

Начало. Применение GD32F405RG и модуля MSP3520

Автор: А.В. Жмаев, E-mail: kuratorj@yandex.ru

Введение

Данный материал предназначен для студентов и всех тех, кто увлекается разработкой электронного оборудования. Он может быть, в определенной мере, полезен и разработчикам - профессионалам.

Проще всего осваивать учебный материал, имея под рукой конкретный пример.

В интернете не много информации на микропроцессоры GD32, в частности GD32F405 и на графические индикаторы, в частности MSP3520, на русском языке.

В этой статье попытаюсь компенсировать данный недостаток и показать некоторые методы вывода на индикатор

Дополнительная литература:

1. GD32F405xxDatasheetRev2.4_Rus - <https://disk.yandex.ru/i/Nhterya4rN4vCw>
2. GD32F4xx_User_Manual_EN_Rev2.8_Rus - <https://disk.yandex.ru/d/aqgh5scwWZ7hxxg>
3. Module MSP3520_ILI9488_rus - <https://disk.yandex.ru/i/3XjSiTSS34qusw>
4. ARM Assembly Language Fundamentals and Techniques (Rus) - <https://disk.yandex.ru/i/FE2giDCHTxX3Vw>
5. 56_STM32F10X_RM000_Rus - <https://disk.yandex.ru/i/RawIXyWDNNfEsg>
6. PM0056 Programming manual_Rus - <https://disk.yandex.ru/i/8ERjPe09Ps3JOA>
7. Прибор Генератор_Измеритель - https://disk.yandex.ru/i/61op_Dz25PWYkA
8. Блок питания лабораторный - https://disk.yandex.ru/i/_zjR5FvHzJnZkQ
9. Аппарат сварочный САБП - <https://disk.yandex.ru/i/DSN21ss7YVzVZQ>
10. ATmega328_P_rus - <https://disk.yandex.ru/i/FI8J2Xvd5yB02g>
11. AVR система команд - <https://disk.yandex.ru/i/duXKCGks03VAnQ>

Описание

Информация на микроконтроллер GD32F405RG, модуль MSP3520 и драйвер ILI9488 в [1], [2], [3].

Результат работы макета показан на Рис.1 и Рис.2.

Ниже показаны схема макета и программное обеспечение для макета.

Микроконтроллер GD32F4xx мало чем отличается от STM32F4xx. В GD32F4xx внесены не плохие изменения и даже кой что упрощено. Это очень заметно при программирование на Ассемблере.

Один сильный недостаток, это для тех, кто привык работать на STM – китайцы переименовали все, что могли и имена стали длинней.

Что касается графического индикатора MSP3520, то описание [3] на него довольно скромное.

Драйвер ILI9488 [3] в нем имеется около сотни команд со скромными описаниями, но практически в режиме SPI используется около половины команд. Это связано с быстроедействием канала.

В макете применено CLR_SPI = 10 МГц, исходя из временных характеристик SPI ILI9488 (см. [3] п. 17.4.3) т.е. передача одного пикселя, в установленном в макете режиме, будет 2,4 мкс.

Я пробовал вывод в 8 - ми цветном режиме - скорость передачи пикселя увеличилась в 6 раз. Но обнаружился «скелет» и я оставил разборку на потом.

И этом макете отработаны макросы вывода текста и цветных полей.

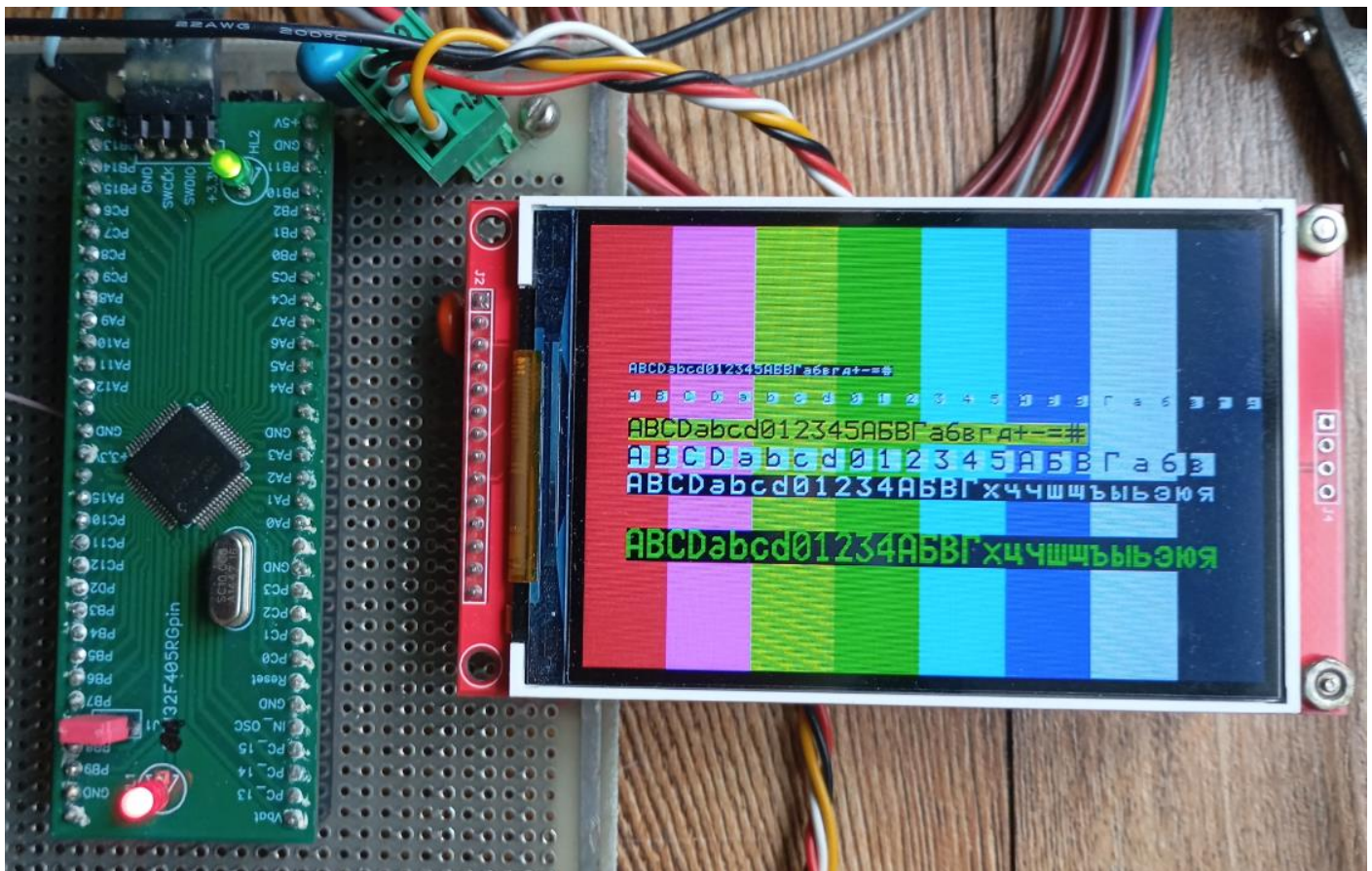


Рис.1.

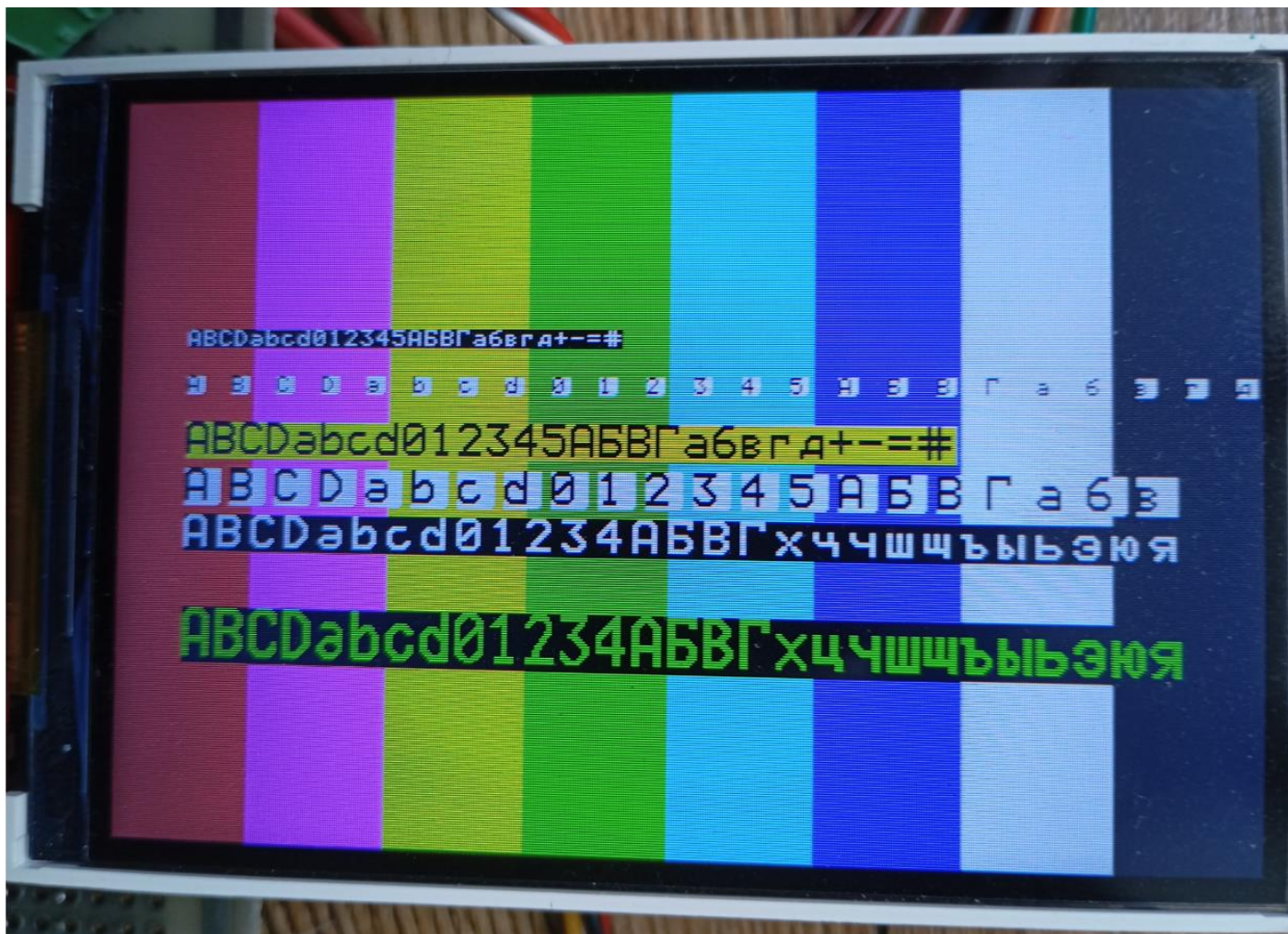
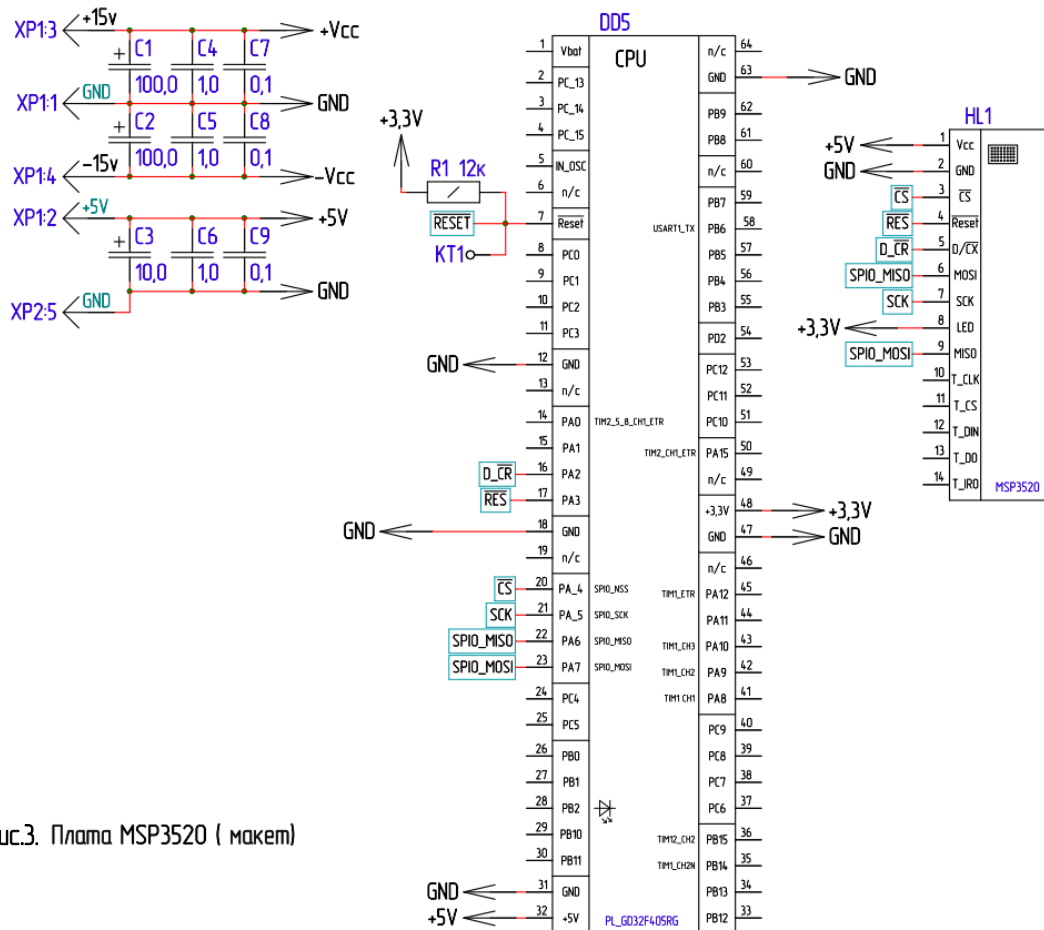


Рис.2.

Схема макета



Программное обеспечение

Файл Pr_GD32F405RG

```
:NAME Pr_GD32F405RG

GET D:\Documents and Settings\Proekt Keil uVision5\Keil_Bibliotek_GD\GD32f40x_Keil.s
GET D:\Documents and Settings\Proekt Keil uVision5\Keil_Bibliotek_GD\
RCU_Init_Exter_Clock_GD32F4.s
GET D:\Documents and Settings\Proekt Keil uVision5\Keil_Bibliotek_GD\
TFT_LCD_NSP3520_ILI9488.s
GET D:\Documents and Settings\Proekt Keil uVision5\Keil_Bibliotek_GD\Font.s
AREA Pr_GD32F405RG, CODE, READONLY,align = 2
;

Rsos RN 9 ;Rsos - Регистр СОСТОЯНИЯ ПРОГРАММЫ (R9)
;Rsos:3...0 - РЕЖИМ
;

;Признаки
;

;Привязки к схеме
D_RS_0 EQU GPIO_BOP_CR2 ;PA[2]: 0
D_RS_1 EQU GPIO_BOP_BOP2 ;PA[2]: 1
RES_on EQU GPIO_BOP_CR3 ;PA[3]:0
RES_off EQU GPIO_BOP_BOP3 ;PA[3]:1
CS_on EQU GPIO_BOP_CR4 ;PA[4]:0
CS_off EQU GPIO_BOP_BOP4 ;PA[4]:1
;

;SRAM - Адреса областей ОЗУ
SRAM_Temp EQU 0x20000000 ; 4 байта
SRAM_Xadr EQU 0x20000004 ; 4 байта
SRAM_Yadr EQU 0x20000008 ; 4 байта
SRAM_Adr_Text EQU 0x2000000c ; 4 байта
SRAM_Adr_Simv EQU 0x20000010 ; 4 байта
SRAM_Font_Step EQU 0x20000014 ; 4 байта

SRAM_LCD EQU 0x20000800

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

; Форвардная декларация разделов.
AREA RESET, DATA, READONLY,align = 2
THUMB
__vector_table
DCD 0x200007fc ;sfe(CSTACK)0x20000800
DCD Reset_IRQHandler ; Reset Handler
DCD NMI_IRQHandler ; NMI Handler
DCD HardFault_IRQHandler ; Hard Fault Handler
DCD MemManage_IRQHandler ; MPU Fault Handler
DCD BusFault_IRQHandler ; Bus Fault Handler
DCD UsageFault_IRQHandler ; Usage Fault Handler
DCD Rezerv1
DCD Rezerv2
DCD Rezerv3
DCD Rezerv4
DCD SVC_IRQHandler ; SVCaLL Handler

DCD DebugMon_IRQHandler ; Debug Monitor Handler
DCD Rezerv5
DCD PendSV_IRQHandler ; PendSV Handler
DCD SysTick_IRQHandler ; SysTick Handler
```

```

; external interrupts handler
DCD      WWDGT_IRQHandler          ; 16:Window Watchdog Timer
DCD      LVD_IRQHandler            ; 17:LVD through EXTI Line detect
DCD      TAMPER_STAMP_IRQHandler   ; 18:Tamper and TimeStamp through EXTI Line detect
DCD      RTC_WKUP_IRQHandler       ; 19:RTC Wakeup through EXTI Line
DCD      FMC_IRQHandler            ; 20:FMC
DCD      RCU_CTC_IRQHandler        ; 21:RCU and CTC
DCD      EXTI0_IRQHandler          ; 22:EXTI Line 0
DCD      EXTI1_IRQHandler          ; 23:EXTI Line 1
DCD      EXTI2_IRQHandler          ; 24:EXTI Line 2
DCD      EXTI3_IRQHandler          ; 25:EXTI Line 3
DCD      EXTI4_IRQHandler          ; 26:EXTI Line 4
DCD      DMA0_Channel0_IRQHandler  ; 27:DMA0 Channel0
DCD      DMA0_Channel1_IRQHandler  ; 28:DMA0 Channel1
DCD      DMA0_Channel2_IRQHandler  ; 29:DMA0 Channel2
DCD      DMA0_Channel3_IRQHandler  ; 30:DMA0 Channel3
DCD      DMA0_Channel4_IRQHandler  ; 31:DMA0 Channel4
DCD      DMA0_Channel5_IRQHandler  ; 32:DMA0 Channel5
DCD      DMA0_Channel6_IRQHandler  ; 33:DMA0 Channel6
DCD      ADC_IRQHandler            ; 34:ADC
DCD      CAN0_TX_IRQHandler        ; 35:CAN0 TX
DCD      CAN0_RX0_IRQHandler       ; 36:CAN0 RX0
DCD      CAN0_RX1_IRQHandler       ; 37:CAN0 RX1
DCD      CAN0_EWMC_IRQHandler      ; 38:CAN0 EWMC
DCD      EXTI5_9_IRQHandler        ; 39:EXTI5 to EXTI9
DCD      TIMER0_BRK_TIMER8_IRQHandler ; 40:TIMER0 Break and TIMER8
DCD      TIMER0_UP_TIMER9_IRQHandler ; 41:TIMER0 Update and TIMER9
DCD      TIMER0_TRG_CMT_TIMER10_IRQHandler ; 42:TIMER0 Trigger and Commutation and TIMER10
DCD      TIMER0_CC_IRQHandler      ; 43:TIMER0 Capture Compare
DCD      TIMER1_IRQHandler         ; 44:TIMER1
DCD      TIMER2_IRQHandler         ; 45:TIMER2
DCD      TIMER3_IRQHandler         ; 46:TIMER3
DCD      I2C0_EV_IRQHandler        ; 47:I2C0 Event
DCD      I2C0_ER_IRQHandler        ; 48:I2C0 Error
DCD      I2C1_EV_IRQHandler        ; 49:I2C1 Event
DCD      I2C1_ER_IRQHandler        ; 50:I2C1 Error
DCD      SPI0_IRQHandler           ; 51:SPI0
DCD      SPI1_IRQHandler           ; 52:SPI1
DCD      USART0_IRQHandler         ; 53:USART0
DCD      USART1_IRQHandler         ; 54:USART1
DCD      USART2_IRQHandler         ; 55:USART2
DCD      EXTI10_15_IRQHandler      ; 56:EXTI10 to EXTI15
DCD      RTC_Alarm_IRQHandler       ; 57:RTC Alarm
DCD      USBFS_WKUP_IRQHandler     ; 58:USBFS Wakeup
DCD      TIMER7_BRK_TIMER11_IRQHandler ; 59:TIMER7 Break and TIMER11
DCD      TIMER7_UP_TIMER12_IRQHandler ; 60:TIMER7 Update and TIMER12
DCD      TIMER7_TRG_CMT_TIMER13_IRQHandler ; 61:TIMER7 Trigger and Commutation and
TIMER13
DCD      TIMER7_CC_IRQHandler      ; 62:TIMER7 Capture Compare
DCD      DMA0_Channel7_IRQHandler  ; 63:DMA0 Channel7
DCD      Rezerv6                   ; 64:Reserved
DCD      SDIO_IRQHandler           ; 65:SDIO
DCD      TIMER4_IRQHandler         ; 66:TIMER4
DCD      SPI2_IRQHandler           ; 67:SPI2
DCD      UART3_IRQHandler          ; 68:UART3
DCD      UART4_IRQHandler          ; 69:UART4
DCD      TIMER5_DAC_IRQHandler     ; 70:TIMER5 and DAC0 DAC1Underrun error
DCD      TIMER6_IRQHandler         ; 71:TIMER6
DCD      DMA1_Channel0_IRQHandler  ; 72:DMA1 Channel0
DCD      DMA1_Channel1_IRQHandler  ; 73:DMA1 Channel1
DCD      DMA1_Channel2_IRQHandler  ; 74:DMA1 Channel2
DCD      DMA1_Channel3_IRQHandler  ; 75:DMA1 Channel3
DCD      DMA1_Channel4_IRQHandler  ; 76:DMA1 Channel4
DCD      Rezerv7                   ; 77
DCD      Rezerv8                   ; 78
DCD      CAN1_TX_IRQHandler        ; 79:CAN1 TX
DCD      CAN1_RX0_IRQHandler       ; 80:CAN1 RX0

```

DCD	CAN1_RX1_IRQHandler	; 81:CAN1 RX1
DCD	CAN1_EWMC_IRQHandler	; 82:CAN1 EWMC
DCD	USBFS_IRQHandler	; 83:USBFS
DCD	DMA1_Channel5_IRQHandler	; 84:DMA1 Channel5
DCD	DMA1_Channel6_IRQHandler	; 85:DMA1 Channel6
DCD	DMA1_Channel7_IRQHandler	; 86:DMA1 Channel7
DCD	USART5_IRQHandler	; 87:USART5
DCD	I2C2_EV_IRQHandler	; 88:I2C2 Event
DCD	I2C2_ER_IRQHandler	; 89:I2C2 Error
DCD	USBHS_EP1_Out_IRQHandler	; 90:USBHS Endpoint 1 Out
DCD	USBHS_EP1_In_IRQHandler	; 91:USBHS Endpoint 1 in
DCD	USBHS_WKUP_IRQHandler	; 92:USBHS Wakeup through EXTI Line
DCD	USBHS_IRQHandler	; 93:USBHS
DCD	DCI_IRQHandler	; 94:DCI
DCD	Rezerv9	; 95:Reserved
DCD	TRNG_IRQHandler	; 96:TRNG
DCD	FPU_IRQHandler	; 97:FPU

;;;

; Форвардная декларация разделов.

```

AREA START, CODE, READONLY, align = 2
THUMB
ENTRY
Reset_IRQHandler PROC
    B main
ENDP
; dummy Exception Handlers
NMI_IRQHandler
    BKPT #2
HardFault_IRQHandler
    BKPT #3
MemManage_IRQHandler
    BKPT #4
BusFault_IRQHandler
    BKPT #5
UsageFault_IRQHandler
    BKPT #6
SVC_IRQHandler
    BKPT #7
Rezerv1
    BKPT #8
Rezerv2
    BKPT #9
Rezerv3
    BKPT #10
Rezerv4
    BKPT #11
DebugMon_IRQHandler
    BKPT #12
Rezerv5
    BKPT #13
PendSV_IRQHandler
    BKPT #14
SysTick_IRQHandler
    BKPT #15
; external interrupts handler
WWDGT_IRQHandler
    BKPT #16
LVD_IRQHandler
    BKPT #17
TAMPER_STAMP_IRQHandler
    BKPT #18
RTC_WKUP_IRQHandler
    BKPT #19

```

FMC_IRQHandler
BKPT #20
RCU_CTC_IRQHandler
BKPT #21
EXTI0_IRQHandler
BKPT #22
EXTI1_IRQHandler
BKPT #23
EXTI2_IRQHandler
BKPT #24
EXTI3_IRQHandler
BKPT #25
EXTI4_IRQHandler
BKPT #26
DMA0_Channel0_IRQHandler
BKPT #27
DMA0_Channel1_IRQHandler
BKPT #28
DMA0_Channel2_IRQHandler
BKPT #29
DMA0_Channel3_IRQHandler
BKPT #30
DMA0_Channel4_IRQHandler
BKPT #31
DMA0_Channel5_IRQHandler
BKPT #32
DMA0_Channel6_IRQHandler
BKPT #33
ADC_IRQHandler
BKPT #34
CAN0_TX_IRQHandler
BKPT #35
CAN0_RX0_IRQHandler
BKPT #36
CAN0_RX1_IRQHandler
BKPT #37
CAN0_EWMC_IRQHandler
BKPT #38
EXTI5_9_IRQHandler
BKPT #39
TIMER0_BRK_TIMER8_IRQHandler
BKPT #40
TIMER0_UP_TIMER9_IRQHandler
BKPT #41
TIMER0_TRG_CMT_TIMER10_IRQHandler
BKPT #42
TIMER0_CC_IRQHandler
BKPT #43
TIMER1_IRQHandler
BKPT #44
TIMER2_IRQHandler
BKPT #45
TIMER3_IRQHandler
BKPT #46
2C0_EV_IRQHandler
BKPT #47
I2C0_ER_IRQHandler
BKPT #48
I2C1_EV_IRQHandler
BKPT #49
I2C1_ER_IRQHandler
BKPT #50
SPI0_IRQHandler
BKPT #51
SPI1_IRQHandler
BKPT #52


```

USART0_IRQHandler
    BKPT #53
USART1_IRQHandler
    BKPT #54
USART2_IRQHandler
    BKPT #55
EXTI10_15_IRQHandler
    BKPT #56
RTC_Alarm_IRQHandler
    BKPT #57
USBFS_WKUP_IRQHandler
    BKPT #58
TIMER7_BRK_TIMER11_IRQHandler
    BKPT #59
TIMER7_UP_TIMER12_IRQHandler
    BKPT #60
TIMER7_TRG_CMT_TIMER13_IRQHandler
    BKPT #61
TIMER7_CC_IRQHandler
    BKPT #62
DMA0_Channel7_IRQHandler
    BKPT #63
Rezerv6
    BKPT #64
SDIO_IRQHandler
    BKPT #65
TIMER4_IRQHandler
    BKPT #66
SPI2_IRQHandler
    BKPT #67
UART3_IRQHandler
    BKPT #68
UART4_IRQHandler
    BKPT #69
TIMER5_DAC_IRQHandler
    BKPT #70
TIMER6_IRQHandler
    BKPT #71
DMA1_Channel0_IRQHandler
    BKPT #72
DMA1_Channel1_IRQHandler
    BKPT #73
DMA1_Channel2_IRQHandler
    BKPT #74
DMA1_Channel3_IRQHandler
    BKPT #75
DMA1_Channel4_IRQHandler
    BKPT #76
Rezerv7
    BKPT #77
Rezerv8
    BKPT #78
CAN1_TX_IRQHandler
    BKPT #79
CAN1_RX0_IRQHandler
    BKPT #80
CAN1_RX1_IRQHandler
    BKPT #81
CAN1_EWMC_IRQHandler
    BKPT #82
USBFS_IRQHandler
    BKPT #83
DMA1_Channel15_IRQHandler
    MOV32 R0, #Inter_DMA1_Channel5
    BX R0           любое немаскированное прерывание от канала 5 модуля DMA1
    BKPT #84

```

```

DMA1_Channel16_IRQHandler
    BKPT #85
DMA1_Channel17_IRQHandler
    BKPT #86
USART5_IRQHandler
    BKPT #87
I2C2_EV_IRQHandler
    BKPT #88
I2C2_ER_IRQHandler
    BKPT #89
USBHS_EP1_Out_IRQHandler
    BKPT #90
USBHS_EP1_In_IRQHandler
    BKPT #91
USBHS_WKUP_IRQHandler
    BKPT #92
USBHS_IRQHandler
    BKPT #93
DCI_IRQHandler
    BKPT #94
Rezerv9
    BKPT #95
TRNG_IRQHandler
    BKPT #96
FPU_IRQHandler
    BKPT #97

```

```

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
main                PROC

```

```

RCU_Init            ;Fsis = 160 MHz, ABP2 = 80 MHz, ABP1 = 40 MHz
    m_RCU_Init

```

```

Peref_Init          ;инициализация периферии

```

```

Init_Clok           ;Инициализация Тактирования альтернатив и портов

```

```

    MOV32    R0, #RCU
    LDR      R1, [R0, #RCU_AHB1EN]
    MOV32    R2, #(RCU_AHB1EN_PBen+RCU_AHB1EN_Paen)
    ORR      R1, R1, R2 ;PA, PB, PC
    STR      R1, [R0, #RCU_AHB1EN]
    LDR      R1, [R0, #RCU_CFG0]
    MOV32    R2, #(RCU_CFG0_CKOUT0SEL_PllP + RCU_CFG0_CKOUT0DIV_5) ;CKOUT0
    ;Выбор источника синхронизации RCU_CFG0_CKOUT0SEL_HXTAL
    ORR      R1, R1, R2
    STR      R1, [R0, #RCU_CFG0]

```

```

Init_Port           ;Инициализация портов

```

```

    ;инициализация порт A

```

```

    STR      R1, [R0, #GPIO_PUD]
    LDR      R1, [R0, #GPIO_OSPD]
    ORR      R1, R1, R2
    STR      R1, [R0, #GPIO_CTL]
    MOV      R2, #(CS_off + D_RS_1 + RES_off)
    STR      R2, [R0, #GPIO_BOP]

```

```

    ;инициализация порт B

```

```

    MOV32    R0, #GPIOB
    LDR      R1, [R0, #GPIO_CTL]
    MOV32    R2, #GPIO_CTL_CTL2_OUT
    ORR      R1, R1, R2
    STR      R1, [R0, #GPIO_CTL]

```

```

    ;инициализация порт C

```

```

    ; MOV32    R0, #GPIOC
    ; MOV32    R1, #0
    ; STR      R1, [R0, #GPIO_CTL]

```

Init_SRAM

```
MOV32    R0, #SRAM_Temp
MOV      R1, #0
MOV32    R12, #200
```

Init_SRAM_ck1

```
STR      R1, [R0], #4
SUBS     R12, #1
BNE     Init_SRAM_ck1
```

;Инициализация: Последовательный периферийный интерфейс SPI0

Init_SPI0

```
MOV32    R0, #GPIOA
MOV32    R1, #(GPIO_AFSEL0_SEL7_spi0_mosi + GPIO_AFSEL0_SEL6_spi0_miso +
GPIO_AFSEL0_SEL5_spi0_sck) ;Выбрана альтернативная функция контакта
STR      R1, [R0, #GPIO_AFSEL0]
MOV32    R0, #RCU
LDR      R1, [R0, #RCU_APB2EN]
MOV32    R2, #RCU_APB2EN_SPI0EN
ORR      R1, R1, R2
STR      R1, [R0, #RCU_APB2EN]
MOV32    R0, #SPI0
MOV32    R1, #(SPI_CTL1_DMATEN + SPI_CTL1_NSSDRV) ;
STR      R1, [R0, #SPI_CTL1]
MOV32    R1, #(SPI_CTL0_BDOEN + SPI_CTL0_BDEN + SPI_CTL0_PSC_div8 + SPI_CTL0_MSTMOD +
SPI_CTL0_SPIEN) ;SCK = 10 MHz
STR      R1, [R0, #SPI_CTL0]
```

;Инициализация: Контроллер прямого доступа к памяти DMA.

Init_DMA1

```
MOV32    R0, #RCU
LDR      R1, [R0, #RCU_AHB1EN]
MOV32    R2, #RCU_AHB1EN_DMA1EN
ORR      R1, R1, R2;
STR      R1, [R0, #RCU_AHB1EN]
MOV32    R0, #DMA1
LDR      R1, [R0, #DMA_INTF1]
STR      R1, [R0, #DMA_INTC1]
MOV32    R1, #(SPI0+SPI_DATA)
STR      R1, [R0, #DMA_CH5PADDR]
MOV32    R1, #(DMA_CH5CTL_PERIEN_spi0_tx + DMA_CHxCTL_PRI0_L + DMA_CHxCTL_MWIDTH_8 +
DMA_CHxCTL_PWIDTH_8 + DMA_CHxCTL_MNAGA + DMA_CHxCTL_TM_MP + DMA_CHxCTL_FTFIE);
STR      R1, [R0, #DMA_CH5CTL] ;DMA_CHxCTL_TFCS +
;Разрешение глобального прерывания DMA1_Channel5_IRQn = 68 - любое
прерывание от модуля DMA1_Channel5
MOV32    R0, #NVIC_ICPR2 ; Сбросить признакиотложенных прерываний 64...96
MOV      R1, #(1<<(DMA1_Channel5_IRQn - 64))
STR      R1, [R0]
MOV32    R0, #NVIC_ISER2 ;Разрешает внешние прерывания 64...96
MOV      R1, #(1<<(DMA1_Channel5_IRQn - 64))
STR      R1, [R0]
```

;Инициализация: Графического дисплея ILI9488

Init_NSP3520

Red	EQU	0xfc0000	;Красный
Orange	EQU	0xfc00fc	;Оранжевый
Yellow	EQU	0xfcfc00	;Желтый
Green	EQU	0x00fc00	;Зеленый
Blueg	EQU	0x00fcfc	;Голубой
Blue	EQU	0x0000fc	;Синий
White	EQU	0xfcfcfc	;Белый
Black	EQU	0x000000	;Черный

```
MOV32    R0, #GPIOA
BL Zader_120mC
```

```

; Сброс графического дисплея
MOV R2, #RES_on
STR R2, [R0,#GPIO_BOP]
BL Zader_10mC
MOV R2, #RES_off ; Отмена сброса графического дисплея
STR R2, [R0,#GPIO_BOP]
BL Zader_120mC

align
m_Com_LCD #IDMOFF ;Режим ожидания ОТКЛ.
m_Com_LCD #AdjCont3, #0xA9, #0x51, #0x2c, #0x82 ;Настройка элемента управления 3: 4
параметра (0xA9, 0x51, 0x2c, 0x82)
m_Com_LCD #PWCTRL1, #0x11, #0x09 ;Управление Питанием 1: 2 параметра
(VRH1[4:0], VRH2[4:0])
m_Com_LCD #PWCTRL2, #0x41 ;Управление Питанием 2: 1 параметр (0x43)
m_Com_LCD #VMCTRL, #0x00, #0x0a, #0x80 ;VCOM Управление: 3(4) параметра
(0x00, 0x0a, 0x80, 0x40)
m_Com_LCD #FRMCTR1, #0xb0, #0x11 ;Управление частотой кадров ;(В
Обычном/Полноцветном режиме): 2 параметра
m_Com_LCD #INVTR, #0x02 ;Управление инверсией дисплея: 1 параметр
(0x00 - Инверсия столбцов), (0x01 - Инверсия 1 точки), (0x02 - Инверсия 2 точек)
m_Com_LCD #DISCTRL, #0x02, #0x42, #0x3b ;Управление функцией отображения: 3 параметра
(0x02, 0x02, 0x3b)
m_Com_LCD #ETMOD, #0xc6 ;Настройка режима входа: 1 параметр (0x06)
m_Com_LCD #HSLCTRL, #0x00 ;HS Управление Линиями: 1 параметр (0x00), #0x04
m_Com_LCD #PWCTRL4, #0x00 ;Управление Питанием 4 (Для режима ожидания):1
параметр (0x00)
m_Com_LCD #MADCTL, #((1<<BGR)+(0<<MY)+(1<<MX)+(1<<MV)) ;Управление доступом к
памяти: 1 параметр
m_Com_LCD #COLMOD, #0x06 ;Формат пикселя (Управление доступом к памяти): 1 параметр
(0x01 - 8 цветов), (0x05 - 65000 цветов), (0x06 - 262000 цветов)
m_Com_Sof_LCD #PGAMCTRL, #15, #PGAMCTRL_lcd ;Положительный гамма-контроль: 15 параметров
m_Com_Sof_LCD #NGAMCTRL, #15, #NGAMCTRL_lcd ;Отрицательный гамма-контроль: 15 параметров
m_Com_LCD #SLPOUT ; Выход из сна

BL Zader_120mC

m_Com_LCD #DISON ;Дисплей ВКЛ

;Вертикальные цветные полосы
m_Com_LCD_Adr #CASET, #0, #60 ;Вывод на индикатор Команды с параметрами координат
точек X области
m_Com_LCD_Adr #PASET, #0, #320 ;Вывод на индикатор Команды с параметрами координат
точек Y области
m_Com_Col06Sof_LCD #RAMWR, #60*322, #Red

m_Com_LCD_Adr #CASET, #60, #60 ;Вывод на индикатор Команды с параметрами координат
точек X области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #Orange
m_Com_LCD_Adr #CASET, #120, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #Yellow
m_Com_LCD_Adr #CASET, #180, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #Green
m_Com_LCD_Adr #CASET, #240, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #Blue
m_Com_LCD_Adr #CASET, #300, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #Blue
m_Com_LCD_Adr #CASET, #360, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области
m_Com_Col06Sof_LCD #RAMWR, #60*320, #White
m_Com_LCD_Adr #CASET, #420, #60 ;Вывод на индикатор Команды с параметрами координат точек X
области

```



```

m_Com_Col06Sof_LCD #RAMWR, #60*320, #Black ;Вывод на индикатор Текста
m_Font_Sof_LCD #Text_1, #30, #100
m_Font_Sof_LCD #Text_2, #30, #120
m_Font_Sof_LCD #Text_3, #30, #140
m_Font_Sof_LCD #Text_4, #30, #160
m_Font_Sof_LCD #Text_5, #30, #180

```

```

;m_Com_LCD_Adr #CASET, #30, #270 ;Вывод на индикатор Команды с параметрами координат точек X
области

```

```

;m_Com_LCD_Adr #PASET, #240, #40 ;Вывод на индикатор Команды с параметрами координат точек Y
области

```

```

;m_Com_DMA_LCD #RAMWR, #Font_08x08, #270*40

```

```

align

```

```

Duty ; Дежурный цикл Мигание светодиода

```

```

MOV32 R12, #8000000

```

```

Duty_NoNoll

```

```

SUBS R12, #1

```

```

NOP

```

```

NOP

```

```

BNE Duty_NoNoll

```

```

; Мигание светодиода

```

```

MOV32 R0, #GPIOB ; Регистр выходных данных порта GPIO

```

```

MOV R1, #GPIO_TG_TG2

```

```

STR R1, [R0,#GPIO_TG]

```

```

B Duty

```

```

ENDP

```

```

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

```

```

align

```

```

LCD_Adr PROC ;Применяется в m_Com_LCD_Adr

```

```

; R4: ElemAdr - Начальный адрес области на экране

```

```

MOV32 R0, #SPI0

```

```

ASR R2, R4, #8;

```

```

STRB R2, [R0,#SPI_DATA] ;Запись R4[15:8]

```

```

LCD_Adr_TRANS1

```

```

LDR R2, [R0,#SPI_STAT]

```

```

TST R2, #SPI_STAT_TRANS ;1 - бит текущей передачи

```

```

BNE LCD_Adr_TRANS1

```

```

STRB R4, [R0,#SPI_DATA] ;Запись R4[7:0]

```

```

LCD_Adr_TRANS2

```

```

LDR R2, [R0,#SPI_STAT]

```

```

TST R2, #SPI_STAT_TRANS ;1 - бит текущей передачи

```

```

BNE LCD_Adr_TRANS2

```

```

BX LR

```

```

ENDP

```

```

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

```

```

align

```

```

Sof_LCD PROC ;Применяется в m_Com_Sof_LCD

```

```

;R12: $P_N - количество Байт

```

```

;R3: $Met_CPU - Адрес в памяти CPU

```

```

MOV32 R1, #SPI0

```

```

Sof_LCD1

```

```

LDRB R2, [R3], #1

```

```

STRB R2, [R1,#SPI_DATA]

```

```

Sof_LCD2

```

```

LDR R2, [R1,#SPI_STAT]

```

```

TST R2, #SPI_STAT_TRANS ;1 - бит текущей передачи

```

```

BNE Sof_LCD2

```

```

SUBS      R12, #1
BNE Sof_LCD1

Sof_LCD5
LDR       R2, [R1,#SPI_STAT]
TST       R2, #SPI_STAT_TRANS ;1 - бит текущей передачи
BNE Sof_LCD5
BX LR

ENDP

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

align
Fnt_Sof_LCD PROC      ;Применение в m_Font_Sof_LCD
                    ;Вход:
                    ;[SRAM_Adr_Text] - Mem_Text_CPU

PUSH      {LR}
MOV32     R1, #SRAM_Temp
LDR       R0, [R1,#(SRAM_Adr_Text-SRAM_Temp)]
;Параметры шрифта: Text_n_Font
LDR       R8, [R0,#-4]    ; Код цвета фона: 0x000000 ... 0xfcfcfc
LDR       R9, [R0,#-8]    ; Код цвета шрифта: 0x000000 ... 0xfcfcfc
LDR       R2, [R0,#-12]   ; Адрес в памяти CPU Символов шрифта
LDR       R3, [R0,#-16]   ; Шаг символа в тексте (бит)
LDRB      R5, [R2,#-2]    ; Высота (бит в символе)
LDRB      R6, [R2,#-1]    ; Ширина (бит в символе)
STR       R2, [R1,#(SRAM_Adr_Simv-SRAM_Temp)]
STR       R3, [R1,#(SRAM_Font_Step-SRAM_Temp)]

MUL       R10, R5,R6 ; Количество бит в символе
LDR       R4, [R1,#(SRAM_Yadr-SRAM_Temp)]
m_Com_LCD_Adr #PASET, R4, R5

Fnt_Sof_LCD_sim
LDR       R0, [R1,#(SRAM_Adr_Text-SRAM_Temp)]
LDRB      R3, [R0],#1
STR       R0, [R1,#(SRAM_Adr_Text-SRAM_Temp)]
TST       R3, R3
BEQ Fnt_Sof_LCD_exit ; Если R3 = 0

MOV32     R1, #SRAM_Temp
LDR       R5, [R1,#(SRAM_Font_Step-SRAM_Temp)]
LDR       R4, [R1,#(SRAM_Xadr-SRAM_Temp)]
ADD       R5, R5,R4
STR       R5, [R1,#(SRAM_Xadr-SRAM_Temp)]
m_Com_LCD_Adr #CASET, R4, R6 ;Вывод на индикатор Команды с параметрами координат точек X
области
MOV       R2, #RAMWR
BL LCD_Com
MOV       R12, R10 ; Количество бит в символе
;Вычисление адреса кодов символа
CMP       R3, #0x80
SUBLT     R3, #0x20 ;Если Eng
SUBGE     R3, #(0xc0 - 0x60) ;Если Rus
ASR       R4, R10,#3 ;R4 = R10/8 - Количество байт в символе
MUL       R3, R3,R4
LDR       R2, [R1,#(SRAM_Adr_Simv-SRAM_Temp)]
ADD       R2, R3

Fnt_Sof_LCD_pixS
LDRB      R4, [R2],#1
REV       R4, R4 ;Реверсирование порядка байт в слове
MOV       R11, #8

Fnt_Sof_LCD_32pix
LSLS      R4, R4,#1
MOVCC     R3, R8

```

```

MOVCS    R3, R9
; Вывод цвета пикселя
MOV32    R0, #SPI0

```

```

Fnt_Sof_LCD_tbe1
LDR      R7, [R0,#SPI_STAT]
TST      R7, #SPI_STAT_TBE
BEQ Fnt_Sof_LCD_tbe1

```

```

UBFX     R7, R3,#16,#8
STRB     R7, [R0,#SPI_DATA]

```

```

Fnt_Sof_LCD_tbe2
LDR      R7, [R0,#SPI_STAT]
TST      R7, #SPI_STAT_TBE
BEQ Fnt_Sof_LCD_tbe2

```

```

UBFX     R7, R3,#8,#8
STRB     R7, [R0,#SPI_DATA]

```

```

Fnt_Sof_LCD_tbe3
LDR      R7, [R0,#SPI_STAT]
TST      R7, #SPI_STAT_TBE
BEQ Fnt_Sof_LCD_tbe3

```

```

UBFX     R7, R3,#0,#8
STRB     R7, [R0,#SPI_DATA]
SUBS     R11, #1
BNE Fnt_Sof_LCD_32pix

```

```

SUBS     R12, #8
BNE Fnt_Sof_LCD_pixS

```

```

B Fnt_Sof_LCD_sim

```

```

Fnt_Sof_LCD_exit
MOV32    R0, #SPI0

```

```

Fnt_Sof_LCD_tbe4
LDR      R7, [R0,#SPI_STAT]
TST      R7, #SPI_STAT_TBE
BEQ Fnt_Sof_LCD_tbe4

```

```

Fnt_Sof_LCD_trans
LDR      R7, [R0,#SPI_STAT]
TST      R7, #SPI_STAT_TRANS ;1 - бит текущей передачи
BNE Fnt_Sof_LCD_trans

```

```

MOV32    R0, #GPIOA
MOV32    R7, #CS_off ; CS_off: 1
STR      R7, [R0,#GPIO_BOP]
POP      {LR}
BX LR

```

```

ENDP

```

```

;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
align

```

```

Col06Sof_LCD PROC ;Применения в m_Com_Col01Sof_LCD
;R12: $P_N - Пиксели количество
;R9 - Код цвета шрифта: 0x000000 ... 0xfcfcfc
;R8 - Код цвета фона: 0x000000 ... 0xfcfcfc

```

```

MOV32 R1, #SPI0

```

```

Col06Sof_LCD1
UBFX     R4, R9,#16,#8
STRB     R4, [R1,#SPI_DATA]

```

.....


```

AREA CONST, DATA, READONLY, align=2
;*****
align
PGAMCTRL_lcd ;Положительный гамма-контроль: 15 параметров
DCB 0x00,0x07,0x10,0x09,0x17,0x0B,0x41,0x89,0x4B,0x0A,0x0C,0x0E,0x18,0x1B,0x0F
align
NGAMCTRL_lcd ;Отрицательный гамма-контроль: 15 параметров
DCB 0x00,0x17,0x1A,0x04,0x0E,0x06,0x2F,0x45,0x43,0x02,0x0A,0x09,0x32,0x36,0x0F
;***** align
GBLS str1 ; установить значение глобальной строковой переменной
GBLS str2
;*****
align
Text_1_Font
DCD 7 ; Шаг символа в тексте (бит)
DCD Font_08x08

DCD White ;Цвет шрифта White Orange
DCD Black ;Цвет фона

Text_1
str1 SETS "ABCDabcd012345AEBra6Brg+--#"
DCB str1, 0x00
;*****
align
Text_2_Font
DCD 20 ; Шаг символа в тексте (бит)
DCD Font_08x08
DCD Black ;Цвет шрифта White Green
DCD White ;Цвет фона

Text_2
str1 SETS "ABCDabcd012345ABBra6Brg"
DCB str1, 0x00
;*****
align
Text_3_Font
DCD 12 ; Шаг символа в тексте (бит)
DCD Font_16x16
DCD Black ;Цвет шрифта
DCD Yellow ;Цвет фона Orange

Text_3
str1 SETS "ABCDabcd012345ABBra6Brg+--#"
DCB str1, 0x00
;*****
align
Text_4_Font
DCD 20 ; Шаг символа в тексте (бит)
DCD Font_16x16
DCD Black ;Цвет шрифта
DCD White ;Цвет фона Orange

Text_4
str1 SETS "ABCDabcd012345ABBra6B"
DCB str1, 0x00
;*****
align
Text_5_Font
DCD 16 ; Шаг символа в тексте (бит)
DCD Font_16x24
DCD Green ;Цвет шрифта Red
DCD Black ;Цвет фона Orange

Text_5
str1 SETS "ABCDabcd012345ABRiUa6B9l0A"
DCB str1, 0x00
;*****
END

```

Файл RCU_Init_Ext_Clock_GD32F4

;Файл RCU_Init_Ext_Clock_GD32F4

; Тактировка 10МГц => 160МГц

MACRO

\$RCU_Init m_RCU_Init

\$RCU_Init

MOV32 R0, #RCU

LDR R1, [R0,#RCU_CTL]

ORRR1, R1, #RCU_CTL_HXTALEN *;1:включение тактов HSE*

STRR1, [R0,#RCU_CTL]

5 *;RCU_hserdy*

LDR R1, [R0,#PMU_CTL]

TST R1, #RCU_CTL_HXTALSTB *;флаг готовности тактов HSE.*

BEQ %b5 *;RCU_hserdy*

LDR R1, [R0,#RCU_APB1EN] *; Регистр включения периферийных тактов RCC APB1*

ORR R1, R1, #RCU_APB1EN_PMUEN *;включение синхронизации интерфейса питания*

STR R1, [R0,#RCU_APB1EN]

; Настроить делители шин APB1, APB2, каждый по отдельности

LDR R1, [R0,#RCU_CFG0]

ORR R1, R1, #RCU_CFG0_AHBPS DIV1

STR R1, [R0,#RCU_CFG0]

LDR R1, [R0,#RCU_CFG0]

ORR R1, R1, #RCU_CFG0_APB2PSC_DIV2 *;100: такты АНВ,разделенные на 2 (APB2 предделитель)*

STR R1, [R0,#RCU_CFG0]

LDR R1, [R0,#RCU_CFG0]

ORR R1, R1, #RCU_CFG0_APB1PSC_DIV4 *;101: такты АНВ,разделенные на 4 (APB1 предделитель)*

STR R1, [R0,#RCU_CFG0]

; Настроить PLL Fsis = 160 MHz

PLLPS EQU 5 *; коэффициент деления для тактовой частоты основного входа PLL (PLL)*

PLLN EQU 160 << 6 *; Коэффициент умножения N основной системы ФАПЧ (PLL) для VCO*

MOV32 R1, #((2<<28) + RCU_PLL_PLLQ_div4 + RCU_PLL_PLLSEL_HXTAL + RCU_PLL_PLLP_div2 + PLLN + PLLPS)

STR R1, [R0,#RCU_PLL] *; Регистр конфигурации RCC PLL*

; Включить питание PLL

LDR R1, [R0,#RCU_CTL]

ORR R1, R1, #RCU_CTL_PPLEN

STR R1, [R0,#RCU_CTL]

10 *;RCU_pLLrdy*

LDR R1, [R0,#RCU_CTL]

TST R1, #RCU_CTL_PLLSTB *;PLLSAI флаг готовности тактовой частоты основной системы ФАПЧ (PLL).*

BEQ %b10 *;RCU_pLLrdy*

MOV32 R0, #PMU

LDR R1, [R0,#PMU_CTL]

ORR R1, R1, #(PMU_CTL_HDEN+PMU_CTL_LDOVS);1:Включение режима High-driver и 11: Режим высокого выходного напряжения LDO

STR R1, [R0,#PMU_CTL]

20 *;RCU_HDRF*

LDR R1, [R0,#PMU_CS]

TST R1, #PMU_CS_HDRF *;флаг готовности тактов HSE.*

BEQ %b20 *;RCU_HDRF*

LDR R1, [R0,#PMU_CTL]

ORR R1, R1, #PMU_CTL_HDS *;1:Переключатель режима High-driver*

STR R1, [R0,#PMU_CTL]

[illegible]

Файл TFT_LCD_NSP3520_ILI9488

;файл: TFT_LCD_NSP3520_ILI9488.S

;дата: 16 Май 2024J

;Команды Графического дисплея TFT_LCD_NSP3520_ILI9488

AdjCont3 EQU 0xf7 ;Настройка элемента управления 3: 4 параметра (0x09,0x51, 0x2c, 0x82)
ALLPOFF EQU 0x22 ;Все пиксели ОТКЛ
ALLPON EQU 0x23 ;Все пиксели ВКЛ
CASET EQU 0x2a ;Набор адресов столбцов: 4 параметра (SC[15:8],SC[7:0], EC[15:8], EC[7:0])
(См. MADCTL)
PASET EQU 0x2b ;Набор адресов строк: 4 параметра (SP[15:8], SP[7:0],EP[15:8], EP[7:0]) (См.
MADCTL)

COLMOD EQU 0x3a ;Формат пикселя (Управление доступом к памяти): 1 параметр (0x01 - 8
цветов), (0x05 - 65000 цветов), (0x06 - 262000 цветов)
COLMODcolor1 EQU 0x01 ;8 цветов
COLMODcolor5 EQU 0x05 ;65000 цветов
COLMODcolor6 EQU 0x06 ;262000 цветов

DISON EQU 0x29 ;Дисплей ВКЛ
DISCTRL EQU 0xb6 ;Управление функцией отображения: 3 параметра (0x02, 0x02, 0x3b)
ETMOD EQU 0xb7 ;Настройка режима входа: 1 параметр (0x06)
FRMCTR1 EQU 0xb1 ;Управление частотой кадров (В Обычном/Полноцветном режиме): 2 параметра
(0xb0, 0x11)
FRMCTR2 EQU 0xb2 ;Управление частотой кадров (В режиме ожидания/8 цветов): 2 параметра
(0x00, 0x11)
IDMOFF EQU 0x38 ;Режим ожидания ОТКЛ.
IFMODE EQU 0xb0 ;Запись Управление режимом интерфейса: 1 параметр(0x00)
INVOFF EQU 0x20 ;Инверсия дисплея ОТКЛ)
INVON EQU 0x21 ;Инверсия дисплея ВКЛ

INVTR EQU 0xb4 ;Управление инверсией дисплея: 1 параметр (0x00 -Инверсия столбцов), (0x01 -
Инверсия 1 точки), (0x02 - Инверсия 2 точек)
INVTRcol EQU 0x00 ;Инверсия столбцов
INVTRdot1 EQU 0x01 ;Инверсия 1 точки
INVTRdot2 EQU 0x02 ;Инверсия 2 точек
HSLCTRL EQU 0xbe ;HS Управление Линиями: 1 параметр (0x00)

MADCTL EQU 0x36 ;Управление доступом к памяти: 1 параметр
MY EQU 7 ;Порядок адресов строк
MX EQU 6 ;Порядок адресов столбцов
MV EQU 5 ;Обмен строк и столбцов
ML EQU 4 ;Порядок вертикального обновления
BGR EQU 3 ;Порядок RGB-BGR
MH EQU 2 ;Порядок горизонтального обновления _ORDER

NGAMCTRL EQU 0xe1 ;Отрицательный гамма-контроль: 15 параметров
NORON EQU 0x13 ;Обычный режим отображения ВКЛ: 0 параметров
PGAMCTRL EQU 0xe0 ; Положительный гамма-контроль: 15 параметров
PLTAR EQU 0x30 ;Частичная область (Набор адресов строк): 4 параметра(SR[15:8], SR[7:0],
ER[15:8], ER[7:0])
PTLON EQU 0x12 ;Частичный режим ВКЛ: 0 параметров
PWCTRL1 EQU 0xc0 ;Управление Питанием 1: 2 параметра (VRH1[4:0],VRH2[4:0])
PWCTRL2 EQU 0xc1 ;Управление Питанием 2: 1 параметр (0x43)
PWCTRL4 EQU 0xe9 ;Управление Питанием 4 (Для режима ожидания)
VMCTRL EQU 0xc5 ;VCOM Управление: 3(4) параметра (0x00, 0x0a, 0x80,0x40)
RAMWR EQU 0x2c ;Запись в память: N параметров (D1[23:0] ... Dn[23:0])
RAMWRC EQU 0x3c ;Записи Память Продолжение: N параметров (D1[23:0]... Dn[23:0])
SLPOUT EQU 0x11 ;Сон Выход
SWRESET EQU 0x01 ;Сброс программного обеспечения: 0 параметров
WRDISBV EQU 0x51 ;Запись значения яркости дисплея: 1 параметр (0 ...256)
WRCTRLD EQU 0x53 ;Запись Значения Управления яркостью Дисплея: 1параметр

;Вывод на индикатор Команды с 4-параметрами

MACRO

\$Com_LCD m_Com_LCD \$Com, \$Par1, \$Par2, \$Par3, \$Par4

\$Com_LCD

MOV R2, \$Com
BL LCD_Com

if "\$Par1" <> ""
MOV32 R1, #SPI0
MOV R2, \$Par1
STRB R2, [R1,#SPI_DATA]

91 LDR R3, [R1,#SPI_STAT]
TST R3, SPI_STAT_TRANS ;1 - бит текущей передачи
BNE %b91

if "\$Par2" <> ""
MOV R2, \$Par2
STRB R2, [R1,#SPI_DATA]

92 LDR R3, [R1,#SPI_STAT]
TST R3, #SPI_STAT_TRANS ;1 - бит текущей передачи
BNE %b92

if "\$Par3" <> ""
MOV R2, \$Par3
STRB R2, [R1,#SPI_DATA]

93 LDR R3, [R1,#SPI_STAT]
TST R3, #SPI_STAT_TRANS ;1 - бит текущей передачи
BNE %b93

if "\$Par4" <> ""
MOV R2, \$Par4
STRB R2, [R1,#SPI_DATA]

LDR R3, [R1,#SPI_STAT]
TST R3, #SPI_STAT_TRANS ;1 - бит текущей передачи
BNE %b94

else
endif

else
endif

else
endif

else
endif

MOV32 R0, #GPIOA
MOV R1, #CS_off ; CS_off: 1
STR R1, [R0,#GPIO_BOP]

MEND

;Вывод на индикатор Команды с параметрами координат точек области.

MACRO

\$Com_LCD_Adr m_Com_LCD_Adr \$Com, \$XorYadr, \$Size
;XorYadr - Начальный адрес области на экране
;Size - Размер области на экране (0 - не допустим)

\$Com_LCD_Adr
MOV R2, \$Com
BL LCD_Com
MOV R4, \$XorYadr
BL LCD_Adr *;Начало области на экране*
ADD R4, \$Size
SUB R4, #1
BL LCD_Adr *;Конец области на экране*
MOV32 R0, #GPIOA
MOV32 R2, #CS_off ; CS_off: 1
STR R2, [R0,#GPIO_BOP]
MEND

;Вывод на индикатор Команды с параметрами через DMA.

MACRO

\$Com_DMA_LCD m_Com_DMA_LCD \$Com, \$Mem_CPU, \$P_N
;Com - команды: RAMWR, RAMWR
;Mem_CPU - Адрес памяти в CPU
;P_N - Количество байт в области на экране

\$Com_DMA_LCD
MOV R2, \$Com
BL LCD_Com
MOV32 R0, #DMA1

70 LDR R1, [R0,#DMA_CH5CTL]
TST R1, #DMA_CHxCTL_CHEN
BNE %b70

MOV32 R1, \$Mem_CPU
STR R1, [R0,#DMA_CH5M0ADDR]
MOV32 R1, \$P_N
STR R1, [R0,#DMA_CH5CNT]
LDR R1, [R0,#DMA_CH5CTL]
ORR R1, #DMA_CHxCTL_CHEN ;Включение DMA
STR R1, [R0,#DMA_CH5CTL]

MEND

;Вывод на индикатор Команды с параметрами через Software.

MACRO

\$Com_Sof_LCD m_Com_Sof_LCD \$Com, \$P_N, \$Mem_CPU
;Com - команды: RAMWR, RAMWR
;Mem_CPU - Адрес памяти в CPU
;P_N - Количество байт в области на экране

\$Com_Sof_LCD
MOV R2, \$Com
MOV32 R12, \$P_N
MOV32 R3, \$Mem_CPU
BL LCD_Com
BL Sof_LCD
MOV32 R0, #GPIOA
MOV32 R2, #CS_off ; CS_off: 1
STR R2, [R0,#GPIO_BOP]

MEND

;Вывод на индикатор Команды с одним цветом COLMODcolor1 через Software.

MACRO

\$Com_Col06Sof_LCD m_Com_Col06Sof_LCD \$Com, \$P_N, \$Col;, \$Fon

;Com - команды: RAMWR, RAMWRC

;P_N - Количество байт в области на экране

;Col - Код цвета шрифта: 0x000000 ... 0xfcfcfc

;Fon - Код цвета фона: 0x000000 ... 0xfcfcfc

\$Com_Col06Sof_LCD

MOV R2, \$Com

BL LCD_Com

MOV32 R12, \$P_N

MOV32 R9, \$Col

;MOV32 R8, \$Fon

BL Col06Sof_LCD

MEND

;Вывод на индикатор Текста

MACRO

\$Font_Sof_LCD m_Font_Sof_LCD \$Mem_Text_CPU, \$X_adr, \$Y_adr

; Mem_Text_CPU - Адрес Текста в памяти CPU

; X_adr - Начальный адрес области на экране

; Y_adr - Начальный адрес области на экране

\$Font_Sof_LCD

MOV32 R1, #SRAM_Temp

MOV32 R2, \$X_adr

STR R2, [R1, #(SRAM_Xadr-SRAM_Temp)]

MOV32 R2, \$Y_adr

STR R2, [R1, #(SRAM_Yadr-SRAM_Temp)]

MOV32 R0, \$Mem_Text_CPU

STR R0, [R1, #(SRAM_Adr_Text-SRAM_Temp)]

BL Fnt_Sof_LCD

MEND

END

Файл Font

;Font.s

;;

AREA Font, DATA, READONLY, align=2

;*****

DCB 8 ; Высота (бит в символе)

DCB 8 ; Ширина (бит в символе)

Font_08x08

Font_08x08_L

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ;" ",0x20
DCB 0x10,0x10,0x10,0x10,0x10,0x00,0x10,0x00 ;"! ",0x21
DCB 0x28,0x28,0x28,0x00,0x00,0x00,0x00,0x00 ;" """,0x22
DCB 0x28,0x28,0xFE,0x28,0xFE,0x28,0x28,0x00 ;"#",0x23
DCB 0x10,0x3C,0x50,0x38,0x14,0x78,0x10,0x00 ;"\$",0x24
DCB 0xC0,0xC8,0x10,0x20,0x40,0x98,0x18,0x00 ;"%",0x25
DCB 0x60,0x90,0xA0,0x40,0xA8,0x90,0x68,0x00 ;"&",0x26
DCB 0x60,0x20,0x40,0x00,0x00,0x00,0x00,0x00 ;"' '",0x27
DCB 0x10,0x20,0x40,0x40,0x40,0x20,0x10,0x00 ;"(",0x28
DCB 0x40,0x20,0x10,0x10,0x10,0x20,0x40,0x00 ;")",0x29
DCB 0x00,0x20,0xA8,0x70,0xA8,0x20,0x00,0x00 ;"*",0x2a
DCB 0x00,0x20,0x20,0xF8,0x20,0x20,0x00,0x00 ;"+",0x2b
DCB 0x00,0x00,0x00,0x00,0x60,0x20,0x40,0x00 ;",",0x2c
DCB 0x00,0x00,0x00,0xF8,0x00,0x00,0x00,0x00 ;"- ",0x2d
DCB 0x00,0x00,0x00,0x00,0x00,0x60,0x60,0x00 ;". ",0x2e
DCB 0x00,0x08,0x10,0x20,0x40,0x80,0x00,0x00 ;"/",0x2f
DCB 0x70,0x88,0x98,0xA8,0xC8,0x88,0x70,0x00 ;"0",0x30
DCB 0x20,0x60,0x20,0x20,0x20,0x20,0x70,0x00 ;"1",0x31
DCB 0x70,0x88,0x08,0x10,0x20,0x40,0xF8,0x00 ;"2",0x32
DCB 0xF8,0x10,0x20,0x10,0x08,0x88,0x70,0x00 ;"3",0x33
DCB 0x10,0x30,0x50,0x90,0xF8,0x10,0x10,0x00 ;"4",0x34
DCB 0xF8,0x80,0xF0,0x08,0x08,0x88,0x70,0x00 ;"5",0x35
DCB 0x30,0x40,0x80,0xF0,0x88,0x88,0x70,0x00 ;"6",0x36
DCB 0xF8,0x08,0x10,0x20,0x40,0x40,0x40,0x00 ;"7",0x37
DCB 0x70,0x88,0x88,0x70,0x88,0x88,0x70,0x00 ;"8",0x38
DCB 0x70,0x88,0x88,0x78,0x08,0x10,0x60,0x00 ;"9",0x39
DCB 0x00,0x60,0x60,0x00,0x60,0x60,0x00,0x00 ;":",0x3a
DCB 0x00,0x60,0x60,0x00,0x60,0x20,0x40,0x00 ;";",0x3b
DCB 0x10,0x20,0x40,0x80,0x40,0x20,0x10,0x00 ;"<",0x3c
DCB 0x00,0x00,0xF8,0x00,0xF8,0x00,0x00,0x00 ;"=",0x3d
DCB 0x40,0x20,0x10,0x08,0x10,0x20,0x40,0x00 ;">",0x3e
DCB 0x70,0x88,0x08,0x10,0x20,0x00,0x20,0x00 ;"?",0x3f
DCB 0x70,0x88,0x08,0x68,0xA8,0xA8,0x70,0x00 ;"@ ",0x40
DCB 0x70,0x88,0x88,0x88,0xF8,0x88,0x88,0x00 ;"A",0x41
DCB 0xF0,0x88,0x88,0xF0,0x88,0x88,0xF0,0x00 ;"B",0x42
DCB 0x70,0x88,0x80,0x80,0x80,0x88,0x70,0x00 ;"C",0x43
DCB 0xE0,0x90,0x88,0x88,0x88,0x90,0xE0,0x00 ;"D",0x44
DCB 0xF8,0x80,0x80,0xF0,0x80,0x80,0xF8,0x00 ;"E",0x45
DCB 0xF8,0x80,0x80,0xF0,0x80,0x80,0x80,0x00 ;"F",0x46
DCB 0x70,0x88,0x80,0x80,0xB8,0x88,0x70,0x00 ;"G",0x47
DCB 0x88,0x88,0x88,0xF8,0x88,0x88,0x88,0x00 ;"H",0x48
DCB 0x70,0x20,0x20,0x20,0x20,0x20,0x70,0x00 ;"I",0x49
DCB 0x38,0x10,0x10,0x10,0x10,0x90,0x60,0x00 ;"J",0x4a
DCB 0x88,0x90,0xA0,0xC0,0xA0,0x90,0x88,0x00 ;"K",0x4b
DCB 0x80,0x80,0x80,0x80,0x80,0x80,0xF8,0x00 ;"L",0x4c
DCB 0x88,0xD8,0xA8,0x88,0x88,0x88,0x88,0x00 ;"M",0x4d
DCB 0x88,0x88,0xC8,0xA8,0x98,0x88,0x88,0x00 ;"N".0x4e
DCB 0x70,0x88,0x88,0x88,0x88,0x88,0x70,0x00 ;"O",0x4f
DCB 0xF0,0x88,0x88,0xF0,0x80,0x80,0x80,0x00 ;"P",0x50
DCB 0x70,0x88,0x88,0x88,0xA8,0x90,0x68,0x00 ;"Q",0x51
DCB 0xF0,0x88,0x88,0xF0,0xA0,0x90,0x88,0x00 ;"R",0x52
DCB 0x78,0x80,0x80,0x70,0x08,0x08,0xF0,0x00 ;"S",0x53
DCB 0xF8,0x20,0x20,0x20,0x20,0x20,0x20,0x00 ;"T",0x54
DCB 0x88,0x88,0x88,0x88,0x88,0x88,0x70,0x00 ;"U",0x55
DCB 0x88,0x88,0x88,0x88,0x88,0x50,0x20,0x00 ;"V",0x56

DCB 0x88,0x88,0x88,0xA8,0xA8,0xA8,0x50,0x00 ; "W",0x57
 DCB 0x88,0x88,0x50,0x20,0x50,0x88,0x88,0x00 ; "X",0x58
 DCB 0x88,0x88,0x88,0x50,0x20,0x20,0x20,0x00 ; "Y",0x59
 DCB 0xF8,0x08,0x10,0x20,0x40,0x80,0xF8,0x00 ; "Z",0x5a
 DCB 0x70,0x40,0x40,0x40,0x40,0x40,0x70,0x00 ; "[",0x5b
 DCB 0x00,0x80,0x40,0x20,0x10,0x08,0x00,0x00 ; "\",0x5c
 DCB 0x70,0x10,0x10,0x10,0x10,0x10,0x70,0x00 ; "]",0x5d
 DCB 0x20,0x50,0x88,0x00,0x00,0x00,0x00,0x00 ; "*",0x5e
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0xF8,0x00 ; "_",0x5f
 DCB 0x60,0x20,0x00,0x00,0x00,0x00,0x00,0x00 ; "'",0x60
 DCB 0x00,0x00,0x70,0x08,0x78,0x88,0x70,0x00 ; "a",0x61
 DCB 0x80,0x80,0xB0,0xC8,0x88,0x88,0xF0,0x00 ; "b",0x62
 DCB 0x00,0x00,0x70,0x80,0x80,0x88,0x70,0x00 ; "c",0x63
 DCB 0x08,0x08,0x68,0x98,0x88,0x88,0x78,0x00 ; "d",0x64
 DCB 0x00,0x00,0x70,0x88,0xF8,0x80,0x70,0x00 ; "e",0x65
 DCB 0x30,0x48,0x40,0xE0,0x40,0x40,0x40,0x00 ; "f",0x66
 DCB 0x00,0x70,0x88,0x88,0x78,0x08,0x70,0x00 ; "g",0x67
 DCB 0x80,0x80,0xB0,0xC8,0x88,0x88,0x88,0x00 ; "h",0x68
 DCB 0x20,0x00,0x60,0x20,0x20,0x20,0x70,0x00 ; "i",0x69
 DCB 0x10,0x00,0x30,0x10,0x10,0x90,0x60,0x00 ; "j",0x6a
 DCB 0x80,0x80,0x90,0xA0,0xC0,0xA0,0x90,0x00 ; "k",0x6b
 DCB 0x60,0x20,0x20,0x20,0x20,0x20,0x70,0x00 ; "l",0x6c
 DCB 0x00,0x00,0xD0,0xA8,0xA8,0xA8,0x88,0x00 ; "m",0x6d
 DCB 0x00,0x00,0xB0,0xC8,0x88,0x88,0x88,0x00 ; "n",0x6e
 DCB 0x00,0x00,0x70,0x88,0x88,0x88,0x70,0x00 ; "o",0x6f
 DCB 0x00,0x00,0xF0,0x88,0xF0,0x80,0x80,0x00 ; "p",0x70
 DCB 0x00,0x00,0x70,0x88,0x78,0x08,0x08,0x00 ; "q",0x71
 DCB 0x00,0x00,0xB0,0xC8,0x80,0x80,0x80,0x00 ; "r",0x72
 DCB 0x00,0x00,0x70,0x80,0x70,0x08,0xF0,0x00 ; "s",0x73
 DCB 0x40,0x40,0xE0,0x40,0x40,0x48,0x30,0x00 ; "t",0x74
 DCB 0x00,0x00,0x88,0x88,0x88,0x98,0x68,0x00 ; "u",0x75
 DCB 0x00,0x00,0x88,0x88,0x88,0x50,0x20,0x00 ; "v",0x76
 DCB 0x00,0x00,0x88,0x88,0xA8,0xA8,0x50,0x00 ; "w",0x77
 DCB 0x00,0x00,0x88,0x50,0x20,0x50,0x88,0x00 ; "x",0x78
 DCB 0x00,0x00,0x88,0x88,0x78,0x08,0x70,0x00 ; "y",0x79
 DCB 0x00,0x00,0xF8,0x10,0x20,0x40,0xF8,0x00 ; "z",0x7a
 DCB 0x20,0x40,0x40,0x80,0x40,0x40,0x20,0x00 ; "{",0x7b
 DCB 0x20,0x20,0x20,0x20,0x20,0x20,0x20,0x00 ; "L",0x7c
 DCB 0x80,0x40,0x40,0x20,0x40,0x40,0x80,0x00 ; "}",0x7d
 DCB 0x00,0x50,0xA8,0x00,0x00,0x00,0x00,0x00 ; "~",0x7e
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; " ",0x7f

Font_08x08_R

DCB 0x70,0x88,0x88,0x88,0xF8,0x88,0x88,0x00 ; "A",0xc0
 DCB 0xF8,0x88,0x80,0xF0,0x88,0x88,0xF0,0x00 ; "B",0xc1
 DCB 0xF0,0x88,0x88,0xF0,0x88,0x88,0xF0,0x00 ; "B",0xc2
 DCB 0xF8,0x88,0x80,0x80,0x80,0x80,0x80,0x00 ; "T",0xc3
 DCB 0x18,0x28,0x48,0x48,0x48,0xF8,0x88,0x00 ; "M",0xc4
 DCB 0xF8,0x80,0x80,0xF0,0x80,0x80,0xF8,0x00 ; "E",0xc5
 DCB 0xA8,0xA8,0xA8,0x70,0xA8,0xA8,0xA8,0x00 ; "W",0xc6
 DCB 0xF0,0x08,0x08,0x70,0x08,0x08,0xF0,0x00 ; "3",0xc7
 DCB 0x88,0x88,0x98,0xA8,0xC8,0x88,0x88,0x00 ; "H",0xc8
 DCB 0x50,0x20,0x88,0x98,0xA8,0xC8,0x88,0x00 ; "Й",0xc9
 DCB 0x88,0x90,0xA0,0xC0,0xA0,0x90,0x88,0x00 ; "K",0xca
 DCB 0x78,0x28,0x28,0x28,0x28,0xA8,0x48,0x00 ; "Л",0xcb
 DCB 0x88,0xD8,0xA8,0xA8,0x88,0x88,0x88,0x00 ; "M",0xcc
 DCB 0x88,0x88,0x88,0xF8,0x88,0x88,0x88,0x00 ; "H",0xcd
 DCB 0x70,0x88,0x88,0x88,0x88,0x88,0x70,0x00 ; "O",0xce
 DCB 0xF8,0x88,0x88,0x88,0x88,0x88,0x88,0x00 ; "П",0xcf
 DCB 0xF0,0x88,0x88,0xF0,0x80,0x80,0x80,0x00 ; "P",0xd0
 DCB 0x70,0x88,0x80,0x80,0x80,0x88,0x70,0x00 ; "C",0xd1
 DCB 0xF8,0x20,0x20,0x20,0x20,0x20,0x20,0x00 ; "T",0xd2
 DCB 0x88,0x88,0x88,0x50,0x20,0x40,0x80,0x00 ; "Y",0xd3
 DCB 0x20,0x70,0xA8,0xA8,0xA8,0x70,0x20,0x00 ; "Ф",0xd4
 DCB 0x88,0x88,0x50,0x20,0x50,0x88,0x88,0x00 ; "X",0xd5
 DCB 0x88,0x88,0x88,0x88,0x88,0xF8,0x08,0x00 ; "Ц",0xd6
 DCB 0x88,0x88,0x88,0x78,0x08,0x08,0x08,0x00 ; "Ч",0xd7

DCB 0xA8,0xA8,0xA8,0xA8,0xA8,0xA8,0xF8,0x00 ;"Ш",0xd8
DCB 0xA8,0xA8,0xA8,0xA8,0xA8,0xF8,0x08,0x00 ;"Щ",0xd9
DCB 0xC0,0x40,0x40,0x70,0x48,0x48,0x70,0x00 ;"Ъ",0xda
DCB 0x88,0x88,0x88,0xC8,0xA8,0xA8,0xC8,0x00 ;"Ы",0xdb
DCB 0x80,0x80,0x80,0xF0,0x88,0x88,0xF0,0x00 ;"Ь",0xdc
DCB 0x70,0x88,0x08,0x38,0x08,0x88,0x70,0x00 ;"Э",0xdd
DCB 0x90,0xA8,0xA8,0xE8,0xA8,0xA8,0x90,0x00 ;"Ю",0xde
DCB 0x78,0x88,0x88,0x78,0x28,0x48,0x88,0x00 ;"Я",0xdf
DCB 0x00,0x00,0x70,0x08,0x78,0x88,0x78,0x00 ;"а",0xe0
DCB 0x18,0x60,0x80,0xF0,0x88,0x88,0x70,0x00 ;"б",0xe1
DCB 0x00,0x00,0xE0,0x90,0xE0,0x90,0xE0,0x00 ;"в",0xe2
DCB 0x00,0x00,0xF0,0x90,0x80,0x80,0x80,0x00 ;"г",0xe3
DCB 0x00,0x00,0x38,0x48,0x48,0xF8,0x88,0x00 ;"д",0xe4
DCB 0x00,0x00,0x70,0x88,0xF8,0x80,0x70,0x00 ;"е",0xe5
DCB 0x00,0x00,0xA8,0xA8,0x70,0xA8,0xA8,0x00 ;"ж",0xe6
DCB 0x00,0x00,0xF0,0x08,0x30,0x08,0xF0,0x00 ;"з",0xe7
DCB 0x00,0x00,0x88,0x98,0xA8,0xC8,0x88,0x00 ;"и",0xe8
DCB 0x00,0x50,0x20,0x88,0x98,0xA8,0xC8,0x00 ;"й",0xe9
DCB 0x00,0x00,0x90,0xA0,0xC0,0xA0,0x90,0x00 ;"к",0xea
DCB 0x00,0x00,0x38,0x48,0x48,0x48,0x88,0x00 ;"л",0xeb
DCB 0x00,0x00,0x88,0xD8,0xA8,0x88,0x88,0x00 ;"м",0xec
DCB 0x00,0x00,0x88,0x88,0xF8,0x88,0x88,0x00 ;"н",0xed
DCB 0x00,0x00,0x70,0x88,0x88,0x88,0x70,0x00 ;"о",0xee
DCB 0x00,0x00,0xF8,0x88,0x88,0x88,0x88,0x00 ;"п",0xef
DCB 0x00,0x00,0xF0,0x88,0xF0,0x80,0x80,0x00 ;"р",0xf0
DCB 0x00,0x00,0x70,0x88,0x80,0x80,0x78,0x00 ;"с",0xf1
DCB 0x00,0x00,0xF8,0x20,0x20,0x20,0x20,0x00 ;"т",0xf2
DCB 0x00,0x00,0x88,0x88,0x50,0x20,0xC0,0x00 ;"у",0xf3
DCB 0x00,0x00,0x70,0xA8,0xA8,0x70,0x20,0x00 ;"ф",0xf4
DCB 0x00,0x00,0x88,0x50,0x20,0x50,0x88,0x00 ;"х",0xf5
DCB 0x00,0x00,0x90,0x90,0x90,0xF8,0x08,0x00 ;"ц",0xf6
DCB 0x00,0x00,0x88,0x88,0x78,0x08,0x08,0x00 ;"ч",0xf7
DCB 0x00,0x00,0xA8,0xA8,0xA8,0xA8,0xF8,0x00 ;"ш",0x:f8
DCB 0x00,0x00,0xA8,0xA8,0xA8,0xF8,0x08,0x00 ;"щ",0x:f9
DCB 0x00,0x00,0xC0,0x40,0x70,0x48,0x70,0x00 ;"ъ",0xfa
DCB 0x00,0x00,0x88,0x88,0xC8,0xA8,0xC8,0x00 ;"ы",0xfb
DCB 0x00,0x00,0x80,0x80,0xF0,0x88,0xF0,0x00 ;"ь",0x:fc
DCB 0x00,0x00,0x70,0x88,0x38,0x88,0x70,0x00 ;"э",0x:fd
DCB 0x00,0x00,0x90,0xA8,0xE8,0xA8,0x90,0x00 ;"ю",0x:fe
DCB 0x00,0x00,0x78,0x88,0x78,0x28,0x48,0x00 ;"я".,0xff

;*****

Align

DCB 16 ; Высота символа (бит в символе)

DCB 16 ; Ширина символа (бит в символе)

Font_16x16

Font_16x16_L

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; " ",0x20
DCB 0x07,0x80,0x07,0x80,0x07,0x80,0x07,0x80,0x07,0x80,0x07,0x80,0x07,0x80,0x03,0x00
DCB 0x03,0x00,0x03,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x03,0x00,0x03,0x00,0x00,0x00 ; "! ",0x21
DCB 0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; """,0x22
DCB 0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0xFF,0xFC,0xFF,0xFC,0x0C,0xC0,0x0C,0xC0
DCB 0xFF,0xFC,0xFF,0xFC,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x00,0x00 ; "#",0x23
DCB 0x03,0x00,0x03,0x00,0x0F,0xF0,0x1F,0xF0,0x33,0x00,0x33,0x00,0x1F,0xC0,0x0F,0xE0
DCB 0x03,0x30,0x03,0x30,0x3F,0xE0,0x3F,0xC0,0x03,0x00,0x03,0x00,0x00,0x00,0x00,0x00 ; "\$",0x24
DCB 0xF0,0x00,0xF0,0x00,0xF0,0xC0,0xF1,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00
DCB 0x38,0x00,0x70,0x00,0xE3,0xC0,0xC3,0xC0,0x03,0xC0,0x03,0xC0,0x00,0x00,0x00,0x00 ; "%",0x25
DCB 0x3C,0x00,0x3C,0x00,0xC3,0x00,0xC7,0x00,0xCE,0x00,0xDC,0x00,0x38,0x00,0x30,0x00
DCB 0xCC,0xC0,0xCD,0xC0,0xC7,0x80,0xCF,0x00,0x3D,0xC0,0x38,0xC0,0x00,0x00,0x00,0x00 ; "&",0x26
DCB 0x3C,0x00,0x3C,0x00,0x0C,0x00,0x0C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "' ",0x27
DCB 0x03,0x00,0x07,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x30,0x00,0x30,0x00
DCB 0x30,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00,0x03,0x00,0x03,0x00,0x03,0x00
DCB 0x03,0x00,0x07,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00 ; ") ",0x29
DCB 0x00,0x00,0x00,0x00,0x0C,0x00,0xCC,0xC0,0xED,0xC0,0x6D,0x80,0x3F,0x00,0x3F,0x00
DCB 0x6D,0x80,0xED,0xC0,0xCC,0xC0,0x0C,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "* ",0x2a
DCB 0x00,0x00,0x00,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0xFF,0xC0
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "+ ",0x2b
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x3C,0x00,0x3C,0x00,0x0C,0x00,0x0C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00 ; ", ",0x2c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "- ",0x2d
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x18,0x00,0x3C,0x00,0x7E,0x00,0x7E,0x00,0x3C,0x00,0x18,0x00,0x00,0x00,0x00,0x00 ; ". ",0x2e
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00
DCB 0x38,0x00,0x70,0x00,0xE0,0x00,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "/"",0x2f
DCB 0x3F,0x00,0x7F,0x80,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xF8,0xC0,0xF0,0xC0,0xC0,0xC0,0xC0,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "0",0x30
DCB 0x0C,0x00,0x1C,0x00,0x3C,0x00,0x7C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x3F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "1",0x31
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00
DCB 0x0E,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00 ; "2",0x32
DCB 0xFF,0xC0,0xFF,0xC0,0x03,0x00,0x07,0x00,0x0E,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00
DCB 0x03,0x80,0x01,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "3",0x33
DCB 0x03,0x00,0x07,0x00,0x0F,0x00,0x1F,0x00,0x3B,0x00,0x73,0x00,0xE3,0x00,0xC3,0x00
DCB 0xFF,0xC0,0xFF,0xC0,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x00,0x00,0x00,0x00 ; "4",0x34
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x80,0x00,0xC0,0x00,0xC0
DCB 0x00,0xC0,0x00,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "5",0x35
DCB 0x0F,0x00,0x1F,0x00,0x38,0x00,0x70,0x00,0xE0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x80
DCB 0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "6",0x36
DCB 0xFF,0xC0,0xFF,0xC0,0x00,0xC0,0x01,0xC0,0x03,0x80,0x03,0x00,0x0E,0x00,0x1C,0x00
DCB 0x38,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x00,0x00,0x00,0x00 ; "7",0x37
DCB 0x3F,0x00,0x3F,0x00,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE0,0xC0,0x3F,0x00,0x3F,0x00
DCB 0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x3F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "8",0x38
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE0,0xC0,0x7F,0xC0,0x3F,0xC0
DCB 0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00,0x3E,0x00,0x3C,0x00,0x00,0x00,0x00,0x00 ; "9",0x39
DCB 0x00,0x00,0x00,0x00,0x3C,0x00,0x3C,0x00,0x3C,0x00,0x3C,0x00,0x00,0x00,0x00,0x00 ; ": ",0x3a
DCB 0x00,0x00,0x00,0x00,0x3C,0x00,0x3C,0x00,0x3C,0x00,0x3C,0x00,0x00,0x00,0x00,0x00
DCB 0x3C,0x00,0x3C,0x00,0x0C,0x00,0x0C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00 ; "; ",0x3b
DCB 0x03,0x00,0x07,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x70,0x00,0xE0,0x00,0xE0,0x00
DCB 0x70,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00,0x03,0x00,0x00,0x00,0x00,0x00 ; "< ",0x3c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00
DCB 0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "=",0x3d
DCB 0x30,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00,0x03,0x80,0x01,0xC0,0x01,0xC0

DCB 0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00 ; ">",0x3e
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00
DCB 0x0E,0x00,0x0C,0x00,0x00,0x00,0x00,0x00,0x0C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00 ; "?",0x3f
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x3C,0xC0,0x7C,0xC0
DCB 0xEC,0xC0,0xCC,0xC0,0xCC,0xC0,0xED,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "@",0x40
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "A",0x41
DCB 0xFF,0x00,0xFF,0x80,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x80
DCB 0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00 ; "B",0x42
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "C",0x43
DCB 0xFC,0x00,0xFE,0x00,0xC7,0x00,0xC3,0x80,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC1,0xC0,0xC3,0x80,0xC7,0x00,0xFE,0x00,0xFC,0x00,0x00,0x00,0x00,0x00 ; "D",0x44
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00 ; "E",0x45
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00,0x00 ; "F",0x46
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0
DCB 0xCF,0xC0,0xCF,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "G",0x47
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xFF,0xC0,0xFF,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "H",0x48
DCB 0x3F,0x00,0x3F,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x3F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "I",0x49
DCB 0x0F,0xC0,0x0F,0xC0,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00
DCB 0x03,0x00,0x03,0x00,0xC3,0x00,0xE7,0x00,0x7E,0x00,0x3C,0x00,0x00,0x00,0x00,0x00 ; "J",0x4a
DCB 0xC0,0xC0,0xC1,0xC0,0xC3,0x80,0xC7,0x00,0xCE,0x00,0xDC,0x00,0xF8,0x00,0xF8,0x00
DCB 0xDC,0x00,0xCE,0x00,0xC7,0x00,0xC3,0x80,0xC1,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "K",0x4b
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00 ; "L",0x4c
DCB 0xC0,0xC0,0xE1,0xC0,0xF3,0xC0,0xFF,0xC0,0xDE,0xC0,0xCC,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "M",0x4d
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE0,0xC0,0xF0,0xC0,0xF8,0xC0,0xDC,0xC0,0xCE,0xC0
DCB 0xC7,0xC0,0xC3,0xC0,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "N",0x4e
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "O",0x4f
DCB 0xFF,0x00,0xFF,0x80,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00 ; "P",0x50
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xCC,0xC0,0xCF,0xC0,0xC7,0x80,0xE7,0x80,0x7F,0xC0,0x3C,0xC0,0x00,0x00,0x00,0x00 ; "Q",0x51
DCB 0xFF,0x00,0xFF,0x80,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00
DCB 0xCC,0x00,0xCE,0x00,0xC7,0x00,0xC3,0x80,0xC1,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "R",0x52
DCB 0x3F,0xC0,0x7F,0xC0,0xE0,0x00,0xC0,0x00,0xC0,0x00,0xE0,0x00,0x7F,0x00,0x3F,0x80
DCB 0x01,0xC0,0x00,0xC0,0x00,0xC0,0x01,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00 ; "S",0x53
DCB 0xFF,0xC0,0xFF,0xC0,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00 ; "T",0x54
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "U",0x55
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xE1,0xC0,0x73,0x80,0x33,0x00,0x1E,0x00,0x0C,0x00,0x00,0x00,0x00,0x00 ; "V",0x56
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xCC,0xC0,0xCC,0xC0,0xED,0xC0,0xFF,0xC0,0x7F,0x80,0x33,0x00,0x00,0x00,0x00,0x00 ; "W",0x57
DCB 0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x73,0x80,0x3F,0x00,0x1E,0x00,0x0C,0x00,0x1E,0x00
DCB 0x3F,0x00,0x73,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "X",0x58
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x73,0x80,0x33,0x00
DCB 0x1E,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x00,0x00 ; "Y",0x59
DCB 0xFF,0xC0,0xFF,0xC0,0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00
DCB 0x38,0x00,0x70,0x00,0xE0,0x00,0xC0,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00 ; "Z",0x5a
DCB 0x3F,0x00,0x3F,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00
DCB 0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x3F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "[",0x5b
DCB 0x00,0x00,0x00,0x00,0xC0,0x00,0xE0,0x00,0x70,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00
DCB 0x07,0x00,0x03,0x80,0x01,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "\",0x5c
DCB 0x3F,0x00,0x3F,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00
DCB 0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x3F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "]",0x5d
DCB 0x0C,0x00,0x1E,0x00,0x33,0x00,0x73,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "^",0x5e
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00 ; "_",0x5f

DCB 0x38,0x00,0x3C,0x00,0x1C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "'",0x60
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; " ",0x61
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x3F,0x80,0x00,0xC0,0x00,0xC0,0x00 ; "a",0x62
DCB 0x3F,0xC0,0x7F,0xC0,0xC0,0xC0,0xC0,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0x63
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xCF,0x00,0xDF,0x80,0xF9,0xC0,0xF0,0xC0,0x00 ; "c",0x64
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "d",0x65
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x00,0xE0,0x00,0xC0,0x00,0x00 ; "e",0x66
DCB 0xC0,0x00,0xC0,0x00,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00 ; "f",0x67
DCB 0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x3C,0xC0,0x7E,0xC0,0xE7,0xC0,0xC3,0xC0,0x00 ; "g",0x68
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE0,0xC0,0x7F,0xC0,0x3F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "h",0x69
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xC0,0xC0,0xC0,0xC0,0xC0,0x00 ; "i",0x6a
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xC0,0x00,0x7F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "j",0x6b
DCB 0x0F,0x00,0x1F,0x80,0x39,0xC0,0x30,0xC0,0x30,0x00,0x30,0x00,0xFC,0x00,0xFC,0x00,0x00 ; "k",0x6c
DCB 0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00 ; "l",0x6d
DCB 0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE0,0xC0,0x00 ; "m",0x6e
DCB 0x7F,0xC0,0x3F,0xC0,0x00,0xC0,0x01,0xC0,0x3F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "n",0x6f
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xCF,0x00,0xDF,0x80,0xF9,0xC0,0xF0,0xC0,0x00 ; "o",0x70
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00 ; "p",0x71
DCB 0x0C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00,0x3C,0x00,0x3C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00 ; "q",0x72
DCB 0x03,0x00,0x03,0x00,0x00,0x00,0x00,0x00,0x0F,0x00,0x0F,0x00,0x03,0x00,0x03,0x00,0x03,0x00 ; "r",0x73
DCB 0x03,0x00,0x03,0x00,0xC3,0x00,0xE7,0x00,0x7E,0x00,0x3C,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "s",0x74
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC3,0x00,0xC7,0x00,0xC3,0x00,0x00,0x00,0x00,0x00,0x00 ; "t",0x75
DCB 0xF8,0x00,0xF8,0x00,0xDC,0x00,0xCE,0x00,0xC7,0x00,0xC3,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "u",0x76
DCB 0x3C,0x00,0x3C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00 ; "v",0x77
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x3F,0x00,0x3F,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00 ; "w",0x78
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xF3,0xC0,0xF3,0xC0,0xDE,0xC0,0xCC,0xC0,0x00,0x00,0x00 ; "x",0x79
DCB 0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00 ; "y",0x7a
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xCF,0x00,0xDF,0x80,0xF9,0xC0,0xF0,0xC0,0x00,0x00 ; "z",0x7b
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00 ; "{",0x7c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0 ; "|",0x7d
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x80,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "}",0x7e
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x80,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "~",0x7f
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0 ; " ",0x7f

Font_16x16_R

DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "A",0xc0
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "a",0xc1
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0xFF,0x00,0xFF,0x80 ; "Б",0xc2
DCB 0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0xc3
DCB 0xFF,0x00,0xFF,0x80,0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x00,0xFF,0x00 ; "Г",0xc4
DCB 0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "д",0xc5
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0xC0,0x00 ; "Е",0xc6
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00 ; "Ж",0xc7
DCB 0x03,0xC0,0x07,0xC0,0x0E,0xC0,0x1C,0xC0,0x38,0xC0,0x30,0xC0,0x30,0xC0,0x30,0xC0,0xC0 ; "З",0xc8
DCB 0x30,0xC0,0x30,0xC0,0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "И",0xc9
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x00 ; "Й",0xca
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x00 ; "К",0xcb
DCB 0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xED,0xC0,0x6D,0x80,0x3F,0x00,0x3F,0x00 ; "Л",0xcc
DCB 0x6D,0x80,0xED,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0x00,0x00,0x00,0x00 ; "М",0xcd
DCB 0xFF,0x00,0xFF,0x80,0x01,0xC0,0x00,0xC0,0x00,0xC0,0x01,0xC0,0x3F,0x00,0x3F,0x00 ; "Н",0xce
DCB 0x01,0xC0,0x00,0xC0,0x00,0xC0,0x01,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "О",0xcf
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xC3,0xC0,0xC7,0xC0,0xCE,0xC0,0xDC,0xC0 ; "П",0xd0
DCB 0xF8,0xC0,0xF0,0xC0,0xE0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "Р",0xd1
DCB 0x33,0x00,0x33,0x00,0x0C,0x00,0x0C,0x00,0xC0,0xC0,0xC1,0xC0,0xC3,0xC0,0xC7,0xC0 ; "С",0xd2
DCB 0xCE,0xC0,0xDC,0xC0,0xF8,0xC0,0xF0,0xC0,0xE0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "Т",0xd3
DCB 0xC0,0xC0,0xC1,0xC0,0xC3,0x80,0xC7,0x00,0xCE,0x00,0xDC,0x00,0xF0,0x00,0xF0,0x00 ; "У",0xd4
DCB 0xDC,0x00,0xCE,0x00,0xC7,0x00,0xC3,0x80,0xC1,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "Ф",0xd5
DCB 0x3F,0xC0,0x3F,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0,0x0C,0xC0 ; "Х",0xd6
DCB 0x0C,0xC0,0x0C,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x78,0xC0,0x30,0xC0,0x00,0x00,0x00,0x00 ; "Ц",0xd7
DCB 0xC0,0xC0,0xC0,0xC0,0xF3,0xC0,0xF3,0xC0,0xDE,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xC0 ; "Ч",0xd8
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Ш",0xd9
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Щ",0xda
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Ъ",0xdb
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00 ; "ь",0xdc
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Э",0xdd
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Ю",0xde
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "Я",0xdf
DCB 0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0 ; "а",0xe0

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DCB 0x0F,0x80,0x1F,0x80,0x38,0x00,0x70,0x00,0xE0,0x00,0xC0,0x00,0xFF,0x00,0xFF,0x80
DCB 0xC1,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "б",0xe1
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFC,0x00,0xFE,0x00,0xC3,0x00,0xC7,0x00
DCB 0xFC,0x00,0xFC,0x00,0xC7,0x00,0xC3,0x00,0xFE,0x00,0xFC,0x00,0x00,0x00,0x00,0x00 ; "в",0xe2
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x00,0xC3,0x00,0xC3,0x00
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00,0x00 ; "з",0xe3
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0F,0xC0,0x1F,0xC0,0x38,0xC0,0x30,0xC0
DCB 0x30,0xC0,0x30,0xC0,0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "д ",0xe
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xC0,0xC0,0xC0,0xC0
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0x00,0xE0,0x00,0x7F,0x00,0x3F,0x00,0x00,0x00,0x00,0x00 ; "е",0xe5
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xED,0xC0
DCB 0x3F,0x00,0x3F,0x00,0xED,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0x00,0x00,0x00,0x00 ; "ж",0xe6
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x80,0x00,0xC0,0x01,0xC0
DCB 0x0F,0x00,0x0F,0x00,0x01,0xC0,0x00,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00 ; "з ",0xe
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xC3,0xC0,0xC7,0xC0
DCB 0xCE,0xC0,0xDC,0xC0,0xF8,0xC0,0xF0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "u",0xe8
DCB 0x00,0x00,0x00,0x00,0x33,0x00,0x33,0x00,0x0C,0x00,0x0C,0x00,0xC0,0xC0,0xC0,0xC0
DCB 0xC3,0xC0,0xC7,0xC0,0xCE,0xC0,0xDC,0xC0,0xF8,0xC0,0xF0,0xC0,0x00,0x00,0x00,0x00 ; "й".0xe9
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC3,0x00,0xC7,0x00,0xCE,0x00,0xDC,0x00
DCB 0xF0,0x00,0xF0,0x00,0xDC,0x00,0xCE,0x00,0xC7,0x00,0xC3,0x00,0x00,0x00,0x00,0x00 ; "к",0xea
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0F,0xC0,0x1F,0xC0,0x38,0xC0,0x30,0xC0
DCB 0x30,0xC0,0x30,0xC0,0x30,0xC0,0x30,0xC0,0xE0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "л",0xeb
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xF3,0xC0,0xF3,0xC0
DCB 0xDE,0xC0,0xCC,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "м",0xec
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "H",0xed
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xE1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "о",0xee
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "n",0xef
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x80,0xC0,0xC0,0xC0,0xC0
DCB 0xFF,0x80,0xFF,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00 ; "p",0xf0
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xE1,0xC0,0xC0,0xC0
DCB 0xC0,0x00,0xC0,0x00,0xC0,0x00,0xE0,0x00,0x7F,0xC0,0x3F,0xC0,0x00,0x00,0x00,0x00 ; "c",0xf1
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0,0x0C,0x00,0x0C,0x00
DCB 0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00 ; "m",0xf2
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0x73,0x80,0x33,0x00,0x1E,0x00,0x0C,0x00,0x78,0x00,0x70,0x00,0x00,0x00,0x00,0x00 ; "y",0x/3
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xCC,0xC0,0xCC,0xC0
DCB 0xCC,0xC0,0xCC,0xC0,0x7F,0x80,0x3F,0x00,0x0C,0x00,0x0C,0x00,0x00,0x00,0x00,0x00 ; "ф",0xf4
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xE1,0xC0,0x73,0x80,0x33,0x00
DCB 0x0C,0x00,0x0C,0x00,0x33,0x00,0x73,0x80,0xE1,0xC0,0xC0,0xC0,0x00,0x00,0x00,0x00 ; "x",0xf5
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC3,0x00,0xC3,0x00,0xC3,0x00,0xC3,0x00
DCB 0x7F,0xC0,0x3F,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00 ; "u",0xf6
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0x7F,0xC0,0x3F,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00 ; "y",0xf7
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0
DCB 0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xFF,0xC0,0xFF,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "w",0xf8
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0,0xCC,0xC0
DCB 0xCC,0xC0,0xCC,0xC0,0xFF,0xC0,0xFF,0xC0,0x00,0xC0,0x00,0xC0,0x00,0x00,0x00,0x00 ; "w",0xf9
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xF0,0x00,0xF0,0x00,0x30,0x00,0x30,0x00
DCB 0x3F,0x00,0x3F,0x80,0x30,0xC0,0x30,0xC0,0x3F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "ь",0xfa
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0xF0,0xC0,0xF8,0xC0,0xCC,0xC0,0xCC,0xC0,0xF8,0xC0,0xF0,0xC0,0x00,0x00,0x00,0x00 ; "ы",0xfb
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00,0xC0,0x00
DCB 0xFF,0x00,0xFF,0x80,0xC0,0xC0,0xC0,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00 ; "ь",0xfc
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x00,0x7F,0x80,0xC0,0xC0,0xC0,0xC0
DCB 0x0F,0xC0,0x0F,0xC0,0xC0,0xC0,0xC0,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00 ; "э",0xfd
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC3,0x00,0xC7,0x80,0xCC,0xC0,0xCC,0xC0
DCB 0xFC,0xC0,0xFC,0xC0,0xCC,0xC0,0xCC,0xC0,0xC7,0x80,0xC3,0x00,0x00,0x00,0x00,0x00 ; "ю",0xfe
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0xC0,0x7F,0xC0,0xC0,0xC0,0xC0,0xC0
DCB 0x7F,0xC0,0x3F,0xC0,0x0C,0xC0,0x1C,0xC0,0x38,0xC0,0x30,0xC0,0x00,0x00,0x00,0x00 ; "я",0xff

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; ****

DCB 24 ; Высота (бит в символе)

DCB 16 ; Ширина (бит в символе)

Font_16x24

Font_16x24_L

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; " ",0x20
DCB 0x0F,0xC0,0x0F,0xC0,0x0F,0xC0,0x0F,0xC0,0x0F,0xC0,0x0F,0xC0,0x0F,0xC0,0x07,0x80
DCB 0x07,0x80,0x07,0x80,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x00,0x00
DCB 0x00,0x00,0x03,0x00,0x07,0x80,0x07,0x80,0x03,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "! ",0x21
DCB 0x3C,0xF0,0x7D,0xF0,0x3C,0xF0,0x1C,0x70,0x0C,0x30,0x0C,0x30,0x0C,0x30,0x1C,0x70
DCB 0x18,0x60,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "" "",0x22
DCB 0x00,0x00,0x19,0x80,0x19,0x80,0x19,0x80,0x19,0x80,0x19,0x80,0x19,0x80,0xFF,0xF0,0xFF,0xF0
DCB 0xFF,0xF0,0x19,0x80,0x19,0x80,0x19,0x80,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x19,0x80
DCB 0x19,0x80,0x19,0x80,0x19,0x80,0x19,0x80,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "# ",0x23
DCB 0x06,0x00,0x06,0x00,0x06,0x00,0x3F,0xE0,0x7F,0xE0,0x7F,0xE0,0xE6,0x00,0xC6,0x00
DCB 0xE6,0x00,0x7F,0x80,0x3F,0xC0,0x1F,0xE0,0x06,0x70,0x06,0x30,0x06,0x70,0x7F,0xE0
DCB 0x7F,0xC0,0x7F,0x80,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x00,0x00,0x00,0x00 ; "\$ ",0x24
DCB 0x7C,0x00,0x7C,0x00,0x6C,0x30,0x6C,0x70,0x7C,0xF0,0x7C,0xE0,0x01,0xC0,0x03,0x80
DCB 0x03,0x80,0x07,0x00,0x0E,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x38,0x00,0x73,0xE0
DCB 0xE3,0xE0,0xE3,0x60,0xC3,0x60,0x03,0xE0,0x03,0xE0,0x00,0x00,0x00,0x00,0x00,0x00 ; "% ",0x25
DCB 0x3C,0x00,0x3C,0x00,0x3E,0x00,0xC3,0x00,0xC3,0x00,0xC3,0x00,0xC6,0x00,0xFE,0x00
DCB 0x78,0x00,0x3C,0x00,0x7E,0x00,0xE7,0x60,0xC3,0xE0,0xC1,0xC0,0xC1,0x80,0xC1,0x80
DCB 0xC3,0xC0,0xE7,0xE0,0x7E,0x70,0x3C,0x30,0x18,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "& ",0x26
DCB 0x1C,0x00,0x3E,0x00,0x3F,0x00,0x3F,0x00,0x1F,0x00,0x03,0x00,0x07,0x00,0x0E,0x00
DCB 0x0C,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "' ",0x27
DCB 0x03,0x00,0x07,0x00,0x07,0x00,0x0E,0x00,0x1C,0x00,0x1C,0x00,0x38,0x00,0x30,0x00
DCB 0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x30,0x00,0x38,0x00,0x38,0x00,0x1C,0x00
DCB 0x0E,0x00,0x0E,0x00,0x07,0x00,0x03,0x00,0x03,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "(",0x28
DCB 0x30,0x00,0x38,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x0E,0x00,0x07,0x00,0x03,0x00
DCB 0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x03,0x00,0x07,0x00,0x07,0x00,0x0E,0x00
DCB 0x1C,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ") ",0x29
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x06,0x00,0xC6,0x30,0xE6,0x70,0x66,0x60,0x36,0xC0
DCB 0x3F,0xC0,0x1F,0x80,0x0F,0x00,0x1F,0x80,0x3F,0xC0,0x76,0xE0,0xE6,0x70,0xC6,0x30
DCB 0x06,0x00,0x06,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "*" ",0x2a
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "+" ",0x2b
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x38,0x00,0x7C,0x00,0x7E,0x00,0x3E,0x00,0x06,0x00,0x06,0x00
DCB 0x0E,0x00,0x1C,0x00,0x18,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ", ",0x2c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0xFF,0xF8,0xFF,0xF8,0xFF,0xF8,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "- ",0x2d
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x0C,0x00,0x1E,0x00,0x3F,0x00,0x7F,0x80,0xFF,0xC0
DCB 0xFF,0xC0,0x7F,0x80,0x3F,0x00,0x1E,0x00,0x0C,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ". ",0x2e
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x18,0x00,0x38,0x00,0x78,0x00,0xF0,0x01,0xE0
DCB 0x03,0xC0,0x07,0x80,0x0F,0x00,0x1E,0x00,0x3C,0x00,0x78,0x00,0xF0,0x00,0xE0,0x00
DCB 0xC0,0x00,0x80,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "/" ",0x2f
DCB 0x1F,0x80,0x3F,0xC0,0x79,0xE0,0xF0,0x70,0xE0,0x70,0xC0,0x70,0xC0,0xF0,0xC1,0xF0
DCB 0xC3,0xB0,0xC7,0x30,0xCE,0x30,0xDC,0x30,0xF8,0x30,0xF0,0x30,0xE0,0x30,0xE0,0x30
DCB 0xE0,0x70,0xF0,0xF0,0x79,0xE0,0x3F,0xC0,0x0F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "0 ",0x30
DCB 0x06,0x00,0x0E,0x00,0x1E,0x00,0x3E,0x00,0x7E,0x00,0xF6,0x00,0x06,0x00,0x06,0x00
DCB 0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00
DCB 0x06,0x00,0x06,0x00,0x3F,0xC0,0x3F,0xC0,0x3F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "1 ",0x31
DCB 0x1F,0x80,0x3F,0xC0,0x3F,0xC0,0x70,0xE0,0xE0,0x60,0xC0,0x60,0x00,0x60,0x00,0xE0
DCB 0x00,0xE0,0x01,0xC0,0x03,0x80,0x03,0x80,0x07,0x00,0x0E,0x00,0x0E,0x00,0x1C,0x00
DCB 0x1C,0x00,0x1C,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00,0x00,0x00,0x00,0x00 ; "2 ",0x32
DCB 0xFF,0xE0,0xFF,0xE0,0xFF,0xE0,0x00,0xC0,0x01,0xC0,0x03,0x80,0x07,0x00,0x06,0x00
DCB 0x1E,0x00,0x1F,0x00,0x07,0x80,0x03,0xC0,0x01,0xE0,0x00,0xF0,0x00,0x70,0x80,0x70
DCB 0xC0,0x70,0xE0,0xE0,0xF1,0xC0,0x7F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "3 ",0x33
DCB 0x00,0xC0,0x01,0xC0,0x03,0xC0,0x07,0xC0,0x0F,0xC0,0x1F,0xC0,0x3D,0xC0,0x79,0xC0
DCB 0xF1,0xC0,0xE1,0xC0,0xC1,0xC0,0xC1,0xC0,0xC1,0xC0,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0
DCB 0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "4 ",0x34

DCB 0xFF,0xE0,0xFF,0xE0,0xFF,0xE0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xFF,0x80,0xFF,0xC0
DCB 0xFF,0xE0,0xE0,0xF0,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0xC0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "5",0x35
DCB 0x0F,0xC0,0x1F,0xE0,0x3C,0x70,0x78,0x30,0xF0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "6",0x36
DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x70,0x00,0x70,0x00,0xF0,0x01,0xE0,0x03,0xC0
DCB 0x07,0x80,0x0F,0x00,0x1E,0x00,0x3C,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00
DCB 0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "7",0x37
DCB 0x0F,0x00,0x1F,0x80,0x3F,0xC0,0x70,0xE0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0xF0
DCB 0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x30,0xC0,0x70,0xE0,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xF0,0xF0,0x70,0xE0,0x3F,0xC0,0x1F,0x80,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "8",0x38
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xC0,0xF0,0xE0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xF0,0xF0,0x7F,0xF0,0x3F,0xF0,0x1F,0xF0,0x00,0x70,0x00,0xF0,0x01,0xE0,0x03,0xC0
DCB 0x07,0x80,0x0F,0x00,0x1E,0x00,0x7C,0x00,0x78,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "9",0x39
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x1E,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00
DCB 0x1E,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1E,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00
DCB 0x3F,0x00,0x1E,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ":",0x3a
DCB 0x00,0x00,0x00,0x00,0x1E,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00,0x1E,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x1E,0x00,0x3F,0x00,0x3F,0x00,0x3F,0x00,0x07,0x00
DCB 0x07,0x00,0x0E,0x00,0x1C,0x00,0x38,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ";",0x3b
DCB 0x00,0x30,0x00,0x70,0x00,0xE0,0x01,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00
DCB 0x38,0x00,0x70,0x00,0xE0,0x00,0x70,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00
DCB 0x03,0x80,0x01,0xC0,0x00,0xE0,0x00,0x70,0x00,0x30,0x00,0x00,0x00,0x00,0x00,0x00 ; "<",0x3c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xF0,0xFF,0xF0
DCB 0xFF,0xF0,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "=",0x3d
DCB 0xC0,0x00,0xE0,0x00,0x70,0x00,0x38,0x00,0x1C,0x00,0x0E,0x00,0x07,0x00,0x03,0x80
DCB 0x01,0xC0,0x00,0xE0,0x00,0x70,0x00,0xE0,0x01,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00
DCB 0x1C,0x00,0x38,0x00,0x70,0x00,0xE0,0x00,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; ">",0x3e
DCB 0x0F,0x80,0x1F,0xC0,0x38,0xE0,0x70,0x70,0xE0,0x30,0xC0,0x30,0x00,0x70,0x00,0xE0
DCB 0x01,0xC0,0x03,0x80,0x07,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x06,0x00
DCB 0x00,0x00,0x06,0x00,0x0F,0x00,0x0F,0x00,0x06,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "?",0x3f
DCB 0x1F,0x80,0x3F,0xC0,0x79,0xE0,0xF0,0xF0,0xE0,0x70,0xC0,0x30,0x00,0x30,0x00,0x30
DCB 0x00,0x30,0x1E,0x30,0x3E,0x30,0x7E,0x30,0xE6,0x30,0xC6,0x30,0xC6,0x30,0xC6,0x30
DCB 0xE6,0x70,0xF6,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "@",0x40
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "A",0x41
DCB 0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0
DCB 0xFF,0xE0,0xFF,0xC0,0xFF,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0xF0,0xE1,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "B",0x42
DCB 0x1F,0xC0,0x3F,0xE0,0x7F,0xF0,0xF0,0xF0,0xE0,0x70,0xE0,0x30,0xE0,0x30,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x30,0xE0,0x30
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xF0,0x3F,0xE0,0x1F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "C",0x43
DCB 0xFE,0x00,0xFF,0x00,0xFF,0x80,0xE3,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0
DCB 0xE1,0xE0,0xE3,0xC0,0xFF,0x80,0xFF,0x00,0xFE,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "D",0x44
DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xFF,0xC0,0xFF,0xC0,0xFF,0xC0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00,0x00,0x00,0x00,0x00 ; "E",0x45
DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xFF,0xC0,0xFF,0xC0,0xFF,0xC0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00,0x00 ; "F",0x46
DCB 0x1F,0xC0,0x3F,0xE0,0x7F,0xF0,0xF8,0xF0,0xF0,0x70,0xE0,0x30,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE3,0xF0,0xE3,0xF0,0xE3,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xF0,0x70,0xF8,0xF0,0x7F,0xF0,0x3F,0xE0,0x1F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "G",0x47
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "H",0x48
DCB 0x7F,0xC0,0x7F,0xC0,0x7F,0xC0,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00
DCB 0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00
DCB 0x0E,0x00,0x0E,0x00,0x7F,0xC0,0x7F,0xC0,0x7F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "I",0x49
DCB 0x07,0xF0,0x07,0xF0,0x07,0xF0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0
DCB 0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0
DCB 0xE1,0xC0,0xF3,0xC0,0x7F,0x80,0x3F,0x00,0x1E,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "J",0x4a

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DCB 0xE0,0x70,0xE0,0xF0,0xE1,0xE0,0xE3,0xC0,0xE7,0x80,0xEF,0x00,0xFE,0x00,0xFC,0x00
DCB 0xF8,0x00,0xF0,0x00,0xF0,0x00,0xF8,0x00,0xFC,0x00,0xFE,0x00,0xEF,0x00,0xE7,0x80
DCB 0xE3,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x30,0x00,0x00,0x00,0x00,0x00 ;"K",0x4b
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00
DCB 0xE0,0x00,0xE0,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00,0x00,0x00,0x00,0x00 ;"L",0x4c
DCB 0xC0,0x18,0xE0,0x38,0xF0,0x78,0xF8,0xF8,0xFD,0xF8,0xFF,0xF8,0xEF,0xB8,0xE7,0x38
DCB 0xE2,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0x38
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ;"M",0x4d
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0x70,0xF8,0x70,0xFC,0x70
DCB 0xFE,0x70,0xEF,0x70,0xE7,0xF0,0xE3,0xF0,0xE1,0xF0,0xE0,0xF0,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ;"N",0x4e
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ;"O",0x4f
DCB 0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ;"P",0x50
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE6,0xF0,0xE7,0xE0,0xE3,0xC0,0xE1,0x80
DCB 0xE1,0xC0,0xF3,0xC0,0x7F,0xE0,0x3F,0x70,0x1E,0x30,0x00,0x00,0x00,0x00,0x00,0x00 ;"Q",0x51
DCB 0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0
DCB 0xE1,0xE0,0xFF,0xC0,0xFF,0x80,0xFF,0x00,0xFC,0x00,0xFE,0x00,0xEF,0x00,0xE7,0x80
DCB 0xE3,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x30,0x00,0x00,0x00,0x00,0x00,0x00 ;"R",0x52
DCB 0x1F,0xE0,0x3F,0xF0,0x7F,0xF0,0xF0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xF0,0x00,0x7F,0x80,0x3F,0xC0,0x1F,0xE0,0x00,0xF0,0x00,0x70,0x00,0x70,0x00,0x70
DCB 0x00,0x70,0x00,0xF0,0xFF,0xE0,0xFF,0xC0,0x7F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ;"S",0x53
DCB 0xFF,0xF8,0xFF,0xF8,0xFF,0xF8,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00 ;"T",0x54
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ;"U",0x55
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0xF0,0xF0,0xF0
DCB 0x79,0xE0,0x39,0xC0,0x1F,0x80,0x0F,0x00,0x06,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ;"V",0x56
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38
DCB 0xE0,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xF7,0x78,0xFF,0xF8,0x7F,0xF0,0x3D,0xE0,0x18,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ;"W",0x57
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0xF0,0x79,0xF0,0x3F,0xE0,0x1F,0xC0,0x0F,0x80
DCB 0x07,0x00,0x07,0x00,0x0F,0x80,0x1F,0xC0,0x3F,0xE0,0x79,0xF0,0xF0,0xF0,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ;"X",0x58
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0xF0
DCB 0xF0,0xF0,0x79,0xE0,0x3F,0xC0,0x1F,0x80,0x0F,0x00,0x0F,0x00,0x0F,0x00,0x0F,0x00
DCB 0x0F,0x00,0x0F,0x00,0x0F,0x00,0x0F,0x00,0x0F,0x00,0x0F,0x00,0x00,0x00,0x00,0x00 ;"Y",0x59
DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x70,0x00,0x70,0x00,0xF0,0x01,0xE0,0x03,0xC0
DCB 0x07,0x80,0x0F,0x00,0x1E,0x00,0x3C,0x00,0x7C,0x00,0xF8,0x00,0xF0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xFF,0xE0,0xFF,0xE0,0xFF,0xE0,0x00,0x00,0x00,0x00,0x00,0x00 ;"Z",0x5a
DCB 0x3F,0xC0,0x3F,0xC0,0x3F,0xC0,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00
DCB 0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00
DCB 0x38,0x00,0x38,0x00,0x3F,0xC0,0x3F,0xC0,0x3F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ;"[" ,0x5b
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0x00,0xE0,0x00,0xF0,0x00,0x78,0x00
DCB 0x3C,0x00,0x1E,0x00,
```


DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x00,0x3F,0x80,0x3F,0xC0
DCB 0x00,0xE0,0x00,0x60,0x00,0x60,0x0F,0xE0,0x1F,0xE0,0x3F,0xE0,0x70,0xE0,0xE0,0x60
DCB 0xE0,0x60,0xF0,0xE0,0x7F,0xC0,0x3F,0x80,0x1F,0x00,0x00,0x00,0x00,0x00,0x00 ; "a",0x61
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE7,0x80,0xEF,0xC0
DCB 0xFF,0xC0,0xFC,0xE0,0xF8,0x70,0xF0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0x7F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0x62
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0F,0x80,0x1F,0xC0,0x3F,0xE0
DCB 0x78,0xF0,0xF0,0x70,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x70,0xE0,0x70
DCB 0xF0,0x70,0x78,0xF0,0x3F,0xE0,0x1F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "c",0x63
DCB 0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x1E,0x70,0x3F,0x70
DCB 0x7F,0xF0,0xF3,0xF0,0xE1,0xF0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xF0,0x70,0x78,0xF0,0x3F,0xF0,0x1F,0xF0,0x0F,0xF0,0x00,0x00,0x00,0x00,0x00,0x00 ; "d",0x64
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0,0x7F,0xE0
DCB 0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xF0,0xF0,0xFF,0xF0,0xFF,0xF0,0xFF,0xE0,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0x7F,0xC0,0x3F,0xC0,0x1F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "e",0x65
DCB 0x07,0x80,0x0F,0xC0,0x1F,0xE0,0x3C,0xF0,0x38,0x70,0x38,0x30,0x38,0x00,0x38,0x00
DCB 0x38,0x00,0xFE,0x00,0xFE,0x00,0xFE,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00
DCB 0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "f",0x66
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xF0,0x70,0x78,0x70,0x3F,0xF0,0x1F,0xF0,0x0F,0xF0,0x00,0x70
DCB 0x00,0xF0,0x01,0xE0,0x1F,0xC0,0x3F,0x80,0x3F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "g",0x67
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE7,0x80,0xEF,0xC0
DCB 0xFF,0xE0,0xFC,0xF0,0xF8,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "h",0x68
DCB 0x06,0x00,0x0F,0x00,0x0F,0x00,0x06,0x00,0x00,0x00,0x00,0x00,0x1F,0x00,0x1F,0x00
DCB 0x1F,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x1F,0xC0,0x1F,0xC0,0x1F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "i",0x69
DCB 0x01,0x00,0x03,0x80,0x07,0xC0,0x03,0x80,0x01,0x00,0x00,0x00,0x07,0xC0,0x07,0xC0
DCB 0x07,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0x01,0xC0,0xC1,0xC0
DCB 0xE1,0xC0,0xF3,0xC0,0x7F,0x80,0x3F,0x00,0x1E,0x00,0x00,0x00,0x00,0x00,0x00 ; "j",0x6a
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0xC0,0xE1,0xC0
DCB 0xE3,0xC0,0xE7,0x80,0xEF,0x00,0xFE,0x00,0xFC,0x00,0xFC,0x00,0xFE,0x00,0xEF,0x00
DCB 0xE7,0x80,0xE3,0xC0,0xE1,0xE0,0xE0,0xE0,0xE0,0x60,0x00,0x00,0x00,0x00,0x00 ; "k",0x6b
DCB 0x3F,0x00,0x3F,0x00,0x3F,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
DCB 0x07,0x00,0x07,0x00,0x3F,0xE0,0x3F,0xE0,0x3F,0xE0,0x00,0x00,0x00,0x00,0x00,0x00 ; "L",0x6c
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x79,0xE0,0xF9,0xF0
DCB 0xFF,0xF0,0xEF,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70
DCB 0xE6,0x70,0xE6,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "m",0x6d
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE3,0x80,0xE7,0xC0
DCB 0xEF,0xE0,0xFC,0xF0,0xF8,0x70,0xF0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "n",0x6e
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0F,0x00,0x1F,0x80,0x3F,0xC0
DCB 0x79,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xF0,0xF0,0x79,0xE0,0x3F,0xC0,0x1F,0x80,0x0F,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "o",0x6f
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x80,0xFF,0xC0,0xFF,0xE0
DCB 0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00 ; "p",0x70
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0,0x7F,0xE0
DCB 0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xF0,0x70,0x7F,0xF0,0x3F,0xF0,0x1F,0xF0,0x00,0x70
DCB 0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "q",0x71
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE3,0x80,0xE7,0xC0,0xEF,0xE0
DCB 0xFC,0xF0,0xF8,0x70,0xF0,0x30,0xE0,0x30,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00 ; "r",0x72
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0xC0,0x3F,0xC0,0x7F,0xC0
DCB 0xE0,0x00,0xC0,0x00,0xE0,0x00,0xFF,0x80,0x7F,0xC0,0x3F,0xE0,0x00,0x70,0x00,0x30
DCB 0x00,0x30,0x00,0x70,0x7F,0xE0,0x7F,0xC0,0x7F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "s",0x73
DCB 0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0xFE,0x00,0xFE,0x00
DCB 0xFE,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x30
DCB 0x38,0x70,0x3C,0xE0,0x1F,0xC0,0x0F,0x80,0x07,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "t",0x74
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0
DCB 0xF1,0xF0,0x73,0xF0,0x3F,0x70,0x1E,0x70,0x1E,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "u",0x75
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0x70,0xE0,0x39,0xC0,0x1F,0x80,0x0F,0x00,0x06,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "v",0x76

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70,0xE6,0x70
 DCB 0xE6,0x70,0xEF,0x70,0x7F,0xE0,0x39,0xC0,0x19,0x80,0x00,0x00,0x00,0x00,0x00 ; "w",0x77
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0x30,0xC0,0x30
 DCB 0xE0,0x70,0x70,0xE0,0x39,0xC0,0x1F,0x80,0x0F,0x00,0x06,0x00,0x0F,0x00,0x1F, 0x80
 DCB 0x39,0xC0,0x70,0xE0,0xE0,0x70,0xC0,0x30,0xC0,0x30,0x00,0x00,0x00,0x00,0x00 ; "x",0x78
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0x70,0x7F,0xF0,0x3F,0xF0,0x1F,0xF0,0x00,0x70
 DCB 0x00,0x70,0x00,0xF0,0x3F,0xE0,0x3F,0xC0,0x3F,0x80,0x00,0x00,0x00,0x00,0x00 ; "y",0x79
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xE0,0xFF,0xE0
 DCB 0xFF,0xE0,0x00,0x60,0x00,0xE0,0x01,0xC0,0x03,0x80,0x07,0x00,0x0E,0x00,0x1C,0x00
 DCB 0x38,0x00,0x70,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00,0x00,0x00,0x00 ; "z",0x7a
 DCB 0x01,0x80,0x03,0x80,0x07,0x80,0x07,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x0E,0x00
 DCB 0x0E,0x00,0x1C,0x00,0x18,0x00,0x1C,0x00,0x0E,0x00,0x0E,0x00,0x06,0x00,0x06,0x00
 DCB 0x06,0x00,0x07,0x00,0x07,0x80,0x03,0x80,0x01,0x80,0x00,0x00,0x00,0x00,0x00 ; "{" ,0x7b
 DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
 DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00
 DCB 0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00 ; "L",0x7c
 DCB 0x18,0x00,0x1C,0x00,0x1E,0x00,0x0E,0x00,0x06,0x00,0x06,0x00,0x06,0x00,0x07,0x00
 DCB 0x07,0x00,0x03,0x80,0x01,0x80,0x03,0x80,0x07,0x00,0x07,0x00,0x06,0x00,0x06,0x00
 DCB 0x06,0x00,0x0E,0x00,0x1E,0x00,0x1C,0x00,0x18,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "}" ,0x7d
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x10,0x80,0x39,0xC0,0x7F,0xE0,0xEF,0x70,0xC6,0x30
 DCB 0x86,0x10,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "~",0x7e
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00
 DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; " ",0x7f

Font_16x24_R

DCB 0x0F,0x00,0x1F,0x80,0x3F,0xC0,0x79,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00 ; "A",0xc0
 DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x00,0xE0,0x00,0xE0,0x00
 DCB 0xE0,0x00,0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0xF0,0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80,0x00,0x00,0x00,0x00,0x00 ; "B",0xc1
 DCB 0xFE,0x00,0xFF,0x00,0xFF,0x80,0xE3,0xC0,0xE1,0xE0,0xE0,0xE0,0xE0,0xE0,0xE1,0xE0
 DCB 0xE3,0xC0,0xFF,0x80,0xFF,0x80,0xFF,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0xF0,0xE1,0xE0,0xFF,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "B",0xc2
 DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x00,0xE0,0x00
 DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
 DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00,0x00 ; "Г",0xc3
 DCB 0x01,0xF0,0x03,0xF0,0x07,0xF0,0x0F,0x70,0x1E,0x70,0x3C,0x70,0x38,0x70,0x38,0x70
 DCB 0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x7F,0xF0
 DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00 ; "Д",0xc4
 DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
 DCB 0xE0,0x00,0xFF,0xC0,0xFF,0xC0,0xFF,0xC0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
 DCB 0xE0,0x00,0xE0,0x00,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0x00,0x00,0x00,0x00,0x00 ; "E",0xc5
 DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xF7,0x78
 DCB 0x77,0x70,0x3F,0xE0,0x1F,0xC0,0x3F,0xE0,0x77,0x70,0xF7,0x78,0xE7,0x38,0xE7,0x38
 DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0x00,0x00,0x00,0x00,0x00 ; "Ж",0xc6
 DCB 0xFF,0x00,0xFF,0x80,0xFF,0xC0,0x01,0xE0,0x00,0xF0,0x00,0x70,0x00,0x70,0x00,0xF0
 DCB 0x01,0xE0,0x3F,0xC0,0x3F,0x80,0x3F,0xC0,0x01,0xE0,0x00,0xF0,0x00,0x70,0x00,0x70
 DCB 0x00,0xF0,0x01,0xE0,0xFF,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "З",0xc7
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0,0xE1,0xF0,0xE3,0xF0
 DCB 0xE3,0xF0,0xE7,0x70,0xEE,0x70,0xEE,0x70,0xFC,0x70,0xF8,0x70,0xF8,0x70,0xF0,0x70
 DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00 ; "И",0xc8
 DCB 0x19,0x80,0x19,0x80,0x19,0x80,0x1F,0x80,0x0F,0x00,0x06,0x00,0xE0,0x70,0xE0,0x70
 DCB 0xE0,0xF0,0xE1,0xF0,0xE3,0xF0,0xE3,0xF0,0xE7,0x70,0xEE,0x70,0xEE,0x70,0xFC,0x70
 DCB 0xF8,0x70,0xF8,0x70,0xF0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00 ; "Й",0xc9
 DCB 0xE0,0x30,0xE0,0x30,0xE0,0x70,0xE0,0xE0,0xE1,0xC0,0xE3,0x80,0xE7,0x00,0xEE,0x00
 DCB 0xFC,0x00,0xF8,0x00,0xF0,0x00,0xF8,0x00,0xFC,0x00,0xEE,0x00,0xE7,0x00,0xE3,0x80
 DCB 0xE1,0xC0,0xE0,0xE0,0xE0,0x70,0xE0,0x30,0xE0,0x30,0x00,0x00,0x00,0x00,0x00 ; "K",0xca
 DCB 0x3F,0xF0,0x3F,0xF0,0x3F,0xF0,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70
 DCB 0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70,0x0E,0x70
 DCB 0xCE,0x70,0xEE,0x70,0xFE,0x70,0x7C,0x70,0x38,0x70,0x00,0x00,0x00,0x00,0x00 ; "Л",0xcb

DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xF0,0x78,0xF8,0xF8,0xFD,0xF8,0xEF,0xB8,0xE7,0x38
DCB 0xE2,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ; "M",0xccc
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "H",0xcd
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "O",0xce
DCB 0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "Π",0xcf
DCB 0xFF,0x80,0xFF,0xC0,0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0xF0
DCB 0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00 ; "P",0xd0
DCB 0x1F,0x80,0x3F,0xC0,0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "C",0xd1
DCB 0xFF,0xE0,0xFF,0xE0,0xFF,0xE0,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00
DCB 0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00
DCB 0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00 ; "T",0xd2
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xF0,0x70,0x78,0x70,0x3C,0xF0,0x1F,0xE0,0x0F,0xC0,0x07,0x80
DCB 0x0F,0x00,0x1E,0x00,0x3C,0x00,0x78,0x00,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "Y",0xd3
DCB 0x07,0x00,0x07,0x00,0x0F,0x80,0x1F,0xC0,0x3F,0xE0,0x77,0x70,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xF7,0x78,0x7F,0xF0,0x3F,0xE0
DCB 0x1F,0xC0,0x0F,0x80,0x07,0x00,0x07,0x00,0x07,0x00,0x07,0x00,0x00,0x00,0x00,0x00 ; "ϕ",0xd4
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0xF0,0x79,0xE0,0x3F,0xC0,0x1F,0x80
DCB 0x0F,0x00,0x0F,0x00,0x0F,0x00,0x0F,0x00,0x1F,0x80,0x3F,0xC0,0x79,0xE0,0xF0,0xF0
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "X",0xd5
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xFF,0xF0
DCB 0xFF,0xF0,0xFF,0xF0,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x00,0x00,0x00 ; "Ц",0xd6
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xF0,0x70
DCB 0x78,0x70,0x3F,0xF0,0x1F,0xF0,0x0F,0xF0,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70
DCB 0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "Ч",0xd7
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xFF,0xF8,0xFF,0xF8,0xFF,0xF8,0xF8,0x00,0x00,0x00,0x00,0x00,0x00 ; "Ш",0xd8
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xFF,0xF8
DCB 0xFF,0xF8,0xFF,0xF8,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x00,0x00,0x00 ; "Щ",0xd9
DCB 0xF8,0x00,0xF8,0x00,0xF8,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x38,0x00
DCB 0x3F,0x80,0x3F,0xC0,0x3F,0xE0,0x38,0xF0,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70
DCB 0x38,0x70,0x38,0xF0,0x3F,0xE0,0x3F,0xC0,0x3F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0xda
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38
DCB 0xE0,0x38,0xF8,0x38,0xFC,0x38,0xFE,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xFE,0x38,0xFC,0x38,0xF8,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ; "bl",0xdb
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0xFF,0x00,0xFF,0x80
DCB 0xFF,0xC0,0xE1,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0xF0,0xE1,0xE0,0xFF,0xC0,0xFF,0x80,0x7F,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0xdc
DCB 0x1F,0x00,0x3F,0x80,0x7F,0xC0,0xF1,0xE0,0xE0,0xF0,0xC0,0x70,0x00,0x70,0x00,0x70
DCB 0x00,0x70,0x07,0xF0,0x07,0xF0,0x07,0xF0,0x00,0x70,0x00,0x70,0x00,0x70,0xC0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "Э",0xdd
DCB 0xE0,0xC0,0xE1,0xE0,0xE3,0xF0,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xFF,0x38,0xFF,0x38,0xFF,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE3,0xF0,0xE1,0xE0,0xE0,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "Ю",0xde
DCB 0x1F,0xF0,0x3F,0xF0,0x7F,0xF0,0xF0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0x70,0x70,0x3F,0xF0,0x1F,0xF0,0x0F,0xF0,0x03,0xF0,0x07,0x70,0x0E,0x70,0x1C,0x70
DCB 0x38,0x70,0x70,0x70,0xE0,0x70,0xC0,0x70,0x80,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "Я",0xdf
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x3F,0x80,0x3F,0xC0
DCB 0x3F,0xE0,0x00,0xF0,0x00,0x70,0x00,0x70,0x1F,0xF0,0x3F,0xF0,0x7F,0xF0,0xF0,0x70
DCB 0xE0,0x70,0xF0,0x70,0x7F,0xF0,0x3F,0xF0,0x1F,0xF0,0x00,0x00,0x00,0x00,0x00,0x00 ; "a",0xe0
DCB 0x03,0xE0,0x07,0xE0,0x0F,0xE0,0x1E,0x00,0x3C,0x00,0x78,0x00,0xF0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xFF,0xC0,0xFF,0xE0,0xFF,0xF0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "6",0xe1

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFE,0x00,0xFF,0x00,0xFF,0x80
DCB 0xFF,0xC0,0xE0,0xC0,0xE1,0xC0,0xE3,0x80,0xFF,0x00,0xFE,0x00,0xFF,0xC0,0xE3,0xE0
DCB 0xE0,0x60,0xE0,0xE0,0xFF,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00 ; "b",0xe2
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xC0,0xFF,0xC0
DCB 0xFF,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "z",0xe3
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x07,0xF0,0x0F,0xF0
DCB 0x1F,0xF0,0x3C,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x3F,0xF0
DCB 0x7F,0xF0,0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "d",0xe4
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0
DCB 0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x00
DCB 0xF0,0x00,0x78,0x00,0x3F,0xC0,0x1F,0xC0,0x1F,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "e",0xe5
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0x77,0x70,0x3F,0xE0,0x1F,0xC0,0x3F,0xE0,0x77,0x70
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ; "ж",0xe6
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,0xFF,0x80
DCB 0xFF,0xC0,0x00,0xE0,0x00,0x70,0x00,0xE0,0x1F,0xC0,0x1F,0x80,0x1F,0xC0,0x00,0xE0
DCB 0x00,0x70,0x00,0xE0,0xFF,0xC0,0xFF,0x80,0xFF,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "з",0xe7
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
DCB 0xE0,0xF0,0xE1,0xF0,0xE1,0xF0,0xE3,0xF0,0xE7,0x70,0xE7,0x70,0xEE,0x70,0xFC,0x70
DCB 0xFC,0x70,0xF8,0x70,0xF0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "u",0xe8
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x33,0x00,0x33,0x00,0x3F,0x00,0x1E,0x00,0x0C,0x00
DCB 0x0C,0x00,0xC0,0xC0,0xC0,0xC0,0xC1,0xC0,0xC1,0xC0,0xC3,0xC0,0xC7,0xC0,0xCE,0xC0
DCB 0xCC,0xC0,0xDC,0xC0,0xF8,0xC0,0xF0,0xC0,0xE0,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "й",0xe9
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x60,0xE0,0xE0
DCB 0xE1,0xC0,0xE3,0x80,0xE7,0x00,0xEE,0x00,0xFC,0x00,0xF8,0x00,0xFC,0x00,0xEE,0x00
DCB 0xE7,0x00,0xE3,0x80,0xE1,0xC0,0xE0,0xE0,0xE0,0x60,0x00,0x00,0x00,0x00,0x00,0x00 ; "к",0xea
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x03,0xE0,0x07,0xF0
DCB 0x0F,0xF0,0x1E,0x70,0x3C,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70,0x38,0x70
DCB 0x38,0x70,0x38,0x70,0x70,0x70,0xE0,0x70,0xC0,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "л",0xeb
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x80,0x08,0xC0,0x18
DCB 0xE0,0x38,0xF0,0x78,0xF8,0xF8,0xFD,0xF8,0xEF,0xB8,0xE7,0x38,0xE2,0x38,0xE0,0x38
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0xE0,0x38,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "м",0xec
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xFF,0xF0,0xFF,0xF0,0xFF,0xF0,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "н",0xed
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0
DCB 0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "o",0xee
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xF0,0xFF,0xF0
DCB 0xFF,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "п",0xef
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x80,0xFF,0xC0
DCB 0xFF,0xE0,0xE0,0xF0,0xE0,0x70,0xE0,0x70,0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "р",0xf0
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0
DCB 0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "с",0xf1
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0xE0,0xFF,0xE0
DCB 0xFF,0xE0,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00
DCB 0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x0E,0x00,0x00,0x00,0x00,0x00 ; "м",0xf2
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xE0,0x70,0xE0,0x70,0x70,0x38,0x70,0x1C,0x70,0x0E,0xF0
DCB 0x07,0xE0,0x03,0xC0,0x7F,0x80,0x7F,0x00,0x7E,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "y",0xf3
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0xC0,0x3F,0xE0
DCB 0x7F,0xF0,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0x7F,0xF0,0x3F,0xE0,0x1F,0xC0,0x07,0x00,0x07,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "ф",0xf4
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xC0,0x30,0xE0,0x70
DCB 0x70,0xE0,0x39,0xC0,0x1F,0x80,0x0F,0x00,0x06,0x00,0x06,0x00,0x0F,0x00,0x1F,0x80
DCB 0x39,0xC0,0x70,0xE0,0xE0,0x70,0xC0,0x30,0xC0,0x30,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "х",0xf5
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE1,0xC0,0xE1,0xC0
DCB 0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xE1,0xC0,0xFF,0xE0
DCB 0xFF,0xF0,0xFF,0xF0,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "у",0xf6
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x70,0xE0,0x70
DCB 0xE0,0x70,0xE0,0x70,0xF0,0x70,0x78,0x70,0x3F,0xF0,0x1F,0xF0,0x0F,0xF0,0x00,0x70
DCB 0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00 ; "ч",0xf7

DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xFF,0xF8,0xFF,0xF8,0xFF,0xF8,0x00,0x00,0x00,0x00,0x00,0x00 ; "ш",0xf8
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE7,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xFF,0xF8
DCB 0xFF,0xF8,0xFF,0xF8,0x00,0x38,0x00,0x38,0x00,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ; "щ",0xf9
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xF8,0x00,0xF8,0x00
DCB 0xF8,0x00,0x38,0x00,0x38,0x00,0x3F,0x80,0x3F,0xC0,0x3F,0xE0,0x38,0x70,0x38,0x30
DCB 0x38,0x30,0x38,0x70,0x3F,0xE0,0x3F,0xC0,0x3F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "ъ",0xfa
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x38,0xE0,0x38
DCB 0xE0,0x38,0xE0,0x38,0xE0,0x38,0xFC,0x38,0xFE,0x38,0xFF,0x38,0xE7,0x38,0xE3,0x38
DCB 0xE3,0x38,0xE7,0x38,0xFF,0x38,0xFE,0x38,0xFC,0x38,0x00,0x00,0x00,0x00,0x00,0x00 ; "ы",0xfb
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0x00,0xE0,0x00
DCB 0xE0,0x00,0xE0,0x00,0xE0,0x00,0xFF,0xC0,0xFF,0xE0,0xFF,0xF0,0xE0,0xF0,0xE0,0x70
DCB 0xE0,0x70,0xE0,0xF0,0xFF,0xE0,0xFF,0xC0,0xFF,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "ь",0xfc
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0x80,0x3F,0xC0
DCB 0x7F,0xE0,0xF0,0xF0,0xE0,0x70,0xE0,0x70,0x07,0xF0,0x07,0xF0,0x07,0xF0,0xE0,0x70
DCB 0xE0,0x70,0xF0,0xF0,0x7F,0xE0,0x3F,0xC0,0x1F,0x80,0x00,0x00,0x00,0x00,0x00,0x00 ; "э",0xfd
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xE0,0xC0,0xE1,0xE0
DCB 0xE3,0xF0,0xE7,0x38,0xE7,0x38,0xE7,0x38,0xFF,0x38,0xFF,0x38,0xFF,0x38,0xE7,0x38
DCB 0xE7,0x38,0xE7,0x38,0xE3,0xF0,0xE1,0xE0,0xE0,0xC0,0x00,0x00,0x00,0x00,0x00,0x00 ; "ю",0xfe
DCB 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x1F,0xF0,0x3F,0xF0
DCB 0x7F,0xF0,0xE0,0x70,0xC0,0x70,0xE0,0x70,0x7F,0xF0,0x3F,0xF0,0x1F,0xF0,0x03,0x70
DCB 0x07,0x70,0x0E,0x70,0x1C,0x70,0x78,0x70,0x70,0x70,0x00,0x00,0x00,0x00,0x00,0x00 ; "я",0xff

, *****
END