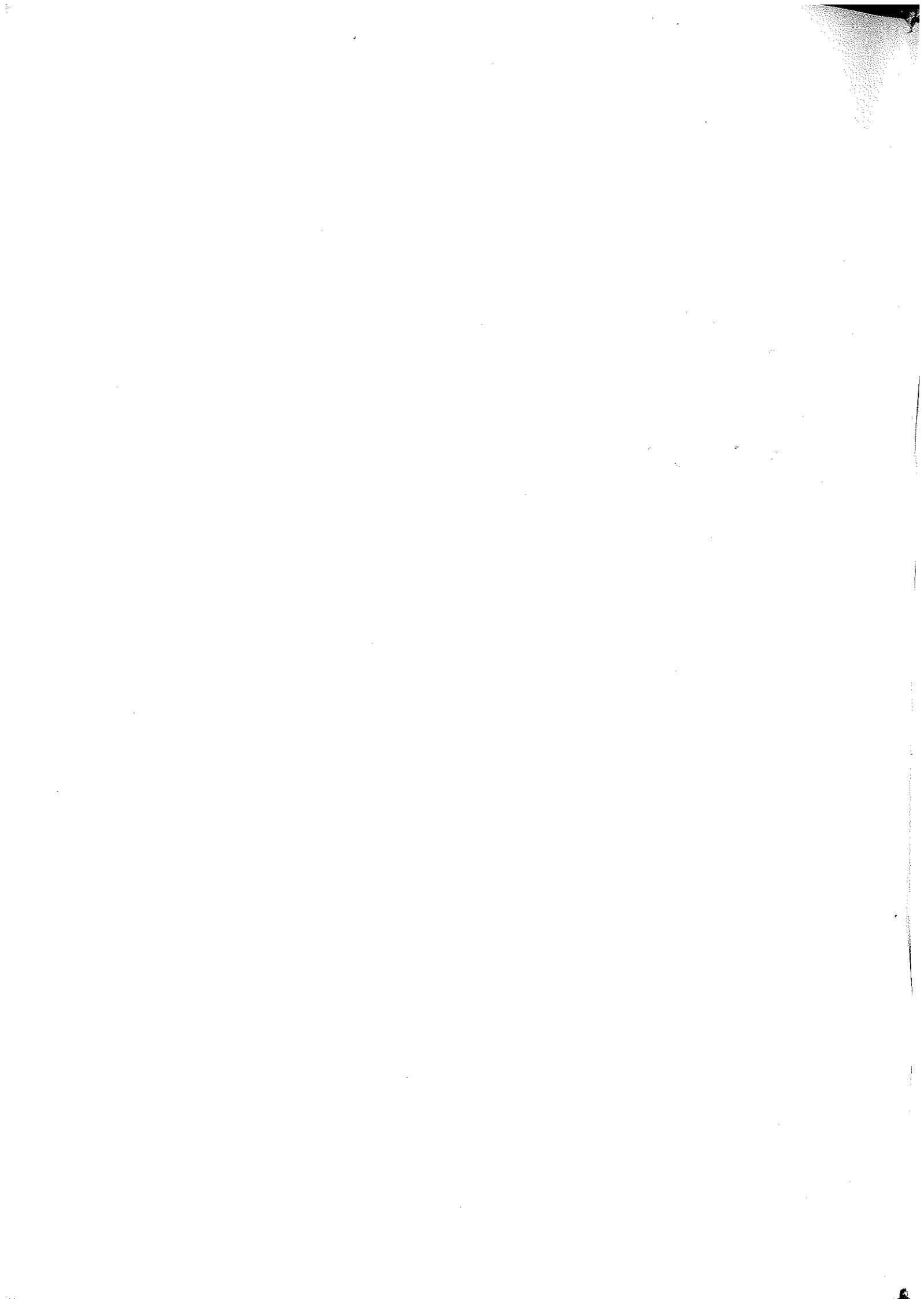


Arbeitsmaterial zur Serie Mikroelektronik

Z-80 Aufbauprogramme



Franzis-Software-Service



Der NDR-Fernsehkurs

1984 wird in der Bundesrepublik eine 26teilige, vom NDR produzierte Fernsehserie von je 15 Minuten Dauer ausgestrahlt. Dabei handelt es sich um einen Kurs mit mc-Autor Rolf-Dieter Klein, der u. a. den Selbstbau eines Computers auf der Basis des Prozessors 68008 beschreibt.

Gleichgewichtig werden in diesem Kurs – Aufbau und Funktion von Computern und Grundkenntnisse ihrer Sprache vermittelt. Getreu dem Grundsatz, daß nur der ein Werk beherrscht, der es selbst gestaltet, wird gezeigt, wie jedermann seinen Computer selbst bauen kann. Von Rolf-Dieter Klein stammt die Idee für das modulare Computer-System, das der NDR seinen Sendungen zugrunde legt, und die Konzeption für die einzelnen Baugruppen; er hat auch das Gerüst für den Fernsehkurs entwickelt. Im Folgenden soll ein Überblick über den Fernsehkurs mit seinen 26 Folgen und den vielfältigen Begleitmaterialien dazu gegeben werden.

Die „Folge Null“ vermittelt Orientierungshilfen für die Arbeit mit dem Kurs. Je nach seinen Voraussetzungen und seinen Wünschen kann man an unterschiedlichen Stellen in den Kurs einsteigen. Gewiß, der Kurs kann nicht für alle besonderen Wünsche und Bedürfnisse Rezepte anbieten; er gibt eine allgemeine Einführung, erklärt den Aufbau und die Funktion von Rechnern und zeigt an einigen Beispielen die Arbeit mit den kleinen „intelligenten“ Apparaten. Wo günstige Kurseinstiege oder -ausgänge liegen, zeigt „Folge Null“. Sechs Folgen zeigen Aufbau und Funktion eines sogenannten Einplatinencomputers auf der Grundlage des Z80-A-Mikroprozessors. Dabei schaut man in den Computer nur so weit hinein, wie zum Verständnis seines Aus- und Eingabeverhaltens notwendig ist. Besonderer Wert wird in dem Kurs also auf die Beobachtung und Bewertung von Signalen, die Behandlung von – nie vermeidbaren – Fehlern und von Schnittstellen-Problemen gelegt. Mit kleinen Experimenten, mit systematischen Messungen und mit Prüfverfahren wird der Lernende behutsam in die Mikrocomputer-Technik eingeweiht. Er lernt gleichzeitig Hardware- und Softwaretechniken kennen, ohne mit einem Gebiet überfordert zu werden. Befehle und sonstige Elemente von Computersprachen werden nur soweit eingeführt, wie sie für das jeweilige System tatsächlich notwendig sind. Der Kurs verwendet im Anschluß an die Einführung in die Signalbehandlung und Prozeßsteuerung ausschließlich die bildschirmorientierte Rechnerbedienung mit einer Volltastatur und einem Grafikbildschirm. Die Grafik mit einer Auflösung von 512 mal 256 Zeichen und die ermüdungsfrei lesbaren übergroßen Schriften der Menüs werden durch einen schnellen Grafikprozessor möglich. Sie können das Programmieren eines Computers anhand spielerischer Entwicklung von Grafiken lernen. Und Sie lernen von vornherein das Programmieren in der Modul-Technik, auch „strukturiertes Programmieren“ genannt. Mit dem Übergang zum Prozessor 68008 wird dann auch die „strukturierte Programmiersprache“ Pascal-Speicherresident geboten.

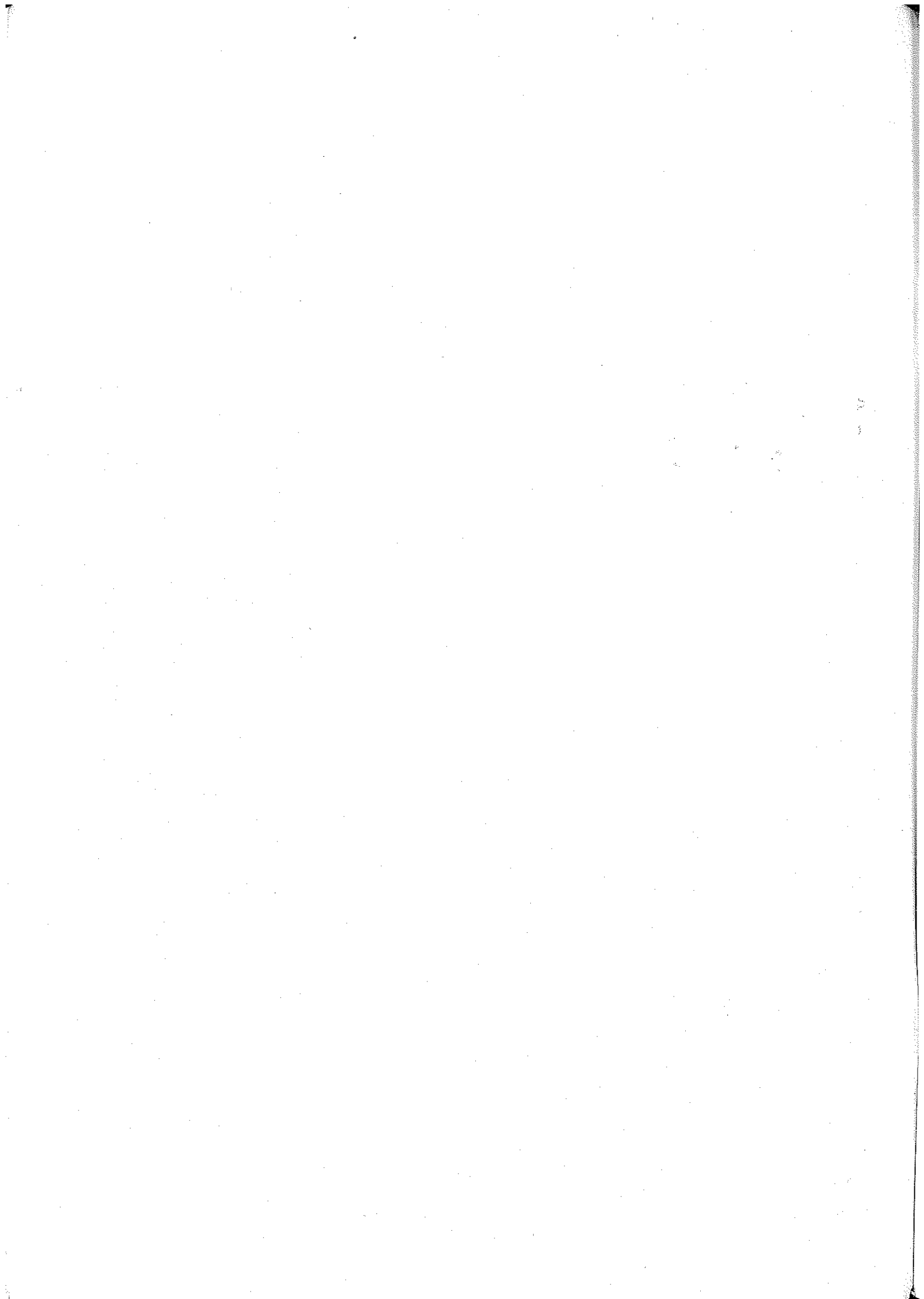
Leiterplatten, Bausätze und fertige Geräte

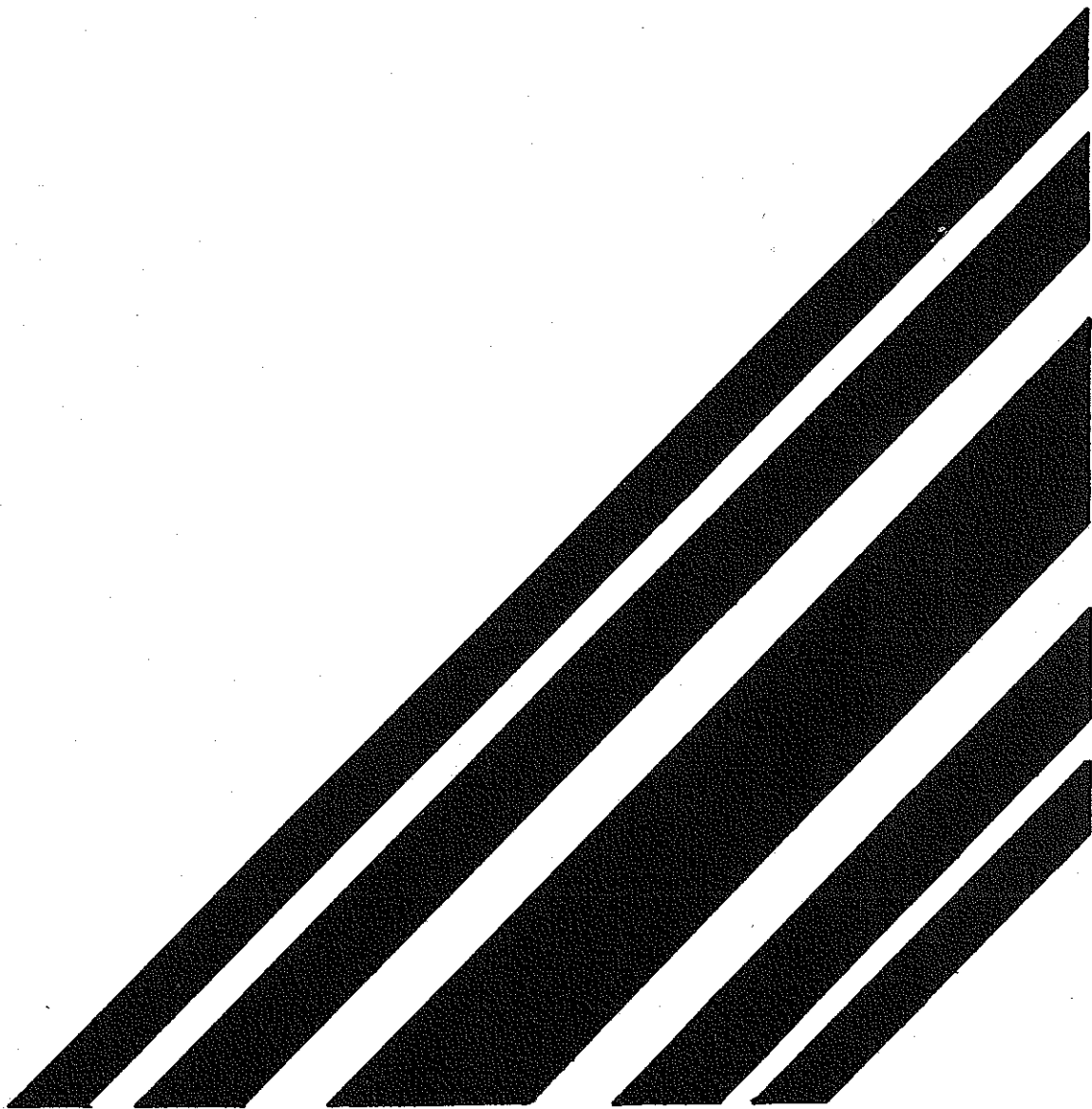
Das System besteht aus kleinen Modulen in Kartenform, die vom Lernenden in kleinen Schritten selbst aufgebaut werden. Beim Aufbau wird er durch den Fernsehkurs und das gedruckte Begleitmaterial optimal unterstützt. Die Baugruppen werden mit Sockeln versehen, so daß sie von nachfolgenden Schülern wieder verwendbar sind. Größe der Leiterplatten und die verwendeten Bauelemente sind aufgrund zweier Prinzipien gewählt worden: Der Preis sei niedrig, der Aufbau bleibe in jeder Lernphase durchschaubar. Für alle Baugruppen sind die Leiterplatten (mit Lötstopplack selbstredend) auch unbestückt erhältlich. Fragen bezüglich Preislisten und Bestellungen richten Sie bitte an Graf Elektronik Systeme GmbH, Magnusstraße 13, 8960 Kempten/Allgäu, oder an Elektronik-Laden, Wilhelm-Mellies-Straße 88, 4930 Detmold 18.

Buch, Zeitschrift und Arbeitsmaterial

Der Kurs wird in der Zeitschrift mc des Franzis-Verlages monatlich begleitet. Nach Abschluß des Kurses ist von dieser ein Sonderheft als Zusammenfassung geplant. Die Zeitschriften-Begleitung versorgt die Fernseh-Zuschauer mit Arbeitshilfen und dient der Information der Lehrenden, die in Schulen, Erwachsenen-Bildungsstätten oder im Rahmen einer innerbetrieblichen Ausbildung mit dem Fernsehkurs arbeiten wollen. Die Zeitschriften-Begleitung durch mc wird umfassen: Didaktische Hinweise zum Kurskonzept, methodische Hilfen für Lehrende, Darstellung und Beschreibung der im Fernsehen vorgestellten Baugruppen und Bauelemente, filmergänzende Darstellung von Hardware-Elementen, praktische Ratschläge hinsichtlich Werkzeug und die Handhabung elektronischer Bauelemente, Bauanweisungen und Listen von Programm-Modulen. Der Einführung in die Kursarbeit dient das Buch „Mikrocomputer selbstgebaut und programmiert“ (Rolf-Dieter Klein, 2. Auflage 1984, Franzis-Verlag, München). Ziel des Buches ist es, von Anfang an die Mikrocomputertechnik zu verstehen und zu begreifen. Der Weg dazu führt über viele Schaltungen und Programmbeispiele. Am Ende eines Kapitels gibt es Fragen, um den Lernerfolg zu überprüfen. Die Lösungen zur Selbstkontrolle findet man in Kapitel 8. So wird das Buch auch zu einem Lehr- und Lernbuch. Das Buch ist der rote Faden, der den Kursteilnehmer sicher von Sendung zu Sendung leitet. Das vorliegende Arbeitsmaterial ergänzt Buch und Sendung um die umfangreichen Programmauflistungen der Monitorprogramme für Z80 und 68008 (Grundprogramme) und der einzelnen Beispielprogramme aus den Sendungen (Aufbauprogramme). Mit Hilfe dieser Listings kann der Kursteilnehmer nicht nur die Arbeitsweise der Programme nachverfolgen, sie bieten auch einen reichen Schatz von Grundroutinen, die sich in eigenen Programmen sinnvoll verwenden lassen. So bildet dieses Arbeitsmaterial gewissermaßen auch eine kleine Programmbibliothek. Es gibt 4 Bände:

- Z80-Grundprogramme
- Z80-Aufbauprogramme
- 68008-Grundprogramme
- 68008-Aufbauprogramme





RAM-Test

```

.z80
*****
;* Ram Test - Ein-Bitversion *
;* Mit dem Scop wird geprueft *
;* Trigger auf IORQ *
;* Rolf-Dieter Klein 830518 *
*****

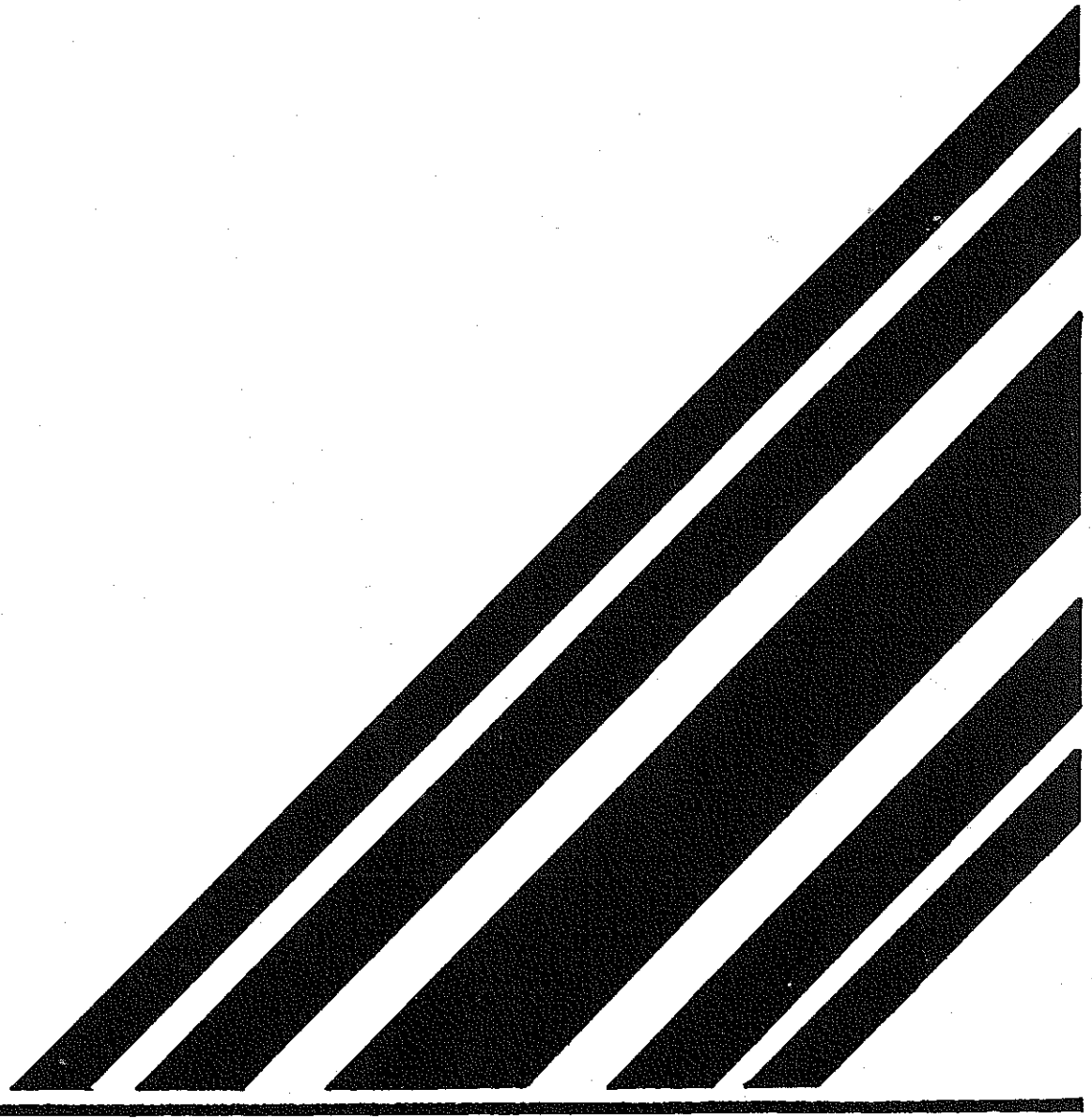
```

```

0000'      schleife:      ;anfang schleife
0000'  D3 00      out (0),a      ;IORQ als Trigger
0002'  3E 00      ld a,0        ;wert 0 schreiben
0004'  32 8000    ld (8000h),a    ;auf zelle 8000h
0007'  3A 8000    ld a,(8000h)   ;laden zelle 8000h
000A'  3E FF      ld a,0ffh     ;dann wert 255
000C'  32 8000    ld (8000h),a    ;test erfolgt
000F'  3A 8000    ld a,(8000h)   ;mit Scop
0012'  18 EC      jr schleife   ;wiederholen schleife

```

end



EPR0M macht Musik

.z80

```

;*****
; Musikprogramm ohne RAM-Speicher *
; die Ausgabe erfolgt ueber IOR0 *
; Rolf-Dieter Klein 15.5.83 *
;*****

```

```

0000'      start:
0000'  DD 21 0210'  ld ix,musik      ;Start des Musikprogramms

0004'      mainlp:      ;Hauptschleife
;
; stimme berechnen
0004'  DD 7E 04      ld a,(ix+4)      ;hoechste Stimme zuerst
0007'  B7           or a
0008'  C2 0036'     jp nz,mitton
000B'  DD 7E 03      ld a,(ix+3)
000E'  B7           or a
000F'  C2 0036'     jp nz,mitton
0012'  DD 7E 02      ld a,(ix+2)      ;nur Stimme 2 verwenden
0015'  B7           or a      ;da ohne RAM
0016'  C2 0036'     jp nz,mitton
0019'  DD 7E 01      ld a,(ix+1)
001C'  B7           or a
001D'  C2 0036'     jp nz,mitton
; ohneton warteschleife nur
0020'  DD 5E 00      ld e,(ix+0)      ;n* 1/16 delay
0023'  CB 23        sla e      ;*2 1/8sec kleinste Einheit
0025'      wartel:
0025'  01 22E1      ld bc,8929      ;
0028'      warte:
0028'  00          nop      ;4
0029'  0B          dec bc     ;6
002A'  79          ld a,c     ;4
002B'  B0          or b      ;4
002C'  C2 0028'     jp nz,warte  ;10 =28tk -> 7ys bei 4kHz
002F'  1D          dec e
0030'  C2 0025'     jp nz,wartel
;
0033'  C3 007C'     jp fertig
; Ausgabe mit Ton
0036'      mitton:
0036'  3D          dec a      ;Bereich 0..n
0037'  5F          ld e,a
0038'  16 00      ld d,0      ;d:=0 e:=a
003A'  FD 21 0090'  ld iy,nottab ;Adresse der Notentabelle
003E'  FD 19      add iy,de
0040'  FD 19      add iy,de
0042'  FD 19      add iy,de
0044'  FD 19      add iy,de      ;Adresse + 4*Index
0046'  D9          exx
0047'  DD 4E 00      ld c,(ix+0)    ;Zaehler Delay in n*1/16 sec
004A'  CB 21      sla c      ;*2 1/8 sec min
004C'  D9          exx      ;(Delay = Verzoeigerung)
;

```



```

004D'      lpdela:
004D'  FD 5E 02  ld e,(iy+2)      ;Anzahl fuer 1/16 sek
0050'  FD 56 03  ld d,(iy+3)
0053'      lpa:      ;Schleife 1/16 sec
0053'  FD 4E 00  ld c,(iy+0)
0056'  FD 46 01  ld b,(iy+1)
0059'      lp1:
0059'  00          nop          ;4 delay
005A'  C6 00      add a,0      ;7 delay
005C'  0B          dec bc       ;6 Schleifenzaehler
005D'  79          ld a,c        ;4 Test auf 0
005E'  B0          or b         ;4
005F'  C2 0059'   jp nz,lp1     ;10 bis bc=0
0062'  FD 4E 00  ld c,(iy+0)
0065'  FD 46 01  ld b,(iy+1)
0068'      lp2:
0068'  D3 00      out (0),a     ;11 Ausgabe IORQ Puls
006A'  0B          dec bc       ;6 Schleifenzaehler
006B'  79          ld a,c        ;4 Test auf 0
006C'  B0          or b         ;4
006D'  C2 0068'   jp nz,lp2     ;10 bis bc=0 17.5µs bei 4MHZ
0070'  1B          dec de       ; fuer beide Schleifen zusammen
0071'  7A          ld a,d        ;
0072'  B3          or e         ;de=0 abwarten
0073'  C2 0053'   jp nz,lpa     ;Schleife 1/16
;
0076'  D9          exx
0077'  0D          dec c
0078'  D9          exx
0079'  C2 004D'   jp nz,lpdela ;Schleife n*1/16
;
007C'      fertig:
;
007C'  DD 23      inc ix       ;naechster Eintrag in Musiktabelle
007E'  DD 23      inc ix
0080'  DD 23      inc ix
0082'  DD 23      inc ix
0084'  DD 23      inc ix
;
0086'  DD 7E 00  ld a,(ix+0)     ;=0 dann ende
0089'  B7          or a         ;z flag
008A'  C2 0004'   jp nz,mainlp   ;innere Schleife
008D'  C3 0000'   jp start      ;wieder von vorne beginnen

```

```

C      include MUSIK.MAC
C      ; Konstantendefinitionen
C      ; fuer Musikprogramm I
C
C      ; Definitionen
C      ; 0=kein Ton
C
0001  C      c1      ERU      1

```

0002	C	c1.	EQU	2	
0003	C	d1	EQU	3	
0004	C	d1.	EQU	4	
0005	C	e1	EQU	5	
0006	C	f1	EQU	6	
0007	C	f1.	EQU	7	
0008	C	g1	EQU	8	
0009	C	g1.	EQU	9	
000A	C	a1	EQU	10	
000B	C	a1.	EQU	11	
000C	C	h1	EQU	12	
000C	C	b1	EQU	12	ibelde
	C				
000D	C	c2	EQU	13	
000E	C	c2.	EQU	14	
000F	C	d2	EQU	15	
0010	C	d2.	EQU	16	
0011	C	e2	EQU	17	
0012	C	f2	EQU	18	
0013	C	f2.	EQU	19	
0014	C	g2	EQU	20	
0015	C	g2.	EQU	21	
0016	C	a2	EQU	22	
0017	C	a2.	EQU	23	
0018	C	h2	EQU	24	
0018	C	b2	EQU	24	
	C				
0019	C	c3	EQU	25	
001A	C	c3.	EQU	26	
001B	C	d3	EQU	27	
001C	C	d3.	EQU	28	
001D	C	e3	EQU	29	
001E	C	f3	EQU	30	
001F	C	f3.	EQU	31	
0020	C	g3	EQU	32	
0021	C	g3.	EQU	33	
0022	C	a3	EQU	34	
0023	C	a3.	EQU	35	
0024	C	h3	EQU	36	
0024	C	b3	EQU	36	
	C				
0025	C	c4	EQU	37	
0026	C	c4.	EQU	38	
0027	C	d4	EQU	39	
0028	C	d4.	EQU	40	
0029	C	e4	EQU	41	
002A	C	f4	EQU	42	
002B	C	f4.	EQU	43	
002C	C	g4	EQU	44	
002D	C	g4.	EQU	45	
002E	C	a4	EQU	46	
002F	C	a4.	EQU	47	
0030	C	h4	EQU	48	
0030	C	b4	EQU	48	
	C				
0031	C	c5	EQU	49	

0032	C	c5.	ERU	50
0033	C	d5	ERU	51
0034	C	d5.	ERU	52
0035	C	e5	ERU	53
0036	C	f5	ERU	54
0037	C	f5.	ERU	55
0038	C	g5	ERU	56
0039	C	g5.	ERU	57
003A	C	a5	ERU	58
003B	C	a5.	ERU	59
003C	C	h5	ERU	60
003C	C	b5	ERU	60
	C			
003D	C	c6	ERU	61
003E	C	c6.	ERU	62
003F	C	d6	ERU	63
0040	C	d6.	ERU	64
0041	C	e6	ERU	65
0042	C	f6	ERU	66
0043	C	f6.	ERU	67
0044	C	g6	ERU	68
0045	C	g6.	ERU	69
0046	C	a6	ERU	70
0047	C	a6.	ERU	71
0048	C	h6	ERU	72
0048	C	b6	ERU	72
	C			
0049	C	c7	ERU	73
004A	C	c7.	ERU	74
004B	C	d7	ERU	75
004C	C	d7.	ERU	76
004D	C	e7	ERU	77
004E	C	f7	ERU	78
004F	C	f7.	ERU	79
0050	C	g7	ERU	80
0051	C	g7.	ERU	81
0052	C	a7	ERU	82
0053	C	a7.	ERU	83
0054	C	h7	ERU	84
0054	C	b7	ERU	84
	C			
0055	C	c8	ERU	85
0056	C	c8.	ERU	86
0057	C	d8	ERU	87
0058	C	d8.	ERU	88
0059	C	e8	ERU	89
005A	C	f8	ERU	90
005B	C	f8.	ERU	91
005C	C	g8	ERU	92
005D	C	g8.	ERU	93
005E	C	a8	ERU	94
005F	C	a8.	ERU	95
0060	C	h8	ERU	96
0060	C	b8	ERU	96
	C			
	C			

```

C ; Notenmakros ---
C no macro ti,n1,n2,n3,n4
C ife ti
C defb 0,0,0,0,0 ;5 Eintraege
C else
C defb 16/ti
C ifnb <n1>
C defb n1
C else
C defb 0
C endif
C ifnb <n2>
C defb n2
C else
C defb 0
C endif
C ifnb <n3>
C defb n3
C else
C defb 0
C endif
C ifnb <n4>
C defb n4
C else
C defb 0
C endif
C endif
C endm

```

; ganze Note ist 16/1

; ende Einschub

0090'

nottab: ;tabelle der notenlaengen note,loop

```

C include NOTEN.MAC

```

; Notenskala

0090'	06D3 0002	C	DEFW	1747 ,	2	:	1	1	32.70	32.71
0094'	0671 0002	C	DEFW	1649 ,	2	:	2	1	34.65	34.65
0098'	0615 0002	C	DEFW	1557 ,	2	:	3	1	36.71	36.70
009C'	05BD 0002	C	DEFW	1469 ,	2	:	4	1	38.89	38.90
00A0'	056B 0003	C	DEFW	1387 ,	3	:	5	1	41.20	41.20
00A4'	051D 0003	C	DEFW	1309 ,	3	:	6	1	43.65	43.65
00A8'	04D4 0003	C	DEFW	1236 ,	3	:	7	1	46.25	46.23
00AC'	048E 0003	C	DEFW	1166 ,	3	:	8	1	49.00	49.01
00B0'	044D 0003	C	DEFW	1101 ,	3	:	9	1	51.91	51.90
00B4'	040F 0003	C	DEFW	1039 ,	3	:	10	1	55.00	55.00
00B8'	03D5 0004	C	DEFW	981 ,	4	:	11	1	58.27	58.25
00BC'	039E 0004	C	DEFW	926 ,	4	:	12	1	61.74	61.71
00C0'	036A 0004	C	DEFW	874 ,	4	:	1	2	65.41	65.38
00C4'	0339 0004	C	DEFW	825 ,	4	:	2	2	69.30	69.26
00C8'	030A 0005	C	DEFW	778 ,	5	:	3	2	73.42	73.45
00CC'	02DF 0005	C	DEFW	735 ,	5	:	4	2	77.78	77.75
00D0'	02B5 0005	C	DEFW	693 ,	5	:	5	2	82.41	82.46
00D4'	028E 0005	C	DEFW	654 ,	5	:	6	2	87.31	87.37
00D8'	026A 0006	C	DEFW	618 ,	6	:	7	2	92.50	92.46
00DC'	0247 0006	C	DEFW	583 ,	6	:	8	2	98.00	98.02

00E0'	0226 0006	C	DEFW	550 ,	6	:	9	2	103.83	103.90
00E4'	0207 0007	C	DEFW	519 ,	7	:	10	2	110.00	110.10
00E8'	01EA 0007	C	DEFW	490 ,	7	:	11	2	116.54	116.62
00EC'	01CF 0008	C	DEFW	463 ,	8	:	12	2	123.47	123.42
00F0'	01B5 0008	C	DEFW	437 ,	8	:	1	3	130.81	130.76
00F4'	019C 0009	C	DEFW	412 ,	9	:	2	3	138.59	138.70
00F8'	0185 0009	C	DEFW	389 ,	9	:	3	3	146.83	146.90
00FC'	016F 000A	C	DEFW	367 ,	10	:	4	3	155.56	155.70
0100'	015B 000A	C	DEFW	347 ,	10	:	5	3	164.81	164.68
0104'	0147 000B	C	DEFW	327 ,	11	:	6	3	174.62	174.75
0108'	0135 000C	C	DEFW	309 ,	12	:	7	3	185.00	184.93
010C'	0124 000C	C	DEFW	292 ,	12	:	8	3	196.00	195.69
0110'	0113 000D	C	DEFW	275 ,	13	:	9	3	207.65	207.79
0114'	0104 000E	C	DEFW	260 ,	14	:	10	3	220.00	219.78
0118'	00F5 000F	C	DEFW	245 ,	15	:	11	3	233.08	233.24
011C'	00E7 000F	C	DEFW	231 ,	15	:	12	3	246.94	247.37
0120'	00DA 0010	C	DEFW	218 ,	16	:	1	4	261.62	262.12
0124'	00CE 0011	C	DEFW	206 ,	17	:	2	4	277.18	277.39
0128'	00C3 0012	C	DEFW	195 ,	18	:	3	4	293.66	293.04
012C'	00B8 0013	C	DEFW	184 ,	19	:	4	4	311.13	310.56
0130'	00AD 0015	C	DEFW	173 ,	21	:	5	4	329.62	330.31
0134'	00A4 0016	C	DEFW	164 ,	22	:	6	4	349.23	348.43
0138'	009A 0017	C	DEFW	154 ,	23	:	7	4	369.99	371.06
013C'	0092 0018	C	DEFW	146 ,	24	:	8	4	391.99	391.39
0140'	008A 001A	C	DEFW	138 ,	26	:	9	4	415.30	414.08
0144'	0082 001C	C	DEFW	130 ,	28	:	10	4	440.00	439.56
0148'	007B 001D	C	DEFW	123 ,	29	:	11	4	466.16	464.58
014C'	0074 001F	C	DEFW	116 ,	31	:	12	4	493.88	492.61
0150'	006D 0021	C	DEFW	109 ,	33	:	1	5	523.25	524.25
0154'	0067 0023	C	DEFW	103 ,	35	:	2	5	554.37	554.79
0158'	0061 0025	C	DEFW	97 ,	37	:	3	5	587.33	589.10
015C'	005C 0027	C	DEFW	92 ,	39	:	4	5	622.26	621.12
0160'	0057 0029	C	DEFW	87 ,	41	:	5	5	659.25	656.81
0164'	0052 002C	C	DEFW	82 ,	44	:	6	5	698.46	696.86
0168'	004D 002E	C	DEFW	77 ,	46	:	7	5	739.98	742.12
016C'	0049 0031	C	DEFW	73 ,	49	:	8	5	783.98	782.78
0170'	0045 0034	C	DEFW	69 ,	52	:	9	5	830.61	828.16
0174'	0041 0037	C	DEFW	65 ,	55	:	10	5	880.00	879.12
0178'	003D 003A	C	DEFW	61 ,	58	:	11	5	932.32	936.77
017C'	003A 003E	C	DEFW	58 ,	62	:	12	5	987.76	985.22
0180'	0037 0041	C	DEFW	55 ,	65	:	1	6	1046.50	1038.96
0184'	0034 0045	C	DEFW	52 ,	69	:	2	6	1108.74	1098.90
0188'	0031 0049	C	DEFW	49 ,	73	:	3	6	1174.66	1166.18
018C'	002E 004E	C	DEFW	46 ,	78	:	4	6	1244.51	1242.24
0190'	0028 0052	C	DEFW	43 ,	82	:	5	6	1318.50	1328.90
0194'	0029 0057	C	DEFW	41 ,	87	:	6	6	1396.93	1393.73
0198'	0027 005C	C	DEFW	39 ,	92	:	7	6	1479.97	1465.20
019C'	0024 0062	C	DEFW	36 ,	98	:	8	6	1567.97	1587.30
01A0'	0022 0068	C	DEFW	34 ,	104	:	9	6	1661.22	1680.67
01A4'	0020 006E	C	DEFW	32 ,	110	:	10	6	1760.00	1785.71
01A8'	001F 0075	C	DEFW	31 ,	117	:	11	6	1864.64	1843.32
01AC'	001D 007B	C	DEFW	29 ,	123	:	12	6	1975.52	1970.44
01B0'	001B 0083	C	DEFW	27 ,	131	:	1	7	2092.99	2116.40
01B4'	001A 0088	C	DEFW	26 ,	139	:	2	7	2217.47	2197.80
01B8'	0018 0093	C	DEFW	24 ,	147	:	3	7	2349.31	2380.95
01BC'	0017 009C	C	DEFW	23 ,	156	:	4	7	2489.02	2484.47

01C0'	0016 00A5	C	DEFW	22 ,	165	:	5	7	2636.99	2597.40
01C4'	0014 00AF	C	DEFW	20 ,	175	:	6	7	2793.86	2857.14
01C8'	0013 00B9	C	DEFW	19 ,	185	:	7	7	2959.94	3007.52
01CC'	0012 00C4	C	DEFW	18 ,	196	:	8	7	3135.94	3174.60
01D0'	0011 00D0	C	DEFW	17 ,	208	:	9	7	3322.43	3361.34
01D4'	0010 00DC	C	DEFW	16 ,	220	:	10	7	3520.00	3571.43
01D8'	000F 00E9	C	DEFW	15 ,	233	:	11	7	3729.28	3809.52
01DC'	000E 00F7	C	DEFW	14 ,	247	:	12	7	3951.04	4081.63
01E0'	000E 0106	C	DEFW	14 ,	262	:	1	8	4185.98	4081.63
01E4'	000D 0115	C	DEFW	13 ,	277	:	2	8	4434.94	4395.60
01E8'	000C 0126	C	DEFW	12 ,	294	:	3	8	4698.62	4761.90
01EC'	000B 0137	C	DEFW	11 ,	311	:	4	8	4978.05	5194.81
01F0'	000B 014A	C	DEFW	11 ,	330	:	5	8	5273.98	5194.81
01F4'	000A 015D	C	DEFW	10 ,	349	:	6	8	5587.71	5714.29
01F8'	000A 0172	C	DEFW	10 ,	370	:	7	8	5919.87	5714.29
01FC'	0009 0188	C	DEFW	9 ,	392	:	8	8	6271.87	6349.21
0200'	0009 019F	C	DEFW	9 ,	415	:	9	8	6644.86	6349.21
0204'	0008 01B8	C	DEFW	8 ,	440	:	10	8	7040.00	7142.86
0208'	0008 01D2	C	DEFW	8 ,	466	:	11	8	7458.56	7142.86
020C'	0007 01EE	C	DEFW	7 ,	494	:	12	8	7902.08	8163.27

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0210'
      musik: ;tabelle musikprogramm
      include 2PRTFJSB.MEL
      ;
      ;2 PART INVENTION IN F BY JS BACH
      ;
      ;1
      C      no 8,0,F4
0210' 02   C+      defb 16/8
0211' 00   C+      defb 0
0212' 2A   C+      defb F4
0213' 00   C+      defb 0
0214' 00   C+      defb 0
      C      no 8,0,A4
0215' 02   C+      defb 16/8
0216' 00   C+      defb 0
0217' 2E   C+      defb A4
0218' 00   C+      defb 0
0219' 00   C+      defb 0
      C      no 8,0,F4
021A' 02   C+      defb 16/8
021B' 00   C+      defb 0
021C' 2A   C+      defb F4
021D' 00   C+      defb 0
021E' 00   C+      defb 0
      C      no 8,0,C5
021F' 02   C+      defb 16/8
0220' 00   C+      defb 0
0221' 31   C+      defb C5
0222' 00   C+      defb 0
0223' 00   C+      defb 0
      C      no 8,0,F4
0224' 02   C+      defb 16/8
0225' 00   C+      defb 0
0226' 2A   C+      defb F4
0227' 00   C+      defb 0
0228' 00   C+      defb 0

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C      ;2
C      no 8,0,F5
0229' 02      C+      defb 16/8
022A' 00      C+      defb 0
022B' 36      C+      defb F5
022C' 00      C+      defb 0
022D' 00      C+      defb 0
C      no 16,F3,E5
022E' 01      C+      defb 16/16
022F' 1E      C+      defb F3
0230' 35      C+      defb E5
0231' 00      C+      defb 0
0232' 00      C+      defb 0
C      no 16,F3,D5
0233' 01      C+      defb 16/16
0234' 1E      C+      defb F3
0235' 33      C+      defb D5
0236' 00      C+      defb 0
0237' 00      C+      defb 0
C      no 16,A3,C5
0238' 01      C+      defb 16/16
0239' 22      C+      defb A3
023A' 31      C+      defb C5
023B' 00      C+      defb 0
023C' 00      C+      defb 0
C      no 16,A3,D5
023D' 01      C+      defb 16/16
023E' 22      C+      defb A3
023F' 33      C+      defb D5
0240' 00      C+      defb 0
0241' 00      C+      defb 0
C      no 16,F3,C5
0242' 01      C+      defb 16/16
0243' 1E      C+      defb F3
0244' 31      C+      defb C5
0245' 00      C+      defb 0
0246' 00      C+      defb 0
C      no 16,F3,A4.
0247' 01      C+      defb 16/16
0248' 1E      C+      defb F3
0249' 2F      C+      defb A4.
024A' 00      C+      defb 0
024B' 00      C+      defb 0
C      no 16,C4,A4
024C' 01      C+      defb 16/16
024D' 25      C+      defb C4
024E' 2E      C+      defb A4
024F' 00      C+      defb 0
0250' 00      C+      defb 0
C      no 16,C4,A4.
0251' 01      C+      defb 16/16
0252' 25      C+      defb C4
0253' 2F      C+      defb A4.
0254' 00      C+      defb 0
0255' 00      C+      defb 0
C      no 16,F3,A4

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0256' 01 C+ defb 16/16
0257' 1E C+ defb F3
0258' 2E C+ defb A4
0259' 00 C+ defb 0
025A' 00 C+ defb 0
C no 16,F3,G4
025B' 01 C+ defb 16/16
025C' 1E C+ defb F3
025D' 2C C+ defb G4
025E' 00 C+ defb 0
025F' 00 C+ defb 0
C ;3
C no 8,F4,F4
0260' 02 C+ defb 16/8
0261' 2A C+ defb F4
0262' 2A C+ defb F4
0263' 00 C+ defb 0
0264' 00 C+ defb 0
C no 16,E4,A4
0265' 01 C+ defb 16/16
0266' 29 C+ defb E4
0267' 2E C+ defb A4
0268' 00 C+ defb 0
0269' 00 C+ defb 0
C no 16,D4,A4
026A' 01 C+ defb 16/16
026B' 27 C+ defb D4
026C' 2E C+ defb A4
026D' 00 C+ defb 0
026E' 00 C+ defb 0
C no 16,C4,C5
026F' 01 C+ defb 16/16
0270' 25 C+ defb C4
0271' 31 C+ defb C5
0272' 00 C+ defb 0
0273' 00 C+ defb 0
C no 16,D4,C5
0274' 01 C+ defb 16/16
0275' 27 C+ defb D4
0276' 31 C+ defb C5
0277' 00 C+ defb 0
0278' 00 C+ defb 0
C no 16,C4,A4
0279' 01 C+ defb 16/16
027A' 25 C+ defb C4
027B' 2E C+ defb A4
027C' 00 C+ defb 0
027D' 00 C+ defb 0
C no 16,A3.,A4
027E' 01 C+ defb 16/16
027F' 23 C+ defb A3.
0280' 2E C+ defb A4
0281' 00 C+ defb 0
0282' 00 C+ defb 0
C no 16,A3,F5
0283' 01 C+ defb 16/16

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0284'	22	C+	defb A3
0285'	36	C+	defb F5
0286'	00	C+	defb 0
0287'	00	C+	defb 0
		C	no 16,A3.,F5
0288'	01	C+	defb 16/16
0289'	23	C+	defb A3.
028A'	36	C+	defb F5
0288'	00	C+	defb 0
028C'	00	C+	defb 0
		C	no 16,A3,C5
028D'	01	C+	defb 16/16
028E'	22	C+	defb A3
028F'	31	C+	defb C5
0290'	00	C+	defb 0
0291'	00	C+	defb 0
		C	no 16,G3,C5
0292'	01	C+	defb 16/16
0293'	20	C+	defb G3
0294'	31	C+	defb C5
0295'	00	C+	defb 0
0296'	00	C+	defb 0
		C	14
		C	no 16,F3,A5
0297'	01	C+	defb 16/16
0298'	1E	C+	defb F3
0299'	3A	C+	defb A5
029A'	00	C+	defb 0
029B'	00	C+	defb 0
		C	no 16,F3,C6
029C'	01	C+	defb 16/16
029D'	1E	C+	defb F3
029E'	3D	C+	defb C6
029F'	00	C+	defb 0
02A0'	00	C+	defb 0
		C	no 16,A3,A5.
02A1'	01	C+	defb 16/16
02A2'	22	C+	defb A3
02A3'	3B	C+	defb A5.
02A4'	00	C+	defb 0
02A5'	00	C+	defb 0
		C	no 16,A3,C6
02A6'	01	C+	defb 16/16
02A7'	22	C+	defb A3
02A8'	3D	C+	defb C6
02A9'	00	C+	defb 0
02AA'	00	C+	defb 0
		C	no 16,C4,A5
02AB'	01	C+	defb 16/16
02AC'	25	C+	defb C4
02AD'	3A	C+	defb A5
02AE'	00	C+	defb 0
02AF'	00	C+	defb 0
		C	no 16,C4,C6
0280'	01	C+	defb 16/16
02B1'	25	C+	defb C4

02B2'	3D	C+	defb C6
02B3'	00	C+	defb 0
02B4'	00	C+	defb 0
		C	no 16,A3,A5.
02B5'	01	C+	defb 16/16
02B6'	22	C+	defb A3
02B7'	3B	C+	defb A5.
02B8'	00	C+	defb 0
02B9'	00	C+	defb 0
		C	no 16,A3,C6
02BA'	01	C+	defb 16/16
02BB'	22	C+	defb A3
02BC'	3D	C+	defb C6
02BD'	00	C+	defb 0
02BE'	00	C+	defb 0
		C	no 16,F4,A5
02BF'	01	C+	defb 16/16
02C0'	2A	C+	defb F4
02C1'	3A	C+	defb A5
02C2'	00	C+	defb 0
02C3'	00	C+	defb 0
		C	no 16,F4,C6
02C4'	01	C+	defb 16/16
02C5'	2A	C+	defb F4
02C6'	3D	C+	defb C6
02C7'	00	C+	defb 0
02C8'	00	C+	defb 0
		C	no 16,C4,A5.
02C9'	01	C+	defb 16/16
02CA'	25	C+	defb C4
02CB'	3B	C+	defb A5.
02CC'	00	C+	defb 0
02CD'	00	C+	defb 0
		C	no 16,C4,C6
02CE'	01	C+	defb 16/16
02CF'	25	C+	defb C4
02D0'	3D	C+	defb C6
02D1'	00	C+	defb 0
02D2'	00	C+	defb 0
		C	:5
		C	no 16,C3,F5
02D3'	01	C+	defb 16/16
02D4'	19	C+	defb C3
02D5'	36	C+	defb F5
02D6'	00	C+	defb 0
02D7'	00	C+	defb 0
		C	no 16,E3,A5
02D8'	01	C+	defb 16/16
02D9'	1D	C+	defb E3
02DA'	3A	C+	defb A5
02DB'	00	C+	defb 0
02DC'	00	C+	defb 0
		C	no 16,D3,G5
02DD'	01	C+	defb 16/16
02DE'	1B	C+	defb D3
02DF'	3B	C+	defb G5

02E0'	00	C+	defb 0
02E1'	00	C+	defb 0
		C	no 16,E3,A5
02E2'	01	C+	defb 16/16
02E3'	1D	C+	defb E3
02E4'	3A	C+	defb A5
02E5'	00	C+	defb 0
02E6'	00	C+	defb 0
		C	no 16,C3,F5
02E7'	01	C+	defb 16/16
02E8'	19	C+	defb C3
02E9'	36	C+	defb F5
02EA'	00	C+	defb 0
02EB'	00	C+	defb 0
		C	no 16,E3,A5
02EC'	01	C+	defb 16/16
02ED'	1D	C+	defb E3
02EE'	3A	C+	defb A5
02EF'	00	C+	defb 0
02F0'	00	C+	defb 0
		C	no 16,D3,G5
02F1'	01	C+	defb 16/16
02F2'	18	C+	defb D3
02F3'	38	C+	defb G5
02F4'	00	C+	defb 0
02F5'	00	C+	defb 0
		C	no 16,E3,A5
02F6'	01	C+	defb 16/16
02F7'	1D	C+	defb E3
02F8'	3A	C+	defb A5
02F9'	00	C+	defb 0
02FA'	00	C+	defb 0
		C	no 16,C3,F5
02FB'	01	C+	defb 16/16
02FC'	19	C+	defb C3
02FD'	36	C+	defb F5
02FE'	00	C+	defb 0
02FF'	00	C+	defb 0
		C	no 16,E3,A5
0300'	01	C+	defb 16/16
0301'	1D	C+	defb E3
0302'	3A	C+	defb A5
0303'	00	C+	defb 0
0304'	00	C+	defb 0
		C	no 16,D3,G5
0305'	01	C+	defb 16/16
0306'	18	C+	defb D3
0307'	38	C+	defb G5
0308'	00	C+	defb 0
0309'	00	C+	defb 0
		C	no 16,G3,A5
030A'	01	C+	defb 16/16
030B'	20	C+	defb G3
030C'	3A	C+	defb A5
030D'	00	C+	defb 0
030E'	00	C+	defb 0

		C	16
		C	no 16,A2,D5
030F'	01	C+	defb 16/16
0310'	16	C+	defb A2
0311'	33	C+	defb D5
0312'	00	C+	defb 0
0313'	00	C+	defb 0
		C	no 16,C3,F5
0314'	01	C+	defb 16/16
0315'	19	C+	defb C3
0316'	36	C+	defb F5
0317'	00	C+	defb 0
0318'	00	C+	defb 0
		C	no 16,A2.,E5
0319'	01	C+	defb 16/16
031A'	17	C+	defb A2.
031B'	35	C+	defb E5
031C'	00	C+	defb 0
031D'	00	C+	defb 0
		C	no 16,C3,F5
031E'	01	C+	defb 16/16
031F'	19	C+	defb C3
0320'	36	C+	defb F5
0321'	00	C+	defb 0
0322'	00	C+	defb 0
		C	no 16,A2,D5
0323'	01	C+	defb 16/16
0324'	16	C+	defb A2
0325'	33	C+	defb D5
0326'	00	C+	defb 0
0327'	00	C+	defb 0
		C	no 16,C3,F5
0328'	01	C+	defb 16/16
0329'	19	C+	defb C3
032A'	36	C+	defb F5
032B'	00	C+	defb 0
032C'	00	C+	defb 0
		C	no 16,A2.,E5
032D'	01	C+	defb 16/16
032E'	17	C+	defb A2.
032F'	35	C+	defb E5
0330'	00	C+	defb 0
0331'	00	C+	defb 0
		C	no 16,C3,F5
0332'	01	C+	defb 16/16
0333'	19	C+	defb C3
0334'	36	C+	defb F5
0335'	00	C+	defb 0
0336'	00	C+	defb 0
		C	no 16,A2,D5
0337'	01	C+	defb 16/16
0338'	16	C+	defb A2
0339'	33	C+	defb D5
033A'	00	C+	defb 0
033B'	00	C+	defb 0
		C	no 16,C3,F5

033C'	01	C+	defb 16/16
033D'	19	C+	defb C3
033E'	36	C+	defb F5
033F'	00	C+	defb 0
0340'	00	C+	defb 0
		C	no 16,A2..E5
0341'	01	C+	defb 16/16
0342'	17	C+	defb A2.
0343'	35	C+	defb E5
0344'	00	C+	defb 0
0345'	00	C+	defb 0
		C	no 16,C3,F5
0346'	01	C+	defb 16/16
0347'	19	C+	defb C3
0348'	36	C+	defb F5
0349'	00	C+	defb 0
034A'	00	C+	defb 0
		C	;7
		C	no 16,D4,B4
034B'	01	C+	defb 16/16
034C'	27	C+	defb D4
034D'	30	C+	defb B4
034E'	00	C+	defb 0
034F'	00	C+	defb 0
		C	no 16,F4,B4
0350'	01	C+	defb 16/16
0351'	2A	C+	defb F4
0352'	30	C+	defb B4
0353'	00	C+	defb 0
0354'	00	C+	defb 0
		C	no 16,E4,G4
0355'	01	C+	defb 16/16
0356'	29	C+	defb E4
0357'	2C	C+	defb G4
0358'	00	C+	defb 0
0359'	00	C+	defb 0
		C	no 16,F4,G4
035A'	01	C+	defb 16/16
035B'	2A	C+	defb F4
035C'	2C	C+	defb G4
035D'	00	C+	defb 0
035E'	00	C+	defb 0
		C	no 16,D4,D5
035F'	01	C+	defb 16/16
0360'	27	C+	defb D4
0361'	33	C+	defb D5
0362'	00	C+	defb 0
0363'	00	C+	defb 0
		C	no 16,F4,D5
0364'	01	C+	defb 16/16
0365'	2A	C+	defb F4
0366'	33	C+	defb D5
0367'	00	C+	defb 0
0368'	00	C+	defb 0
		C	no 16,E4,B4
0369'	01	C+	defb 16/16

036A'	29	C+	defb E4
036B'	30	C+	defb B4
036C'	00	C+	defb 0
036D'	00	C+	defb 0
		C	no 16,F4,B4
036E'	01	C+	defb 16/16
036F'	2A	C+	defb F4
0370'	30	C+	defb B4
0371'	00	C+	defb 0
0372'	00	C+	defb 0
		C	no 16,D4,F5
0373'	01	C+	defb 16/16
0374'	27	C+	defb D4
0375'	36	C+	defb F5
0376'	00	C+	defb 0
0377'	00	C+	defb 0
		C	no 16,F4,F5
0378'	01	C+	defb 16/16
0379'	2A	C+	defb F4
037A'	36	C+	defb F5
037B'	00	C+	defb 0
037C'	00	C+	defb 0
		C	no 16,E4,D5
037D'	01	C+	defb 16/16
037E'	29	C+	defb E4
037F'	33	C+	defb D5
0380'	00	C+	defb 0
0381'	00	C+	defb 0
		C	no 16,F4,D5
0382'	01	C+	defb 16/16
0383'	2A	C+	defb F4
0384'	33	C+	defb D5
0385'	00	C+	defb 0
0386'	00	C+	defb 0
		C	:8
		C	no 16,B4,G5
0387'	01	C+	defb 16/16
0388'	30	C+	defb B4
0389'	38	C+	defb G5
038A'	00	C+	defb 0
038B'	00	C+	defb 0
		C	no 16,B4,A5
038C'	01	C+	defb 16/16
038D'	30	C+	defb B4
038E'	3A	C+	defb A5
038F'	00	C+	defb 0
0390'	00	C+	defb 0
		C	no 16,G3,G5
0391'	01	C+	defb 16/16
0392'	20	C+	defb G3
0393'	38	C+	defb G5
0394'	00	C+	defb 0
0395'	00	C+	defb 0
		C	no 16,G3,F5
0396'	01	C+	defb 16/16
0397'	20	C+	defb G3

0398'	36	C+	defb F5
0399'	00	C+	defb 0
039A'	00	C+	defb 0
		C	no 16,C4,E5
039B'	01	C+	defb 16/16
039C'	25	C+	defb C4
039D'	35	C+	defb E5
039E'	00	C+	defb 0
039F'	00	C+	defb 0
		C	no 16,C4,F5
03A0'	01	C+	defb 16/16
03A1'	25	C+	defb C4
03A2'	36	C+	defb F5
03A3'	00	C+	defb 0
03A4'	00	C+	defb 0
		C	no 16,G3,E5
03A5'	01	C+	defb 16/16
03A6'	20	C+	defb G3
03A7'	35	C+	defb E5
03A8'	00	C+	defb 0
03A9'	00	C+	defb 0
		C	no 16,G3,D5
03AA'	01	C+	defb 16/16
03AB'	20	C+	defb G3
03AC'	33	C+	defb D5
03AD'	00	C+	defb 0
03AE'	00	C+	defb 0
		C	no 16,E4,C5
03AF'	01	C+	defb 16/16
03B0'	29	C+	defb E4
03B1'	31	C+	defb C5
03B2'	00	C+	defb 0
03B3'	00	C+	defb 0
		C	no 16,E4,D5
03B4'	01	C+	defb 16/16
03B5'	29	C+	defb E4
03B6'	33	C+	defb D5
03B7'	00	C+	defb 0
03B8'	00	C+	defb 0
		C	no 16,C4,C5
03B9'	01	C+	defb 16/16
03BA'	25	C+	defb C4
03BB'	31	C+	defb C5
03BC'	00	C+	defb 0
03BD'	00	C+	defb 0
		C	no 16,C4,A4.
03BE'	01	C+	defb 16/16
03BF'	25	C+	defb C4
03C0'	2F	C+	defb A4.
03C1'	00	C+	defb 0
03C2'	00	C+	defb 0
		C	;9
		C	no 16,F4,A4
03C3'	01	C+	defb 16/16
03C4'	2A	C+	defb F4
03C5'	2E	C+	defb A4

03C6'	00	C+	defb 0
03C7'	00	C+	defb 0
		C	no 16,G4,A4
03C8'	01	C+	defb 16/16
03C9'	2C	C+	defb G4
03CA'	2E	C+	defb A4
03CB'	00	C+	defb 0
03CC'	00	C+	defb 0
		C	no 16,F4,D5
03CD'	01	C+	defb 16/16
03CE'	2A	C+	defb F4
03CF'	33	C+	defb D5
03D0'	00	C+	defb 0
03D1'	00	C+	defb 0
		C	no 16,E4,C5
03D2'	01	C+	defb 16/16
03D3'	29	C+	defb E4
03D4'	31	C+	defb C5
03D5'	00	C+	defb 0
03D6'	00	C+	defb 0
		C	no 16,D4,B4
03D7'	01	C+	defb 16/16
03D8'	27	C+	defb D4
03D9'	30	C+	defb B4
03DA'	00	C+	defb 0
03DB'	00	C+	defb 0
		C	no 16,E4,C5
03DC'	01	C+	defb 16/16
03DD'	29	C+	defb E4
03DE'	31	C+	defb C5
03DF'	00	C+	defb 0
03E0'	00	C+	defb 0
		C	no 16,D4,B4
03E1'	01	C+	defb 16/16
03E2'	27	C+	defb D4
03E3'	30	C+	defb B4
03E4'	00	C+	defb 0
03E5'	00	C+	defb 0
		C	no 16,C4,A4
03E6'	01	C+	defb 16/16
03E7'	25	C+	defb C4
03E8'	2E	C+	defb A4
03E9'	00	C+	defb 0
03EA'	00	C+	defb 0
		C	no 16,B3,G4
03EB'	01	C+	defb 16/16
03EC'	24	C+	defb B3
03ED'	2C	C+	defb G4
03EE'	00	C+	defb 0
03EF'	00	C+	defb 0
		C	no 16,C4,A4
03F0'	01	C+	defb 16/16
03F1'	25	C+	defb C4
03F2'	2E	C+	defb A4
03F3'	00	C+	defb 0
03F4'	00	C+	defb 0

		C	no 16,B3,G4
03F5'	01	C+	defb 16/16
03F6'	24	C+	defb B3
03F7'	2C	C+	defb G4
03F8'	00	C+	defb 0
03F9'	00	C+	defb 0
		C	no 16,A3,F4
03FA'	01	C+	defb 16/16
03FB'	22	C+	defb A3
03FC'	2A	C+	defb F4
03FD'	00	C+	defb 0
03FE'	00	C+	defb 0
		C	;10
		C	no 16,G3,E4
03FF'	01	C+	defb 16/16
0400'	20	C+	defb G3
0401'	29	C+	defb E4
0402'	00	C+	defb 0
0403'	00	C+	defb 0
		C	no 16,G3,F4
0404'	01	C+	defb 16/16
0405'	20	C+	defb G3
0406'	2A	C+	defb F4
0407'	00	C+	defb 0
0408'	00	C+	defb 0
		C	no 16,C4,E4
0409'	01	C+	defb 16/16
040A'	25	C+	defb C4
040B'	29	C+	defb E4
040C'	00	C+	defb 0
040D'	00	C+	defb 0
		C	no 16,B3,D4
040E'	01	C+	defb 16/16
040F'	24	C+	defb B3
0410'	27	C+	defb D4
0411'	00	C+	defb 0
0412'	00	C+	defb 0
		C	no 16,A3,C4
0413'	01	C+	defb 16/16
0414'	22	C+	defb A3
0415'	25	C+	defb C4
0416'	00	C+	defb 0
0417'	00	C+	defb 0
		C	no 16,B3,C4
0418'	01	C+	defb 16/16
0419'	24	C+	defb B3
041A'	25	C+	defb C4
041B'	00	C+	defb 0
041C'	00	C+	defb 0
		C	no 16,A3,C5
041D'	01	C+	defb 16/16
041E'	22	C+	defb A3
041F'	31	C+	defb C5
0420'	00	C+	defb 0
0421'	00	C+	defb 0
		C	no 16,G3,B4

0422'	01	C+	defb 16/16
0423'	20	C+	defb G3
0424'	30	C+	defb B4
0425'	00	C+	defb 0
0426'	00	C+	defb 0
		C	no 16,F3,C5
0427'	01	C+	defb 16/16
0428'	1E	C+	defb F3
0429'	31	C+	defb C5
042A'	00	C+	defb 0
042B'	00	C+	defb 0
		C	no 16,G3,C5
042C'	01	C+	defb 16/16
042D'	20	C+	defb G3
042E'	31	C+	defb C5
042F'	00	C+	defb 0
0430'	00	C+	defb 0
		C	no 16,F3,E4
0431'	01	C+	defb 16/16
0432'	1E	C+	defb F3
0433'	29	C+	defb E4
0434'	00	C+	defb 0
0435'	00	C+	defb 0
		C	no 16,E3,E4
0436'	01	C+	defb 16/16
0437'	1D	C+	defb E3
0438'	29	C+	defb E4
0439'	00	C+	defb 0
043A'	00	C+	defb 0
		C	:11
		C	no 16,D3,F4
043B'	01	C+	defb 16/16
043C'	1B	C+	defb D3
043D'	2A	C+	defb F4
043E'	00	C+	defb 0
043F'	00	C+	defb 0
		C	no 16,E3,F4
0440'	01	C+	defb 16/16
0441'	1D	C+	defb E3
0442'	2A	C+	defb F4
0443'	00	C+	defb 0
0444'	00	C+	defb 0
		C	no 16,D3,C5
0445'	01	C+	defb 16/16
0446'	1B	C+	defb D3
0447'	31	C+	defb C5
0448'	00	C+	defb 0
0449'	00	C+	defb 0
		C	no 16,C3,C5
044A'	01	C+	defb 16/16
044B'	19	C+	defb C3
044C'	31	C+	defb C5
044D'	00	C+	defb 0
044E'	00	C+	defb 0
		C	no 16,G3,E4
044F'	01	C+	defb 16/16

0450'	20	C+	defb G3
0451'	29	C+	defb E4
0452'	00	C+	defb 0
0453'	00	C+	defb 0
		C	no 16,F3,E4
0454'	01	C+	defb 16/16
0455'	1E	C+	defb F3
0456'	29	C+	defb E4
0457'	00	C+	defb 0
0458'	00	C+	defb 0
		C	no 16,E3,C5
0459'	01	C+	defb 16/16
045A'	1D	C+	defb E3
045B'	31	C+	defb C5
045C'	00	C+	defb 0
045D'	00	C+	defb 0
		C	no 16,F3,C5
045E'	01	C+	defb 16/16
045F'	1E	C+	defb F3
0460'	31	C+	defb C5
0461'	00	C+	defb 0
0462'	00	C+	defb 0
		C	no 8,G3,D4
0463'	02	C+	defb 16/8
0464'	20	C+	defb G3
0465'	27	C+	defb D4
0466'	00	C+	defb 0
0467'	00	C+	defb 0
		C	no 8,G2,B4
0468'	02	C+	defb 16/8
0469'	14	C+	defb G2
046A'	30	C+	defb B4
046B'	00	C+	defb 0
046C'	00	C+	defb 0
		C	;12
		C	no 4,0,C5
046D'	04	C+	defb 16/4
046E'	00	C+	defb 0
046F'	31	C+	defb C5
0470'	00	C+	defb 0
0471'	00	C+	defb 0
		C	no 8,C3
0472'	02	C+	defb 16/8
0473'	19	C+	defb C3
0474'	00	C+	defb 0
0475'	00	C+	defb 0
0476'	00	C+	defb 0
		C	no 8,E3
0477'	02	C+	defb 16/8
0478'	1D	C+	defb E3
0479'	00	C+	defb 0
047A'	00	C+	defb 0
047B'	00	C+	defb 0
		C	no 8,C3
047C'	02	C+	defb 16/8
047D'	19	C+	defb C3

047E'	00	C+	defb 0
047F'	00	C+	defb 0
0480'	00	C+	defb 0
		C	no 8,G3
0481'	02	C+	defb 16/8
0482'	20	C+	defb G3
0483'	00	C+	defb 0
0484'	00	C+	defb 0
0485'	00	C+	defb 0
		C	no 8,C3
0486'	02	C+	defb 16/8
0487'	19	C+	defb C3
0488'	00	C+	defb 0
0489'	00	C+	defb 0
048A'	00	C+	defb 0
		C	;13
		C	no 8,C4
048B'	02	C+	defb 16/8
048C'	25	C+	defb C4
048D'	00	C+	defb 0
048E'	00	C+	defb 0
048F'	00	C+	defb 0
		C	no 16,B3,C5
0490'	01	C+	defb 16/16
0491'	24	C+	defb B3
0492'	31	C+	defb C5
0493'	00	C+	defb 0
0494'	00	C+	defb 0
		C	no 16,A3,C5
0495'	01	C+	defb 16/16
0496'	22	C+	defb A3
0497'	31	C+	defb C5
0498'	00	C+	defb 0
0499'	00	C+	defb 0
		C	no 16,B3,E5
049A'	01	C+	defb 16/16
049B'	20	C+	defb G3
049C'	35	C+	defb E5
049D'	00	C+	defb 0
049E'	00	C+	defb 0
		C	no 16,A3,E5
049F'	01	C+	defb 16/16
04A0'	22	C+	defb A3
04A1'	35	C+	defb E5
04A2'	00	C+	defb 0
04A3'	00	C+	defb 0
		C	no 16,B3,C5
04A4'	01	C+	defb 16/16
04A5'	20	C+	defb G3
04A6'	31	C+	defb C5
04A7'	00	C+	defb 0
04A8'	00	C+	defb 0
		C	no 16,F3,C5
04A9'	01	C+	defb 16/16
04AA'	1E	C+	defb F3
04AB'	31	C+	defb C5

04AC'	00	C+	defb 0
04AD'	00	C+	defb 0
		C	no 16,E3,G5
04AE'	01	C+	defb 16/16
04AF'	1D	C+	defb E3
04B0'	38	C+	defb G5
04B1'	00	C+	defb 0
04B2'	00	C+	defb 0
		C	no 16,F3,G5
04B3'	01	C+	defb 16/16
04B4'	1E	C+	defb F3
04B5'	38	C+	defb G5
04B6'	00	C+	defb 0
04B7'	00	C+	defb 0
		C	no 16,E3,C5
04B8'	01	C+	defb 16/16
04B9'	1D	C+	defb E3
04BA'	31	C+	defb C5
04BB'	00	C+	defb 0
04BC'	00	C+	defb 0
		C	no 16,D3,C5
04BD'	01	C+	defb 16/16
04BE'	1B	C+	defb D3
04BF'	31	C+	defb C5
04C0'	00	C+	defb 0
04C1'	00	C+	defb 0
		C	;14
		C	no 8,C3,C6
04C2'	02	C+	defb 16/8
04C3'	19	C+	defb C3
04C4'	3D	C+	defb C6
04C5'	00	C+	defb 0
04C6'	00	C+	defb 0
		C	no 16,E3,B5
04C7'	01	C+	defb 16/16
04C8'	1D	C+	defb E3
04C9'	3C	C+	defb B5
04CA'	00	C+	defb 0
04CB'	00	C+	defb 0
		C	no 16,E3,A5
04CC'	01	C+	defb 16/16
04CD'	1D	C+	defb E3
04CE'	3A	C+	defb A5
04CF'	00	C+	defb 0
04D0'	00	C+	defb 0
		C	no 16,G3,G5
04D1'	01	C+	defb 16/16
04D2'	20	C+	defb G3
04D3'	38	C+	defb G5
04D4'	00	C+	defb 0
04D5'	00	C+	defb 0
		C	no 16,G3,A5
04D6'	01	C+	defb 16/16
04D7'	20	C+	defb G3
04D8'	3A	C+	defb A5
04D9'	00	C+	defb 0

04DA'	00	C+	defb 0
		C	no 16,E3,G5
04DB'	01	C+	defb 16/16
04DC'	1D	C+	defb E3
04DD'	38	C+	defb G5
04DE'	00	C+	defb 0
04DF'	00	C+	defb 0
		C	no 16,E3,F5
04E0'	01	C+	defb 16/16
04E1'	1D	C+	defb E3
04E2'	36	C+	defb F5
04E3'	00	C+	defb 0
04E4'	00	C+	defb 0
		C	no 16,C4,E5
04E5'	01	C+	defb 16/16
04E6'	25	C+	defb C4
04E7'	35	C+	defb E5
04E8'	00	C+	defb 0
04E9'	00	C+	defb 0
		C	no 16,C4,F5
04EA'	01	C+	defb 16/16
04EB'	25	C+	defb C4
04EC'	36	C+	defb F5
04ED'	00	C+	defb 0
04EE'	00	C+	defb 0
		C	no 16,G3,E5
04EF'	01	C+	defb 16/16
04F0'	20	C+	defb G3
04F1'	35	C+	defb E5
04F2'	00	C+	defb 0
04F3'	00	C+	defb 0
		C	no 16,G3,D5
04F4'	01	C+	defb 16/16
04F5'	20	C+	defb G3
04F6'	33	C+	defb D5
04F7'	00	C+	defb 0
04F8'	00	C+	defb 0
		C	;15
		C	no 16,D4.,C5
04F9'	01	C+	defb 16/16
04FA'	28	C+	defb D4.
04FB'	31	C+	defb C5
04FC'	00	C+	defb 0
04FD'	00	C+	defb 0
		C	no 16,D4.,A4.
04FE'	01	C+	defb 16/16
04FF'	28	C+	defb D4.
0500'	2F	C+	defb A4.
0501'	00	C+	defb 0
0502'	00	C+	defb 0
		C	no 16,F3.,C5
0503'	01	C+	defb 16/16
0504'	1F	C+	defb F3.
0505'	31	C+	defb C5
0506'	00	C+	defb 0
0507'	00	C+	defb 0

0508'	01	C	no 16,F3.,A5
		C+	defb 16/16
0509'	1F	C+	defb F3.
050A'	3A	C+	defb A5
050B'	00	C+	defb 0
050C'	00	C+	defb 0
		C	no 16,D4.,C5
050D'	01	C+	defb 16/16
050E'	28	C+	defb D4.
050F'	31	C+	defb C5
0510'	00	C+	defb 0
0511'	00	C+	defb 0
		C	no 16,D4.,A5
0512'	01	C+	defb 16/16
0513'	28	C+	defb D4.
0514'	3A	C+	defb A5
0515'	00	C+	defb 0
0516'	00	C+	defb 0
		C	no 16,F3.,A4.
0517'	01	C+	defb 16/16
0518'	1F	C+	defb F3.
0519'	2F	C+	defb A4.
051A'	00	C+	defb 0
051B'	00	C+	defb 0
		C	no 16,F3.,A5
051C'	01	C+	defb 16/16
051D'	1F	C+	defb F3.
051E'	3A	C+	defb A5
051F'	00	C+	defb 0
0520'	00	C+	defb 0
		C	no 16,D4.,C5
0521'	01	C+	defb 16/16
0522'	28	C+	defb D4.
0523'	31	C+	defb C5.
0524'	00	C+	defb 0
0525'	00	C+	defb 0
		C	no 16,D4.,A5
0526'	01	C+	defb 16/16
0527'	28	C+	defb D4.
0528'	3A	C+	defb A5
0529'	00	C+	defb 0
052A'	00	C+	defb 0
		C	no 16,F3.,A4
052B'	01	C+	defb 16/16
052C'	1F	C+	defb F3.
052D'	2E	C+	defb A4
052E'	00	C+	defb 0
052F'	00	C+	defb 0
		C	no 16,F3.,A5
0530'	01	C+	defb 16/16
0531'	1F	C+	defb F3.
0532'	3A	C+	defb A5
0533'	00	C+	defb 0
0534'	00	C+	defb 0
		C	:16
		C	no 8,G3,A4.

0535'	02	C+	defb 16/8
0536'	20	C+	defb G3
0537'	2F	C+	defb A4.
0538'	00	C+	defb 0
0539'	00	C+	defb 0
		C	no 16,F3,G4
053A'	01	C+	defb 16/16
053B'	1E	C+	defb F3
053C'	2C	C+	defb G4
053D'	00	C+	defb 0
053E'	00	C+	defb 0
		C	no 16,D3.,G4
053F'	01	C+	defb 16/16
0540'	1C	C+	defb D3.
0541'	2C	C+	defb G4
0542'	00	C+	defb 0
0543'	00	C+	defb 0
		C	no 16,D3,A4.
0544'	01	C+	defb 16/16
0545'	1B	C+	defb D3
0546'	2F	C+	defb A4.
0547'	00	C+	defb 0
0548'	00	C+	defb 0
		C	no 16,D3.,A4.
0549'	01	C+	defb 16/16
054A'	1C	C+	defb D3.
054B'	2F	C+	defb A4.
054C'	00	C+	defb 0
054D'	00	C+	defb 0
		C	no 16,D3,G4
054E'	01	C+	defb 16/16
054F'	1B	C+	defb D3
0550'	2C	C+	defb G4
0551'	00	C+	defb 0
0552'	00	C+	defb 0
		C	no 16,C3,G4
0553'	01	C+	defb 16/16
0554'	19	C+	defb C3
0555'	2C	C+	defb G4
0556'	00	C+	defb 0
0557'	00	C+	defb 0
		C	no 16,A2.,D5
0558'	01	C+	defb 16/16
0559'	17	C+	defb A2.
055A'	33	C+	defb D5
055B'	00	C+	defb 0
055C'	00	C+	defb 0
		C	no 16,C3,D5
055D'	01	C+	defb 16/16
055E'	19	C+	defb C3
055F'	33	C+	defb D5
0560'	00	C+	defb 0
0561'	00	C+	defb 0
		C	no 16,A2.,G4
0562'	01	C+	defb 16/16
0563'	17	C+	defb A2.

0564'	2C	C+	defb G4
0565'	00	C+	defb 0
0566'	00	C+	defb 0
		C	no 16,A2,G4
0567'	01	C+	defb 16/16
0568'	16	C+	defb A2
0569'	2C	C+	defb G4
056A'	00	C+	defb 0
056B'	00	C+	defb 0
		C	;17
		C	no 8,G2,G5
056C'	02	C+	defb 16/8
056D'	14	C+	defb G2
056E'	38	C+	defb G5
056F'	00	C+	defb 0
0570'	00	C+	defb 0
		C	no 16,G3,F5
0571'	01	C+	defb 16/16
0572'	20	C+	defb G3
0573'	36	C+	defb F5
0574'	00	C+	defb 0
0575'	00	C+	defb 0
		C	no 16,G3,D5.
0576'	01	C+	defb 16/16
0577'	20	C+	defb G3
0578'	34	C+	defb D5.
0579'	00	C+	defb 0
057A'	00	C+	defb 0
		C	no 16,A3.,D5
057B'	01	C+	defb 16/16
057C'	23	C+	defb A3.
057D'	33	C+	defb D5
057E'	00	C+	defb 0
057F'	00	C+	defb 0
		C	no 16,A3.,D5.
0580'	01	C+	defb 16/16
0581'	23	C+	defb A3.
0582'	34	C+	defb D5.
0583'	00	C+	defb 0
0584'	00	C+	defb 0
		C	no 16,G3,D5
0585'	01	C+	defb 16/16
0586'	20	C+	defb G3
0587'	33	C+	defb D5
0588'	00	C+	defb 0
0589'	00	C+	defb 0
		C	no 16,G3,C5
058A'	01	C+	defb 16/16
058B'	20	C+	defb G3
058C'	31	C+	defb C5
058D'	00	C+	defb 0
058E'	00	C+	defb 0
		C	no 16,D4,A4.
058F'	01	C+	defb 16/16
0590'	27	C+	defb D4
0591'	2F	C+	defb A4.

0592'	00	C+	defb 0
0593'	00	C+	defb 0
		C	no 16,D4,C5
0594'	01	C+	defb 16/16
0595'	27	C+	defb D4
0596'	31	C+	defb C5
0597'	00	C+	defb 0
0598'	00	C+	defb 0
		C	no 16,G3,A4.
0599'	01	C+	defb 16/16
059A'	20	C+	defb G3
059B'	2F	C+	defb A4.
059C'	00	C+	defb 0
059D'	00	C+	defb 0
		C	no 16,G3,A4
059E'	01	C+	defb 16/16
059F'	20	C+	defb G3
05A0'	2E	C+	defb A4
05A1'	00	C+	defb 0
05A2'	00	C+	defb 0
		C	:18
		C	no 8,G4,G4
05A3'	02	C+	defb 16/8
05A4'	2C	C+	defb G4
05A5'	2C	C+	defb G4
05A6'	00	C+	defb 0
05A7'	00	C+	defb 0
		C	no 16,F4,A4.
05A8'	01	C+	defb 16/16
05A9'	2A	C+	defb F4
05AA'	2F	C+	defb A4.
05AB'	00	C+	defb 0
05AC'	00	C+	defb 0
		C	no 16,D4.,A4.
05AD'	01	C+	defb 16/16
05AE'	28	C+	defb D4.
05AF'	2F	C+	defb A4.
05B0'	00	C+	defb 0
05B1'	00	C+	defb 0
		C	no 16,D4,D5
05B2'	01	C+	defb 16/16
05B3'	27	C+	defb D4
05B4'	33	C+	defb D5
05B5'	00	C+	defb 0
05B6'	00	C+	defb 0
		C	no 16,D4.,D5
05B7'	01	C+	defb 16/16
05B8'	28	C+	defb D4.
05B9'	33	C+	defb D5
05BA'	00	C+	defb 0
05BB'	00	C+	defb 0
		C	no 16,D4,A4.
05BC'	01	C+	defb 16/16
05BD'	27	C+	defb D4
05BE'	2F	C+	defb A4.
05BF'	00	C+	defb 0

05C0'	00	C+	defb 0
		C	no 16,C4,A4.
05C1'	01	C+	defb 16/16
05C2'	25	C+	defb C4
05C3'	2F	C+	defb A4.
05C4'	00	C+	defb 0
05C5'	00	C+	defb 0
		C	no 16,A3.,G5
05C6'	01	C+	defb 16/16
05C7'	23	C+	defb A3.
05C8'	38	C+	defb G5
05C9'	00	C+	defb 0
05CA'	00	C+	defb 0
		C	no 16,C4,G5
05CB'	01	C+	defb 16/16
05CC'	25	C+	defb C4
05CD'	38	C+	defb G5
05CE'	00	C+	defb 0
05CF'	00	C+	defb 0
		C	no 16,A3.,D5
05D0'	01	C+	defb 16/16
05D1'	23	C+	defb A3.
05D2'	33	C+	defb D5
05D3'	00	C+	defb 0
05D4'	00	C+	defb 0
		C	no 16,A3,D5
05D5'	01	C+	defb 16/16
05D6'	22	C+	defb A3
05D7'	33	C+	defb D5
05D8'	00	C+	defb 0
05D9'	00	C+	defb 0
		C	:19
		C	no 16,G3,A5.
05DA'	01	C+	defb 16/16
05DB'	20	C+	defb G3
05DC'	38	C+	defb A5.
05DD'	00	C+	defb 0
05DE'	00	C+	defb 0
		C	no 16,F3,A5.
05DF'	01	C+	defb 16/16
05E0'	1E	C+	defb F3
05E1'	38	C+	defb A5.
05E2'	00	C+	defb 0
05E3'	00	C+	defb 0
		C	no 16,G3,C5.
05E4'	01	C+	defb 16/16
05E5'	20	C+	defb G3
05E6'	32	C+	defb C5.
05E7'	00	C+	defb 0
05E8'	00	C+	defb 0
		C	no 16,E4,C5.
05E9'	01	C+	defb 16/16
05EA'	29	C+	defb E4
05EB'	32	C+	defb C5.
05EC'	00	C+	defb 0
05ED'	00	C+	defb 0

		C	no 16,G3,A5.
05EE'	01	C+	defb 16/16
05EF'	20	C+	defb G3
05F0'	38	C+	defb A5.
05F1'	00	C+	defb 0
05F2'	00	C+	defb 0
		C	no 16,E4,A5.
05F3'	01	C+	defb 16/16
05F4'	29	C+	defb E4
05F5'	38	C+	defb A5.
05F6'	00	C+	defb 0
05F7'	00	C+	defb 0
		C	no 16,F3,C5.
05F8'	01	C+	defb 16/16
05F9'	1E	C+	defb F3
05FA'	32	C+	defb C5.
05FB'	00	C+	defb 0
05FC'	00	C+	defb 0
		C	no 16,E4,C5.
05FD'	01	C+	defb 16/16
05FE'	29	C+	defb E4
05FF'	32	C+	defb C5.
0600'	00	C+	defb 0
0601'	00	C+	defb 0
		C	no 16,G3,A5.
0602'	01	C+	defb 16/16
0603'	20	C+	defb G3
0604'	38	C+	defb A5.
0605'	00	C+	defb 0
0606'	00	C+	defb 0
		C	no 16,E4,A5.
0607'	01	C+	defb 16/16
0608'	29	C+	defb E4
0609'	38	C+	defb A5.
060A'	00	C+	defb 0
060B'	00	C+	defb 0
		C	no 16,C3,C5.
060C'	01	C+	defb 16/16
060D'	19	C+	defb C3
060E'	32	C+	defb C5.
060F'	00	C+	defb 0
0610'	00	C+	defb 0
		C	no 16,E4,C5.
0611'	01	C+	defb 16/16
0612'	29	C+	defb E4
0613'	32	C+	defb C5.
0614'	00	C+	defb 0
0615'	00	C+	defb 0
		C	;20
		C	no 16,F3,D5
0616'	01	C+	defb 16/16
0617'	1E	C+	defb F3
0618'	33	C+	defb D5
0619'	00	C+	defb 0
061A'	00	C+	defb 0
		C	no 16,E3,D5

0618'	01	C+	defb 16/16
061C'	1D	C+	defb E3
061D'	33	C+	defb D5
061E'	00	C+	defb 0
061F'	00	C+	defb 0
		C	no 16,F3,A4
0620'	01	C+	defb 16/16
0621'	1E	C+	defb F3
0622'	2E	C+	defb A4
0623'	00	C+	defb 0
0624'	00	C+	defb 0
		C	no 16,D4,A4
0625'	01	C+	defb 16/16
0626'	27	C+	defb D4
0627'	2E	C+	defb A4
0628'	00	C+	defb 0
0629'	00	C+	defb 0
		C	no 16,F3,F5
062A'	01	C+	defb 16/16
062B'	1E	C+	defb F3
062C'	34	C+	defb F5
062D'	00	C+	defb 0
062E'	00	C+	defb 0
		C	no 16,D4,F5
062F'	01	C+	defb 16/16
0630'	27	C+	defb D4
0631'	34	C+	defb F5
0632'	00	C+	defb 0
0633'	00	C+	defb 0
		C	no 16,E3,D5
0634'	01	C+	defb 16/16
0635'	1D	C+	defb E3
0636'	33	C+	defb D5
0637'	00	C+	defb 0
0638'	00	C+	defb 0
		C	no 16,D4,D5
0639'	01	C+	defb 16/16
063A'	27	C+	defb D4
063B'	33	C+	defb D5
063C'	00	C+	defb 0
063D'	00	C+	defb 0
		C	no 16,F3,A5
063E'	01	C+	defb 16/16
063F'	1E	C+	defb F3
0640'	3A	C+	defb A5
0641'	00	C+	defb 0
0642'	00	C+	defb 0
		C	no 16,D4,A5
0643'	01	C+	defb 16/16
0644'	27	C+	defb D4
0645'	3A	C+	defb A5
0646'	00	C+	defb 0
0647'	00	C+	defb 0
		C	no 16,D3,F5
0648'	01	C+	defb 16/16
0649'	1B	C+	defb D3

064A'	36	C+	defb F5
064B'	00	C+	defb 0
064C'	00	C+	defb 0
		C	no 16,D4,F5
064D'	01	C+	defb 16/16
064E'	27	C+	defb D4
064F'	36	C+	defb F5
0650'	00	C+	defb 0
0651'	00	C+	defb 0
		C	:21
		C	no 16,A3.,G5
0652'	01	C+	defb 16/16
0653'	23	C+	defb A3.
0654'	38	C+	defb G5
0655'	00	C+	defb 0
0656'	00	C+	defb 0
		C	no 16,A3.,F5
0657'	01	C+	defb 16/16
0658'	23	C+	defb A3.
0659'	36	C+	defb F5
065A'	00	C+	defb 0
065B'	00	C+	defb 0
		C	no 16,G3,G5
065C'	01	C+	defb 16/16
065D'	20	C+	defb G3
065E'	38	C+	defb G5
065F'	00	C+	defb 0
0660'	00	C+	defb 0
		C	no 16,G3,A5.
0661'	01	C+	defb 16/16
0662'	20	C+	defb G3
0663'	38	C+	defb A5.
0664'	00	C+	defb 0
0665'	00	C+	defb 0
		C	no 16,E3,C5
0666'	01	C+	defb 16/16
0667'	1D	C+	defb E3
0668'	31	C+	defb C5
0669'	00	C+	defb 0
066A'	00	C+	defb 0
		C	no 16,E3,A5.
066B'	01	C+	defb 16/16
066C'	1D	C+	defb E3
066D'	38	C+	defb A5.
066E'	00	C+	defb 0
066F'	00	C+	defb 0
		C	no 16,G3,D5
0670'	01	C+	defb 16/16
0671'	20	C+	defb G3
0672'	33	C+	defb D5
0673'	00	C+	defb 0
0674'	00	C+	defb 0
		C	no 16,G3,A5.
0675'	01	C+	defb 16/16
0676'	20	C+	defb G3
0677'	3B	C+	defb A5.

0678'	00	C+	defb 0
0679'	00	C+	defb 0
		C	no 16,C3,E5
067A'	01	C+	defb 16/16
067B'	19	C+	defb C3
067C'	35	C+	defb E5
067D'	00	C+	defb 0
067E'	00	C+	defb 0
		C	no 16,C3,A5.
067F'	01	C+	defb 16/16
0680'	19	C+	defb C3
0681'	3B	C+	defb A5.
0682'	00	C+	defb 0
0683'	00	C+	defb 0
		C	no 16,E3,C5
0684'	01	C+	defb 16/16
0685'	10	C+	defb E3
0686'	31	C+	defb C5
0687'	00	C+	defb 0
0688'	00	C+	defb 0
		C	no 16,E3,A5.
0689'	01	C+	defb 16/16
068A'	1D	C+	defb E3
068B'	3B	C+	defb A5.
068C'	00	C+	defb 0
068D'	00	C+	defb 0
		C	:22
		C	no 16,A3,F5
068E'	01	C+	defb 16/16
068F'	22	C+	defb A3
0690'	36	C+	defb F5.
0691'	00	C+	defb 0
0692'	00	C+	defb 0
		C	no 16,A3,E5
0693'	01	C+	defb 16/16
0694'	22	C+	defb A3
0695'	35	C+	defb E5
0696'	00	C+	defb 0
0697'	00	C+	defb 0
		C	no 16,F3,F5
0698'	01	C+	defb 16/16
0699'	1E	C+	defb F3
069A'	36	C+	defb F5
069B'	00	C+	defb 0
069C'	00	C+	defb 0
		C	no 16,F3,A5
069D'	01	C+	defb 16/16
069E'	1E	C+	defb F3
069F'	3A	C+	defb A5
06A0'	00	C+	defb 0
06A1'	00	C+	defb 0
		C	no 16,D3,B4
06A2'	01	C+	defb 16/16
06A3'	1B	C+	defb D3
06A4'	30	C+	defb B4
06A5'	00	C+	defb 0

06A6'	00	C+	defb 0
		C	no 16,D3,A5
06A7'	01	C+	defb 16/16
06A8'	18	C+	defb D3
06A9'	3A	C+	defb A5
06AA'	00	C+	defb 0
06AB'	00	C+	defb 0
		C	no 16,F3,C5.
06AC'	01	C+	defb 16/16
06AD'	1E	C+	defb F3
06AE'	32	C+	defb C5.
06AF'	00	C+	defb 0
06B0'	00	C+	defb 0
		C	no 16,F3,A5
06B1'	01	C+	defb 16/16
06B2'	1E	C+	defb F3
06B3'	3A	C+	defb A5
06B4'	00	C+	defb 0
06B5'	00	C+	defb 0
		C	no 16,B2,D5
06B6'	01	C+	defb 16/16
06B7'	18	C+	defb B2
06B8'	33	C+	defb D5
06B9'	00	C+	defb 0
06BA'	00	C+	defb 0
		C	no 16,B2,A5
06BB'	01	C+	defb 16/16
06BC'	18	C+	defb B2
06BD'	3A	C+	defb A5
06BE'	00	C+	defb 0
06BF'	00	C+	defb 0
		C	no 16,D3,B4
06C0'	01	C+	defb 16/16
06C1'	18	C+	defb D3
06C2'	30	C+	defb B4
06C3'	00	C+	defb 0
06C4'	00	C+	defb 0
		C	no 16,D3,A5
06C5'	01	C+	defb 16/16
06C6'	18	C+	defb D3
06C7'	3A	C+	defb A5
06C8'	00	C+	defb 0
06C9'	00	C+	defb 0
		C	;23
		C	no 16,G3,E5
06CA'	01	C+	defb 16/16
06CB'	20	C+	defb G3
06CC'	35	C+	defb E5
06CD'	00	C+	defb 0
06CE'	00	C+	defb 0
		C	no 16,G3,D5
06CF'	01	C+	defb 16/16
06D0'	20	C+	defb G3
06D1'	33	C+	defb D5
06D2'	00	C+	defb 0
06D3'	00	C+	defb 0

		C	no 16,E3,E5
06D4'	01	C+	defb 16/16
06D5'	1D	C+	defb E3
06D6'	35	C+	defb E5
06D7'	00	C+	defb 0
06D8'	00	C+	defb 0
		C	no 16,E3,G5
06D9'	01	C+	defb 16/16
06DA'	1D	C+	defb E3
06DB'	38	C+	defb G5
06DC'	00	C+	defb 0
06DD'	00	C+	defb 0
		C	no 16,C3.,A4
06DE'	01	C+	defb 16/16
06DF'	1A	C+	defb C3.
06E0'	2E	C+	defb A4
06E1'	00	C+	defb 0
06E2'	00	C+	defb 0
		C	no 16,C3.,G5
06E3'	01	C+	defb 16/16
06E4'	1A	C+	defb C3.
06E5'	38	C+	defb G5
06E6'	00	C+	defb 0
06E7'	00	C+	defb 0
		C	no 16,E3,B4
06E8'	01	C+	defb 16/16
06E9'	1D	C+	defb E3
06EA'	30	C+	defb B4
06EB'	00	C+	defb 0
06EC'	00	C+	defb 0
		C	no 16,E3,G5
06ED'	01	C+	defb 16/16
06EE'	1D	C+	defb E3
06EF'	38	C+	defb G5
06F0'	00	C+	defb 0
06F1'	00	C+	defb 0
		C	no 16,A2,C5.
06F2'	01	C+	defb 16/16
06F3'	16	C+	defb A2
06F4'	32	C+	defb C5.
06F5'	00	C+	defb 0
06F6'	00	C+	defb 0
		C	no 16,A2,G5
06F7'	01	C+	defb 16/16
06F8'	16	C+	defb A2
06F9'	38	C+	defb G5
06FA'	00	C+	defb 0
06FB'	00	C+	defb 0
		C	no 16,C3.,A4
06FC'	01	C+	defb 16/16
06FD'	1A	C+	defb C3.
06FE'	2E	C+	defb A4
06FF'	00	C+	defb 0
0700'	00	C+	defb 0
		C	no 16,C3.,G5
0701'	01	C+	defb 16/16

0702'	1A	C+	defb C3.
0703'	38	C+	defb G5
0704'	00	C+	defb 0
0705'	00	C+	defb 0
		C	:24
		C	no 16,D2,F5
0706'	01	C+	defb 16/16
0707'	0F	C+	defb D2
0708'	36	C+	defb F5
0709'	00	C+	defb 0
070A'	00	C+	defb 0
		C	no 16,D3,F5
070B'	01	C+	defb 16/16
070C'	18	C+	defb D3
070D'	36	C+	defb F5
070E'	00	C+	defb 0
070F'	00	C+	defb 0
		C	no 16,C3,D5
0710'	01	C+	defb 16/16
0711'	19	C+	defb C3
0712'	33	C+	defb D5
0713'	00	C+	defb 0
0714'	00	C+	defb 0
		C	no 16,D3,D5
0715'	01	C+	defb 16/16
0716'	18	C+	defb D3
0717'	33	C+	defb D5
0718'	00	C+	defb 0
0719'	00	C+	defb 0
		C	no 16,G2,A4.
071A'	01	C+	defb 16/16
071B'	14	C+	defb G2
071C'	2F	C+	defb A4.
071D'	00	C+	defb 0
071E'	00	C+	defb 0
		C	no 16,D3,A4.
071F'	01	C+	defb 16/16
0720'	18	C+	defb D3
0721'	2F	C+	defb A4.
0722'	00	C+	defb 0
0723'	00	C+	defb 0
		C	no 16,A2,D5
0724'	01	C+	defb 16/16
0725'	16	C+	defb A2
0726'	33	C+	defb D5
0727'	00	C+	defb 0
0728'	00	C+	defb 0
		C	no 16,D3,D5
0729'	01	C+	defb 16/16
072A'	18	C+	defb D3
072B'	33	C+	defb D5
072C'	00	C+	defb 0
072D'	00	C+	defb 0
		C	no 16,A2.,G4
072E'	01	C+	defb 16/16
072F'	17	C+	defb A2.

0730'	2C	C+	defb G4
0731'	00	C+	defb 0
0732'	00	C+	defb 0
		C	no 16,D3,G4
0733'	01	C+	defb 16/16
0734'	1B	C+	defb D3
0735'	2C	C+	defb G4
0736'	00	C+	defb 0
0737'	00	C+	defb 0
		C	no 16,G2,F5
0738'	01	C+	defb 16/16
0739'	14	C+	defb G2
073A'	36	C+	defb F5
073B'	00	C+	defb 0
073C'	00	C+	defb 0
		C	no 16,D3,F5
073D'	01	C+	defb 16/16
073E'	1B	C+	defb D3
073F'	36	C+	defb F5
0740'	00	C+	defb 0
0741'	00	C+	defb 0
		C	;25
		C	no 16,C2,E5
0742'	01	C+	defb 16/16
0743'	00	C+	defb C2
0744'	35	C+	defb E5
0745'	00	C+	defb 0
0746'	00	C+	defb 0
		C	no 16,C3,E5
0747'	01	C+	defb 16/16
0748'	19	C+	defb C3
0749'	35	C+	defb E5
074A'	00	C+	defb 0
074B'	00	C+	defb 0
		C	no 16,A2,C5
074C'	01	C+	defb 16/16
074D'	17	C+	defb A2.
074E'	31	C+	defb C5
074F'	00	C+	defb 0
0750'	00	C+	defb 0
		C	no 16,C3,C5
0751'	01	C+	defb 16/16
0752'	19	C+	defb C3
0753'	31	C+	defb C5
0754'	00	C+	defb 0
0755'	00	C+	defb 0
		C	no 16,F2,A4
0756'	01	C+	defb 16/16
0757'	12	C+	defb F2
0758'	2E	C+	defb A4
0759'	00	C+	defb 0
075A'	00	C+	defb 0
		C	no 16,C3,A4
075B'	01	C+	defb 16/16
075C'	19	C+	defb C3
075D'	2E	C+	defb A4

075E'	00	C+	defb 0
075F'	00	C+	defb 0
		C	no 16,G2,C5
0760'	01	C+	defb 16/16
0761'	14	C+	defb G2
0762'	31	C+	defb C5
0763'	00	C+	defb 0
0764'	00	C+	defb 0
		C	no 16,C3,C5
0765'	01	C+	defb 16/16
0766'	19	C+	defb C3
0767'	31	C+	defb C5
0768'	00	C+	defb 0
0769'	00	C+	defb 0
		C	no 16,A2,F4
076A'	01	C+	defb 16/16
076B'	16	C+	defb A2
076C'	2A	C+	defb F4
076D'	00	C+	defb 0
076E'	00	C+	defb 0
		C	no 16,G2,F4
076F'	01	C+	defb 16/16
0770'	14	C+	defb G2
0771'	2A	C+	defb F4
0772'	00	C+	defb 0
0773'	00	C+	defb 0
		C	no 16,F2,D5.
0774'	01	C+	defb 16/16
0775'	12	C+	defb F2
0776'	34	C+	defb D5.
0777'	00	C+	defb 0
0778'	00	C+	defb 0
		C	no 16,C3,D5.
0779'	01	C+	defb 16/16
077A'	19	C+	defb C3
077B'	34	C+	defb D5.
077C'	00	C+	defb 0
077D'	00	C+	defb 0
		C	%26
		C	no 16,A2.,D5
077E'	01	C+	defb 16/16
077F'	17	C+	defb A2.
0780'	33	C+	defb D5
0781'	00	C+	defb 0
0782'	00	C+	defb 0
		C	no 16,A2.,F5
0783'	01	C+	defb 16/16
0784'	17	C+	defb A2.
0785'	36	C+	defb F5
0786'	00	C+	defb 0
0787'	00	C+	defb 0
		C	no 16,D3,D5.
0788'	01	C+	defb 16/16
0789'	1B	C+	defb D3
078A'	34	C+	defb D5.
078B'	00	C+	defb 0

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078C' 00      C+      defb 0
              C        no 16,D3,F5
078D' 01      C+      defb 16/16
078E' 1B      C+      defb D3
078F' 36      C+      defb F5
0790' 00      C+      defb 0
0791' 00      C+      defb 0
              C        no 16,F3,D5
0792' 01      C+      defb 16/16
0793' 1E      C+      defb F3
0794' 33      C+      defb D5
0795' 00      C+      defb 0
0796' 00      C+      defb 0
              C        no 16,F3,F5
0797' 01      C+      defb 16/16
0798' 1E      C+      defb F3
0799' 36      C+      defb F5
079A' 00      C+      defb 0
079B' 00      C+      defb 0
              C        no 16,D3,D5.
079C' 01      C+      defb 16/16
079D' 1B      C+      defb D3
079E' 34      C+      defb D5.
079F' 00      C+      defb 0
07A0' 00      C+      defb 0
              C        no 16,D3,F5
07A1' 01      C+      defb 16/16
07A2' 1B      C+      defb D3
07A3' 36      C+      defb F5
07A4' 00      C+      defb 0
07A5' 00      C+      defb 0
              C        no 16,A3.,D5
07A6' 01      C+      defb 16/16
07A7' 23      C+      defb A3.
07A8' 33      C+      defb D5
07A9' 00      C+      defb 0
07AA' 00      C+      defb 0
              C        no 16,A3.,F5
07AB' 01      C+      defb 16/16
07AC' 23      C+      defb A3.
07AD' 36      C+      defb F5
07AE' 00      C+      defb 0
07AF' 00      C+      defb 0
              C        no 16,F3,D5.
07B0' 01      C+      defb 16/16
07B1' 1E      C+      defb F3
07B2' 34      C+      defb D5.
07B3' 00      C+      defb 0
07B4' 00      C+      defb 0
              C        no 16,F3,F5
07B5' 01      C+      defb 16/16
07B6' 1E      C+      defb F3
07B7' 36      C+      defb F5
07B8' 00      C+      defb 0
07B9' 00      C+      defb 0
              C

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07BA'	01	C	no 16,D4,A4.
		C+	defb 16/16
07BB'	27	C+	defb D4
07BC'	2F	C+	defb A4.
07BD'	00	C+	defb 0
07BE'	00	C+	defb 0
		C	no 16,F4,D5
07BF'	01	C+	defb 16/16
07C0'	2A	C+	defb F4
07C1'	33	C+	defb D5
07C2'	00	C+	defb 0
07C3'	00	C+	defb 0
		C	no 16,D4.,C5
07C4'	01	C+	defb 16/16
07C5'	28	C+	defb D4.
07C6'	31	C+	defb C5
07C7'	00	C+	defb 0
07C8'	00	C+	defb 0
		C	no 16,F4,D5
07C9'	01	C+	defb 16/16
07CA'	2A	C+	defb F4
07CB'	33	C+	defb D5
07CC'	00	C+	defb 0
07CD'	00	C+	defb 0
		C	no 16,D4,A4.
07CE'	01	C+	defb 16/16
07CF'	27	C+	defb D4
07D0'	2F	C+	defb A4.
07D1'	00	C+	defb 0
07D2'	00	C+	defb 0
		C	no 16,F4,D5
07D3'	01	C+	defb 16/16
07D4'	2A	C+	defb F4
07D5'	33	C+	defb D5
07D6'	00	C+	defb 0
07D7'	00	C+	defb 0
		C	no 16,D4.,C5
07D8'	01	C+	defb 16/16
07D9'	28	C+	defb D4.
07DA'	31	C+	defb C5
07DB'	00	C+	defb 0
07DC'	00	C+	defb 0
		C	no 16,F4,D5
07DD'	01	C+	defb 16/16
07DE'	2A	C+	defb F4
07DF'	33	C+	defb D5
07E0'	00	C+	defb 0
07E1'	00	C+	defb 0
		C	no 16,D4,A4.
07E2'	01	C+	defb 16/16
07E3'	27	C+	defb D4
07E4'	2F	C+	defb A4.
07E5'	00	C+	defb 0
07E6'	00	C+	defb 0
		C	no 16,F4,D5
07E7'	01	C+	defb 16/16

07E8'	2A	C+	defb F4
07E9'	33	C+	defb D5
07EA'	00	C+	defb 0
07EB'	00	C+	defb 0
		C	no 16,D4.,C5
07EC'	01	C+	defb 16/16
07ED'	28	C+	defb D4.
07EE'	31	C+	defb C5
07EF'	00	C+	defb 0
07F0'	00	C+	defb 0
		C	no 16,F4,D5
07F1'	01	C+	defb 16/16
07F2'	2A	C+	defb F4
07F3'	33	C+	defb D5
07F4'	00	C+	defb 0
07F5'	00	C+	defb 0
		C	;28
		C	no 16,A3.,G4
07F6'	01	C+	defb 16/16
07F7'	23	C+	defb A3.
07F8'	2C	C+	defb G4
07F9'	00	C+	defb 0
07FA'	00	C+	defb 0
		C	no 16,D4,A4.
07FB'	01	C+	defb 16/16
07FC'	27	C+	defb D4
07FD'	2F	C+	defb A4.
07FE'	00	C+	defb 0
07FF'	00	C+	defb 0
		C	no 16,C4,A4
0800'	01	C+	defb 16/16
0801'	25	C+	defb C4.
0802'	2E	C+	defb A4
0803'	00	C+	defb 0
0804'	00	C+	defb 0
		C	no 16,D4,A4.
0805'	01	C+	defb 16/16
0806'	27	C+	defb D4
0807'	2F	C+	defb A4.
0808'	00	C+	defb 0
0809'	00	C+	defb 0
		C	no 16,A3.,G4
080A'	01	C+	defb 16/16
080B'	23	C+	defb A3.
080C'	2C	C+	defb G4
080D'	00	C+	defb 0
080E'	00	C+	defb 0
		C	no 16,D4,A4.
080F'	01	C+	defb 16/16
0810'	27	C+	defb D4
0811'	2F	C+	defb A4.
0812'	00	C+	defb 0
0813'	00	C+	defb 0
		C	no 16,C4,A4
0814'	01	C+	defb 16/16
0815'	25	C+	defb C4

0816'	2E	C+	defb A4
0817'	00	C+	defb 0
0818'	00	C+	defb 0
		C	no 16,D4,A4.
0819'	01	C+	defb 16/16
081A'	27	C+	defb D4
081B'	2F	C+	defb A4.
081C'	00	C+	defb 0
081D'	00	C+	defb 0
		C	no 16,A3.,G4
081E'	01	C+	defb 16/16
081F'	23	C+	defb A3.
0820'	2C	C+	defb G4
0821'	00	C+	defb 0
0822'	00	C+	defb 0
		C	no 16,D4,A4.
0823'	01	C+	defb 16/16
0824'	27	C+	defb D4
0825'	2F	C+	defb A4.
0826'	00	C+	defb 0
0827'	00	C+	defb 0
		C	no 16,C4,A4
0828'	01	C+	defb 16/16
0829'	25	C+	defb C4
082A'	2E	C+	defb A4
082B'	00	C+	defb 0
082C'	00	C+	defb 0
		C	no 16,D4,A4.
082D'	01	C+	defb 16/16
082E'	27	C+	defb D4
082F'	2F	C+	defb A4.
0830'	00	C+	defb 0
0831'	00	C+	defb 0
		C	:29
		C	no 16,G3,E4
0832'	01	C+	defb 16/16
0833'	20	C+	defb G3
0834'	29	C+	defb E4
0835'	00	C+	defb 0
0836'	00	C+	defb 0
		C	no 16,A3.,E4
0837'	01	C+	defb 16/16
0838'	23	C+	defb A3.
0839'	29	C+	defb E4
083A'	00	C+	defb 0
083B'	00	C+	defb 0
		C	no 16,A3,C4
083C'	01	C+	defb 16/16
083D'	22	C+	defb A3
083E'	25	C+	defb C4
083F'	00	C+	defb 0
0840'	00	C+	defb 0
		C	no 16,A3.,C4
0841'	01	C+	defb 16/16
0842'	23	C+	defb A3.
0843'	25	C+	defb C4

0844'	00	C+	defb 0
0845'	00	C+	defb 0
		C	no 16,G3,G4
0846'	01	C+	defb 16/16
0847'	20	C+	defb G3
0848'	2C	C+	defb G4
0849'	00	C+	defb 0
084A'	00	C+	defb 0
		C	no 16,A3.,G4
084B'	01	C+	defb 16/16
084C'	23	C+	defb A3.
084D'	2C	C+	defb G4
084E'	00	C+	defb 0
084F'	00	C+	defb 0
		C	no 16,A3,E4
0850'	01	C+	defb 16/16
0851'	22	C+	defb A3
0852'	29	C+	defb E4
0853'	00	C+	defb 0
0854'	00	C+	defb 0
		C	no 16,A3.,E4
0855'	01	C+	defb 16/16
0856'	23	C+	defb A3.
0857'	29	C+	defb E4
0858'	00	C+	defb 0
0859'	00	C+	defb 0
		C	no 16,G3,A4.
085A'	01	C+	defb 16/16
085B'	20	C+	defb G3
085C'	2F	C+	defb A4.
085D'	00	C+	defb 0
085E'	00	C+	defb 0
		C	no 16,A3.,A4.
085F'	01	C+	defb 16/16
0860'	23	C+	defb A3.
0861'	2F	C+	defb A4.
0862'	00	C+	defb 0
0863'	00	C+	defb 0
		C	no 16,A3,G4
0864'	01	C+	defb 16/16
0865'	22	C+	defb A3
0866'	2C	C+	defb G4
0867'	00	C+	defb 0
0868'	00	C+	defb 0
		C	no 16,A3.,G4
0869'	01	C+	defb 16/16
086A'	23	C+	defb A3.
086B'	2C	C+	defb G4
086C'	00	C+	defb 0
086D'	00	C+	defb 0
		C	;30
		C	no 16,E3,C5
086E'	01	C+	defb 16/16
086F'	1D	C+	defb E3
0870'	31	C+	defb C5
0871'	00	C+	defb 0

0872'	00	C+	defb 0
		C	no 16,E3,D5
0873'	01	C+	defb 16/16
0874'	10	C+	defb E3
0875'	33	C+	defb D5
0876'	00	C+	defb 0
0877'	00	C+	defb 0
		C	no 16,C3,C5
0878'	01	C+	defb 16/16
0879'	19	C+	defb C3
087A'	31	C+	defb C5
087B'	00	C+	defb 0
087C'	00	C+	defb 0
		C	no 16,C3,A4.
087D'	01	C+	defb 16/16
087E'	19	C+	defb C3
087F'	2F	C+	defb A4.
0880'	00	C+	defb 0
0881'	00	C+	defb 0
		C	no 16,F3,A4
0882'	01	C+	defb 16/16
0883'	1E	C+	defb F3
0884'	2E	C+	defb A4
0885'	00	C+	defb 0
0886'	00	C+	defb 0
		C	no 16,F3,A4.
0887'	01	C+	defb 16/16
0888'	1E	C+	defb F3
0889'	2F	C+	defb A4.
088A'	00	C+	defb 0
088B'	00	C+	defb 0
		C	no 16,C3,A4
088C'	01	C+	defb 16/16
088D'	19	C+	defb C3
088E'	2E	C+	defb A4
088F'	00	C+	defb 0
0890'	00	C+	defb 0
		C	no 16,C3,G4
0891'	01	C+	defb 16/16
0892'	19	C+	defb C3
0893'	2C	C+	defb G4
0894'	00	C+	defb 0
0895'	00	C+	defb 0
		C	no 16,A3,F4
0896'	01	C+	defb 16/16
0897'	22	C+	defb A3
0898'	2A	C+	defb F4
0899'	00	C+	defb 0
089A'	00	C+	defb 0
		C	no 16,A3,G4
089B'	01	C+	defb 16/16
089C'	22	C+	defb A3
089D'	2C	C+	defb G4
089E'	00	C+	defb 0
089F'	00	C+	defb 0
		C	no 16,F3,F4

08A0'	01	C+	defb 16/16
08A1'	1E	C+	defb F3
08A2'	2A	C+	defb F4
08A3'	00	C+	defb 0
08A4'	00	C+	defb 0
		C	no 16,F3,D4.
08A5'	01	C+	defb 16/16
08A6'	1E	C+	defb F3
08A7'	28	C+	defb D4.
08A8'	00	C+	defb 0
08A9'	00	C+	defb 0
		C	;31
		C	no 16,A3.,D4
08AA'	01	C+	defb 16/16
08AB'	23	C+	defb A3.
08AC'	27	C+	defb D4
08AD'	00	C+	defb 0
08AE'	00	C+	defb 0
		C	no 16,C4,D4
08AF'	01	C+	defb 16/16
08B0'	25	C+	defb C4
08B1'	27	C+	defb D4
08B2'	00	C+	defb 0
08B3'	00	C+	defb 0
		C	no 16,A3.,B4
08B4'	01	C+	defb 16/16
08B5'	23	C+	defb A3.
08B6'	2C	C+	defb B4
08B7'	00	C+	defb 0
08B8'	00	C+	defb 0
		C	no 16,A3,F4
08B9'	01	C+	defb 16/16
08BA'	22	C+	defb A3
08BB'	2A	C+	defb F4
08BC'	00	C+	defb 0
08BD'	00	C+	defb 0
		C	no 16,B3,E4
08BE'	01	C+	defb 16/16
08BF'	20	C+	defb B3
08C0'	29	C+	defb E4
08C1'	00	C+	defb 0
08C2'	00	C+	defb 0
		C	no 16,A3,F4
08C3'	01	C+	defb 16/16
08C4'	22	C+	defb A3
08C5'	2A	C+	defb F4
08C6'	00	C+	defb 0
08C7'	00	C+	defb 0
		C	no 16,B3,E4
08C8'	01	C+	defb 16/16
08C9'	20	C+	defb B3
08CA'	29	C+	defb E4
08CB'	00	C+	defb 0
08CC'	00	C+	defb 0
		C	no 16,F3,D4
08CD'	01	C+	defb 16/16

08CE'	1E	C+	defb F3
08CF'	27	C+	defb D4
08D0'	00	C+	defb 0
08D1'	00	C+	defb 0
		C	no 16,E3,C4
08D2'	01	C+	defb 16/16
08D3'	1D	C+	defb E3
08D4'	25	C+	defb C4
08D5'	00	C+	defb 0
08D6'	00	C+	defb 0
		C	no 16,F3,D4
08D7'	01	C+	defb 16/16
08D8'	1E	C+	defb F3
08D9'	27	C+	defb D4
08DA'	00	C+	defb 0
08DB'	00	C+	defb 0
		C	no 16,E3,C4
08DC'	01	C+	defb 16/16
08DD'	1D	C+	defb E3
08DE'	25	C+	defb C4
08DF'	00	C+	defb 0
08E0'	00	C+	defb 0
		C	no 16,D3,A3.
08E1'	01	C+	defb 16/16
08E2'	1B	C+	defb D3
08E3'	23	C+	defb A3.
08E4'	00	C+	defb 0
08E5'	00	C+	defb 0
		C	;32
		C	no 16,C3,A3
08E6'	01	C+	defb 16/16
08E7'	19	C+	defb C3
08E8'	22	C+	defb A3
08E9'	00	C+	defb 0
08EA'	00	C+	defb 0
		C	no 16,C3,A3.
08EB'	01	C+	defb 16/16
08EC'	19	C+	defb C3
08ED'	23	C+	defb A3.
08EE'	00	C+	defb 0
08EF'	00	C+	defb 0
		C	no 16,F3,A3
08F0'	01	C+	defb 16/16
08F1'	1E	C+	defb F3
08F2'	22	C+	defb A3
08F3'	00	C+	defb 0
08F4'	00	C+	defb 0
		C	no 16,E3,B3
08F5'	01	C+	defb 16/16
08F6'	1D	C+	defb E3
08F7'	20	C+	defb B3
08F8'	00	C+	defb 0
08F9'	00	C+	defb 0
		C	no 16,D3,F3
08FA'	01	C+	defb 16/16
08FB'	1B	C+	defb D3

08FC'	1E	C+	defb F3
08FD'	00	C+	defb 0
08FE'	00	C+	defb 0
		C	no 16,E3,F3
08FF'	01	C+	defb 16/16
0900'	10	C+	defb E3
0901'	1E	C+	defb F3
0902'	00	C+	defb 0
0903'	00	C+	defb 0
		C	no 16,D3,F4
0904'	01	C+	defb 16/16
0905'	1B	C+	defb D3
0906'	2A	C+	defb F4
0907'	00	C+	defb 0
0908'	00	C+	defb 0
		C	no 16,C3,E4
0909'	01	C+	defb 16/16
090A'	19	C+	defb C3
090B'	29	C+	defb E4
090C'	00	C+	defb 0
090D'	00	C+	defb 0
		C	no 16,A2.,F4
090E'	01	C+	defb 16/16
090F'	17	C+	defb A2.
0910'	2A	C+	defb F4
0911'	00	C+	defb 0
0912'	00	C+	defb 0
		C	no 16,C3,F4
0913'	01	C+	defb 16/16
0914'	19	C+	defb C3
0915'	2A	C+	defb F4
0916'	00	C+	defb 0
0917'	00	C+	defb 0
		C	no 16,A2.,A3
0918'	01	C+	defb 16/16
0919'	17	C+	defb A2.
091A'	22	C+	defb A3
091B'	00	C+	defb 0
091C'	00	C+	defb 0
		C	no 16,A2,A3
091D'	01	C+	defb 16/16
091E'	16	C+	defb A2
091F'	22	C+	defb A3
0920'	00	C+	defb 0
0921'	00	C+	defb 0
		C	;33
		C	no 16,G2,A3.
0922'	01	C+	defb 16/16
0923'	14	C+	defb G2
0924'	23	C+	defb A3.
0925'	00	C+	defb 0
0926'	00	C+	defb 0
		C	no 16,A2,A3.
0927'	01	C+	defb 16/16
0928'	16	C+	defb A2
0929'	23	C+	defb A3.

092A'	00	C+	defb 0	
092B'	00	C+	defb 0	
		C	no 16,G2,F4	
092C'	01	C+	defb 16/16	
092D'	14	C+	defb G2	
092E'	2A	C+	defb F4	
092F'	00	C+	defb 0	
0930'	00	C+	defb 0	
		C	no 16,F2,F4	
0931'	01	C+	defb 16/16	
0932'	12	C+	defb F2	
0933'	2A	C+	defb F4	
0934'	00	C+	defb 0	
0935'	00	C+	defb 0	
		C	no 16,C3,A3	
0936'	01	C+	defb 16/16	
0937'	19	C+	defb C3	
0938'	22	C+	defb A3	
0939'	00	C+	defb 0	
093A'	00	C+	defb 0	
		C	no 16,A2.,A3	
093B'	01	C+	defb 16/16	
093C'	17	C+	defb A2.	
093D'	22	C+	defb A3	
093E'	00	C+	defb 0	
093F'	00	C+	defb 0	
		C	no 16,A2.,F4	
0940'	01	C+	defb 16/16	
0941'	16	C+	defb A2	
0942'	2A	C+	defb F4	
0943'	00	C+	defb 0	
0944'	00	C+	defb 0	
		C	no 16,A2.,F4	
0945'	01	C+	defb 16/16	
0946'	17	C+	defb A2.	
0947'	2A	C+	defb F4	
0948'	00	C+	defb 0	
0949'	00	C+	defb 0	
		C	no 8,C3,G3	
094A'	02	C+	defb 16/8	
094B'	19	C+	defb C3	
094C'	20	C+	defb G3	
094D'	00	C+	defb 0	
094E'	00	C+	defb 0	
		C	no 8,C2,E4	
094F'	02	C+	defb 16/8	
0950'	00	C+	defb C2	
0951'	29	C+	defb E4	
0952'	00	C+	defb 0	
0953'	00	C+	defb 0	
		C	;34	
		C	no 4,A3,c4,f4	;f2 fehlt
0954'	04	C+	defb 16/4	
0955'	22	C+	defb A3	
0956'	25	C+	defb c4	
0957'	2A	C+	defb f4	

```
0958' 00          C+      defb 0
          C      ;
0959' 00 00 00 00 defb 0,0,0,0,0      ;ende
095D' 00

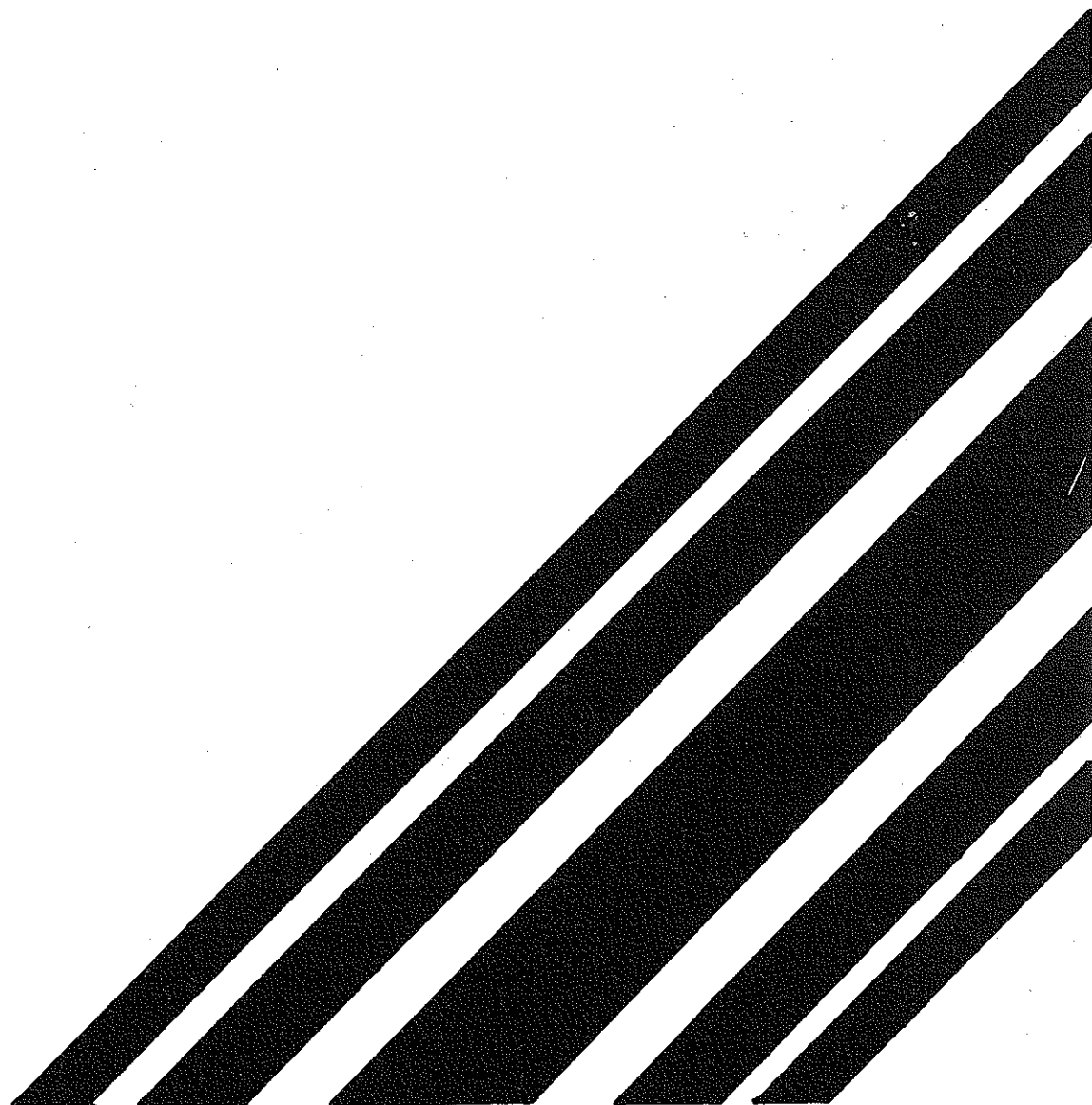
          end start
```

Macros:
NO

Symbols:

000A	A1	0008	A1.	0016	A2
0017	A2.	0022	A3	0023	A3.
002E	A4	002F	A4.	003A	A5
003B	A5.	0046	A6	0047	A6.
0052	A7	0053	A7.	005E	A8
005F	A8.	000C	B1	0018	B2
0024	B3	0030	B4	003C	B5
0048	B6	0054	B7	0060	B8
0001	C1	0002	C1.	000D	E2
000E	C2.	0019	C3	001A	C3.
0025	C4	0026	C4.	0031	C5
0032	C5.	003D	C6	003E	C6.
0049	C7	004A	C7.	0055	C8
0056	C8.	0003	D1	0004	D1.
000F	D2	0010	D2.	001B	D3
001C	D3.	0027	D4	0028	D4.
0033	D5	0034	D5.	003F	D6
0040	D6.	004B	D7	004C	D7.
0057	D8	0058	D8.	0005	E1
0011	E2	001D	E3	0029	E4
0035	E5	0041	E6	004D	E7
0059	E8	0006	F1	0007	F1.
0012	F2	0013	F2.	001E	F3
001F	F3.	002A	F4	002B	F4.
0036	F5	0037	F5.	0042	F6
0043	F6.	004E	F7	004F	F7.
005A	F8	005B	F8.	007C'	FERTIG
0008	G1	0009	G1.	0014	G2
0015	G2.	0020	G3	0021	G3.
002C	G4	002D	G4.	0038	G5
0039	G5.	0044	G6	0045	G6.
0050	G7	0051	G7.	005C	G8
005D	G8.	000C	H1	0018	H2
0024	H3	0030	H4	003C	H5
0048	H6	0054	H7	0060	H8
0059'	LP1	0068'	LP2	0053'	LPA
004D'	LPDELA	0004'	MAINLP	0036'	MITTON
0210'	MUSIK	0090'	NOTTAB	0000'	START
0028'	WARTE	0025'	WARTE1		

No Fatal error(s)



Musik mit RAM

```

.z80

;*****
; Musikprogramm mit RAM-Speicher *
; die Ausgabe erfolgt ueber IOR0 *
; Rolf-Dieter Klein 15.5.83 *
;*****

; Ram ab Adresse 8000h

0000'   aseq
        org 0

0000   start:
0000   31 80D0   ld sp,stack           ;stack definieren
        ;
0003   DD 21 0174   ld ix,musik           ;start des Musikprogramms
        ;
0007   melo1:
0007   DD 7E 01   ld a,(ix+1)           ;Note1
000A   CD 0099   call getadr
000D   22 8000   ld (note1),hl
0010   DD 7E 02   ld a,(ix+2)
0013   CD 0099   call getadr
0016   22 8002   ld (note2),hl
0019   DD 7E 03   ld a,(ix+3)
001C   CD 0099   call getadr
001F   22 8004   ld (note3),hl
0022   DD 7E 04   ld a,(ix+4)
0025   CD 0099   call getadr
0028   22 8006   ld (note4),hl
        ; nun register definieren
002B   21 0000   ld hl,0
002E   01 0F42   ld bc,3906           ;1/8 sec
0031   DD 7E 00   ld a,(ix+0)
0034   lp11:
0034   09       add hl,bc
0035   3D       dec a
0036   C2 0034   jp nz,lp11
        ;
0039   4D       ld c,l
003A   44       ld b,h           ;bc=Zaehler
003B   2A 8000   ld hl,(note1)
003E   ED 5B 8002   ld de,(note2)
0042   D9       exx
0043   2A 8004   ld hl,(note3)
0046   ED 5B 8006   ld de,(note4)
004A   D9       exx
004B   CD 0062   call spiele
004E   DD 23   inc ix
0050   DD 23   inc ix
0052   DD 23   inc ix
0054   DD 23   inc ix
0056   DD 23   inc ix
0058   DD 7E 00   ld a,(ix+0)           ;weitere Musikdaten
005B   87       or a

```

```

005C C2 0007      jp nz,mel01
005F C3 0000      jp start      ;wiederhole alles
;

0062      spiele:
0062      lpi:
0062 2B          dec hl
0063 7C          ld a,h
0064 B5          or l
0065 C2 006D      jp nz,s1
0068 2A 8000      ld hl,(note1)
006B D3 00          out (0),a      ;Impuls geben
006D      s1:
006D 1B          dec de
006E 7A          ld a,d
006F B3          or e
0070 C2 0079      jp nz,s2
0073 ED 5B 8002   ld de,(note2)
0077 D3 00          out (0),a
0079      s2:
0079 D9          exx
007A 2B          dec hl
007B 7C          ld a,h
007C B5          or l
007D C2 0085      jp nz,s3
0080 2A 8004      ld hl,(note3)
0083 D3 00          out (0),a
0085      s3:
0085 1B          dec de
0086 7A          ld a,d
0087 B3          or e
0088 C2 0091      jp nz,s4
008B ED 5B 8006   ld de,(note4)
008F D3 00          out (0),a
0091      s4:
0091 D9          exx
0092 0B          dec bc
0093 78          ld a,b
0094 B1          or c
0095 C2 0062      jp nz,lpi      ;32ys bei 4MHZ pro Durchlauf
0098 C9          ret

0099      getadr:      ;holt Adresse Noten nach iy Temp
;wert der Note nach hl
;a=0 dann hl=ffff

0099 B7          or a
009A C2 00A1      jp nz,gt1
009D 21 FFFF      ld hl,0ffffh
00A0 C9          ret
;

00A1      gt1:
;in a der Interncode 1..n
00A1 3D          dec a      ;bereich 0..n

```

```

00A2 5F          ld e,a
00A3 16 00       ld d,0          ;d:=0 e:=a
00A5 FD 21 00B4 ld iy,nottab   ;Adresse Notentabelle
00A9 FD 19       add iy,de      ;Note direkt
00AB FD 19       add iy,de      ;Adresse + 4*Index
00AD FD 6E 00    ld l,(iy+0)
00B0 FD 66 01    ld h,(iy+1)   ;hl=Notenwert
00B3 C9         ret

```

```

C          include MUSIK.MAC
C          ; Konstantendefinitionen
C          ; fuer Musikprogramm I
C
C          ; Definitionen
C          ; 0=kein Ton
C

```

```

0001 C          c1      EQU      1
0002 C          c1.     EQU      2
0003 C          d1      EQU      3
0004 C          d1.     EQU      4
0005 C          e1      EQU      5
0006 C          f1      EQU      6
0007 C          f1.     EQU      7
0008 C          g1      EQU      8
0009 C          g1.     EQU      9
000A C          a1      EQU     10
000B C          a1.     EQU     11
000C C          h1      EQU     12
000C C          b1      EQU     12      ;beide
C
000D C          c2      EQU     13
000E C          c2.     EQU     14
000F C          d2      EQU     15
0010 C          d2.     EQU     16
0011 C          e2      EQU     17
0012 C          f2      EQU     18
0013 C          f2.     EQU     19
0014 C          g2      EQU     20
0015 C          g2.     EQU     21
0016 C          a2      EQU     22
0017 C          a2.     EQU     23
0018 C          h2      EQU     24
0018 C          b2      EQU     24
C
0019 C          c3      EQU     25
001A C          c3.     EQU     26
001B C          d3      EQU     27
001C C          d3.     EQU     28
001D C          e3      EQU     29
001E C          f3      EQU     30
001F C          f3.     EQU     31
0020 C          g3      EQU     32
0021 C          g3.     EQU     33
0022 C          a3      EQU     34
0023 C          a3.     EQU     35
0024 C          h3      EQU     36

```

0024	C	b3	EQU	36
	C			
0025	C	c4	EQU	37
0026	C	c4.	EQU	38
0027	C	d4	EQU	39
0028	C	d4.	EQU	40
0029	C	e4	EQU	41
002A	C	f4	EQU	42
002B	C	f4.	EQU	43
002C	C	g4	EQU	44
002D	C	g4.	EQU	45
002E	C	a4	ERU	46
002F	C	a4.	EQU	47
0030	C	h4	EQU	48
0030	C	b4	EQU	48
	C			
0031	C	c5	EQU	49
0032	C	c5.	EQU	50
0033	C	d5	EQU	51
0034	C	d5.	EQU	52
0035	C	e5	EQU	53
0036	C	f5	EQU	54
0037	C	f5.	EQU	55
0038	C	g5	EQU	56
0039	C	g5.	EQU	57
003A	C	a5	EQU	58
003B	C	a5.	EQU	59
003C	C	h5	EQU	60
003C	C	b5	EQU	60
	C			
003D	C	c6	EQU	61
003E	C	c6.	EQU	62
003F	C	d6	EQU	63
0040	C	d6.	EQU	64
0041	C	e6	EQU	65
0042	C	f6	EQU	66
0043	C	f6.	EQU	67
0044	C	g6	ERU	68
0045	C	g6.	EQU	69
0046	C	a6	EQU	70
0047	C	a6.	EQU	71
0048	C	h6	EQU	72
0048	C	b6	EQU	72
	C			
0049	C	c7	EQU	73
004A	C	c7.	EQU	74
004B	C	d7	EQU	75
004C	C	d7.	EQU	76
004D	C	e7	EQU	77
004E	C	f7	EQU	78
004F	C	f7.	EQU	79
0050	C	g7	ERU	80
0051	C	g7.	EQU	81
0052	C	a7	EQU	82
0053	C	a7.	EQU	83
0054	C	h7	EQU	84

```

0054      C      b7      EQU      84
          C
0055      C      c8      EQU      85
0056      C      c8.     EQU      86
0057      C      d8      EQU      87
0058      C      d8.     EQU      88
0059      C      e8      EQU      89
005A      C      f8      EQU      90
005B      C      f8.     EQU      91
005C      C      g8      EQU      92
005D      C      g8.     EQU      93
005E      C      a8      EQU      94
005F      C      a8.     EQU      95
0060      C      h8      EQU      96
0060      C      b8      EQU      96
          C      ;
          C
          C      ; Notennakros -- --
          C      no macro ti,n1,n2,n3,n4
          C      ife ti
          C      defb 0,0,0,0,0      ;5 Eintraege
          C      else
          C      defb 16/ti
          C      ifnb <n1>
          C      defb n1
          C      else
          C      defb 0
          C      endif
          C      ifnb <n2>
          C      defb n2
          C      else
          C      defb 0
          C      endif
          C      ifnb <n3>
          C      defb n3
          C      else
          C      defb 0
          C      endif
          C      ifnb <n4>
          C      defb n4
          C      else
          C      defb 0
          C      endif
          C      endif
          C      endif
          C      endm
          C
          C      ; ganze Note ist 16/1
          C
          C      ; ende Einschub
          C
00B4      nottab:      ;Tabelle der Notenlaengen note,loop
          C      include NOTMIR.MAC
          C      ; Notenskala
00B4      03BC      C      DEFW      956      ; 1 1      32.70      32.69
00B6      0386      C      DEFW      902      ; 2 1      34.65      34.65
00B8      0353      C      DEFW      851      ; 3 1      36.71      36.72

```

00BA	0324	C	DEFW	804	:	4	1	38.89	38.87
00BC	02F6	C	DEFW	758	:	5	1	41.20	41.23
00BE	02CC	C	DEFW	716	:	6	1	43.65	43.65
00C0	02A4	C	DEFW	676	:	7	1	46.25	46.23
00C2	027E	C	DEFW	638	:	8	1	49.00	48.98
00C4	025A	C	DEFW	602	:	9	1	51.91	51.91
00C6	0238	C	DEFW	568	:	10	1	55.00	55.02
00C8	0218	C	DEFW	536	:	11	1	58.27	58.30
00CA	01FA	C	DEFW	506	:	12	1	61.74	61.76
00CC	01DE	C	DEFW	478	:	1	2	65.41	65.38
00CE	01C3	C	DEFW	451	:	2	2	69.30	69.29
00D0	01AA	C	DEFW	426	:	3	2	73.42	73.36
00D2	0192	C	DEFW	402	:	4	2	77.78	77.74
00D4	017B	C	DEFW	379	:	5	2	82.41	82.45
00D6	0166	C	DEFW	358	:	6	2	87.31	87.29
00D8	0152	C	DEFW	338	:	7	2	92.50	92.46
00DA	013F	C	DEFW	319	:	8	2	98.00	97.96
00DC	012D	C	DEFW	301	:	9	2	103.83	103.82
00DE	011C	C	DEFW	284	:	10	2	110.00	110.04
00E0	010C	C	DEFW	268	:	11	2	116.54	116.60
00E2	00FD	C	DEFW	253	:	12	2	123.47	123.52
00E4	00EF	C	DEFW	239	:	1	3	130.81	130.75
00E6	00E1	C	DEFW	225	:	2	3	138.59	138.89
00E8	00D5	C	DEFW	213	:	3	3	146.83	146.71
00EA	00C9	C	DEFW	201	:	4	3	155.56	155.47
00EC	00BE	C	DEFW	190	:	5	3	164.81	164.47
00EE	00B3	C	DEFW	179	:	6	3	174.62	174.58
00F0	00A9	C	DEFW	169	:	7	3	185.00	184.91
00F2	009F	C	DEFW	159	:	8	3	196.00	196.54
00F4	0096	C	DEFW	150	:	9	3	207.65	208.33
00F6	008E	C	DEFW	142	:	10	3	220.00	220.07
00F8	0086	C	DEFW	134	:	11	3	233.08	233.21
00FA	007F	C	DEFW	127	:	12	3	246.94	246.06
00FC	0077	C	DEFW	119	:	1	4	261.62	262.61
00FE	0071	C	DEFW	113	:	2	4	277.18	276.55
0100	006A	C	DEFW	106	:	3	4	293.66	294.81
0102	0064	C	DEFW	100	:	4	4	311.13	312.50
0104	005F	C	DEFW	95	:	5	4	329.62	328.95
0106	0059	C	DEFW	89	:	6	4	349.23	351.12
0108	0054	C	DEFW	84	:	7	4	369.99	372.02
010A	0050	C	DEFW	80	:	8	4	391.99	390.63
010C	004B	C	DEFW	75	:	9	4	415.30	416.67
010E	0047	C	DEFW	71	:	10	4	440.00	440.14
0110	0043	C	DEFW	67	:	11	4	466.16	466.42
0112	003F	C	DEFW	63	:	12	4	493.88	496.03
0114	003C	C	DEFW	60	:	1	5	523.25	520.83
0116	0038	C	DEFW	56	:	2	5	554.37	558.04
0118	0035	C	DEFW	53	:	3	5	587.33	589.62
011A	0032	C	DEFW	50	:	4	5	622.26	625.00
011C	002F	C	DEFW	47	:	5	5	659.25	664.89
011E	002D	C	DEFW	45	:	6	5	698.46	694.44
0120	002A	C	DEFW	42	:	7	5	739.98	744.05
0122	0028	C	DEFW	40	:	8	5	783.98	781.25
0124	0026	C	DEFW	38	:	9	5	830.61	822.37
0126	0024	C	DEFW	36	:	10	5	880.00	868.06
0128	0022	C	DEFW	34	:	11	5	932.32	919.12

012A	0020	C	DEFW	32	:	12	5	987.76	976.56
012C	001E	C	DEFW	30	:	1	6	1046.50	1041.67
012E	001C	C	DEFW	28	:	2	6	1108.74	1116.07
0130	001B	C	DEFW	27	:	3	6	1174.66	1157.41
0132	0019	C	DEFW	25	:	4	6	1244.51	1250.00
0134	0018	C	DEFW	24	:	5	6	1318.50	1302.08
0136	0016	C	DEFW	22	:	6	6	1396.93	1420.45
0138	0015	C	DEFW	21	:	7	6	1479.97	1488.10
013A	0014	C	DEFW	20	:	8	6	1567.97	1562.50
013C	0013	C	DEFW	19	:	9	6	1661.22	1644.74
013E	0012	C	DEFW	18	:	10	6	1760.00	1736.11
0140	0011	C	DEFW	17	:	11	6	1864.64	1838.24
0142	0010	C	DEFW	16	:	12	6	1975.52	1953.13
0144	000F	C	DEFW	15	:	1	7	2092.99	2083.33
0146	000E	C	DEFW	14	:	2	7	2217.47	2232.14
0148	000D	C	DEFW	13	:	3	7	2349.31	2403.85
014A	000D	C	DEFW	13	:	4	7	2489.02	2403.85
014C	000C	C	DEFW	12	:	5	7	2636.99	2604.17
014E	000B	C	DEFW	11	:	6	7	2793.86	2840.91
0150	000B	C	DEFW	11	:	7	7	2959.94	2840.91
0152	000A	C	DEFW	10	:	8	7	3135.94	3125.00
0154	0009	C	DEFW	9	:	9	7	3322.43	3472.22
0156	0009	C	DEFW	9	:	10	7	3520.00	3472.22
0158	0008	C	DEFW	8	:	11	7	3729.28	3906.25
015A	0008	C	DEFW	8	:	12	7	3951.04	3906.25
015C	0007	C	DEFW	7	:	1	8	4185.98	4464.29
015E	0007	C	DEFW	7	:	2	8	4434.94	4464.29
0160	0007	C	DEFW	7	:	3	8	4698.62	4464.29
0162	0006	C	DEFW	6	:	4	8	4978.05	5208.33
0164	0006	C	DEFW	6	:	5	8	5273.98	5208.33
0166	0006	C	DEFW	6	:	6	8	5587.71	5208.33
0168	0005	C	DEFW	5	:	7	8	5919.87	6250.00
016A	0005	C	DEFW	5	:	8	8	6271.87	6250.00
016C	0005	C	DEFW	5	:	9	8	6644.86	6250.00
016E	0004	C	DEFW	4	:	10	8	7040.00	7812.50
0170	0004	C	DEFW	4	:	11	8	7458.56	7812.50
0172	0004	C	DEFW	4	:	12	8	7902.08	7812.50
0174									

musik: ;Tabelle Musikpr

C include LVBMIN.MEL

C ;

C ;MINUET BY L. V. BEETHOVEN

C ;FROM CLASSICAL ALBUM FOR FLUTE AND PIANO

C ;RUDALL CARTE & CO

C ;

C ;1

C no 8,B3,B3,G4,G4

0174 02 C+ defb 16/8

0175 20 C+ defb B3

0176 24 C+ defb B3

0177 2C C+ defb G4

0178 2C C+ defb G4

C no 16,B3,D4, G4

0179 01 C+ defb 16/16

017A 20 C+ defb B3

017B 27 C+ defb D4

017C 2C C+ defb G4

017D	00	C+	defb 0
		C	no 16,G3,D4, F4.
017E	01	C+	defb 16/16
017F	20	C+	defb G3
0180	27	C+	defb D4
0181	28	C+	defb F4.
0182	00	C+	defb 0
		C	i2
		C	no 8,A3,C4,F4.,F4.
0183	02	C+	defb 16/8
0184	22	C+	defb A3
0185	25	C+	defb C4
0186	28	C+	defb F4.
0187	28	C+	defb F4.
		C	no 8,A3,D4, F4.
0188	02	C+	defb 16/8
0189	22	C+	defb A3
018A	27	C+	defb D4
018B	28	C+	defb F4.
018C	00	C+	defb 0
		C	no 8,D3,C4, F4.
018D	02	C+	defb 16/8
018E	18	C+	defb D3
018F	25	C+	defb C4
0190	28	C+	defb F4.
0191	00	C+	defb 0
		C	no 8,D3,D4, F4.
0192	02	C+	defb 16/8
0193	18	C+	defb D3
0194	27	C+	defb D4
0195	28	C+	defb F4.
0196	00	C+	defb 0
		C	no 16,A3,C4,F4.,F4.
0197	01	C+	defb 16/16
0198	22	C+	defb A3
0199	25	C+	defb C4
019A	28	C+	defb F4.
019B	28	C+	defb F4.
		C	no 16,A3,C4,F4.,F4.
019C	01	C+	defb 16/16
019D	22	C+	defb A3
019E	25	C+	defb C4
019F	28	C+	defb F4.
01A0	28	C+	defb F4.
		C	no 16,A3,D4, F4.
01A1	01	C+	defb 16/16
01A2	22	C+	defb A3
01A3	27	C+	defb D4
01A4	28	C+	defb F4.
01A5	00	C+	defb 0
		C	no 16,A3,D4, G4
01A6	01	C+	defb 16/16
01A7	22	C+	defb A3
01A8	27	C+	defb D4
01A9	2C	C+	defb G4
01AA	00	C+	defb 0

		C	13	
		C	no 8,G3,B3,G4,G4	
01AB	02	C+	defb 16/8	
01AC	20	C+	defb G3	
01AD	24	C+	defb B3	
01AE	2C	C+	defb G4	
01AF	2C	C+	defb G4	
		C	no 8,G3,D4, G4	
01B0	02	C+	defb 16/8	
01B1	20	C+	defb G3	
01B2	27	C+	defb D4	
01B3	2C	C+	defb G4	
01B4	00	C+	defb 0	
		C	no 8,D3,B3, G4	
01B5	02	C+	defb 16/8	
01B6	1B	C+	defb D3	
01B7	24	C+	defb B3	
01B8	2C	C+	defb G4	
01B9	00	C+	defb 0	
		C	no 8,D3,D4, G4	
01BA	02	C+	defb 16/8	
01BB	1B	C+	defb D3	
01BC	27	C+	defb D4	
01BD	2C	C+	defb G4	
01BE	00	C+	defb 0	
		C	no 8,G3,B3, G4	
01BF	02	C+	defb 16/8	
01C0	20	C+	defb G3	
01C1	24	C+	defb B3	
01C2	2C	C+	defb G4	
01C3	00	C+	defb 0	
		C	no 16,G3,D4, G4	
01C4	01	C+	defb 16/16	
01C5	20	C+	defb G3	
01C6	27	C+	defb D4	
01C7	2C	C+	defb G4	
01C8	00	C+	defb 0	
		C	no 16,G3,D4, B4	
01C9	01	C+	defb 16/16	
01CA	20	C+	defb G3	
01CB	27	C+	defb D4	
01CC	30	C+	defb B4	
01CD	00	C+	defb 0	
		C	14	
		C	no 8,F3.,A3, D5	
01CE	02	C+	defb 16/8	
01CF	1F	C+	defb F3.	
01D0	22	C+	defb A3	
01D1	33	C+	defb D5	
01D2	00	C+	defb 0	
		C	no 8,F3.,D4, D5	
01D3	02	C+	defb 16/8	
01D4	1F	C+	defb F3.	
01D5	27	C+	defb D4	
01D6	33	C+	defb D5	
01D7	00	C+	defb 0	

		C	no 8,D3,A3, D5
01D8	02	C+	defb 16/8
01D9	18	C+	defb D3
01DA	22	C+	defb A3
01DB	33	C+	defb D5
01DC	00	C+	defb 0
		C	no 8,D3,D4, E5
01DD	02	C+	defb 16/8
01DE	18	C+	defb D3
01DF	27	C+	defb D4
01E0	35	C+	defb E5
01E1	00	C+	defb 0
		C	no 8,F3.,A3, D5
01E2	02	C+	defb 16/8
01E3	1F	C+	defb F3.
01E4	22	C+	defb A3
01E5	33	C+	defb D5
01E6	00	C+	defb 0
		C	no 8,F3.,D4, C5
01E7	02	C+	defb 16/8
01E8	1F	C+	defb F3.
01E9	27	C+	defb D4
01EA	31	C+	defb C5
01EB	00	C+	defb 0
		C	;5
		C	no 8,G3,B3, B4
01EC	02	C+	defb 16/8
01ED	20	C+	defb G3
01EE	24	C+	defb B3
01EF	30	C+	defb B4
01F0	00	C+	defb 0
		C	no 8,G3,D4, B4
01F1	02	C+	defb 16/8
01F2	20	C+	defb G3
01F3	27	C+	defb D4
01F4	30	C+	defb B4
01F5	00	C+	defb 0
		C	no 8,D3,B3, B4
01F6	02	C+	defb 16/8
01F7	18	C+	defb D3
01F8	24	C+	defb B3
01F9	2C	C+	defb G4
01FA	00	C+	defb 0
		C	no 8,D3,D4
01FB	02	C+	defb 16/8
01FC	18	C+	defb D3
01FD	27	C+	defb D4
01FE	00	C+	defb 0
01FF	00	C+	defb 0
		C	no 8,G3,B3,G4,G4
0200	02	C+	defb 16/8
0201	20	C+	defb G3
0202	24	C+	defb B3
0203	2C	C+	defb G4
0204	2C	C+	defb G4
		C	no 16,G3,D4, G4

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0205 01 C+ defb 16/16
0206 20 C+ defb G3
0207 27 C+ defb D4
0208 2C C+ defb G4
0209 00 C+ defb 0
C no 16,G3,D4, F4.
020A 01 C+ defb 16/16
020B 20 C+ defb G3
020C 27 C+ defb D4
020D 2B C+ defb F4.
020E 00 C+ defb 0
C ;6
C no 8,A3,C4,F4.,F4.
020F 02 C+ defb 16/8
0210 22 C+ defb A3
0211 25 C+ defb C4
0212 2B C+ defb F4.
0213 2B C+ defb F4.
C no 8,A3,D4, F4.
0214 02 C+ defb 16/8
0215 22 C+ defb A3
0216 27 C+ defb D4
0217 2B C+ defb F4.
0218 00 C+ defb 0
C no 8,D3,C4, F4.
0219 02 C+ defb 16/8
021A 1B C+ defb D3
021B 25 C+ defb C4
021C 2B C+ defb F4.
021D 00 C+ defb 0
C no 8,D3,D4, F4.
021E 02 C+ defb 16/8
021F 1B C+ defb D3
0220 27 C+ defb D4
0221 2B C+ defb F4.
0222 00 C+ defb 0
C no 8,A3,C4,F4.,F4.
0223 02 C+ defb 16/8
0224 22 C+ defb A3
0225 25 C+ defb C4
0226 2B C+ defb F4.
0227 2B C+ defb F4.
C no 16,A3,D4, F4.
0228 01 C+ defb 16/16
0229 22 C+ defb A3
022A 27 C+ defb D4
022B 2B C+ defb F4.
022C 00 C+ defb 0
C no 16,A3,D4, G4
022D 01 C+ defb 16/16
022E 22 C+ defb A3
022F 27 C+ defb D4
0230 2C C+ defb G4
0231 00 C+ defb 0
C ;7
C no 8,G3,B3,G4,G4

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0232	02	C+	defb 16/8	
0233	20	C+	defb G3	
0234	24	C+	defb B3	
0235	2C	C+	defb G4	
0236	2C	C+	defb G4	
		C	no 8,G3,D4,	G4
0237	02	C+	defb 16/8	
0238	20	C+	defb G3	
0239	27	C+	defb D4	
023A	2C	C+	defb G4	
023B	00	C+	defb 0	
		C	no 8,D3,B3,	G4
023C	02	C+	defb 16/8	
023D	1B	C+	defb D3	
023E	24	C+	defb B3	
023F	2C	C+	defb G4	
0240	00	C+	defb 0	
		C	no 8,D3,D4,	G4
0241	02	C+	defb 16/8	
0242	1B	C+	defb D3	
0243	27	C+	defb D4	
0244	2C	C+	defb G4	
0245	00	C+	defb 0	
		C	no 8,G3,B3,	G4
0246	02	C+	defb 16/8	
0247	20	C+	defb G3	
0248	24	C+	defb B3	
0249	2C	C+	defb G4	
024A	00	C+	defb 0	
		C	no 16,G3,D4,	G4
024B	01	C+	defb 16/16	
024C	20	C+	defb G3	
024D	27	C+	defb D4	
024E	2C	C+	defb G4	
024F	00	C+	defb 0	
		C	no 16,G3,D4,	B4
0250	01	C+	defb 16/16	
0251	20	C+	defb G3	
0252	27	C+	defb D4	
0253	30	C+	defb B4	
0254	00	C+	defb 0	
		C	;8	
		C	no 4,	D5
0255	04	C+	defb 16/4	
0256	33	C+	defb D5	
0257	00	C+	defb 0	
0258	00	C+	defb 0	
0259	00	C+	defb 0	
		C	no 8,D3,C4,F4.,	D5
025A	02	C+	defb 16/8	
025B	1B	C+	defb D3	
025C	25	C+	defb C4	
025D	2B	C+	defb F4.	
025E	33	C+	defb D5	
		C	no 8,	C5.
025F	02	C+	defb 16/8	

0260	32	C+	defb C5.
0261	00	C+	defb 0
0262	00	C+	defb 0
0263	00	C+	defb 0
		C	no 8,D3,C4,F4.,C5
0264	02	C+	defb 16/8
0265	18	C+	defb D3
0266	25	C+	defb C4
0267	28	C+	defb F4.
0268	31	C+	defb C5
		C	no 8, A4
0269	02	C+	defb 16/8
026A	2E	C+	defb A4
026B	00	C+	defb 0
026C	00	C+	defb 0
026D	00	C+	defb 0
		C	;9
		C	no 8,G3,B3,G4,G4
026E	02	C+	defb 16/8
026F	20	C+	defb B3
0270	24	C+	defb B3
0271	2C	C+	defb G4
0272	2C	C+	defb G4
		C	no 8, G4
0273	02	C+	defb 16/8
0274	2C	C+	defb G4
0275	00	C+	defb 0
0276	00	C+	defb 0
0277	00	C+	defb 0
		C	no 8,G2
0278	02	C+	defb 16/8
0279	14	C+	defb G2
027A	00	C+	defb 0
027B	00	C+	defb 0
027C	00	C+	defb 0
		C	no 8
027D	02	C+	defb 16/8
027E	00	C+	defb 0
027F	00	C+	defb 0
0280	00	C+	defb 0
0281	00	C+	defb 0
		C	no 8, B4
0282	02	C+	defb 16/8
0283	30	C+	defb B4
0284	00	C+	defb 0
0285	00	C+	defb 0
0286	00	C+	defb 0
		C	no 16, B4
0287	01	C+	defb 16/16
0288	30	C+	defb B4
0289	00	C+	defb 0
028A	00	C+	defb 0
028B	00	C+	defb 0
		C	no 16, B4
028C	01	C+	defb 16/16
028D	30	C+	defb B4

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028E 00 C+ defb 0
028F 00 C+ defb 0
0290 00 C+ defb 0
      C ;10
      C no 4,D4.,F4.,B4,B4
0291 04 C+ defb 16/4
0292 28 C+ defb D4.
0293 2B C+ defb F4.
0294 30 C+ defb B4
0295 30 C+ defb B4
      C no 8,E4,G4,C5,C5
0296 02 C+ defb 16/8
0297 29 C+ defb E4
0298 2C C+ defb B4
0299 31 C+ defb C5
029A 31 C+ defb C5
      C no 8
029B 02 C+ defb 16/8
029C 00 C+ defb 0
029D 00 C+ defb 0
029E 00 C+ defb 0
029F 00 C+ defb 0
      C no 8, C5
02A0 02 C+ defb 16/8
02A1 31 C+ defb C5
02A2 00 C+ defb 0
02A3 00 C+ defb 0
02A4 00 C+ defb 0
      C no 16, C5
02A5 01 C+ defb 16/16
02A6 31 C+ defb C5
02A7 00 C+ defb 0
02A8 00 C+ defb 0
02A9 00 C+ defb 0
      C no 16, C5
02AA 01 C+ defb 16/16
02AB 31 C+ defb C5
02AC 00 C+ defb 0
02AD 00 C+ defb 0
02AE 00 C+ defb 0
      C ;11
      C no 4,E4,G4,C5,C5
02AF 04 C+ defb 16/4
02B0 29 C+ defb E4
02B1 2C C+ defb B4
02B2 31 C+ defb C5
02B3 31 C+ defb C5
      C no 8,D4,F4.,B4,B4
02B4 02 C+ defb 16/8
02B5 27 C+ defb D4
02B6 2B C+ defb F4.
02B7 30 C+ defb B4
02B8 30 C+ defb B4
      C no 8
02B9 02 C+ defb 16/8
02BA 00 C+ defb 0

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02BB	00	C+	defb 0
02BC	00	C+	defb 0
02BD	00	C+	defb 0
		C	no 8, B4
02BE	02	C+	defb 16/8
02BF	30	C+	defb B4
02C0	00	C+	defb 0
02C1	00	C+	defb 0
02C2	00	C+	defb 0
		C	no 16, B4
02C3	01	C+	defb 16/16
02C4	30	C+	defb B4
02C5	00	C+	defb 0
02C6	00	C+	defb 0
02C7	00	C+	defb 0
		C	no 16, B4
02C8	01	C+	defb 16/16
02C9	30	C+	defb B4
02CA	00	C+	defb 0
02CB	00	C+	defb 0
02CC	00	C+	defb 0
		C	;12
		C	no 8, B4
02CD	02	C+	defb 16/8
02CE	30	C+	defb B4
02CF	00	C+	defb 0
02D0	00	C+	defb 0
02D1	00	C+	defb 0
		C	no 8, A4
02D2	02	C+	defb 16/8
02D3	2E	C+	defb A4
02D4	00	C+	defb 0
02D5	00	C+	defb 0
02D6	00	C+	defb 0
		C	no 8,C4,E4, G4.
02D7	02	C+	defb 16/8
02D8	25	C+	defb C4
02D9	29	C+	defb E4
02DA	20	C+	defb G4.
02DB	00	C+	defb 0
		C	no 8,C4,E4, A4
02DC	02	C+	defb 16/8
02DD	25	C+	defb C4
02DE	29	C+	defb E4
02DF	2E	C+	defb A4
02E0	00	C+	defb 0
		C	no 8,C4,E4,A4,D4.
02E1	02	C+	defb 16/8
02E2	25	C+	defb C4
02E3	29	C+	defb E4
02E4	2E	C+	defb A4
02E5	28	C+	defb D4.
		C	no 8,C4,E4,A4,E4
02E6	02	C+	defb 16/8
02E7	25	C+	defb C4
02E8	29	C+	defb E4

02E9	2E	C+	defb A4
02EA	29	C+	defb E4
		C	:13
		C	no 4,D3,B3,D4,G4
02EB	04	C+	defb 16/4
02EC	18	C+	defb D3
02ED	24	C+	defb B3
02EE	27	C+	defb D4
02EF	2C	G+	defb G4
		C	no 8,D3,A3,D4,F4.
02F0	02	C+	defb 16/8
02F1	18	C+	defb D3
02F2	22	C+	defb A3
02F3	27	C+	defb D4
02F4	2B	C+	defb F4.
		C	no 8
02F5	02	C+	defb 16/8
02F6	00	C+	defb 0
02F7	00	C+	defb 0
02F8	00	C+	defb 0
02F9	00	C+	defb 0
		C	no 8, G5
02FA	02	C+	defb 16/8
02FB	38	C+	defb G5
02FC	00	C+	defb 0
02FD	00	C+	defb 0
02FE	00	C+	defb 0
		C	no 16, G5
02FF	01	C+	defb 16/16
0300	38	C+	defb G5
0301	00	C+	defb 0
0302	00	C+	defb 0
0303	00	C+	defb 0
		C	no 16, F5.
0304	01	C+	defb 16/16
0305	37	C+	defb F5.
0306	00	C+	defb 0
0307	00	C+	defb 0
0308	00	C+	defb 0
		C	:14
		C	no 8,A3,C4,F4.,F5.
0309	02	C+	defb 16/8
030A	22	C+	defb A3.
030B	25	C+	defb C4
030C	28	C+	defb F4.
030D	37	C+	defb F5.
		C	no 8,A3,D4, F5.
030E	02	C+	defb 16/8
030F	22	C+	defb A3
0310	27	C+	defb D4
0311	37	C+	defb F5.
0312	00	C+	defb 0
		C	no 8,D3,C4, F5.
0313	02	C+	defb 16/8
0314	18	C+	defb D3
0315	25	C+	defb C4

0316	37	C+	defb F5.
0317	00	C+	defb 0
		C	no 8,D3,D4, F5.
0318	02	C+	defb 16/8
0319	18	C+	defb D3
031A	27	C+	defb D4
031B	37	C+	defb F5.
031C	00	C+	defb 0
		C	no 8,A3,C4,F4.,F5.
031D	02	C+	defb 16/8
031E	22	C+	defb A3
031F	25	C+	defb C4
0320	28	C+	defb F4.
0321	37	C+	defb F5.
		C	no 16,A3,D4, F5.
0322	01	C+	defb 16/16
0323	22	C+	defb A3
0324	27	C+	defb D4
0325	37	C+	defb F5.
0326	00	C+	defb 0
		C	no 16,A3,D4, G5
0327	01	C+	defb 16/16
0328	22	C+	defb A3
0329	27	C+	defb D4
032A	38	C+	defb G5
032B	00	C+	defb 0
		C	:15
		C	no 8,G3,B3,G4,G5
032C	02	C+	defb 16/8
032D	20	C+	defb B3
032E	24	C+	defb B3
032F	2C	C+	defb G4
0330	38	C+	defb G5
		C	no 8,B3,D4, G5
0331	02	C+	defb 16/8
0332	20	C+	defb B3
0333	27	C+	defb D4
0334	38	C+	defb G5
0335	00	C+	defb 0
		C	no 8,D3,B3, G5
0336	02	C+	defb 16/8
0337	1B	C+	defb D3
0338	24	C+	defb B3
0339	38	C+	defb G5
033A	00	C+	defb 0
		C	no 8,D3,D4, G5
033B	02	C+	defb 16/8
033C	1B	C+	defb D3
033D	27	C+	defb D4
033E	38	C+	defb G5
033F	00	C+	defb 0
		C	no 8,G3,B3, G5
0340	02	C+	defb 16/8
0341	20	C+	defb B3
0342	24	C+	defb B3
0343	38	C+	defb G5

0344	00	C+	defb 0	
		C	no 16,G3,D4,	G5
0345	01	C+	defb 16/16	
0346	20	C+	defb G3	
0347	27	C+	defb D4	
0348	38	C+	defb G5	
0349	00	C+	defb 0	
		C	no 16,G3,D4,	B5
034A	01	C+	defb 16/16	
034B	20	C+	defb G3	
034C	27	C+	defb D4	
034D	3C	C+	defb B5	
034E	00	C+	defb 0	
		C	;16	
		C	no 8,F3.,A3,	D6
034F	02	C+	defb 16/8	
0350	1F	C+	defb F3.	
0351	22	C+	defb A3	
0352	3F	C+	defb D6	
0353	00	C+	defb 0	
		C	no 8,F3.,D4,	D6
0354	02	C+	defb 16/8	
0355	1F	C+	defb F3.	
0356	27	C+	defb D4	
0357	3F	C+	defb D6	
0358	00	C+	defb 0	
		C	no 8,D3,A3,	D6
0359	02	C+	defb 16/8	
035A	1B	C+	defb D3	
035B	22	C+	defb A3	
035C	3F	C+	defb D6	
035D	00	C+	defb 0	
		C	no 8,D3,D4,	E6
035E	02	C+	defb 16/8	
035F	1B	C+	defb D3	
0360	27	C+	defb D4	
0361	41	C+	defb E6	
0362	00	C+	defb 0	
		C	no 8,F3.,A3,	D6
0363	02	C+	defb 16/8	
0364	1F	C+	defb F3.	
0365	22	C+	defb A3	
0366	3F	C+	defb D6	
0367	00	C+	defb 0	
		C	no 8,F3.,D4,	C6
0368	02	C+	defb 16/8	
0369	1F	C+	defb F3.	
036A	27	C+	defb D4	
036B	3D	C+	defb C6	
036C	00	C+	defb 0	
		C	;17	
		C	no 8,G3,B3,	B5
036D	02	C+	defb 16/8	
036E	20	C+	defb G3	
036F	24	C+	defb B3	
0370	3C	C+	defb B5	

0371	00	C+	defb 0
		C	no 8,G3,D4, B5
0372	02	C+	defb 16/8
0373	20	C+	defb G3
0374	27	C+	defb D4
0375	3C	C+	defb B5
0376	00	C+	defb 0
		C	no 8,D3,B3, G5
0377	02	C+	defb 16/8
0378	1B	C+	defb D3
0379	24	C+	defb B3
037A	38	C+	defb G5
037B	00	C+	defb 0
		C	no 8,D3,D4
037C	02	C+	defb 16/8
037D	1B	C+	defb D3
037E	27	C+	defb D4
037F	00	C+	defb 0
0380	00	C+	defb 0
		C	no 8,G3,B3,G4,G5
0381	02	C+	defb 16/8
0382	20	C+	defb G3
0383	24	C+	defb B3
0384	2C	C+	defb G4
0385	38	C+	defb G5
		C	no 16,G3,D4, G5
0386	01	C+	defb 16/16
0387	20	C+	defb G3
0388	27	C+	defb D4
0389	38	C+	defb G5
038A	00	C+	defb 0
		C	no 16,G3,D4, F5.
038B	01	C+	defb 16/16
038C	20	C+	defb G3
038D	27	C+	defb D4
038E	37	C+	defb F5.
038F	00	C+	defb 0
		C	:18
		C	no 8,A3,C4,F4.,F5.
0390	02	C+	defb 16/8
0391	22	C+	defb A3
0392	25	C+	defb C4
0393	28	C+	defb F4.
0394	37	C+	defb F5.
		C	no 8,A3,D4, F5.
0395	02	C+	defb 16/8
0396	22	C+	defb A3
0397	27	C+	defb D4
0398	37	C+	defb F5.
0399	00	C+	defb 0
		C	no 8,D3,C4, F5.
039A	02	C+	defb 16/8
039B	1B	C+	defb D3
039C	25	C+	defb C4
039D	37	C+	defb F5.
039E	00	C+	defb 0

		C	no 8,D3,D4, F5.
039F	02	C+	defb 16/8
03A0	18	C+	defb D3
03A1	27	C+	defb D4
03A2	37	C+	defb F5.
03A3	00	C+	defb 0
		C	no 8,A3,C4,F4.,F5.
03A4	02	C+	defb 16/8
03A5	22	C+	defb A3
03A6	25	C+	defb C4
03A7	28	C+	defb F4.
03A8	37	C+	defb F5.
		C	no 16,A3,D4, F5.
03A9	01	C+	defb 16/16
03AA	22	C+	defb A3
03AB	27	C+	defb D4
03AC	37	C+	defb F5.
03AD	00	C+	defb 0
		C	no 16,A3,D4, G5
03AE	01	C+	defb 16/16
03AF	22	C+	defb A3
03B0	27	C+	defb D4
03B1	38	C+	defb G5
03B2	00	C+	defb 0
		C	:19
		C	no 8,G3,B3,G4,G5
03B3	02	C+	defb 16/8
03B4	20	C+	defb G3
03B5	24	C+	defb B3
03B6	2C	C+	defb G4
03B7	38	C+	defb G5
		C	no 8,G3,D4, G5
03B8	02	C+	defb 16/8
03B9	20	C+	defb G3
03BA	27	C+	defb D4
03BB	38	C+	defb G5
03BC	00	C+	defb 0
		C	no 8,D3,B3, G5
03BD	02	C+	defb 16/8
03BE	18	C+	defb D3
03BF	24	C+	defb B3
03C0	38	C+	defb G5
03C1	00	C+	defb 0
		C	no 8,D3,D4, G5
03C2	02	C+	defb 16/8
03C3	18	C+	defb D3
03C4	27	C+	defb D4
03C5	38	C+	defb G5
03C6	00	C+	defb 0
		C	no 8,G3,B3, G5
03C7	02	C+	defb 16/8
03C8	20	C+	defb G3
03C9	24	C+	defb B3
03CA	38	C+	defb G5
03CB	00	C+	defb 0
		C	no 16,G3,D4, G5

03CC	01	C+	defb 16/16
03CD	20	C+	defb G3
03CE	27	C+	defb D4
03CF	38	C+	defb G5
03D0	00	C+	defb 0
		C	no 16,G3,D4, B5
03D1	01	C+	defb 16/16
03D2	20	C+	defb G3
03D3	27	C+	defb D4
03D4	3C	C+	defb B5
03D5	00	C+	defb 0
		C	:20
		C	no 4, D6
03D6	04	C+	defb 16/4
03D7	3F	C+	defb D6
03D8	00	C+	defb 0
03D9	00	C+	defb 0
03DA	00	C+	defb 0
		C	no 16,D3,C4,F4.,D6
03DB	01	C+	defb 16/16
03DC	18	C+	defb D3
03DD	25	C+	defb C4
03DE	28	C+	defb F4.
03DF	3F	C+	defb D6
		C	no 16,D3,C4,F4.,C6.
03E0	01	C+	defb 16/16
03E1	18	C+	defb D3
03E2	25	C+	defb C4
03E3	28	C+	defb F4.
03E4	3E	C+	defb C6.
		C	no 16, D6
03E5	01	C+	defb 16/16
03E6	3F	C+	defb D6
03E7	00	C+	defb 0
03E8	00	C+	defb 0
03E9	00	C+	defb 0
		C	no 16, C6.
03EA	01	C+	defb 16/16
03EB	3E	C+	defb C6.
03EC	00	C+	defb 0
03ED	00	C+	defb 0
03EE	00	C+	defb 0
		C	no 16,D3,C4,F4.,D6
03EF	01	C+	defb 16/16
03F0	18	C+	defb D3
03F1	25	C+	defb C4
03F2	28	C+	defb F4.
03F3	3F	C+	defb D6
		C	no 16,D3,C4,F4.,C6
03F4	01	C+	defb 16/16
03F5	18	C+	defb D3
03F6	25	C+	defb C4
03F7	28	C+	defb F4.
03F8	3D	C+	defb C6
		C	no 16, B5
03F9	01	C+	defb 16/16

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03FA 3C C+ defb 85
03FB 00 C+ defb 0
03FC 00 C+ defb 0
03FD 00 C+ defb 0
C no 16, A5
03FE 01 C+ defb 16/16
03FF 3A C+ defb A5
0400 00 C+ defb 0
0401 00 C+ defb 0
0402 00 C+ defb 0
C ;21
C no 8,G3,B3,G4,G5
0403 02 C+ defb 16/8
0404 20 C+ defb G3
0405 24 C+ defb B3
0406 2C C+ defb G4
0407 38 C+ defb G5
C no 8, G5
0408 02 C+ defb 16/8
0409 38 C+ defb G5
040A 00 C+ defb 0
040B 00 C+ defb 0
040C 00 C+ defb 0
C no 8,G2
040D 02 C+ defb 16/8
040E 14 C+ defb G2
040F 00 C+ defb 0
0410 00 C+ defb 0
0411 00 C+ defb 0
C no 8
0412 02 C+ defb 16/8
0413 00 C+ defb 0
0414 00 C+ defb 0
0415 00 C+ defb 0
0416 00 C+ defb 0
C no 8, C5
0417 02 C+ defb 16/8
0418 31 C+ defb C5
0419 00 C+ defb 0
041A 00 C+ defb 0
041B 00 C+ defb 0
C no 16, C5
041C 01 C+ defb 16/16
041D 31 C+ defb C5
041E 00 C+ defb 0
041F 00 C+ defb 0
0420 00 C+ defb 0
C no 16, E5
0421 01 C+ defb 16/16
0422 35 C+ defb E5
0423 00 C+ defb 0
0424 00 C+ defb 0
0425 00 C+ defb 0
C ;22
C no 16,C3,E5,G5,
0426 01 C+ defb 16/16

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0427	19	C+	defb C3
0428	35	C+	defb E5
0429	38	C+	defb G5
042A	00	C+	defb 0
		C	no 16
042B	01	C+	defb 16/16
042C	00	C+	defb 0
042D	00	C+	defb 0
042E	00	C+	defb 0
042F	00	C+	defb 0
		C	no 16,C4
0430	01	C+	defb 16/16
0431	25	C+	defb C4
0432	00	C+	defb 0
0433	00	C+	defb 0
0434	00	C+	defb 0
		C	no 16
0435	01	C+	defb 16/16
0436	00	C+	defb 0
0437	00	C+	defb 0
0438	00	C+	defb 0
0439	00	C+	defb 0
		C	no 16,C3
043A	01	C+	defb 16/16
043B	19	C+	defb C3
043C	00	C+	defb 0
043D	00	C+	defb 0
043E	00	C+	defb 0
		C	no 16
043F	01	C+	defb 16/16
0440	00	C+	defb 0
0441	00	C+	defb 0
0442	00	C+	defb 0
0443	00	C+	defb 0
		C	no 16,C4,G4,E5
0444	01	C+	defb 16/16
0445	25	C+	defb C4
0446	2C	C+	defb G4
0447	35	C+	defb E5
0448	00	C+	defb 0
		C	no 16
0449	01	C+	defb 16/16
044A	00	C+	defb 0
044B	00	C+	defb 0
044C	00	C+	defb 0
044D	00	C+	defb 0
		C	no 16,C3,A4,F5
044E	01	C+	defb 16/16
044F	19	C+	defb C3
0450	2E	C+	defb A4
0451	36	C+	defb F5
0452	00	C+	defb 0
		C	no 16
0453	01	C+	defb 16/16
0454	00	C+	defb 0
0455	00	C+	defb 0

0456	00	C+	defb 0
0457	00	C+	defb 0
		C	no 16,C4,F4,D5
0458	01	C+	defb 16/16
0459	25	C+	defb C4
045A	2A	C+	defb F4
045B	33	C+	defb D5
045C	00	C+	defb 0
		C	no 16
045D	01	C+	defb 16/16
045E	00	C+	defb 0
045F	00	C+	defb 0
0460	00	C+	defb 0
0461	00	C+	defb 0
		C	:23
		C	no 16,C3,E4,C5
0462	01	C+	defb 16/16
0463	19	C+	defb C3
0464	29	C+	defb E4
0465	31	C+	defb C5
0466	00	C+	defb 0
		C	no 16, E4,C5
0467	01	C+	defb 16/16
0468	29	C+	defb E4
0469	31	C+	defb C5
046A	00	C+	defb 0
046B	00	C+	defb 0
		C	no 16,C4
046C	01	C+	defb 16/16
046D	25	C+	defb C4
046E	00	C+	defb 0
046F	00	C+	defb 0
0470	00	C+	defb 0
		C	no 16
0471	01	C+	defb 16/16
0472	00	C+	defb 0
0473	00	C+	defb 0
0474	00	C+	defb 0
0475	00	C+	defb 0
		C	no 16,C3,E4,C5
0476	01	C+	defb 16/16
0477	19	C+	defb C3
0478	29	C+	defb E4
0479	31	C+	defb C5
047A	00	C+	defb 0
		C	no 16
047B	01	C+	defb 16/16
047C	00	C+	defb 0
047D	00	C+	defb 0
047E	00	C+	defb 0
047F	00	C+	defb 0
		C	no 16,C4,G4
0480	01	C+	defb 16/16
0481	25	C+	defb C4
0482	2C	C+	defb G4
0483	00	C+	defb 0

0484	00	C+	defb 0
		C	no 16, G4
0485	01	C+	defb 16/16
0486	2C	C+	defb G4
0487	00	C+	defb 0
0488	00	C+	defb 0
0489	00	C+	defb 0
		C	no 16,C3,C5
048A	01	C+	defb 16/16
048B	19	C+	defb C3
048C	31	C+	defb C5
048D	00	C+	defb 0
048E	00	C+	defb 0
		C	no 16, C5
048F	01	C+	defb 16/16
0490	31	C+	defb C5
0491	00	C+	defb 0
0492	00	C+	defb 0
0493	00	C+	defb 0
		C	no 16,C4,E5
0494	01	C+	defb 16/16
0495	25	C+	defb C4
0496	35	C+	defb E5
0497	00	C+	defb 0
0498	00	C+	defb 0
		C	no 16, E5
0499	01	C+	defb 16/16
049A	35	C+	defb E5
049B	00	C+	defb 0
049C	00	C+	defb 0
049D	00	C+	defb 0
		C	124
		C	no 16,C3,E5,G5
049E	01	C+	defb 16/16
049F	19	C+	defb C3
04A0	35	C+	defb E5
04A1	38	C+	defb G5
04A2	00	C+	defb 0
		C	no 16, E5,G5
04A3	01	C+	defb 16/16
04A4	35	C+	defb E5
04A5	38	C+	defb G5
04A6	00	C+	defb 0
04A7	00	C+	defb 0
		C	no 16,C4,E5,G5
04A8	01	C+	defb 16/16
04A9	25	C+	defb C4
04AA	35	C+	defb E5
04AB	38	C+	defb G5
04AC	00	C+	defb 0
		C	no 16, E5,G5
04AD	01	C+	defb 16/16
04AE	35	C+	defb E5
04AF	38	C+	defb G5
04B0	00	C+	defb 0
04B1	00	C+	defb 0

		C	no 16,C3,E5,G5
04B2	01	C+	defb 16/16
04B3	19	C+	defb C3
04B4	35	C+	defb E5
04B5	38	C+	defb G5
04B6	00	C+	defb 0
		C	no 16, E5,G5
04B7	01	C+	defb 16/16
04B8	35	C+	defb E5
04B9	38	C+	defb G5
04BA	00	C+	defb 0
04BB	00	C+	defb 0
		C	no 16,C4,G4,E5
04BC	01	C+	defb 16/16
04BD	25	C+	defb C4
04BE	2C	C+	defb G4
04BF	35	C+	defb E5
04C0	00	C+	defb 0
		C	no 16
04C1	01	C+	defb 16/16
04C2	00	C+	defb 0
04C3	00	C+	defb 0
04C4	00	C+	defb 0
04C5	00	C+	defb 0
		C	no 16,C3,A4,F5
04C6	01	C+	defb 16/16
04C7	19	C+	defb C3
04C8	2E	C+	defb A4
04C9	36	C+	defb F5
04CA	00	C+	defb 0
		C	no 16
04CB	01	C+	defb 16/16
04CC	00	C+	defb 0
04CD	00	C+	defb 0
04CE	00	C+	defb 0
04CF	00	C+	defb 0
		C	no 16,C4,F4,D5
04D0	01	C+	defb 16/16
04D1	25	C+	defb C4
04D2	2A	C+	defb F4
04D3	33	C+	defb D5
04D4	00	C+	defb 0
		C	no 16
04D5	01	C+	defb 16/16
04D6	00	C+	defb 0
04D7	00	C+	defb 0
04D8	00	C+	defb 0
04D9	00	C+	defb 0
		C	125
		C	no 16,C3,E4,C5
04DA	01	C+	defb 16/16
04DB	19	C+	defb C3
04DC	29	C+	defb E4
04DD	31	C+	defb C5
04DE	00	C+	defb 0
		C	no 16, E4,C5

04DF	01	C+	defb 16/16
04E0	29	C+	defb E4
04E1	31	C+	defb C5
04E2	00	C+	defb 0
04E3	00	C+	defb 0
		C	no 16,C4,E4,C5
04E4	01	C+	defb 16/16
04E5	25	C+	defb C4
04E6	29	C+	defb E4
04E7	31	C+	defb C5
04E8	00	C+	defb 0
		C	no 16, E4,C5
04E9	01	C+	defb 16/16
04EA	29	C+	defb E4
04EB	31	C+	defb C5
04EC	00	C+	defb 0
04ED	00	C+	defb 0
		C	no 16,C3
04EE	01	C+	defb 16/16
04EF	19	C+	defb C3
04F0	00	C+	defb 0
04F1	00	C+	defb 0
04F2	00	C+	defb 0
		C	no 16
04F3	01	C+	defb 16/16
04F4	00	C+	defb 0
04F5	00	C+	defb 0
04F6	00	C+	defb 0
04F7	00	C+	defb 0
		C	no 8, C5
04F8	02	C+	defb 16/8
04F9	31	C+	defb C5
04FA	00	C+	defb 0
04FB	00	C+	defb 0
04FC	00	C+	defb 0
		C	no 8, B4
04FD	02	C+	defb 16/8
04FE	30	C+	defb B4
04FF	00	C+	defb 0
0500	00	C+	defb 0
0501	00	C+	defb 0
		C	no 8, C5
0502	02	C+	defb 16/8
0503	31	C+	defb C5
0504	00	C+	defb 0
0505	00	C+	defb 0
0506	00	C+	defb 0
		C	126
		C	no 8, D5
0507	02	C+	defb 16/8
0508	33	C+	defb D5
0509	00	C+	defb 0
050A	00	C+	defb 0
050B	00	C+	defb 0
		C	no 8, B4
050C	02	C+	defb 16/8

050D	30	C+	defb B4
050E	00	C+	defb 0
050F	00	C+	defb 0
0510	00	C+	defb 0
		C	no 16,B2,B3,D4,B4
0511	01	C+	defb 16/16
0512	14	C+	defb 62
0513	24	C+	defb 83
0514	27	C+	defb D4
0515	2C	C+	defb 64
		C	no 16, 64
0516	01	C+	defb 16/16
0517	2C	C+	defb 64
0518	00	C+	defb 0
0519	00	C+	defb 0
051A	00	C+	defb 0
		C	no 8, D5
051B	02	C+	defb 16/8
051C	33	C+	defb D5
051D	00	C+	defb 0
051E	00	C+	defb 0
051F	00	C+	defb 0
		C	no 8, C5
0520	02	C+	defb 16/8
0521	31	C+	defb C5
0522	00	C+	defb 0
0523	00	C+	defb 0
0524	00	C+	defb 0
		C	no 8, D5
0525	02	C+	defb 16/8
0526	33	C+	defb D5
0527	00	C+	defb 0
0528	00	C+	defb 0
0529	00	C+	defb 0
		C	:27
		C	no 8, E5
052A	02	C+	defb 16/8
052B	35	C+	defb E5
052C	00	C+	defb 0
052D	00	C+	defb 0
052E	00	C+	defb 0
		C	no 8, C5
052F	02	C+	defb 16/8
0530	31	C+	defb C5
0531	00	C+	defb 0
0532	00	C+	defb 0
0533	00	C+	defb 0
		C	no 16,C3,B3,E4,G4
0534	01	C+	defb 16/16
0535	19	C+	defb C3
0536	20	C+	defb 63
0537	29	C+	defb E4
0538	2C	C+	defb 64
		C	no 16, 64
0539	01	C+	defb 16/16
053A	2C	C+	defb 64

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0538 00 C+ defb 0
053C 00 C+ defb 0
053D 00 C+ defb 0
C no 8, E5
053E 02 C+ defb 16/8
053F 35 C+ defb E5
0540 00 C+ defb 0
0541 00 C+ defb 0
0542 00 C+ defb 0
C no 8, D5
0543 02 C+ defb 16/8
0544 33 C+ defb D5
0545 00 C+ defb 0
0546 00 C+ defb 0
0547 00 C+ defb 0
C no 8, E5
0548 02 C+ defb 16/8
0549 35 C+ defb E5
054A 00 C+ defb 0
054B 00 C+ defb 0
054C 00 C+ defb 0
C ;28
C no 8, F5
054D 02 C+ defb 16/8
054E 36 C+ defb F5
054F 00 C+ defb 0
0550 00 C+ defb 0
0551 00 C+ defb 0
C no 8, G5
0552 02 C+ defb 16/8
0553 38 C+ defb G5
0554 00 C+ defb 0
0555 00 C+ defb 0
0556 00 C+ defb 0
C no 8, A5
0557 02 C+ defb 16/8
0558 3A C+ defb A5
0559 00 C+ defb 0
055A 00 C+ defb 0
055B 00 C+ defb 0
C no 8, C4., E5
055C 02 C+ defb 16/8
055D 26 C+ defb C4.
055E 35 C+ defb E5
055F 00 C+ defb 0
0560 00 C+ defb 0
C no 8, D4, F5
0561 02 C+ defb 16/8
0562 27 C+ defb D4
0563 36 C+ defb F5
0564 00 C+ defb 0
0565 00 C+ defb 0
C no 8, F4, D5
0566 02 C+ defb 16/8
0567 2A C+ defb F4
0568 33 C+ defb D5

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0569 00 C+ defb 0
056A 00 C+ defb 0
      C ;29
      C no 4,G2,C4,E4,C5
056B 04 C+ defb 16/4
056C 14 C+ defb G2
056D 25 C+ defb C4
056E 29 C+ defb E4
056F 31 C+ defb C5
      C no 8,G2,B3,D4,B4
0570 02 C+ defb 16/8
0571 14 C+ defb G2
0572 24 C+ defb B3
0573 27 C+ defb D4
0574 30 C+ defb B4
      C no 8, G4
0575 02 C+ defb 16/8
0576 2C C+ defb B4
0577 00 C+ defb 0
0578 00 C+ defb 0
0579 00 C+ defb 0
      C no 8, C5
057A 02 C+ defb 16/8
057B 31 C+ defb C5
057C 00 C+ defb 0
057D 00 C+ defb 0
057E 00 C+ defb 0
      C no 8, E5
057F 02 C+ defb 16/8
0580 35 C+ defb E5
0581 00 C+ defb 0
0582 00 C+ defb 0
0583 00 C+ defb 0
      C ;30
      C no 16,C3,E5,G5
0584 01 C+ defb 16/16
0585 19 C+ defb C3
0586 35 C+ defb E5
0587 38 C+ defb G5
0588 00 C+ defb 0
      C no 16, E5,G5
0589 01 C+ defb 16/16
058A 35 C+ defb E5
058B 38 C+ defb G5
058C 00 C+ defb 0
058D 00 C+ defb 0
      C no 16,C4,E5,G5
058E 01 C+ defb 16/16
058F 25 C+ defb C4
0590 35 C+ defb E5
0591 38 C+ defb G5
0592 00 C+ defb 0
      C no 16, E5,G5
0593 01 C+ defb 16/16
0594 35 C+ defb E5
0595 38 C+ defb G5

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0596	00	C+	defb 0
0597	00	C+	defb 0
		C	no 16,C3,E5,G5
0598	01	C+	defb 16/16
0599	19	C+	defb C3
059A	35	C+	defb E5
059B	38	C+	defb G5
059C	00	C+	defb 0
		C	no 16, E5,G5
059D	01	C+	defb 16/16
059E	35	C+	defb E5
059F	38	C+	defb G5
05A0	00	C+	defb 0
05A1	00	C+	defb 0
		C	no 16,C4,G4,E5
05A2	01	C+	defb 16/16
05A3	25	C+	defb C4
05A4	2C	C+	defb G4
05A5	35	C+	defb E5
05A6	00	C+	defb 0
		C	no 16
05A7	01	C+	defb 16/16
05A8	00	C+	defb 0
05A9	00	C+	defb 0
05AA	00	C+	defb 0
05AB	00	C+	defb 0
		C	no 16,C3,A4,F5
05AC	01	C+	defb 16/16
05AD	19	C+	defb C3
05AE	2E	C+	defb A4
05AF	36	C+	defb F5
05B0	00	C+	defb 0
		C	no 16
05B1	01	C+	defb 16/16
05B2	00	C+	defb 0
05B3	00	C+	defb 0
05B4	00	C+	defb 0
05B5	00	C+	defb 0
		C	no 16,C4,F4,D5
05B6	01	C+	defb 16/16
05B7	25	C+	defb C4
05B8	2A	C+	defb F4
05B9	33	C+	defb D5
05BA	00	C+	defb 0
		C	no 16
05BB	01	C+	defb 16/16
05BC	00	C+	defb 0
05BD	00	C+	defb 0
05BE	00	C+	defb 0
05BF	00	C+	defb 0
		C	;31
		C	no 16,C3,E4,C5
05C0	01	C+	defb 16/16
05C1	19	C+	defb C3
05C2	29	C+	defb E4
05C3	31	C+	defb C5

05C4	00	C+	defb 0
		C	no 16, E4,C5
05C5	01	C+	defb 16/16
05C6	29	C+	defb E4
05C7	31	C+	defb C5
05C8	00	C+	defb 0
05C9	00	C+	defb 0
		C	no 16,C4,E4,C5
05CA	01	C+	defb 16/16
05CB	25	C+	defb C4
05CC	29	C+	defb E4
05CD	31	C+	defb C5
05CE	00	C+	defb 0
		C	no 16, E4,C5
05CF	01	C+	defb 16/16
05D0	29	C+	defb E4
05D1	31	C+	defb C5
05D2	00	C+	defb 0
05D3	00	C+	defb 0
		C	no 16,C3,E4,C5
05D4	01	C+	defb 16/16
05D5	19	C+	defb C3
05D6	29	C+	defb E4
05D7	31	C+	defb C5
05D8	00	C+	defb 0
		C	no 16
05D9	01	C+	defb 16/16
05DA	00	C+	defb 0
05DB	00	C+	defb 0
05DC	00	C+	defb 0
05DD	00	C+	defb 0
		C	no 16,C4,G4
05DE	01	C+	defb 16/16
05DF	25	C+	defb C4
05E0	2C	C+	defb G4
05E1	00	C+	defb 0
05E2	00	C+	defb 0
		C	no 16, G4
05E3	01	C+	defb 16/16
05E4	2C	C+	defb G4
05E5	00	C+	defb 0
05E6	00	C+	defb 0
05E7	00	C+	defb 0
		C	no 16,C3,C5
05E8	01	C+	defb 16/16
05E9	19	C+	defb C3
05EA	31	C+	defb C5
05EB	00	C+	defb 0
05EC	00	C+	defb 0
		C	no 16, C5
05ED	01	C+	defb 16/16
05EE	31	C+	defb C5
05EF	00	C+	defb 0
05F0	00	C+	defb 0
05F1	00	C+	defb 0
		C	no 16,C4,E5

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05F2 01 C+ defb 16/16
05F3 25 C+ defb C4
05F4 35 C+ defb E5
05F5 00 C+ defb 0
05F6 00 C+ defb 0
C no 16, E5
05F7 01 C+ defb 16/16
05F8 35 C+ defb E5
05F9 00 C+ defb 0
05FA 00 C+ defb 0
05FB 00 C+ defb 0
C ;32
C no 16,C3,E5,G5
05FC 01 C+ defb 16/16
05FD 19 C+ defb C3
05FE 35 C+ defb E5
05FF 38 C+ defb G5
0600 00 C+ defb 0
C no 16, E5,G5
0601 01 C+ defb 16/16
0602 35 C+ defb E5
0603 38 C+ defb G5
0604 00 C+ defb 0
0605 00 C+ defb 0
C no 16,C4,E5,G5
0606 01 C+ defb 16/16
0607 25 C+ defb C4
0608 35 C+ defb E5
0609 38 C+ defb G5
060A 00 C+ defb 0
C no 16, E5,G5
060B 01 C+ defb 16/16
060C 35 C+ defb E5
060D 38 C+ defb G5
060E 00 C+ defb 0
060F 00 C+ defb 0
C no 16,C3,E5,G5
0610 01 C+ defb 16/16
0611 19 C+ defb C3
0612 35 C+ defb E5
0613 38 C+ defb G5
0614 00 C+ defb 0
C no 16, E5,G5
0615 01 C+ defb 16/16
0616 35 C+ defb E5
0617 38 C+ defb G5
0618 00 C+ defb 0
0619 00 C+ defb 0
C no 16,C4,G4,E5
061A 01 C+ defb 16/16
061B 25 C+ defb C4
061C 2C C+ defb G4
061D 35 C+ defb E5
061E 00 C+ defb 0
C no 16
061F 01 C+ defb 16/16

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0620	00	C+	defb 0
0621	00	C+	defb 0
0622	00	C+	defb 0
0623	00	C+	defb 0
		C	no 16,C3,A4,F5
0624	01	C+	defb 16/16
0625	19	C+	defb C3
0626	2E	C+	defb A4
0627	36	C+	defb F5
0628	00	C+	defb 0
		C	no 16
0629	01	C+	defb 16/16
062A	00	C+	defb 0
062B	00	C+	defb 0
062C	00	C+	defb 0
062D	00	C+	defb 0
		C	no 16,C4,F4,D5
062E	01	C+	defb 16/16
062F	25	C+	defb C4
0630	2A	C+	defb F4
0631	33	C+	defb D5
0632	00	C+	defb 0
		C	no 16
0633	01	C+	defb 16/16
0634	00	C+	defb 0
0635	00	C+	defb 0
0636	00	C+	defb 0
0637	00	C+	defb 0
		C	:33
		C	no 16,C3,E4,C5
0638	01	C+	defb 16/16
0639	19	C+	defb C3
063A	29	C+	defb E4
063B	31	C+	defb C5
063C	00	C+	defb 0
		C	no 16, E4,C5
063D	01	C+	defb 16/16
063E	29	C+	defb E4
063F	31	C+	defb C5
0640	00	C+	defb 0
0641	00	C+	defb 0
		C	no 16,C4,E4,C5
0642	01	C+	defb 16/16
0643	25	C+	defb C4
0644	29	C+	defb E4
0645	31	C+	defb C5
0646	00	C+	defb 0
		C	no 16, E4,C5
0647	01	C+	defb 16/16
0648	29	C+	defb E4
0649	31	C+	defb C5
064A	00	C+	defb 0
064B	00	C+	defb 0
		C	no 16,C3
064C	01	C+	defb 16/16
064D	19	C+	defb C3

064E	00	C+	defb 0
064F	00	C+	defb 0
0650	00	C+	defb 0
		C	no 16
0651	01	C+	defb 16/16
0652	00	C+	defb 0
0653	00	C+	defb 0
0654	00	C+	defb 0
0655	00	C+	defb 0
		C	no 8, C5
0656	02	C+	defb 16/8
0657	31	C+	defb C5
0658	00	C+	defb 0
0659	00	C+	defb 0
065A	00	C+	defb 0
		C	no 8, B4
065B	02	C+	defb 16/8
065C	30	C+	defb B4
065D	00	C+	defb 0
065E	00	C+	defb 0
065F	00	C+	defb 0
		C	no 8, C5
0660	02	C+	defb 16/8
0661	31	C+	defb C5
0662	00	C+	defb 0
0663	00	C+	defb 0
0664	00	C+	defb 0
		C	134
		C	no 8, D5
0665	02	C+	defb 16/8
0666	33	C+	defb D5
0667	00	C+	defb 0
0668	00	C+	defb 0
0669	00	C+	defb 0
		C	no 8, B4
066A	02	C+	defb 16/8
066B	30	C+	defb B4
066C	00	C+	defb 0
066D	00	C+	defb 0
066E	00	C+	defb 0
		C	no 8, G2, B3, D4, G4
066F	02	C+	defb 16/8
0670	14	C+	defb G2
0671	24	C+	defb B3
0672	27	C+	defb D4
0673	2C	C+	defb G4
		C	no 8, D5
0674	02	C+	defb 16/8
0675	33	C+	defb D5
0676	00	C+	defb 0
0677	00	C+	defb 0
0678	00	C+	defb 0
		C	no 8, C5
0679	02	C+	defb 16/8
067A	31	C+	defb C5
067B	00	C+	defb 0

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067C 00 C+ defb 0
067D 00 C+ defb 0
C no 8, D5
067E 02 C+ defb 16/8
067F 33 C+ defb D5
0680 00 C+ defb 0
0681 00 C+ defb 0
0682 00 C+ defb 0
C ;35
C no 8, E5
0683 02 C+ defb 16/8
0684 35 C+ defb E5
0685 00 C+ defb 0
0686 00 C+ defb 0
0687 00 C+ defb 0
C no 8, C5
0688 02 C+ defb 16/8
0689 31 C+ defb C5
068A 00 C+ defb 0
068B 00 C+ defb 0
068C 00 C+ defb 0
C no 8,C3,G3,E4,G4
068D 02 C+ defb 16/8
068E 19 C+ defb C3
068F 20 C+ defb G3
0690 29 C+ defb E4
0691 2C C+ defb G4
C no 8, E5
0692 02 C+ defb 16/8
0693 35 C+ defb E5
0694 00 C+ defb 0
0695 00 C+ defb 0
0696 00 C+ defb 0
C no 8, D5
0697 02 C+ defb 16/8
0698 33 C+ defb D5
0699 00 C+ defb 0
069A 00 C+ defb 0
069B 00 C+ defb 0
C no 8, E5
069C 02 C+ defb 16/8
069D 35 C+ defb E5
069E 00 C+ defb 0
069F 00 C+ defb 0
06A0 00 C+ defb 0
C ;36
C no 8, F5.
06A1 02 C+ defb 16/8
06A2 37 C+ defb F5.
06A3 00 C+ defb 0
06A4 00 C+ defb 0
06A5 00 C+ defb 0
C no 8, C5
06A6 02 C+ defb 16/8
06A7 31 C+ defb C5
06A8 00 C+ defb 0

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06A9	00	C+	defb 0
06AA	00	C+	defb 0
		C	no 8,C4,D4,F4.,A4
06AB	02	C+	defb 16/8
06AC	25	C+	defb C4
06AD	27	C+	defb D4
06AE	2B	C+	defb F4.
06AF	2E	C+	defb A4
		C	no 8, F5.
06B0	02	C+	defb 16/8
06B1	37	C+	defb F5.
06B2	00	C+	defb 0
06B3	00	C+	defb 0
06B4	00	C+	defb 0
		C	no 8, E5
06B5	02	C+	defb 16/8
06B6	35	C+	defb E5
06B7	00	C+	defb 0
06B8	00	C+	defb 0
06B9	00	C+	defb 0
		C	no 8, F5.
06BA	02	C+	defb 16/8
06BB	37	C+	defb F5.
06BC	00	C+	defb 0
06BD	00	C+	defb 0
06BE	00	C+	defb 0
		C	;37
		C	no 8, G5
06BF	02	C+	defb 16/8
06C0	38	C+	defb G5
06C1	00	C+	defb 0
06C2	00	C+	defb 0
06C3	00	C+	defb 0
		C	no 8, D5
06C4	02	C+	defb 16/8
06C5	33	C+	defb D5
06C6	00	C+	defb 0
06C7	00	C+	defb 0
06C8	00	C+	defb 0
		C	no 8,B3,D4,G4,B4
06C9	02	C+	defb 16/8
06CA	24	C+	defb B3
06CB	27	C+	defb D4
06CC	2C	C+	defb G4
06CD	30	C+	defb B4
		C	no 8, G5
06CE	02	C+	defb 16/8
06CF	38	C+	defb G5
06D0	00	C+	defb 0
06D1	00	C+	defb 0
06D2	00	C+	defb 0
		C	no 8, A5
06D3	02	C+	defb 16/8
06D4	3A	C+	defb A5
06D5	00	C+	defb 0
06D6	00	C+	defb 0

06D7	00	C+	defb 0
		C	no 8, B5
06D8	02	C+	defb 16/8
06D9	3C	C+	defb B5
06DA	00	C+	defb 0
06DB	00	C+	defb 0
06DC	00	C+	defb 0
		C	;38
		C	no 8, C6
06DD	02	C+	defb 16/8
06DE	3D	C+	defb C6
06DF	00	C+	defb 0
06E0	00	C+	defb 0
06E1	00	C+	defb 0
		C	no 8, B5
06E2	02	C+	defb 16/8
06E3	3C	C+	defb B5
06E4	00	C+	defb 0
06E5	00	C+	defb 0
06E6	00	C+	defb 0
		C	no 8, F3, D4, A4, A5
06E7	02	C+	defb 16/8
06E8	1F	C+	defb F3.
06E9	27	C+	defb D4
06EA	2E	C+	defb A4
06EB	3A	C+	defb A5
		C	no 8, G5
06EC	02	C+	defb 16/8
06ED	38	C+	defb G5
06EE	00	C+	defb 0
06EF	00	C+	defb 0
06F0	00	C+	defb 0
		C	no 8, F5.
06F1	02	C+	defb 16/8
06F2	37	C+	defb F5.
06F3	00	C+	defb 0
06F4	00	C+	defb 0
06F5	00	C+	defb 0
		C	no 8, E5
06F6	02	C+	defb 16/8
06F7	35	C+	defb E5
06F8	00	C+	defb 0
06F9	00	C+	defb 0
06FA	00	C+	defb 0
		C	;39
		C	no 8, D5, D5
06FB	02	C+	defb 16/8
06FC	33	C+	defb D5
06FD	33	C+	defb D5
06FE	00	C+	defb 0
06FF	00	C+	defb 0
		C	no 8, C5, D5
0700	02	C+	defb 16/8
0701	31	C+	defb C5
0702	33	C+	defb D5
0703	00	C+	defb 0

0704	00	C+	defb 0
		C	no 8, B4
0705	02	C+	defb 16/8
0706	30	C+	defb B4
0707	00	C+	defb 0
0708	00	C+	defb 0
0709	00	C+	defb 0
		C	no 8, A4
070A	02	C+	defb 16/8
070B	2E	C+	defb A4
070C	00	C+	defb 0
070D	00	C+	defb 0
070E	00	C+	defb 0
		C	no 8, B4
070F	02	C+	defb 16/8
0710	2C	C+	defb B4
0711	00	C+	defb 0
0712	00	C+	defb 0
0713	00	C+	defb 0
		C	no 8, F4.
0714	02	C+	defb 16/8
0715	2B	C+	defb F4.
0716	00	C+	defb 0
0717	00	C+	defb 0
0718	00	C+	defb 0
		C	:40
		C	no 8, E4
0719	02	C+	defb 16/8
071A	29	C+	defb E4
071B	00	C+	defb 0
071C	00	C+	defb 0
071D	00	C+	defb 0
		C	no 8, D4
071E	02	C+	defb 16/8
071F	27	C+	defb D4
0720	00	C+	defb 0
0721	00	C+	defb 0
0722	00	C+	defb 0
		C	no 8, C4.
0723	02	C+	defb 16/8
0724	26	C+	defb C4.
0725	00	C+	defb 0
0726	00	C+	defb 0
0727	00	C+	defb 0
		C	no 8, D4
0728	02	C+	defb 16/8
0729	27	C+	defb D4
072A	00	C+	defb 0
072B	00	C+	defb 0
072C	00	C+	defb 0
		C	no 8, C4.
072D	02	C+	defb 16/8
072E	26	C+	defb C4.
072F	00	C+	defb 0
0730	00	C+	defb 0
0731	00	C+	defb 0


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0732 02      C      no 8,   D4
          C+     defb 16/8
0733 27      C+     defb D4
0734 00      C+     defb 0
0735 00      C+     defb 0
0736 00      C+     defb 0
          C      :41
          C      no 8,   C4
0737 02      C+     defb 16/8
0738 25      C+     defb C4
0739 00      C+     defb 0
073A 00      C+     defb 0
073B 00      C+     defb 0
          C      no 8,   D4
073C 02      C+     defb 16/8
073D 27      C+     defb D4
073E 00      C+     defb 0
073F 00      C+     defb 0
0740 00      C+     defb 0
          C      no 8,   C4
0741 02      C+     defb 16/8
0742 25      C+     defb C4
0743 00      C+     defb 0
0744 00      C+     defb 0
0745 00      C+     defb 0
          C      no 8,   D4
0746 02      C+     defb 16/8
0747 27      C+     defb D4
0748 00      C+     defb 0
0749 00      C+     defb 0
074A 00      C+     defb 0
          C      no 8,G3,B3,G4,G5
074B 02      C+     defb 16/8
074C 20      C+     defb G3
074D 24      C+     defb B3
074E 2C      C+     defb G4
074F 38      C+     defb G5
          C      no 16,G3, D4,G5
0750 01      C+     defb 16/16
0751 20      C+     defb G3
0752 27      C+     defb D4
0753 38      C+     defb G5
0754 00      C+     defb 0
          C      no 16,G3, D4,F5.
0755 01      C+     defb 16/16
0756 20      C+     defb G3
0757 27      C+     defb D4
0758 37      C+     defb F5.
0759 00      C+     defb 0
          C      :42
          C      no 8,A3,C4,F4.,F5.
075A 02      C+     defb 16/8
075B 22      C+     defb A3
075C 25      C+     defb C4
075D 2B      C+     defb F4.
075E 37      C+     defb F5.

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		C	no 8,A3, D4,F5.
075F	02	C+	defb 16/8
0760	22	C+	defb A3
0761	27	C+	defb D4
0762	37	C+	defb F5.
0763	00	C+	defb 0
		C	no 8,D3, C4,F5.
0764	02	C+	defb 16/8
0765	18	C+	defb D3
0766	25	C+	defb C4
0767	37	C+	defb F5.
0768	00	C+	defb 0
		C	no 8,D3, D4,F5.
0769	02	C+	defb 16/8
076A	18	C+	defb D3
076B	27	C+	defb D4
076C	37	C+	defb F5.
076D	00	C+	defb 0
		C	no 8,A3,C4,F4.,F5.
076E	02	C+	defb 16/8
076F	22	C+	defb A3
0770	25	C+	defb C4
0771	28	C+	defb F4.
0772	37	C+	defb F5.
		C	no 16,A3, D4,F5.
0773	01	C+	defb 16/16
0774	22	C+	defb A3
0775	27	C+	defb D4
0776	37	C+	defb F5.
0777	00	C+	defb 0
		C	no 16,A3, D4,G5
0778	01	C+	defb 16/16
0779	22	C+	defb A3
077A	27	C+	defb D4
077B	38	C+	defb G5
077C	00	C+	defb 0
		C	:43
		C	no 8,G3,B3,G4,G5
077D	02	C+	defb 16/8
077E	20	C+	defb G3
077F	24	C+	defb B3
0780	20	C+	defb G4
0781	38	C+	defb G5
		C	no 8,G3, D4,G5
0782	02	C+	defb 16/8
0783	20	C+	defb G3
0784	27	C+	defb D4
0785	38	C+	defb G5
0786	00	C+	defb 0
		C	no 8,D3, B3,G5
0787	02	C+	defb 16/8
0788	18	C+	defb D3
0789	24	C+	defb B3
078A	38	C+	defb G5
078B	00	C+	defb 0
		C	no 8,D3, D4,G5

078C	02	C+	defb 16/8
078D	1B	C+	defb D3
078E	27	C+	defb D4
078F	38	C+	defb G5
0790	00	C+	defb 0
		C	no 8,G3, B3,G5
0791	02	C+	defb 16/8
0792	20	C+	defb G3
0793	24	C+	defb B3
0794	38	C+	defb G5
0795	00	C+	defb 0
		C	no 16,G3, D4,G5
0796	01	C+	defb 16/16
0797	20	C+	defb G3
0798	27	C+	defb D4
0799	38	C+	defb G5
079A	00	C+	defb 0
		C	no 16,G3, D4,B5
079B	01	C+	defb 16/16
079C	20	C+	defb G3
079D	27	C+	defb D4
079E	3C	C+	defb B5
079F	00	C+	defb 0
		C	;44
		C	no 8,F3., A3,D6
07A0	02	C+	defb 16/8
07A1	1F	C+	defb F3.
07A2	22	C+	defb A3
07A3	3F	C+	defb D6
07A4	00	C+	defb 0
		C	no 8,F3., D4,D6
07A5	02	C+	defb 16/8
07A6	1F	C+	defb F3.
07A7	27	C+	defb D4
07A8	3F	C+	defb D6
07A9	00	C+	defb 0
		C	no 8,D3, A3,D6
07AA	02	C+	defb 16/8
07AB	1B	C+	defb D3
07AC	22	C+	defb A3
07AD	3F	C+	defb D6
07AE	00	C+	defb 0
		C	no 8,D3, D4,E6
07AF	02	C+	defb 16/8
07B0	1B	C+	defb D3
07B1	27	C+	defb D4
07B2	41	C+	defb E6
07B3	00	C+	defb 0
		C	no 8,F3., A3,D6
07B4	02	C+	defb 16/8
07B5	1F	C+	defb F3.
07B6	22	C+	defb A3
07B7	3F	C+	defb D6
07B8	00	C+	defb 0
		C	no 8,F3., D4,C6
07B9	02	C+	defb 16/8

078A	1F	C+	defb F3.
078B	27	C+	defb D4
078C	3D	C+	defb C6
078D	00	C+	defb 0
		C	:45
		C	no 8,G3, B3,B5
078E	02	C+	defb 16/8
078F	20	C+	defb G3
07C0	24	C+	defb B3
07C1	3C	C+	defb B5
07C2	00	C+	defb 0
		C	no 8,G3, D4,B5
07C3	02	C+	defb 16/8
07C4	20	C+	defb G3
07C5	27	C+	defb D4
07C6	3C	C+	defb B5
07C7	00	C+	defb 0
		C	no 8,D3, B3,G5
07C8	02	C+	defb 16/8
07C9	18	C+	defb D3
07CA	24	C+	defb B3
07CB	38	C+	defb G5
07CC	00	C+	defb 0
		C	no 8,D3, D4
07CD	02	C+	defb 16/8
07CE	18	C+	defb D3
07CF	27	C+	defb D4
07D0	00	C+	defb 0
07D1	00	C+	defb 0
		C	no 8,G3,B3,G4,G5
07D2	02	C+	defb 16/8
07D3	20	C+	defb G3
07D4	24	C+	defb B3
07D5	2C	C+	defb G4
07D6	38	C+	defb G5
		C	no 8,G3, D4,F5.
07D7	02	C+	defb 16/8
07D8	20	C+	defb G3
07D9	27	C+	defb D4
07DA	37	C+	defb F5.
07DB	00	C+	defb 0
		C	:46
		C	no 8,A3,C4,F4.,F5.
07DC	02	C+	defb 16/8
07DD	22	C+	defb A3
07DE	25	C+	defb C4
07DF	28	C+	defb F4.
07E0	37	C+	defb F5.
		C	no 8,A3,D4, F5.
07E1	02	C+	defb 16/8
07E2	22	C+	defb A3
07E3	27	C+	defb D4
07E4	37	C+	defb F5.
07E5	00	C+	defb 0
		C	no 8,D3,C4, F5.
07E6	02	C+	defb 16/8

07E7	1B	C+	defb D3
07E8	25	C+	defb C4
07E9	37	C+	defb F5.
07EA	00	C+	defb 0
		C	no 8,D3,D4, F5.
07EB	02	C+	defb 16/8
07EC	1B	C+	defb D3
07ED	27	C+	defb D4
07EE	37	C+	defb F5.
07EF	00	C+	defb 0
		C	no 8,A3,C4,F4.,F5.
07F0	02	C+	defb 16/8
07F1	22	C+	defb A3
07F2	25	C+	defb C4
07F3	2B	C+	defb F4.
07F4	37	C+	defb F5.
		C	no 16,A3,D4, F5.
07F5	01	C+	defb 16/16
07F6	22	C+	defb A3
07F7	27	C+	defb D4
07F8	37	C+	defb F5.
07F9	00	C+	defb 0
		C	no 16,A3,D4, G5
07FA	01	C+	defb 16/16
07FB	22	C+	defb A3
07FC	27	C+	defb D4
07FD	38	C+	defb G5
07FE	00	C+	defb 0
		C	;47
		C	no 8,G3,B3,G4,G5
07FF	02	C+	defb 16/8
0800	20	C+	defb G3
0801	24	C+	defb B3
0802	2C	C+	defb G4
0803	38	C+	defb G5
		C	no 8,G3,D4, G5
0804	02	C+	defb 16/8
0805	20	C+	defb G3
0806	27	C+	defb D4
0807	38	C+	defb G5
0808	00	C+	defb 0
		C	no 8,D3,B3, G5
0809	02	C+	defb 16/8
080A	1B	C+	defb D3
080B	24	C+	defb B3
080C	38	C+	defb G5
080D	00	C+	defb 0
		C	no 8,D3,D4, G5
080E	02	C+	defb 16/8
080F	1B	C+	defb D3
0810	27	C+	defb D4
0811	38	C+	defb G5
0812	00	C+	defb 0
		C	no 8,G3,B3, G5
0813	02	C+	defb 16/8
0814	20	C+	defb G3

0815	24	C+	defb B3
0816	38	C+	defb B5
0817	00	C+	defb 0
		C	no 16,G3,D4, B5
0818	01	C+	defb 16/16
0819	20	C+	defb B3
081A	27	C+	defb D4
081B	38	C+	defb B5
081C	00	C+	defb 0
		C	no 16,G3,D4, B5
081D	01	C+	defb 16/16
081E	20	C+	defb B3
081F	27	C+	defb D4
0820	3C	C+	defb B5
0821	00	C+	defb 0
		C	:48
		C	no 4, D6
0822	04	C+	defb 16/4
0823	3F	C+	defb D6
0824	00	C+	defb 0
0825	00	C+	defb 0
0826	00	C+	defb 0
		C	no 16,D3,C4,F4.,D6
0827	01	C+	defb 16/16
0828	1B	C+	defb D3
0829	25	C+	defb C4
082A	2B	C+	defb F4.
082B	3F	C+	defb D6
		C	no 16,D3,C4,F4.,C6.
082C	01	C+	defb 16/16
082D	1B	C+	defb D3
082E	25	C+	defb C4
082F	2B	C+	defb F4.
0830	3E	C+	defb C6.
		C	no 16, D6
0831	01	C+	defb 16/16
0832	3F	C+	defb D6
0833	00	C+	defb 0
0834	00	C+	defb 0
0835	00	C+	defb 0
		C	no 16, C6.
0836	01	C+	defb 16/16
0837	3E	C+	defb C6.
0838	00	C+	defb 0
0839	00	C+	defb 0
083A	00	C+	defb 0
		C	no 16,D3,C4,F4.,D6
083B	01	C+	defb 16/16
083C	1B	C+	defb D3
083D	25	C+	defb C4
083E	2B	C+	defb F4.
083F	3F	C+	defb D6
		C	no 16,D3,C4,F4.,C6
0840	01	C+	defb 16/16
0841	1B	C+	defb D3
0842	25	C+	defb C4

0843	28	C+	defb F4.
0844	3D	C+	defb C6
		C	no 16, B5
0845	01	C+	defb 16/16
0846	3C	C+	defb B5
0847	00	C+	defb 0
0848	00	C+	defb 0
0849	00	C+	defb 0
		C	no 16, A5
084A	01	C+	defb 16/16
084B	3A	C+	defb A5
084C	00	C+	defb 0
084D	00	C+	defb 0
084E	00	C+	defb 0
		C	49
		C	no 8,B3,B3,G4,G5
084F	02	C+	defb 16/8
0850	20	C+	defb G3
0851	24	C+	defb B3
0852	2C	C+	defb G4
0853	38	C+	defb G5
		C	no 8, G5
0854	02	C+	defb 16/8
0855	38	C+	defb G5
0856	00	C+	defb 0
0857	00	C+	defb 0
0858	00	C+	defb 0
		C	no 8,G2
0859	02	C+	defb 16/8
085A	14	C+	defb G2
085B	00	C+	defb 0
085C	00	C+	defb 0
085D	00	C+	defb 0
		C	no 8
085E	02	C+	defb 16/8
085F	00	C+	defb 0
0860	00	C+	defb 0
0861	00	C+	defb 0
0862	00	C+	defb 0
		C	no 5, G5
0863	03	C+	defb 16/5
0864	38	C+	defb G5
0865	00	C+	defb 0
0866	00	C+	defb 0
0867	00	C+	defb 0
		C	no 16, F5
0868	01	C+	defb 16/16
0869	36	C+	defb F5
086A	00	C+	defb 0
086B	00	C+	defb 0
086C	00	C+	defb 0
		C	50
		C	no 8,B3,D4, F5
086D	02	C+	defb 16/8
086E	24	C+	defb B3
086F	27	C+	defb D4

0870	36	C+	defb F5	
0871	00	C+	defb 0	
		C	no 8,B3,G4,	F5
0872	02	C+	defb 16/8	
0873	24	C+	defb B3	
0874	2C	C+	defb G4	
0875	36	C+	defb F5	
0876	00	C+	defb 0	
		C	no 8,B3,D4	
0877	02	C+	defb 16/8	
0878	24	C+	defb B3	
0879	27	C+	defb D4	
087A	00	C+	defb 0	
087B	00	C+	defb 0	
		C	no 8,B3,G4	
087C	02	C+	defb 16/8	
087D	24	C+	defb B3	
087E	2C	C+	defb G4	
087F	00	C+	defb 0	
0880	00	C+	defb 0	
		C	no 8,B3,D4,	F5
0881	02	C+	defb 16/8	
0882	24	C+	defb B3	
0883	27	C+	defb D4	
0884	36	C+	defb F5	
0885	00	C+	defb 0	
		C	no 16,B3,G4,	F5
0886	01	C+	defb 16/16	
0887	24	C+	defb B3	
0888	2C	C+	defb G4	
0889	36	C+	defb F5	
088A	00	C+	defb 0	
		C	no 16,B3,G4,	E5
088B	01	C+	defb 16/16	
088C	24	C+	defb B3	
088D	2C	C+	defb G4	
088E	35	C+	defb E5	
088F	00	C+	defb 0	
		C	:51	
		C	no 8,C4,E4,	E5
0890	02	C+	defb 16/8	
0891	25	C+	defb C4	
0892	29	C+	defb E4	
0893	35	C+	defb E5	
0894	00	C+	defb 0	
		C	no 8,C4,G4,	E5
0895	02	C+	defb 16/8	
0896	25	C+	defb C4	
0897	2C	C+	defb G4	
0898	35	C+	defb E5	
0899	00	C+	defb 0	
		C	no 8,C4,E4	
089A	02	C+	defb 16/8	
089B	25	C+	defb C4	
089C	29	C+	defb E4	
089D	00	C+	defb 0	

089E	00	C+	defb 0
		C	no 8,C4,G4
089F	02	C+	defb 16/8
08A0	25	C+	defb C4
08A1	2C	C+	defb B4
08A2	00	C+	defb 0
08A3	00	C+	defb 0
		C	no 8, C4, E5
08A4	02	C+	defb 16/8
08A5	25	C+	defb C4
08A6	35	C+	defb E5
08A7	00	C+	defb 0
08A8	00	C+	defb 0
		C	no 16, E4, E5
08A9	01	C+	defb 16/16
08AA	29	C+	defb E4
08AB	35	C+	defb E5
08AC	00	C+	defb 0
08AD	00	C+	defb 0
		C	no 16, E4, D5
08AE	01	C+	defb 16/16
08AF	29	C+	defb E4
08B0	33	C+	defb D5
08B1	00	C+	defb 0
08B2	00	C+	defb 0
		C	:52
		C	no 8,G3.,B3, D5
08B3	02	C+	defb 16/8
08B4	21	C+	defb G3.
08B5	24	C+	defb B3
08B6	33	C+	defb D5
08B7	00	C+	defb 0
		C	no 8,G3.,E4, D5
08B8	02	C+	defb 16/8
08B9	21	C+	defb G3.
08BA	29	C+	defb E4
08BB	33	C+	defb D5
08BC	00	C+	defb 0
		C	no 8,G3.,B3
08BD	02	C+	defb 16/8
08BE	21	C+	defb G3.
08BF	24	C+	defb B3
08C0	00	C+	defb 0
08C1	00	C+	defb 0
		C	no 8,G3.,E4
08C2	02	C+	defb 16/8
08C3	21	C+	defb G3.
08C4	29	C+	defb E4
08C5	00	C+	defb 0
08C6	00	C+	defb 0
		C	no 8,G3.,B3, D5
08C7	02	C+	defb 16/8
08C8	21	C+	defb G3.
08C9	24	C+	defb B3
08CA	33	C+	defb D5
08CB	00	C+	defb 0

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C      no 16,G3.,E4, D5
08CC  01  C+   defb 16/16
08CD  21  C+   defb G3.
08CE  29  C+   defb E4
08CF  33  C+   defb D5
08D0  00  C+   defb 0
C      no 16,G3.,E4, C5
08D1  01  C+   defb 16/16
08D2  21  C+   defb G3.
08D3  29  C+   defb E4
08D4  31  C+   defb C5
08D5  00  C+   defb 0
C      ;53
C      no 8,A3,C4, C5
08D6  02  C+   defb 16/8
08D7  22  C+   defb A3
08D8  25  C+   defb C4
08D9  31  C+   defb C5
08DA  00  C+   defb 0
C      no 8,A3,E4, C5
08DB  02  C+   defb 16/8
08DC  22  C+   defb A3
08DD  29  C+   defb E4
08DE  31  C+   defb C5
08DF  00  C+   defb 0
C      no 8,A3,C4
08E0  02  C+   defb 16/8
08E1  22  C+   defb A3
08E2  25  C+   defb C4
08E3  00  C+   defb 0
08E4  00  C+   defb 0
C      no 8,A3,E4
08E5  02  C+   defb 16/8
08E6  22  C+   defb A3
08E7  29  C+   defb E4
08E8  00  C+   defb 0
08E9  00  C+   defb 0
C      no 8, C4, C6
08EA  02  C+   defb 16/8
08EB  25  C+   defb C4
08EC  3D  C+   defb C6
08ED  00  C+   defb 0
08EE  00  C+   defb 0
C      no 16, E4, C6
08EF  01  C+   defb 16/16
08F0  29  C+   defb E4
08F1  3D  C+   defb C6
08F2  00  C+   defb 0
08F3  00  C+   defb 0
C      no 16, E4, A5
08F4  01  C+   defb 16/16
08F5  29  C+   defb E4
08F6  3A  C+   defb A5
08F7  00  C+   defb 0
08F8  00  C+   defb 0
C      ;54

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		C	no 8,A3, C5,G5
08F9	02	C+	defb 16/8
08FA	22	C+	defb A3
08FB	31	C+	defb C5
08FC	38	C+	defb G5
08FD	00	C+	defb 0
		C	no 8,A3, D4,F5.
08FE	02	C+	defb 16/8
08FF	22	C+	defb A3
0900	27	C+	defb D4
0901	37	C+	defb F5.
0902	00	C+	defb 0
		C	no 8,F3., A4,D6
0903	02	C+	defb 16/8
0904	1F	C+	defb F3.
0905	2E	C+	defb A4
0906	3F	C+	defb D6
0907	00	C+	defb 0
		C	no 8,F3., D4,D6
0908	02	C+	defb 16/8
0909	1F	C+	defb F3.
090A	27	C+	defb D4
090B	3F	C+	defb D6
090C	00	C+	defb 0
		C	no 8,G3, B4,D6
090D	02	C+	defb 16/8
090E	20	C+	defb G3
090F	30	C+	defb B4
0910	3F	C+	defb D6
0911	00	C+	defb 0
		C	no 8,G3, D4,G5
0912	02	C+	defb 16/8
0913	20	C+	defb G3
0914	27	C+	defb D4
0915	38	C+	defb G5
0916	00	C+	defb 0
		C	;55
		C	no 8,A3, C5,G5
0917	02	C+	defb 16/8
0918	22	C+	defb A3
0919	31	C+	defb C5
091A	38	C+	defb G5
091B	00	C+	defb 0
		C	no 8,A3, D4,F5.
091C	02	C+	defb 16/8
091D	22	C+	defb A3
091E	27	C+	defb D4
091F	37	C+	defb F5.
0920	00	C+	defb 0
		C	no 8,F3., A4,D6
0921	02	C+	defb 16/8
0922	1F	C+	defb F3.
0923	2E	C+	defb A4
0924	3F	C+	defb D6
0925	00	C+	defb 0
		C	no 8,F3., D4,D6

0926	02	C+	defb 16/8
0927	1F	C+	defb F3.
0928	27	C+	defb D4
0929	3F	C+	defb D6
092A	00	C+	defb 0
		C	no 8,G3, B4,D6
092B	02	C+	defb 16/8
092C	20	C+	defb G3
092D	30	C+	defb B4
092E	3F	C+	defb D6
092F	00	C+	defb 0
		C	no 8,G3, D4,B5
0930	02	C+	defb 16/8
0931	20	C+	defb G3
0932	27	C+	defb D4
0933	3C	C+	defb B5
0934	00	C+	defb 0
		C	156
		C	no 8,C3, C6
0935	02	C+	defb 16/8
0936	19	C+	defb C3
0937	3D	C+	defb C6
0938	00	C+	defb 0
0939	00	C+	defb 0
		C	no 16, A4
093A	01	C+	defb 16/16
093B	2E	C+	defb A4
093C	00	C+	defb 0
093D	00	C+	defb 0
093E	00	C+	defb 0
		C	no 16, C5
093F	01	C+	defb 16/16
0940	31	C+	defb C5
0941	00	C+	defb 0
0942	00	C+	defb 0
0943	00	C+	defb 0
		C	no 8,D3, B5
0944	02	C+	defb 16/8
0945	1B	C+	defb D3
0946	3C	C+	defb B5
0947	00	C+	defb 0
0948	00	C+	defb 0
		C	no 16, G4
0949	01	C+	defb 16/16
094A	2C	C+	defb G4
094B	00	C+	defb 0
094C	00	C+	defb 0
094D	00	C+	defb 0
		C	no 16, B4
094E	01	C+	defb 16/16
094F	30	C+	defb B4
0950	00	C+	defb 0
0951	00	C+	defb 0
0952	00	C+	defb 0
		C	no 8,D3, A5
0953	02	C+	defb 16/8

0954	1B	C+	defb D3
0955	3A	C+	defb A5
0956	00	C+	defb 0
0957	00	C+	defb 0
		C	no 16, F4.
0958	01	C+	defb 16/16
0959	28	C+	defb F4.
095A	00	C+	defb 0
095B	00	C+	defb 0
095C	00	C+	defb 0
		C	no 16, A4
095D	01	C+	defb 16/16
095E	2E	C+	defb A4
095F	00	C+	defb 0
0960	00	C+	defb 0
0961	00	C+	defb 0
		C	;57
		C	no 16,G2,D3,B3,G5
0962	01	C+	defb 16/16
0963	14	C+	defb G2
0964	1B	C+	defb D3
0965	24	C+	defb B3
0966	38	C+	defb G5
		C	no 16,G2,D3,B3,G4
0967	01	C+	defb 16/16
0968	14	C+	defb G2
0969	1B	C+	defb D3
096A	24	C+	defb B3
096B	2C	C+	defb G4
		C	no 16, A4
096C	01	C+	defb 16/16
096D	2E	C+	defb A4
096E	00	C+	defb 0
096F	00	C+	defb 0
0970	00	C+	defb 0
		C	no 16, B4
0971	01	C+	defb 16/16
0972	30	C+	defb B4
0973	00	C+	defb 0
0974	00	C+	defb 0
0975	00	C+	defb 0
		C	no 16, C5
0976	01	C+	defb 16/16
0977	31	C+	defb C5
0978	00	C+	defb 0
0979	00	C+	defb 0
097A	00	C+	defb 0
		C	no 16, D5
097B	01	C+	defb 16/16
097C	33	C+	defb D5
097D	00	C+	defb 0
097E	00	C+	defb 0
097F	00	C+	defb 0
		C	no 16, E5
0980	01	C+	defb 16/16
0981	35	C+	defb E5

0982	00	C+	defb 0
0983	00	C+	defb 0
0984	00	C+	defb 0
		C	no 16, F5.
0985	01	C+	defb 16/16
0986	37	C+	defb F5.
0987	00	C+	defb 0
0988	00	C+	defb 0
0989	00	C+	defb 0
		C	no 16, G5
098A	01	C+	defb 16/16
098B	38	C+	defb G5
098C	00	C+	defb 0
098D	00	C+	defb 0
098E	00	C+	defb 0
		C	no 16, A5
098F	01	C+	defb 16/16
0990	3A	C+	defb A5
0991	00	C+	defb 0
0992	00	C+	defb 0
0993	00	C+	defb 0
		C	no 16,G4, B4,B5
0994	01	C+	defb 16/16
0995	2C	C+	defb G4
0996	30	C+	defb B4
0997	3C	C+	defb B5
0998	.00	C+	defb 0
		C	no 16,G4, B4,G5
0999	01	C+	defb 16/16
099A	2C	C+	defb G4
099B	30	C+	defb B4
099C	38	C+	defb G5
099D	00	C+	defb 0
		C	:58
		C	no 8,A4, C5,F5.
099E	02	C+	defb 16/8
099F	2E	C+	defb A4
09A0	31	C+	defb C5
09A1	37	C+	defb F5.
09A2	00	C+	defb 0
		C	no 8,A4, D5,D6
09A3	02	C+	defb 16/8
09A4	2E	C+	defb A4
09A5	33	C+	defb D5
09A6	3F	C+	defb D6
09A7	00	C+	defb 0
		C	no 8,F4., A4,D6
09A8	02	C+	defb 16/8
09A9	2B	C+	defb F4.
09AA	2E	C+	defb A4
09AB	3F	C+	defb D6
09AC	00	C+	defb 0
		C	no 8,F4., D5,D6
09AD	02	C+	defb 16/8
09AE	2B	C+	defb F4.
09AF	33	C+	defb D5

09B0	3F	C+	defb D6
09B1	00	C+	defb 0
		C	no 16,G4, B4,C6
09B2	01	C+	defb 16/16
09B3	2C	C+	defb G4
09B4	30	C+	defb B4
09B5	3D	C+	defb C6
09B6	00	C+	defb 0
		C	no 16,G4, B4,B5
09B7	01	C+	defb 16/16
09B8	2C	C+	defb G4
09B9	30	C+	defb B4
09BA	3C	C+	defb B5
09BB	00	C+	defb 0
		C	no 16,G4, D5,A5
09BC	01	C+	defb 16/16
09BD	2C	C+	defb G4
09BE	33	C+	defb D5
09BF	3A	C+	defb A5
09C0	00	C+	defb 0
		C	no 16,G4, D5,G5
09C1	01	C+	defb 16/16
09C2	2C	C+	defb G4
09C3	33	C+	defb D5
09C4	38	C+	defb G5
09C5	00	C+	defb 0
		C	;59
		C	no 16,A4, C5,F5.
09C6	01	C+	defb 16/16
09C7	2E	C+	defb A4
09C8	31	C+	defb C5
09C9	37	C+	defb F5.
09CA	00	C+	defb 0
		C	no 16,A4, C5,D6
09CB	01	C+	defb 16/16
09CC	2E	C+	defb A4
09CD	31	C+	defb C5
09CE	3F	C+	defb D6
09CF	00	C+	defb 0
		C	no 16,A4, D5,C6.
09D0	01	C+	defb 16/16
09D1	2E	C+	defb A4
09D2	33	C+	defb D5
09D3	3E	C+	defb C6.
09D4	00	C+	defb 0
		C	no 16,A4, D5,D6
09D5	01	C+	defb 16/16
09D6	2E	C+	defb A4
09D7	33	C+	defb D5
09D8	3F	C+	defb D6
09D9	00	C+	defb 0
		C	no 16,F4., A4,C6.
09DA	01	C+	defb 16/16
09DB	28	C+	defb F4.
09DC	2E	C+	defb A4
09DD	3E	C+	defb C6.

09DE	00	C+	defb 0
		C	no 16,F4., A4,D6
09DF	01	C+	defb 16/16
09E0	2B	C+	defb F4.
09E1	2E	C+	defb A4
09E2	3F	C+	defb D6
09E3	00	C+	defb 0
		C	no 16,F4., D5,C6.
09E4	01	C+	defb 16/16
09E5	2B	C+	defb F4.
09E6	33	C+	defb 05
09E7	3E	C+	defb C6.
09E8	00	C+	defb 0
		C	no 16,F4., D5,D6
09E9	01	C+	defb 16/16
09EA	2B	C+	defb F4.
09EB	33	C+	defb D5
09EC	3F	C+	defb D6
09ED	00	C+	defb 0
		C	no 16,G4, B4,C6
09EE	01	C+	defb 16/16
09EF	2C	C+	defb G4
09F0	30	C+	defb 84
09F1	3D	C+	defb C6
09F2	00	C+	defb 0
		C	no 16,G4, B4,B5
09F3	01	C+	defb 16/16
09F4	2C	C+	defb G4
09F5	30	C+	defb 84
09F6	3C	C+	defb 85
09F7	00	C+	defb 0
		C	no 16,G4, D5,A5
09F8	01	C+	defb 16/16
09F9	2C	C+	defb G4
09FA	33	C+	defb D5
09FB	3A	C+	defb A5
09FC	00	C+	defb 0
		C	no 16,G4, D5,G5
09FD	01	C+	defb 16/16
09FE	2C	C+	defb G4
09FF	33	C+	defb D5
0A00	38	C+	defb G5
0A01	00	C+	defb 0
		C	;60
		C	no 16,C4,A4,E4,D6.
0A02	01	C+	defb 16/16
0A03	25	C+	defb C4
0A04	2E	C+	defb A4
0A05	29	C+	defb E4
0A06	40	C+	defb D6.
		C	no 16,C4,A4,E4,E6
0A07	01	C+	defb 16/16
0A08	25	C+	defb C4
0A09	2E	C+	defb A4
0A0A	29	C+	defb E4
0A0B	41	C+	defb E6

		C	no 16, D6.
0A0C	01	C+	defb 16/16
0A0D	40	C+	defb D6.
0A0E	00	C+	defb 0
0A0F	00	C+	defb 0
0A10	00	C+	defb 0
		C	no 16, E6
0A11	01	C+	defb 16/16
0A12	41	C+	defb E6
0A13	00	C+	defb 0
0A14	00	C+	defb 0
0A15	00	C+	defb 0
		C	no 8, D4, B4, D5, G5
0A16	02	C+	defb 16/8
0A17	27	C+	defb D4
0A18	30	C+	defb B4
0A19	33	C+	defb D5
0A1A	38	C+	defb G5
		C	no 8, G5
0A1B	02	C+	defb 16/8
0A1C	38	C+	defb G5
0A1D	00	C+	defb 0
0A1E	00	C+	defb 0
0A1F	00	C+	defb 0
		C	no 16, D4, C5, D5, B5
0A20	01	C+	defb 16/16
0A21	27	C+	defb D4
0A22	31	C+	defb C5
0A23	33	C+	defb D5
0A24	3C	C+	defb B5
		C	no 16, D4, C5, D5, A5
0A25	01	C+	defb 16/16
0A26	27	C+	defb D4
0A27	31	C+	defb C5
0A28	33	C+	defb D5
0A29	3A	C+	defb A5
		C	no 16, G5
0A2A	01	C+	defb 16/16
0A2B	38	C+	defb G5
0A2C	00	C+	defb 0
0A2D	00	C+	defb 0
0A2E	00	C+	defb 0
		C	no 16, A5
0A2F	01	C+	defb 16/16
0A30	3A	C+	defb A5
0A31	00	C+	defb 0
0A32	00	C+	defb 0
0A33	00	C+	defb 0
		C	#61
		C	no 8, G4, B4, D5, G5
0A34	02	C+	defb 16/8
0A35	2C	C+	defb G4
0A36	30	C+	defb B4
0A37	33	C+	defb D5
0A38	38	C+	defb G5
		C	no 8, G5

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0A39 02 C+ defb 16/8
0A3A 38 C+ defb 65
0A3B 00 C+ defb 0
0A3C 00 C+ defb 0
0A3D 00 C+ defb 0
C no 4
0A3E 04 C+ defb 16/4
0A3F 00 C+ defb 0
0A40 00 C+ defb 0
0A41 00 C+ defb 0
0A42 00 C+ defb 0
C no 8,D3,A3,C4
0A43 02 C+ defb 16/8
0A44 1B C+ defb D3
0A45 22 C+ defb A3
0A46 25 C+ defb C4
0A47 00 C+ defb 0
C no 8
0A48 02 C+ defb 16/8
0A49 00 C+ defb 0
0A4A 00 C+ defb 0
0A4B 00 C+ defb 0
0A4C 00 C+ defb 0
C :62
C no 8,G2,G3,B3,G4
0A4D 02 C+ defb 16/8
0A4E 14 C+ defb G2
0A4F 20 C+ defb B3
0A50 24 C+ defb B3
0A51 2C C+ defb G4
C ;END OF BEETHOVEN MINUET
C no 1
0A52 10 C+ defb 16/1
0A53 00 C+ defb 0
0A54 00 C+ defb 0
0A55 00 C+ defb 0
0A56 00 C+ defb 0
0A57 00 00 00 00 defb 0,0,0,0,0 ;Ende
0A58 00

org 8000h ;RAM Start
8000 0000 note1: defw 0
8002 0000 note2: defw 0
8004 0000 note3: defw 0
8006 0000 note4: defw 0

8008 defs 200
8000 00 stack: defb 0

end start

```

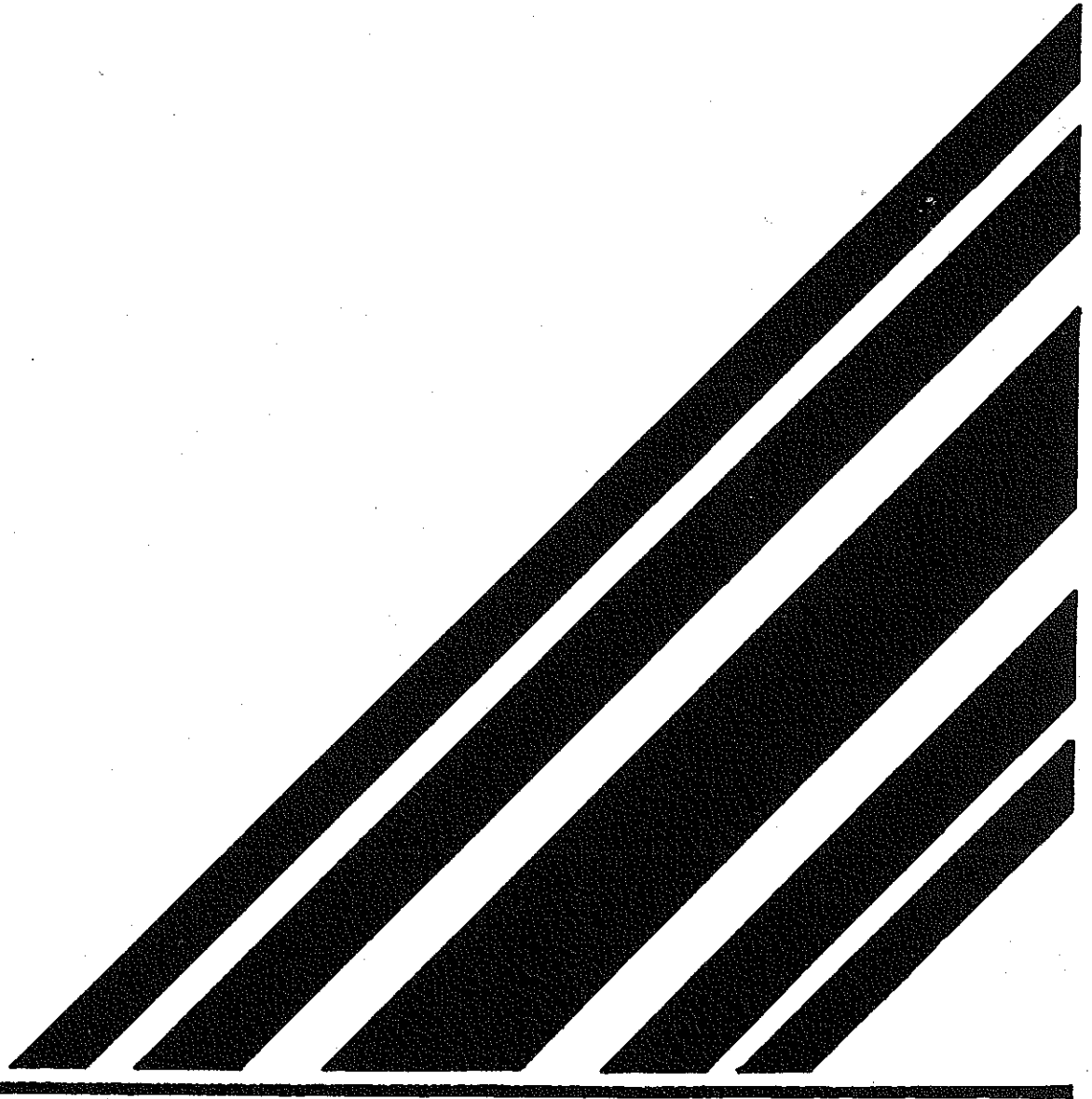
Macros:

NO

Symbols:

000A	A1	0008	A1.	0016	A2
0017	A2.	0022	A3	0023	A3.
002E	A4	002F	A4.	003A	A5
003B	A5.	0046	A6	0047	A6.
0052	A7	0053	A7.	005E	A8
005F	A8.	000C	B1	0018	B2
0024	B3	0030	B4	003C	B5
0048	B6	0054	B7	0060	B8
0001	C1	0002	C1.	000D	C2
000E	C2.	0019	C3	001A	C3.
0025	C4	0026	C4.	0031	C5
0032	C5.	003D	C6	003E	C6.
0049	C7	004A	C7.	0055	C8
0056	C8.	0003	D1	0004	D1.
000F	D2	0010	D2.	0018	D3
001C	D3.	0027	D4	0028	D4.
0033	D5	0034	D5.	003F	D6
0040	D6.	004B	D7	004C	D7.
0057	D8	0058	D8.	0005	E1
0011	E2	001D	E3	0029	E4
0035	E5	0041	E6	004D	E7
0059	E8	0006	F1	0007	F1.
0012	F2	0013	F2.	001E	F3
001F	F3.	002A	F4	002B	F4.
0036	F5	0037	F5.	0042	F6
0043	F6.	004E	F7	004F	F7.
005A	F8	005B	F8.	0008	G1
0009	G1.	0014	G2	0015	G2.
0020	G3	0021	G3.	002C	G4
002D	G4.	0038	G5	0039	G5.
0044	G6	0045	G6.	0050	G7
0051	G7.	005C	G8	005D	G8.
0099	GETADR	00A1	GT1	000C	H1
0018	H2	0024	H3	0030	H4
003C	H5	0048	H6	0054	H7
0060	H8	0062	LP1	0034	LP11
0007	MEL01	0174	MUSIK	8000	NOTE1
8002	NOTE2	8004	NOTE3	8006	NOTE4
00B4	NOTTAB	006D	S1	0079	S2
0085	S3	0091	S4	0062	SPIELE
80D0	STACK	0000	START		

No Fatal error(s)



Alarmstufe ROT

.z80

```

;*****
;* Verkehrsampelsteuerung *
;* Rolf - Dieter Klein 830518 *
;* VERSION FUER SCHNELLEN ABLAUF *
;*****

```

; Version ohne RAM ablauffaehig

```

0000'      cseg          ;Beginn Adresse 0 ROM
0000'  C3 0003'      jp start      ;Startadresse Hauptprogramm

; die Ausgabe erfolgt ueber einen
; Zwischenspeicher

0000      zwspeich     equ    0      ;I/O adresse ist 0

```

```

; Belegung der einzelnen Bits des Zwischenspeichers
;
; 7   6   5   4   3   2   1   0
; -   -   rot gelb gruen rot gelb gruen
;     2   2   2   1   1   1
;

```

```

0004      rot1     equ    100b      ;Codierung der einzelnen
0002      gelb1    equ    010b      ;Bits
0001      gruen1   equ    001b      ;um lesbarerere
;
0020      rot2     equ    100000b   ;Codesequenzen zu
0010      gelb2    equ    010000b   ;verhalten
0008      gruen2   equ    001000b   ;und Symbole zu verwenden
;

```

```

0003'      start:      ;Hauptprogrammstart
0003'      lop1:
0003'  21 0021'      ld hl,phastab ;Tabelle der Ampelphasen
0006'  06 0C          ld b,12      ;ANZAHL DER PHASEN
0008'      lop2:
0008'  7E            ld a,(hl)    ;hole Ampelsequenz
0009'  D3 00          out (zwspeich),a ;ausgeben an IO
000B'  23            inc hl     ;naechste Phase
000C'  0E 0A          ld c,10     ;alle 1 sec ein Wechsel
000E'      lop3:
000E'  11 291E       ld de,10526 ;=100ms /Durchlauf 4MHZ
0011'      lop4:      ;warteschleife
0011'  00            nop         ;4
0012'  00            nop         ;4
0013'  1B            dec de     ;6
0014'  7A            ld a,d     ;4
0015'  B3            or e       ;4
0016'  C2 0011'      jp nz,lop4 ;10 Total=9.5 ys/Durchlauf
0019'  0D            dec c

```

```
001A' C2 000E'      jp nz,lop3
001D' 10 E9        djnz lop2      ;bis alle Phasen ausgegeben
001F' 18 E2        jr lop1       ;nun Phasenwiederholen

0021'              phastab:      ;Tabelle der Ampelphasen
                                ;hier kann eine beliebige
                                ;Sequenz programmiert werden
                                ;die Anzahl der Phasen ist im
                                ;Hauptprogramm einzustellen

0021' 0C          defb rot1 or gruen2
0022' 0C          defb rot1 or gruen2      ;gruenphase laenger
0023' 0C          defb rot1 or gruen2
0024' 14          defb rot1 or gelb2
0025' 24          defb rot1 or rot2
0026' 26          defb rot1 or gelb1 or rot2
0027' 21          defb gruen1 or rot2
0028' 21          defb gruen1 or rot2      ;gruenphase laenger
0029' 21          defb gruen1 or rot2
002A' 22          defb gelb1 or rot2
002B' 24          defb rot1 or rot2
002C' 34          defb rot1 or rot2 or gelb2

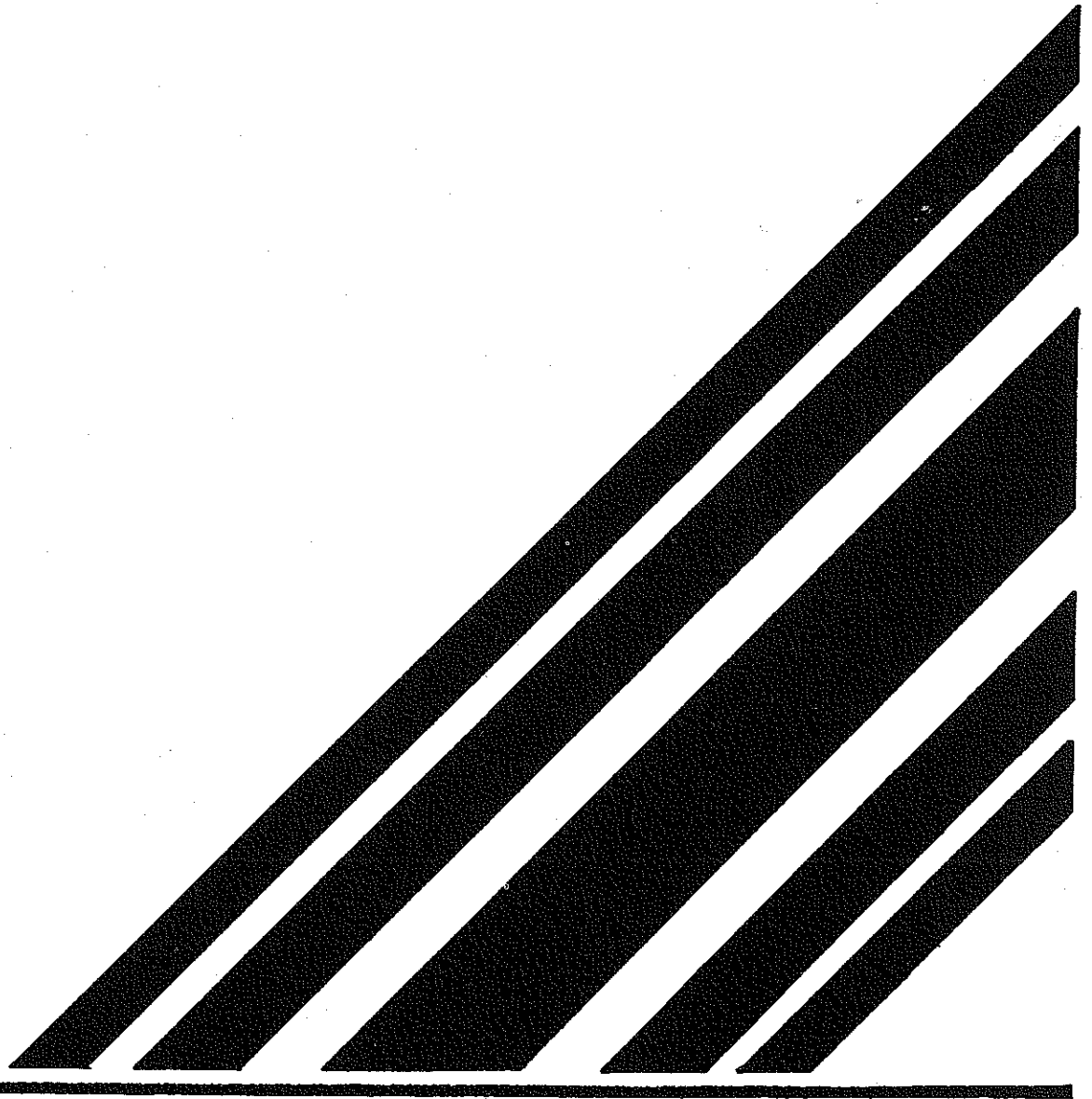
end
```

Macros:

Symbols:

0002	GELB1	0010	GELB2	0001	GRUEN1
0008	GRUEN2	0003'	LQP1	0008'	LQP2
000E'	LQP3	0011'	LQP4	0021'	PHASTAB
0004	ROT1	0020	ROT2	0003'	START
0000	ZUSPEICH				

No Fatal error(s)



Gruene Welle

```

;*****
;* Gruene Welle Epron      *
;* rev 1.1  RDK           *
;*****

```

```

; rom auf adresse 0, ram auf adresse 8000

```

```

cseg
jp start

```

```

zwspeich equ 0 ; Ausgabeport auf IOE-Karte
                ; die Ausgaenge der einzelnen
                ; Bits werden mit den RESET-
                ; Eingaengen der SBC-Karten
                ; verbunden

```

```

; alle Zeitwerte haengen vom CPU-Takt ab
; Berechnung fuer 4MHZ

```

```

delay:         ; 0.5 sekunden
do bc,500     ; je eine milisekunde
  push bc
  call delims
  pop bc
enddo
ret

```

```

del150ms:     ; 150 ms
do bc,150    ; je eine milisekunde
  push bc
  call delims
  pop bc
enddo
ret

```

```

delims:       ; 1ms
ld bc,1000/6
do bc ; je 6 ys
  ; nur verzoeigerung
enddo
ret

```

```

pulse:        ; ----- Mit Treiber Neg. Pulse
push af
call del150ms
pop af
out (zwspeich),a
call del150ms
ld a,00000000b
out (zwspeich),a
ret

```

```

start:
ld sp,stack
ld a,00000000b

```

```
out (zwspeich),a
call delay      ; start verzogern

ld a,00000001b ; Ampelanlage 0
call pulse
call delay
ld a,00000010b ; Ampelanlage 1
call pulse
call delay
ld a,00000100b ; Ampelanlage 2
call pulse
call delay
ld a,00001000b ; Ampelanlage 3
call pulse
call delay
ld a,00010000b ; Ampelanlage 4
call pulse
call delay
ld a,00100000b ; Ampelanlage 5
call pulse
call delay
ld a,01000000b ; Ampelanlage 6
call pulse
call delay
ld a,10000000b ; Ampelanlage 7
call pulse
halt
```

dseg

```
ds 200
stack:
```

end

```

.z80
;*****
;* Gruene Welle Eprom *
;* rev 1.1 RDK *
;*****

; rom auf adresse 0, ram auf adresse 8000

0000' cseg
0000' C3 003A' jp start

0000
zuspeich equ 0 ; Ausgabeport auf IDE-Karte
; die Ausgaenge der einzelnen
; Bits werden mit den RESET-
; Eingaengen der SBC-Karten
; verbunden

; alle Zeitwerte haengen vom CPU-Takt ab
; Berechnung fuer 4MHZ

0003' delay: ; 0.5 sekunden
;1 do bc,500 ; je eine milisekunde
0003' Q1 01F4 LD bc,500
0006' .L1:
0006' C5 push bc
0007' CD 0021' call delims
000A' C1 pop bc
;1 enddo
000B' 0B DEC BC
000C' 78 LD A,B
000D' B1 OR C
000E' C2 0006' JP NZ,.L1
0011' C9 ret

0012' del150ms: ; 150 ms
;1 do bc,150 ; je eine milisekunde
0012' Q1 0096 LD bc,150
0015' .L2:
0015' C5 push bc
0016' CD 0021' call delims
0019' C1 pop bc
;1 enddo
001A' 0B DEC BC
001B' 78 LD A,B
001C' B1 OR C
001D' C2 0015' JP NZ,.L2
0020' C9 ret

0021' delims: ; 1ms
0021' Q1 00A6 ld bc,1000/6
;1 do bc ; je 6 ys
0024' .L3:
; nur verzoegerung

```

```

;1      enddo
0024'   0B      DEC BC
0025'   78      LD A,8
0026'   B1      DR C
0027'   C2 0024' JP NZ,.L3
002A'   C9      ret
    
```

```

0028'   pulse: ; ----- Mit Treiber Neg. Pulse
002B'   F5      push af
002C'   CD 0012' call del150ms
002F'   F1      pop af
0030'   D3 00   out (zwspeich),a
0032'   CD 0012' call del150ms
0035'   3E 00   ld a,00000000b
0037'   D3 00   out (zwspeich),a
0039'   C9      ret
    
```

```

003A'   start:
003A'   31 00C8" ld sp,stack
003D'   3E 00   ld a,00000000b
003F'   D3 00   out (zwspeich),a
0041'   CD 0003' call delay ; start verzogern

0044'   3E 01   ld a,00000001b ; Ampelanlage 0
0046'   CD 002B' call pulse
0049'   CD 0003' call delay
004C'   3E 02   ld a,00000010b ; Ampelanlage 1
004E'   CD 002B' call pulse
0051'   CD 0003' call delay
0054'   3E 04   ld a,00000100b ; Ampelanlage 2
0056'   CD 002B' call pulse
0059'   CD 0003' call delay
005C'   3E 08   ld a,00001000b ; Ampelanlage 3
005E'   CD 002B' call pulse
0061'   CD 0003' call delay
0064'   3E 10   ld a,00010000b ; Ampelanlage 4
0066'   CD 002B' call pulse
0069'   CD 0003' call delay
006C'   3E 20   ld a,00100000b ; Ampelanlage 5
006E'   CD 002B' call pulse
0071'   CD 0003' call delay
0074'   3E 40   ld a,01000000b ; Ampelanlage 6
0076'   CD 002B' call pulse
0079'   CD 0003' call delay
007C'   3E 80   ld a,10000000b ; Ampelanlage 7
007E'   CD 002B' call pulse
0081'   76      halt
    
```

```

0082'   dseg
0000"   ds 200
00C8"   stack:
    
```

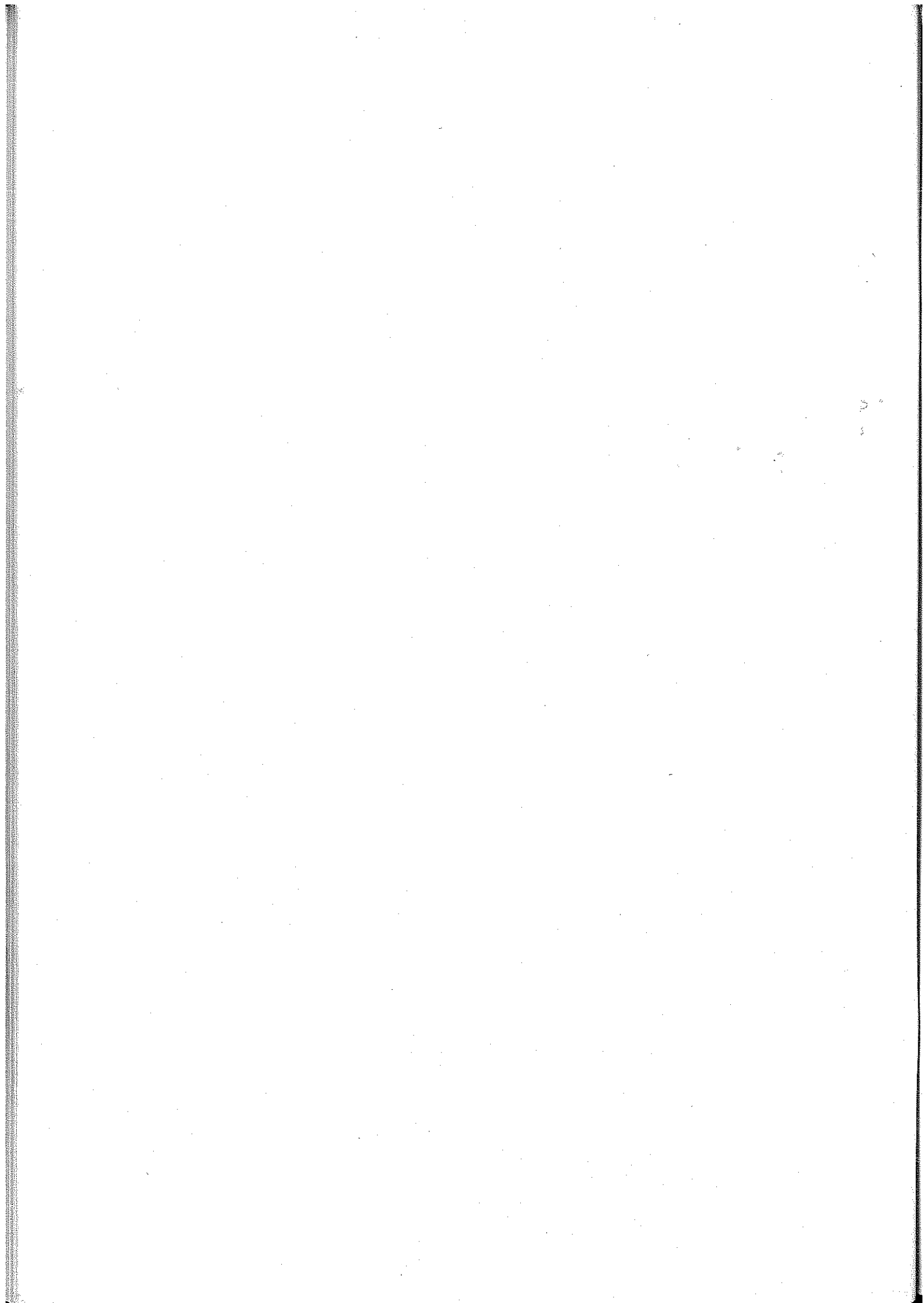
end

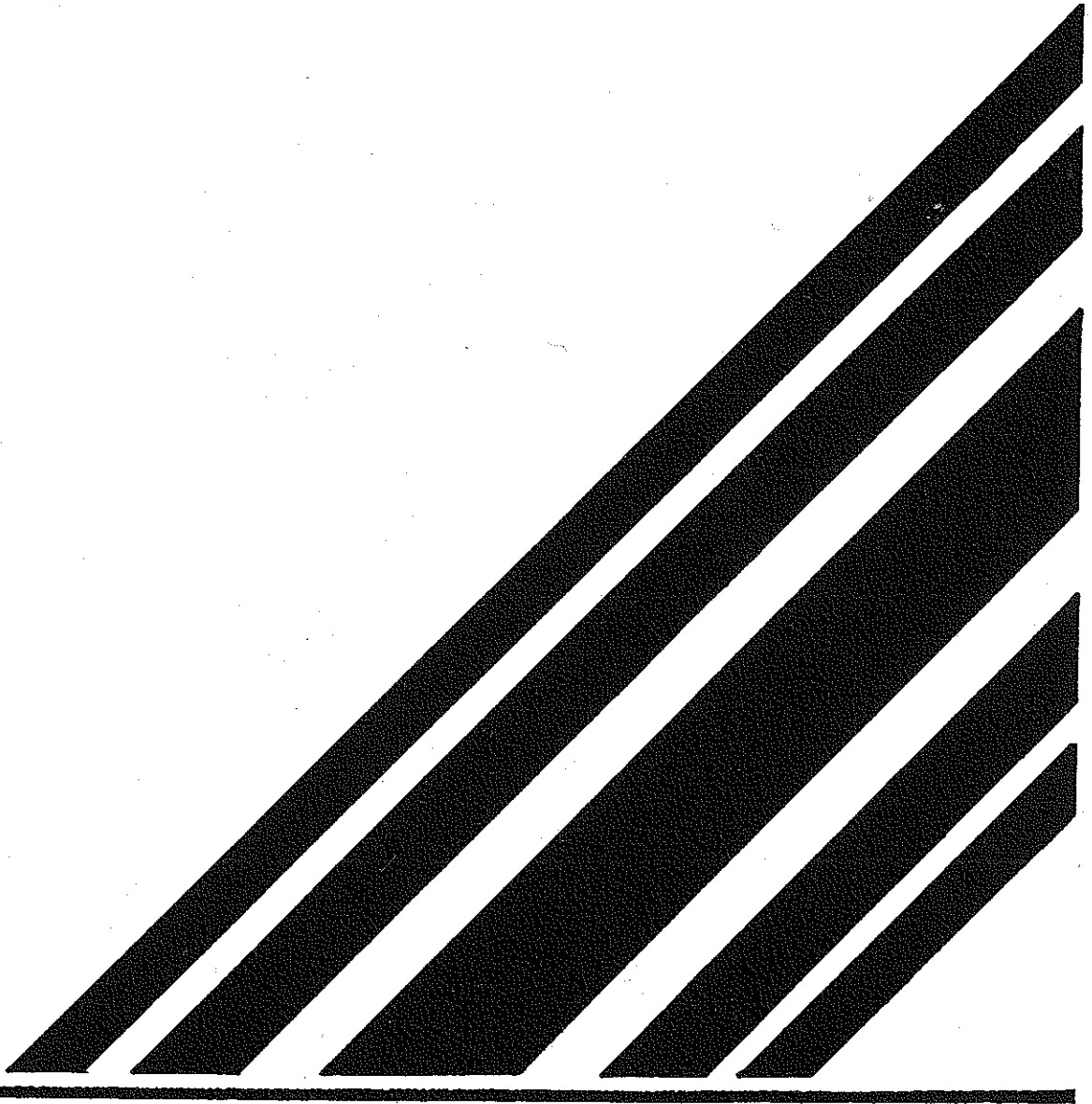
Macros:

Symbols:

0006'	.L1	0015'	.L2	0024'	.L3
0012'	DEL150MS	0021'	DEL1MS	0003'	DELAY
002B'	PULSE	00C8"	STACK	003A'	START
0000	ZUSPEICH				

No Fatal error(s)





Roboter steuern

.z80

```

*****
;* Roboter Steuerprogramm *
;* von Rolf-Dieter Klein *
;* Version 1.0 830724 *
;* rev 1.1 quick vers *
*****
    
```

```

0000'          aseq
              org 0
                                ;0=ROM 8000=RAM
    
```

```

0000  C3 006C          jp start          ; Hauptprogramm
    
```

; IO-Port Definitionen

```

0030          adport equ 30h
0031          tast equ 31h
0030          motor equ 30h
    
```

```

; adport Belegung
; 7 6 5 4 3 2 1 0
; mot2 mot1 opt          sto run
;
; tast
; mot2 mot2 mot1 mot1 opt opt magn magn
;
; motor
; ein2 pol2 ein1 pol1          einmagn
;
    
```

```

0003          getad2::          ;holt ad-wert von dem Port fuer mot2
                                ;hl=ergebnis
                                ;----- Flanke steigend
    
```

```

0003          get1::
0003  DB 30          in a,(adport)
0005  07          rlca
0006  38 FB          jr c,get1          ;warten bis mot2ad auf 0 ist
0008  DB 30          get2:: in a,(adport)
000A  07          rlca
000B  30 FB          jr nc,get2          ;warten bis wieder auf 1 -----
;
000D  21 0000          ld hl,0          ;Zaehler
0010  DB 30          get3:: in a,(adport)
0012  07          rlca
0013  D0          ret nc          ;Ende
0014  23          inc hl
0015  18 F9          jr get3
    
```

```

0017          getadi::          ;holt ad-wert Port mot1
                                ;hl=ergebnis
                                ;----- Flanke steigend
    
```

```

0017
0017 DB 30          get11:
0019 07              in a,(adport)
001A B7              r1ca
001B FA 0017        jp n,get11          ;warten bis mot2ad auf 0 ist
001E DB 30          get12: in a,(adport)
0020 07              r1ca
0021 B7              or a
0022 F2 001E        jp p,get12          ;warten bis wieder auf 1
;
0025 21 0000        ld hl,0            ;Zaehler
0028 DB 30          get13: in a,(adport)
002A 07              r1ca
002B B7              or a
002C F0              ret p              ;Ende
002D 23              inc hl
002E 18 F8          jr get13

```

```

0030
0030 01 0032        delein::          ;ca 50ms
0033                ld bc,50
0033 C5              dellein::
0034 01 0053        push bc
0037                ld bc,1000/12      ;12ys ca
0037 0B              del2ein::
0038 79              dec bc
0039 B0              ld a,c
003A C2 0037        or b
003D C1              jp nz,del2ein
003E 0B              pop bc
003F 79              dec bc
0040 B0              ld a,c
0041 C2 0033        or b
0044 C9              jp nz,dellein
0044                ret

```

```

0045
0045 01 0028        delaus::          ;ca 40ms
0048                ld bc,40
0048 C5              deliaus::
0049 01 0053        push bc
004C                ld bc,1000/12      ;12ys ca
004C 0B              del2aus::
004D 79              dec bc
004E B0              ld a,c
004F C2 004C        or b
0052 C1              jp nz,del2aus
0053 0B              pop bc
0054 79              dec bc
0055 B0              ld a,c
0056 C2 0048        or b
0059 C9              jp nz,deliaus
0059                ret

```

```

005A
005A C5              delay:          ;bc = anzahl ms
                push bc

```

```

005B 01 0053          ld bc,1000/12
005E                    delay1:
005E 0B              dec bc
005F 79              ld a,c
0060 B0              or b
0061 C2 005E         jp nz,delay1
0064 C1              pop bc
0065 0B              dec bc
0066 79              ld a,c
0067 B0              or b
0068 C2 005A         jp nz,delay
006B C9              ret

006C                    start::          ;zuerst initialisieren
006C 31 87FF         ld sp,stack
006F AF              xor a
0070 D3 30          out (motor),a    ;Motoren und Relais neutral
0072 32 8000         ld (magnet),a    ;Magnet aus
0075 21 8009         ld hl,heap
0078 22 8007         ld (pointer),hl
007B 21 0000         ld hl,0
007E 22 8009         ld (heap),hl    ;ende zeichen

0081                    loop::          ;abtastschleife
0081 06 00          ld b,0           ;befehlscode motore fuer Handsteuerung
0083 DB 31          in a,(tast)     ;befehle von tastatur
0085 CB 7F         bit 7,a         ;mot 2 VW
0087 20 02         jr nz,sta1
0089 CB F8         set 7,b         ;motor ein
008B CB 77         sta1:: bit 6,a    ;mot 2 RW
008D 20 04         jr nz,sta2
008F CB F8         set 7,b
0091 CB F0         set 6,b
0093 CB 6F         sta2:: bit 5,a    ;mot 1 VW
0095 20 02         jr nz,sta3
0097 CB E8         set 5,b
0099 CB 67         sta3:: bit 4,a    ;mot 1 RW
009B 20 04         jr nz,sta4
009D CB E8         set 5,b
009F CB E0         set 4,b
00A1 CB 4F         sta4:: bit 3,a    ;magnet ein
00A3 20 05         jr nz,sta5
00A5 3E 01         ld a,1
00A7 32 8000         ld (magnet),a
00AA CB 47         sta5:: bit 0,a    ;magnet aus
00AC 20 04         jr nz,sta6
00AE AF              xor a
00AF 32 8000         ld (magnet),a
00B2 DB 30         sta6:: in a,(adport) ;sto. run
00B4 CB 4F         bit 1,a         ;sto
00B6 20 37         jr nz,sta7
00B8 01 0064         stalp:: ld bc,100 ;50ms warten
00BB CD 005A         call delay      ;entprellung
00BE DB 30         in a,(adport)
00C0 CB 4F         bit 1,a

```

```

00C2 28 F4          jr z,stalp      ;warten bis losgelassen
00C4 01 0064       ld bc,100      ;mochmals nach loslassen
00C7 CD 005A       call delay

                                ;durch a/d wandler wartet system
00CA CD 0017       call getad1    ;wert ad1
00CD ED 58 8007    ld de,(pointer)
00D1 E8           ex de,hl
00D2 73           ld (hl),e     ;lsb
00D3 23           inc hl
00D4 72           ld (hl),d     ;msb
00D5 23           inc hl
00D6 E8           ex de,hl
00D7 CD 0003       call getad2
00DA E8           ex de,hl
00DB 73           ld (hl),e     ;lsb mot 2
00DC 23           inc hl
00DD 72           ld (hl),d     ;msb
00DE 23           inc hl
00DF 3A 8000       ld a,(magnet)
00E2 77           ld (hl),a
00E3 23           inc hl
00E4 22 8007       ld (pointer),hl
00E7 36 00        ld (hl),0     ;ende
00E9 23           inc hl
00EA 36 00        ld (hl),0     ;fuer RUN-Mode
00EC C3 0081       jp loop       ;nicht ausfuehren bits

00EF CB 47          sta7:: bit 0,a  ;run
00F1 C2 0249       jp nz,sta8

                                ;Richtungssinn automatisch erkennen
                                ;auch Hindernisse anhand der A/D
                                ;Werte und differenzen
                                ;merken startwert
00F4 CD 0017       call getad1
00F7 22 8001       ld (ad1),hl
00FA CD 0003       call getad2
00FD 22 8003       ld (ad2),hl   ;Motor anfahren
0100 21 8009       ld hl,heap    ;start der Heap
0103 5E          sta7lp:: ld e,(hl) ;lsb ad1
0104 23           inc hl
0105 56           ld d,(hl)     ;msb
0106 23           inc hl
0107 7B           ld a,e
0108 B2           or d         ;=0 dann ende
0109 CA 0081       jp z,loop     ;STOP ENDE
                                ;motor 1 anfahren gleichzeitig motor 2
                                ;
010C E5           push hl
010D D9           exx
010E E1           pop hl
010F 5E           ld e,(hl)     ;motor 2
0110 23           inc hl
0111 56           ld d,(hl)
0112 23           inc hl
0113 E5           push hl
0114 D9           exx

```

```

0115 E1 pop hl
0116 7E ld a,(hl)
0117 32 8000 ld (magnet),a ;magnet retten
011A 23 inc hl
011B E5 push hl ;nun anfahren
;
; de=motor1 de'=motor2

; motor 1 anfahren

011C CD 0017 call getad1 ;aktuelle position
011F AF xor a
0120 ED 52 sbc hl,de ;drehsinn feststellen
0122 7C ld a,h
0123 B5 or l
0124 CA 01AC jp z,motifin
0127 CB 7C bit 7,h
0129 CA 0170 jp z,motineg ;aktuell > soll dann rueckw

012C motipos:: ;slow speed umschaltung festlegen
012C CD 0017 call getad1 ;wenn differenz kleiner n
012F AF xor a
0130 ED 52 sbc hl,de ;wert nun negativ
0132 E5 push hl
0133 C1 pop bc
0134 21 0000 ld hl,0
0137 AF xor a
0138 ED 42 sbc hl,bc ;wert betrag
013A 01 0003 ld bc,3h ;delta x anfahren rev 1.1 von 18h
013D AF xor a
013E ED 42 sbc hl,bc ;differenz > dx
0140 CB 7C bit 7,h
0142 C2 014F jp nz,slowpos ;langsam fahren nun
0145 3A 8000 ld a,(magnet)
0148 F6 20 or 00100000b ;+maske ggf
014A D3 30 out (motor),a ;und motor starten
014C C3 012C jp motipos ;bis differenz erreicht

014F slowpos::
014F 3A 8000 ld a,(magnet)
0152 F6 00 or 0
0154 D3 30 out (motor),a
0156 CD 0045 call delaus ;erst mal ausschalten
0159 CD 0017 call getad1 ;check ob nun diff positiv
015C AF xor a
015D ED 52 sbc hl,de
015F CB 7C bit 7,h
0161 CA 01AC jp z,motifin
0164 3A 8000 ld a,(magnet)
0167 F6 20 or 00100000b
0169 D3 30 out (motor),a
016B CD 0030 call delein
016E 18 DF jr slowpos

0170 motineg::

```

```

0170 CD 0017 call getad1 ;wenn differenz kleiner n
0173 AF xor a
0174 ED 52 sbc hl,de ;wert nun positiv
0176 01 0003 ld bc,3h ;delta x anfahren rev 1.1 von 18h
0179 AF xor a
017A ED 42 sbc hl,bc ;differenz > dx
017C CB 7C bit 7,h
017E C2 018B jp nz,slowipos ;langsam fahren nun
0181 3A 8000 ld a,(magnet)
0184 F6 30 or 00110000b ;+maske ggf
0186 D3 30 out (motor),a ;und motor starten
0188 C3 0170 jp motineg ;bis differenz erreicht

```

```

018B slowipos::
018B 3A 8000 ld a,(magnet)
018E F6 10 or 00010000b ;relais anlassen
0190 D3 30 out (motor),a
0192 CD 0045 call delaus ;erst mal ausschalten
0195 CD 0017 call getad1 ;check ob nun diff positiv
0198 AF xor a
0199 ED 52 sbc hl,de
019B CB 7C bit 7,h
019D C2 01AC jp nz,motifin
01A0 3A 8000 ld a,(magnet)
01A3 F6 30 or 00110000b
01A5 D3 30 out (motor),a
01A7 CD 0030 call delein
01AA 18 DF jr slowipos

```

```

01AC motifin:: ;nun motor2
; motor 2 anfahren
01AC D9 exx ;de nun gueltig
01AD CD 0003 call getad2 ;aktuelle position
01B0 AF xor a
01B1 ED 52 sbc hl,de ;drehsinn feststellen
01B3 7C ld a,h
01B4 B5 or l
01B5 CA 023D jp z,mot2fin
01B8 CB 7C bit 7,h
01BA CA 0201 jp z,mot2neg ;aktuell > soll dann rueckw
01BD mot2pos:: ;slow speed umschaltung festlegen
01BD CD 0003 call getad2 ;wenn differenz kleiner n
01C0 AF xor a
01C1 ED 52 sbc hl,de ;wert nun negativ
01C3 E5 push hl
01C4 C1 pop bc
01C5 21 0000 ld hl,0
01C8 AF xor a
01C9 ED 42 sbc hl,bc ;wert betrag
01CB 01 0003 ld bc,3h ;delta x anfahren rev 1.1 von 18h
01CE AF xor a
01CF ED 42 sbc hl,bc ;differenz > dx
01D1 CB 7C bit 7,h
01D3 C2 01E0 jp nz,slow2pos ;langsam fahren nun
01D6 3A 8000 ld a,(magnet)

```

```

01D9 F6 80 or 10000000b ;+maske ggf
01DB D3 30 out (motor),a ;und motor starten
01DD C3 018D jp mot2pos ;bis differenz erreicht
01E0 slow2pos::
01E0 3A 8000 ld a,(magnet)
01E3 F6 00 or 0
01E5 D3 30 out (motor),a
01E7 CD 0045 call delaus ;erst mal ausschalten
01EA CD 0003 call getad2 ;check ob nun diff positiv
01ED AF xor a
01EE ED 52 sbc hl,de
01F0 CB 7C bit 7,h
01F2 CA 023D jp z,mot2fin
01F5 3A 8000 ld a,(magnet)
01F8 F6 80 or 10000000b
01FA D3 30 out (motor),a
01FC CD 0030 call delein
01FF 18 DF jr slow2pos
0201 mot2neg::
0201 CD 0003 call getad2 ;wenn differenz kleiner n
0204 AF xor a
0205 ED 52 sbc hl,de ;wert nun negativ
0207 01 0003 ld bc,3h ;delta x anfahren rev 1.1 von 16h
020A AF xor a
020B ED 42 sbc hl,bc ;differenz > dx
020D CB 7C bit 7,h
020F C2 021C jp nz,slow3pos ;langsam fahren nun
0212 3A 8000 ld a,(magnet)
0215 F6 C0 or 11000000b ;+maske ggf
0217 D3 30 out (motor),a ;und motor starten
0219 C3 0201 jp mot2neg ;bis differenz erreicht
021C slow3pos::
021C 3A 8000 ld a,(magnet)
021F F6 40 or 01000000b
0221 D3 30 out (motor),a
0223 CD 0045 call delaus ;erst mal ausschalten
0226 CD 0003 call getad2 ;check ob nun diff positiv
0229 AF xor a
022A ED 52 sbc hl,de
022C CB 7C bit 7,h
022E C2 023D jp nz,mot2fin
0231 3A 8000 ld a,(magnet)
0234 F6 C0 or 11000000b
0236 D3 30 out (motor),a
0238 CD 0030 call delein
023B 18 DF jr slow3pos
023D mot2fin::
023D D9 exx ;ende anfahren
023E drehfin::
; ende abschalten motore
023E 3A 8000 ld a,(magnet)
0241 E6 01 and 1
0243 D3 30 out (motor),a ;nur magnet aufrecht halten
0245 E1 pop hl
0246 C3 0103 jp sta7lp ;Hauptschleife
0249 3A 8000 sta8:: ld a,(magnet) ;bit 0=1 dann an

```



```

024C E6 01          and 1
024E B0             or b
024F D3 30          out (motor),a    ;Start Motor
0251 C3 0081        jp loop           ;wiederholen

```

```

; ram auf 8000h
org 8000h

```

```

87FF          stack      equ $+07ffh    ;2K RAM reichen
8000 00       magnet::   defb 0       ;magnet flag 0=aus
8001 0000     ad1::      defw 0
8003 0000     ad2::      defw 0
8005 00       dreh1::    defb 0       ;drehsinmmaske
8006 00       dreh2::    defb 0
8007 0000     pointer::  defw 0       ;naechster freier Platz
8009          heap::     defs 500      ;Punktespeicher
                                           ;mot1.w mot2.w magnet.b
                                           ;0=ende zeichen

```

```

end start

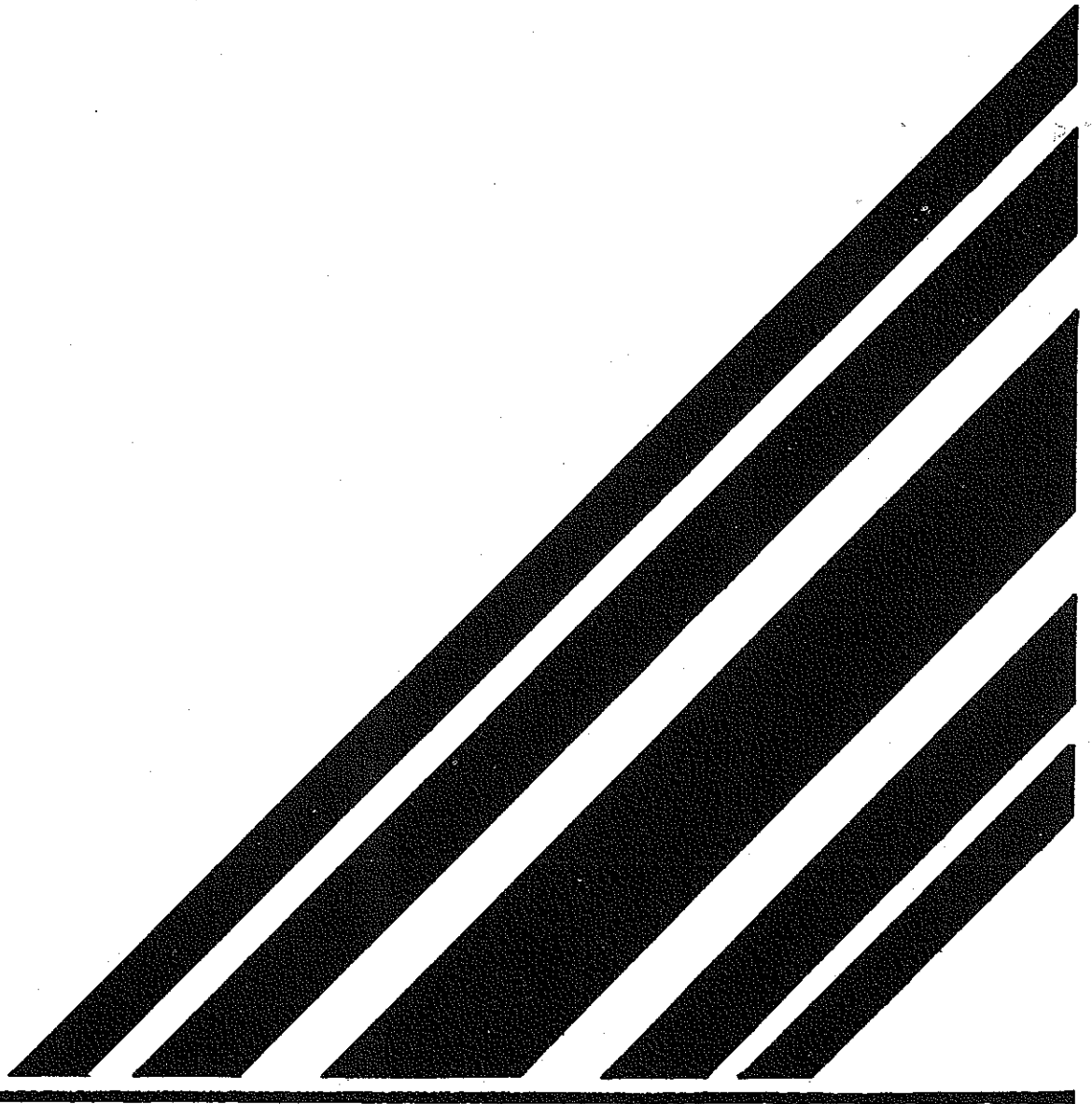
```

Macros:

Symbols:

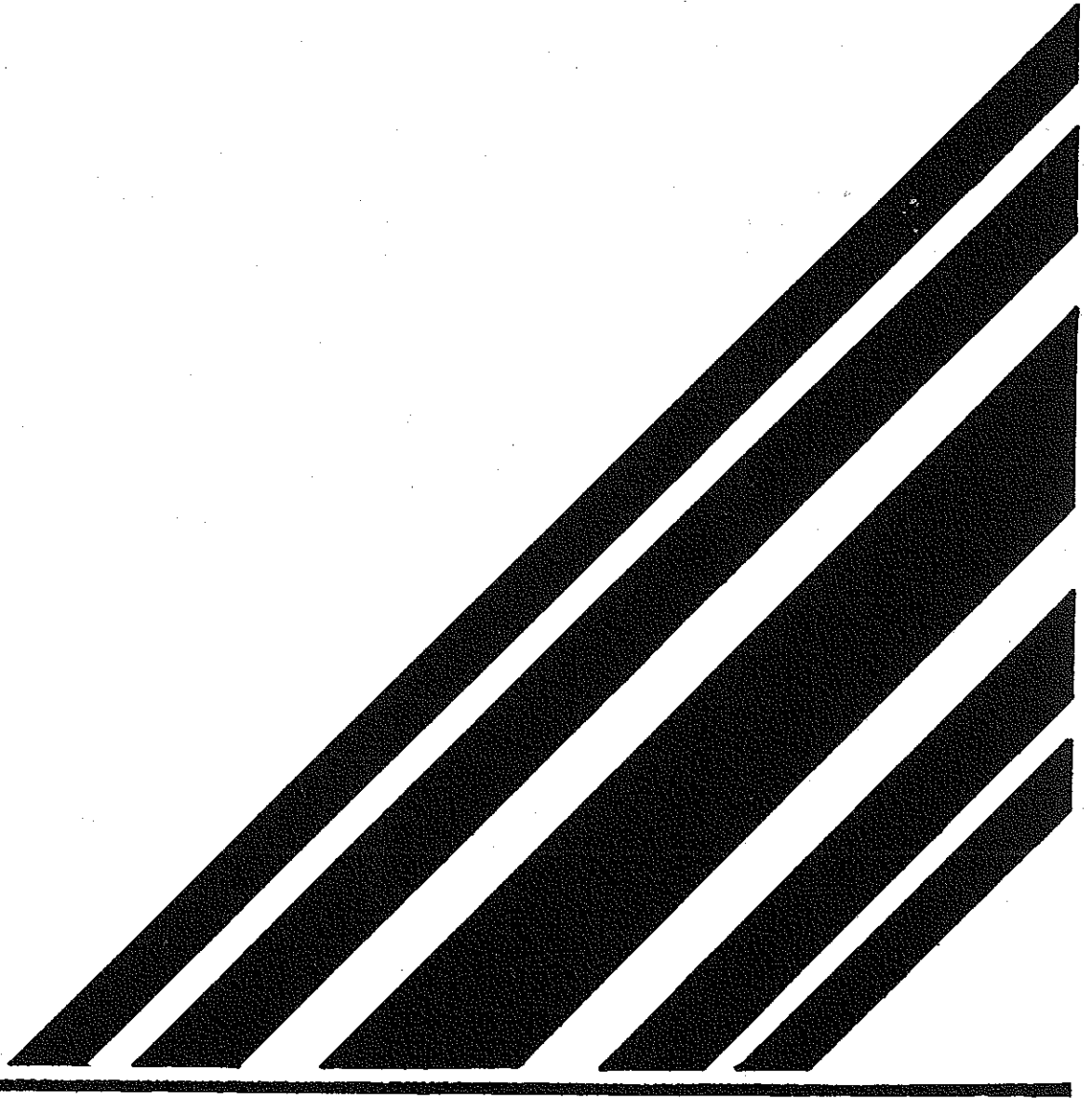
8001I	AD1	8003I	AD2	0030	ADPORT
0048I	DEL1AUS	0033I	DEL1EIN	004CI	DEL2AUS
0037I	DEL2EIN	0045I	DELAUS	005A	DELAY
005E	DELAY1	0030I	DELEIN	8005I	DREH1
8006I	DREH2	023EI	DREHFIN	0003I	GET1
0017	GET11	001E	GET12	0028	GET13
0008I	GET2	0010I	GET3	0017I	GETAD1
0003I	GETAD2	8009I	HEAP	0081I	LOOP
8000I	MAGNET	01ACI	MOT1FIN	0170I	MOT1NEG
012CI	MOT1POS	023DI	MOT2FIN	0201I	MOT2NEG
018DI	MOT2POS	0030	MOTOR	8007I	POINTER
018BI	SLOW1POS	01E0I	SLOW2POS	021CI	SLOW3POS
014FI	SLOWPOS	0088I	STA1	0093I	STA2
0099I	STA3	00A1I	STA4	00AAI	STA5
0082I	STA6	00EFI	STA7	0103I	STA7LP
0249I	STA8	87FF	STACK	00B8I	STALP
006CI	START	003I	TAST		

No Fatal error(s)



Gut und Schlecht

```
Start:=$
Wdh1:=$
  Wdh2:=$
    DB 30.B
    E6 01.B
    C2 Wdh2
    Z1 5000.W
    CD Schleife
    00
    CD Endschleife
    DB 30.B
    E6 02.B
    CA Sonst
      3E 03.B
      D3 30.B
      Z1 5000.W
      CD Schleife
      00
      CD Endschleife
      Wdh3:=$
        DB 30.B
        E6 04.B
        C2 Wdh3
        3E 00.B
        D3 30.B
        C3 Endwdh
      Sonst:=$
        3E 01.B
        D3 30.B
        Z1 5000.W
        CD Schleife
        00
        CD Endschleife
        Wdh4:=$
          DB 30.B
          E6 04.B
          C2 Wdh4
          3E 00.B
          D3 30.B
        Endwdh:=$
      C3 Wdh1
    C9
```



Tick-Tack

.z80

; Interrupt-Uhrenprogramm

```

001E      write equ 1eh
0038      wait equ 3bh
0030      clr equ 30h
0070      gdp equ 70h
0024      ci equ 24h
0018      moveto equ 18h

8700      merker equ 8700h
87FF      stack equ 87ffh
    
```

org 8800h

```

8800'      start:
8800'      C3 8827'      jp start1

8803'      msg1:
8803'      0014 0064      dw 20,100
8807'      44 00          db 44h,0
8809'      47 72 75 65      db 'Gruen',0
880D'      6E 00

880F'      msg2:
880F'      0014 0064      dw 20,100
8813'      44 00          db 44h,0
8815'      52 6F 74 20      db 'Rot ',0
8819'      20 00

881B'      msg3:
881B'      0014 0064      dw 20,100
881F'      44 00          db 44h,0
8821'      50 66 75 69      db 'Pfui ',0
8825'      20 00
    
```

```

8827'      start1:
8827'      3E C3          ld a,0c3h
8829'      32 8003        ld (8003h),a
882C'      21 886A'      ld hl,intprog
882F'      22 8004        ld (8004h),hl
8832'      31 87FF        ld sp,stack
8835'      ED 56          in i
8837'      3E 00          ld a,0
8839'      32 8700        ld (merker),a ; pfui-Flag
883C'      FB            ei
883D'      CD 0030        call clr
8840'      CD 0024        call ci ; warten auf Startanforderung
8843'      21 8803'      ld hl,msg1
8846'      CD 001E        call write
8849'      ED 57          ld a,i
    
```

```

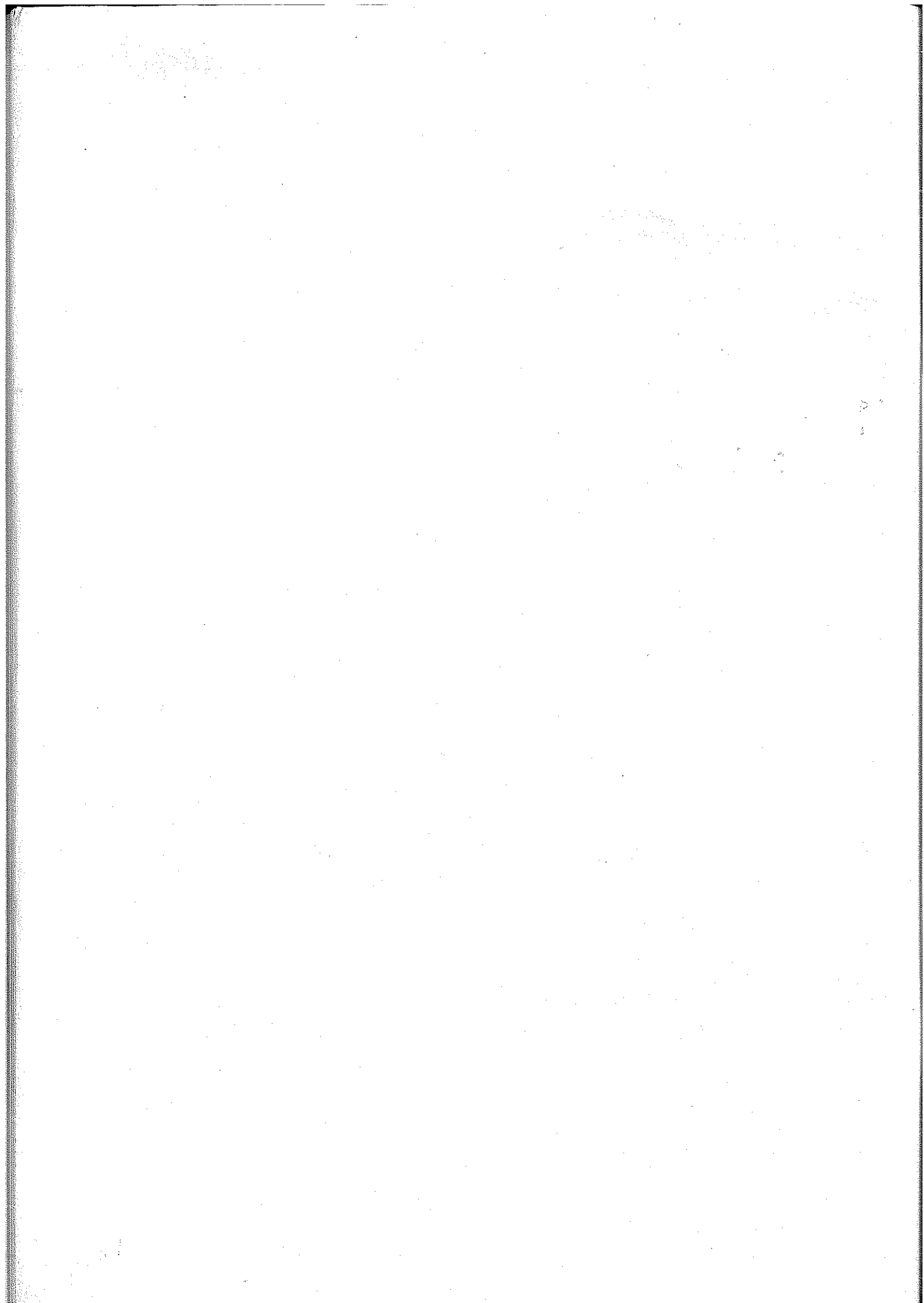
884B' E6 3F          and 3fh
884D' C6 0A          add a,i0
884F' 67             ld h,a
8850'               lp2:
8850' CD 88BB'      call del100
8853' 25             dec h
8854' 20 FA          jr nz,lp2
8856' 21 880F'      ld hl,msg2
8859' CD 001E       call write
885C' 3E 01          ld a,1
885E' 32 8700       ld (merker),a
8861' 11 0000       ld de,0 ; Zeitzaehler
8864'               miss:
8864' CD 88C7'      call ms1
8867' 13             inc de
8868' 18 FA          jr miss

886A'               intprog:
886A' 3A 8700       ld a,(merker)
886D' FE 01          cp 1
886F' 28 0C          jr z,ok
8871' 21 881B'      ld hl,msg3
8874' CD 001E       call write
8877' CD 0024       call ci
887A' C3 8800'      jp start

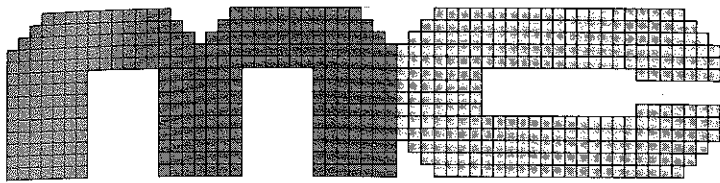
887D'               ok: ; de=timer umrechnen und ausgeben
887D' D5             push de
887E' 21 0014       ld hl,20
8881' 11 0014       ld de,20
8884' CD 0018       call moveto ; position bestimmen
8887' E1             pop hl ; Ziel zeit in ms
8888' CD 8891'      call ausgabe
8888' CD 0024       call ci
888E' C3 8800'      jp start

8891'               ausgabe:
8891' AF             xor a
8892' F5             push af ; als flag
8893'               aus1:
8893' CD 88A7'      call div10
8896' F6 30          or 30h
8898' F5             push af
8899' 7C             ld a,h
889A' B5             or l
889B' 20 F6          jr nz,aus1
889D'               aus2:
889D' F1             pop af
889E' B7             or a
889F' C8             ret z
88A0' CD 003B       call wait
88A3' D3 70          out (gdp),a ; Ausgabe

```



Das CP/M-Sonderheft von



Vor rund einem Jahr machte die Mikrocomputerzeitschrift mc von sich reden, als sie erstmals eine Bauanleitung für einen vollwertigen Mikrocomputer für das weit verbreitete Betriebssystem CP/M vorstellte. Der Computer selbst besteht aus drei Europakarten, nämlich einer CPU-, einer Ein-/Ausgabe- und einer Floppy-Disk-Controller-Platine. Dieses System wurde inzwischen tausendfach nachgebaut und auch mit zwei Terminal-Versionen ergänzt – eine, die vorwiegend für Textverarbeitung geeignet ist und z. B. mit dem verbreiteten „Wordstar“-Programm zusammenarbeiten kann, und ein Grafik-Terminal für höchste Ansprüche, das mit zwei eigenen Prozessoren ausgerüstet ist (GDP 9366 und Z80).

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