Mode: All
Left file: C:\Users\scart\Desktop\test_1280.asm Right file: C:\Users\scart\Desktop\test_2560.asm

.FILE C:\PROJEKTY\AVR\AVRCO\TEST_XX\test	=	.FILE C:\PROJEKTY\AVR\AVRCO\TEST_XX\test
; Compiled by E-LAB AVRco PASCAL Compiler Re		; Compiled by E-LAB AVRco PASCAL Compiler Re
; Version : Demo		; Version : Demo
;		;
; Licenced to : Demo Version		; Licenced to : Demo Version
;		;
; (c), Grombacherstr. 27 e-mail info@e-lab.		; (c), Grombacherstr. 27 e-mail info@e-lab.
; D-74906 Bad Rappenau Tel. 07268/9124-0 Fa		; D-74906 Bad Rappenau Tel. 07268/9124-0 Fa
; ++		; ++
; Source File : test.PAS		; Source File : test.PAS
; Compiled : 05. listopad 2016 19:50:08	<>	; Compiled : 05. listopad 2016 19:50:54
; ++	=	; ++
.MEDIUM	<>	.LARGE
.ROMEND 1FFFFh;		.ROMEND 3FFFFh;
.EEPROMEND 00FFFh;	=	.EEPROMEND 00FFFh;
; ++		; ++
; Constants and Variables definition		; Constants and Variables definition
; ++		; ++
; === Internal used memory and constants ===		; === Internal used memory and constants ===
FALSE .EQU 000h ; const		FALSE .EQU 000h ; const
TRUE .EQU 0FFh ; const		TRUE .EQU 0FFh ; const
NIL .EQU 000h ; const		NIL .EQU 000h ; const
PI .EQU 000h ; const		PI .EQU 000h ; const
COMPILERREV .EQU 1FDh ; const		COMPILERREV .EQU 1FDh ; const
COMPILERBUILD_Y .EQU 010h ; const		COMPILERBUILD_Y .EQU 010h ; const
COMPILERBUILD_M .EQU 00Ah ; const		COMPILERBUILD_M .EQU 00Ah ; const
COMPILERBUILD_D .EQU 017h ; const		COMPILERBUILD_D .EQU 017h ; const
COMPILEYEAR .EQU 010h ; const		COMPILEYEAR .EQU 010h ; const
COMPILEMONTH .EQU 00Bh ; const		COMPILEMONTH .EQU 00Bh ; const

COMPILEDAY	.EQU	005h	; const			COMPILEDAY	.EQU	005h	; const		
COMPILEHOUR	.EQU	013h	; const			COMPILEHOUR	.EQU	013h	; const		
COMPILEMINUTE	.EQU	032h	; const			COMPILEMINUTE	.EQU	032h	; const		
PROJECTBUILD	.EQU	03Fh	; const		<>	PROJECTBUILD	.EQU	040h	; const		
OPTIMISERREV	.EQU	0304h	; const		=	OPTIMISERREV	.EQU	0304h	; const		
OPTIMISERBUILD	.EQU	0201h	; const			OPTIMISERBUILD	.EQU	0201h	; const		
INTFLAG	.EQU	007h	; const			INTFLAG	.EQU	007h	; const		
_EEPROM	.EQU	006h	; const			_EEPROM	.EQU	006h	; const		
_SIGN	.EQU	005h	; const			_SIGN	.EQU	005h	; const		
_WAITLCD	.EQU	004h	; const			_WAITLCD	.EQU	004h	; const		
_STRCONST	.EQU	004h	; const			_STRCONST	.EQU	004h	; const		
_DEVICE	.EQU	003h	; const			_DEVICE	.EQU	003h	; const		
_NEGATIVE	.EQU	002h	; const			_NEGATIVE	.EQU	002h	; const		
_ERRFLAG	.EQU	001h	; const			_ERRFLAG	.EQU	001h	; const		
_I2C2BYTE	.EQU	000h	; const			_I2C2BYTE	.EQU	000h	; const		
_TOGGLE300	.EQU	000h	; const			_TOGGLE300	.EQU	000h	; const		
_LCDLOWER	.EQU	001h	; const			_LCDLOWER	.EQU	001h	; const		
_DSP7RFR	.EQU	002h	; const			_DSP7RFR	.EQU	002h	; const		
_PWRSAVFLG	.EQU	003h	; const			_PWRSAVFLG	.EQU	003h	; const		
_F64StrInt	.EQU	004h	; const			_F64StrInt	.EQU	004h	; const		
_F64StrFrac	.EQU	005h	; const			_F64StrFrac	.EQU	005h	; const		
_FREQCNTFLAG	.EQU	006h	; const			_FREQCNTFLAG	.EQU	006h	; const		
_AUTOACK	.EQU	007h	; const			_AUTOACK	.EQU	007h	; const		
_ACCGLO	.EQU	000h	; var Data	byte		_ACCGLO	.EQU	000h	; var Data	byte	
_ACCGHI	.EQU	001h	; var Data	byte		_ACCGHI	.EQU	001h	; var Data	byte	
_ACCB	.EQU	010h	; var Data	byte		_ACCB	.EQU	010h	; var Data	byte	
_ACCA	.EQU	011h	; var Data	byte		_ACCA	.EQU	011h	; var Data	byte	
_ACCALO	.EQU	012h	; var Data	byte		_ACCALO	.EQU	012h	; var Data	byte	
_ACCAHI	.EQU	013h	; var Data	byte		_ACCAHI	.EQU	013h	; var Data	byte	
_ACCDLO	.EQU	014h	; var Data	byte		_ACCDLO	.EQU	014h	; var Data	byte	
_ACCDHI	.EQU	015h	; var Data	byte		_ACCDHI	.EQU	015h	; var Data	byte	
_ACCELO	.EQU	016h	; var Data	byte		_ACCELO	.EQU	016h	; var Data	byte	
_ACCEHI	.EQU	017h	; var Data	byte		_ACCEHI	.EQU	017h	; var Data	byte	
_ACCFLO	.EQU	018h	; var Data	byte		_ACCFLO	.EQU	018h	; var Data	byte	
_ACCFHI	.EQU	019h	; var Data	byte		_ACCFHI	.EQU	019h	; var Data	byte	
_ACCBLO	.EQU	01Ah	; var Data	byte		_ACCBLO	.EQU	01Ah	; var Data	byte	
_ACCBHI	.EQU	01Bh	; var Data	byte		_ACCBHI	.EQU	01Bh	; var Data	byte	
_FRAMEPTR	.EQU	01Ch	; var Data	byte		_FRAMEPTR	.EQU	01Ch	; var Data	byte	

_FPTRHI	.EQU	01Dh	; var Data	byte		_FPTRHI	.EQU	01Dh	; var Data	byte
_ACCCLO	.EQU	01Eh	; var Data	byte		_ACCCLO	.EQU	01Eh	; var Data	byte
_ACCCHI	.EQU	01Fh	; var Data	byte		_ACCCHI	.EQU	01Fh	; var Data	byte
$_SAVERET	.EQU	002h	; var Data	byte		$_SAVERET	.EQU	002h	; var Data	byte
$_SAVERET1	.EQU	003h	; var Data	byte		$_SAVERET1	.EQU	003h	; var Data	byte
					<>	$_SAVERET2	.EQU	004h	; var Data	byte
FLAGS	.EQU	004h	; var Data	byte		FLAGS	.EQU	005h	; var Data	byte
FLAGS2	.EQU	005h	; var Data	byte		FLAGS2	.EQU	006h	; var Data	byte
_SYSTFLAGS	.EQU	006h	; var Data	byte		_SYSTFLAGS	.EQU	007h	; var Data	byte
SYSTICK	.EQU	00Ah	; const		=	SYSTICK	.EQU	00Ah	; const	
PROCCLOCK	.EQU	0F42400h	; const			PROCCLOCK	.EQU	0F42400h	; const	
DECIMALSEP	.EQU	02Eh	; const			DECIMALSEP	.EQU	02Eh	; const	
CPU_ID	.EQU	1E9703h	; const		<>	CPU_ID	.EQU	1E9801h	; const	
Flash_Page_Size	.EQU	100h	; const		=	Flash_Page_Size	.EQU	100h	; const	
ROMconstPage	.EQU	0FFFFFFFFFFFFFFFFh		; const		ROMconstPage	.EQU	0FFFFFFFFFFFFFFFFh		; const
STACKSIZE	.EQU	0FFh	; const			STACKSIZE	.EQU	0FFh	; const	
FRAMESIZE	.EQU	0FFh	; const			FRAMESIZE	.EQU	0FFh	; const	
UDR3	.EQU	136h	; var iData	byte		UDR3	.EQU	136h	; var iData	byte
UBRR3H	.EQU	135h	; var iData	byte		UBRR3H	.EQU	135h	; var iData	byte
UBRR3L	.EQU	134h	; var iData	byte		UBRR3L	.EQU	134h	; var iData	byte
UCSR3C	.EQU	132h	; var iData	byte		UCSR3C	.EQU	132h	; var iData	byte
UCSR3B	.EQU	131h	; var iData	byte		UCSR3B	.EQU	131h	; var iData	byte
UCSR3A	.EQU	130h	; var iData	byte		UCSR3A	.EQU	130h	; var iData	byte
OCR5CH	.EQU	12Dh	; var iData	byte		OCR5CH	.EQU	12Dh	; var iData	byte
OCR5CL	.EQU	12Ch	; var iData	byte		OCR5CL	.EQU	12Ch	; var iData	byte
OCR5BH	.EQU	12Bh	; var iData	byte		OCR5BH	.EQU	12Bh	; var iData	byte
OCR5BL	.EQU	12Ah	; var iData	byte		OCR5BL	.EQU	12Ah	; var iData	byte
OCR5AH	.EQU	129h	; var iData	byte		OCR5AH	.EQU	129h	; var iData	byte
OCR5AL	.EQU	128h	; var iData	byte		OCR5AL	.EQU	128h	; var iData	byte
ICR5H	.EQU	127h	; var iData	byte		ICR5H	.EQU	127h	; var iData	byte
ICR5L	.EQU	126h	; var iData	byte		ICR5L	.EQU	126h	; var iData	byte
TCNT5H	.EQU	125h	; var iData	byte		TCNT5H	.EQU	125h	; var iData	byte
TCNT5L	.EQU	124h	; var iData	byte		TCNT5L	.EQU	124h	; var iData	byte
TCCR5C	.EQU	122h	; var iData	byte		TCCR5C	.EQU	122h	; var iData	byte
TCCR5B	.EQU	121h	; var iData	byte		TCCR5B	.EQU	121h	; var iData	byte
TCCR5A	.EQU	120h	; var iData	byte		TCCR5A	.EQU	120h	; var iData	byte
PORTL	.EQU	10Bh	; var iData	byte		PORTL	.EQU	10Bh	; var iData	byte
DDRL	.EQU	10Ah	; var iData	byte		DDRL	.EQU	10Ah	; var iData	byte

```
PINL                    .EQU    109h            ; var iData  byte
PORTK                   .EQU    108h            ; var iData  byte
DDRK                    .EQU    107h            ; var iData  byte
PINK                    .EQU    106h            ; var iData  byte
PORTJ                   .EQU    105h            ; var iData  byte
DDRJ                    .EQU    104h            ; var iData  byte
PINJ                    .EQU    103h            ; var iData  byte
PORTH                   .EQU    102h            ; var iData  byte
DDRH                    .EQU    101h            ; var iData  byte
PINH                    .EQU    100h            ; var iData  byte
UDR2                    .EQU    0D6h            ; var iData  byte
UBRR2H                  .EQU    0D5h            ; var iData  byte
UBRR2L                  .EQU    0D4h            ; var iData  byte
UCSR2C                  .EQU    0D2h            ; var iData  byte
UCSR2B                  .EQU    0D1h            ; var iData  byte
UCSR2A                  .EQU    0D0h            ; var iData  byte
UDR1                    .EQU    0CEh            ; var iData  byte
UBRR1H                  .EQU    0CDh            ; var iData  byte
UBRR1L                  .EQU    0CCh            ; var iData  byte
UCSR1C                  .EQU    0CAh            ; var iData  byte
UCSR1B                  .EQU    0C9h            ; var iData  byte
UCSR1A                  .EQU    0C8h            ; var iData  byte
UDR0                    .EQU    0C6h            ; var iData  byte
UBRR0H                  .EQU    0C5h            ; var iData  byte
UBRR0L                  .EQU    0C4h            ; var iData  byte
UCSR0C                  .EQU    0C2h            ; var iData  byte
UCSR0B                  .EQU    0C1h            ; var iData  byte
UCSR0A                  .EQU    0C0h            ; var iData  byte
TWAMR                   .EQU    0BDh            ; var iData  byte
TWCR                    .EQU    0BCh            ; var iData  byte
TWDR                    .EQU    0BBh            ; var iData  byte
TWAR                    .EQU    0BAh            ; var iData  byte
TWSR                    .EQU    0B9h            ; var iData  byte
TWBR                    .EQU    0B8h            ; var iData  byte
ASSR                    .EQU    0B6h            ; var iData  byte
OCR2B                   .EQU    0B4h            ; var iData  byte
OCR2                    .EQU    0B3h            ; var iData  byte
OCR2A                   .EQU    0B3h            ; var iData  byte
```

```
PINL                    .EQU    109h            ; var iData  byte
PORTK                   .EQU    108h            ; var iData  byte
DDRK                    .EQU    107h            ; var iData  byte
PINK                    .EQU    106h            ; var iData  byte
PORTJ                   .EQU    105h            ; var iData  byte
DDRJ                    .EQU    104h            ; var iData  byte
PINJ                    .EQU    103h            ; var iData  byte
PORTH                   .EQU    102h            ; var iData  byte
DDRH                    .EQU    101h            ; var iData  byte
PINH                    .EQU    100h            ; var iData  byte
UDR2                    .EQU    0D6h            ; var iData  byte
UBRR2H                  .EQU    0D5h            ; var iData  byte
UBRR2L                  .EQU    0D4h            ; var iData  byte
UCSR2C                  .EQU    0D2h            ; var iData  byte
UCSR2B                  .EQU    0D1h            ; var iData  byte
UCSR2A                  .EQU    0D0h            ; var iData  byte
UDR1                    .EQU    0CEh            ; var iData  byte
UBRR1H                  .EQU    0CDh            ; var iData  byte
UBRR1L                  .EQU    0CCh            ; var iData  byte
UCSR1C                  .EQU    0CAh            ; var iData  byte
UCSR1B                  .EQU    0C9h            ; var iData  byte
UCSR1A                  .EQU    0C8h            ; var iData  byte
UDR0                    .EQU    0C6h            ; var iData  byte
UBRR0H                  .EQU    0C5h            ; var iData  byte
UBRR0L                  .EQU    0C4h            ; var iData  byte
UCSR0C                  .EQU    0C2h            ; var iData  byte
UCSR0B                  .EQU    0C1h            ; var iData  byte
UCSR0A                  .EQU    0C0h            ; var iData  byte
TWAMR                   .EQU    0BDh            ; var iData  byte
TWCR                    .EQU    0BCh            ; var iData  byte
TWDR                    .EQU    0BBh            ; var iData  byte
TWAR                    .EQU    0BAh            ; var iData  byte
TWSR                    .EQU    0B9h            ; var iData  byte
TWBR                    .EQU    0B8h            ; var iData  byte
ASSR                    .EQU    0B6h            ; var iData  byte
OCR2B                   .EQU    0B4h            ; var iData  byte
OCR2                    .EQU    0B3h            ; var iData  byte
OCR2A                   .EQU    0B3h            ; var iData  byte
```

TCNT2	.EQU	0B2h	; var iData byte		TCNT2	.EQU	0B2h	; var iData byte
TCCR2B	.EQU	0B1h	; var iData byte		TCCR2B	.EQU	0B1h	; var iData byte
TCCR2	.EQU	0B1h	; var iData byte		TCCR2	.EQU	0B1h	; var iData byte
TCCR2A	.EQU	0B0h	; var iData byte		TCCR2A	.EQU	0B0h	; var iData byte
OCR4CH	.EQU	0ADh	; var iData byte		OCR4CH	.EQU	0ADh	; var iData byte
OCR4CL	.EQU	0ACh	; var iData byte		OCR4CL	.EQU	0ACh	; var iData byte
OCR4BH	.EQU	0ABh	; var iData byte		OCR4BH	.EQU	0ABh	; var iData byte
OCR4BL	.EQU	0AAh	; var iData byte		OCR4BL	.EQU	0AAh	; var iData byte
OCR4AH	.EQU	0A9h	; var iData byte		OCR4AH	.EQU	0A9h	; var iData byte
OCR4AL	.EQU	0A8h	; var iData byte		OCR4AL	.EQU	0A8h	; var iData byte
ICR4H	.EQU	0A7h	; var iData byte		ICR4H	.EQU	0A7h	; var iData byte
ICR4L	.EQU	0A6h	; var iData byte		ICR4L	.EQU	0A6h	; var iData byte
TCNT4H	.EQU	0A5h	; var iData byte		TCNT4H	.EQU	0A5h	; var iData byte
TCNT4L	.EQU	0A4h	; var iData byte		TCNT4L	.EQU	0A4h	; var iData byte
TCCR4C	.EQU	0A2h	; var iData byte		TCCR4C	.EQU	0A2h	; var iData byte
TCCR4B	.EQU	0A1h	; var iData byte		TCCR4B	.EQU	0A1h	; var iData byte
TCCR4A	.EQU	0A0h	; var iData byte		TCCR4A	.EQU	0A0h	; var iData byte
OCR3CH	.EQU	09Dh	; var iData byte		OCR3CH	.EQU	09Dh	; var iData byte
OCR3CL	.EQU	09Ch	; var iData byte		OCR3CL	.EQU	09Ch	; var iData byte
OCR3BH	.EQU	09Bh	; var iData byte		OCR3BH	.EQU	09Bh	; var iData byte
OCR3BL	.EQU	09Ah	; var iData byte		OCR3BL	.EQU	09Ah	; var iData byte
OCR3AH	.EQU	099h	; var iData byte		OCR3AH	.EQU	099h	; var iData byte
OCR3AL	.EQU	098h	; var iData byte		OCR3AL	.EQU	098h	; var iData byte
ICR3H	.EQU	097h	; var iData byte		ICR3H	.EQU	097h	; var iData byte
ICR3L	.EQU	096h	; var iData byte		ICR3L	.EQU	096h	; var iData byte
TCNT3H	.EQU	095h	; var iData byte		TCNT3H	.EQU	095h	; var iData byte
TCNT3L	.EQU	094h	; var iData byte		TCNT3L	.EQU	094h	; var iData byte
TCCR3C	.EQU	092h	; var iData byte		TCCR3C	.EQU	092h	; var iData byte
TCCR3B	.EQU	091h	; var iData byte		TCCR3B	.EQU	091h	; var iData byte
TCCR3A	.EQU	090h	; var iData byte		TCCR3A	.EQU	090h	; var iData byte
OCR1CH	.EQU	08Dh	; var iData byte		OCR1CH	.EQU	08Dh	; var iData byte
OCR1CL	.EQU	08Ch	; var iData byte		OCR1CL	.EQU	08Ch	; var iData byte
OCR1BH	.EQU	08Bh	; var iData byte		OCR1BH	.EQU	08Bh	; var iData byte
OCR1BL	.EQU	08Ah	; var iData byte		OCR1BL	.EQU	08Ah	; var iData byte
OCR1AH	.EQU	089h	; var iData byte		OCR1AH	.EQU	089h	; var iData byte
OCR1AL	.EQU	088h	; var iData byte		OCR1AL	.EQU	088h	; var iData byte
ICR1H	.EQU	087h	; var iData byte		ICR1H	.EQU	087h	; var iData byte
ICR1L	.EQU	086h	; var iData byte		ICR1L	.EQU	086h	; var iData byte

```
TCNT1H          .EQU    085h            ; var iData  byte
TCNT1L          .EQU    084h            ; var iData  byte
TCCR1C          .EQU    082h            ; var iData  byte
TCCR1B          .EQU    081h            ; var iData  byte
TCCR1A          .EQU    080h            ; var iData  byte
DIDR1           .EQU    07Fh            ; var iData  byte
DIDR0           .EQU    07Eh            ; var iData  byte
DIDR2           .EQU    07Dh            ; var iData  byte
ADMUX           .EQU    07Ch            ; var iData  byte
ADCSRB          .EQU    07Bh            ; var iData  byte
ADCSR           .EQU    07Ah            ; var iData  byte
ADCSRA          .EQU    07Ah            ; var iData  byte
ADCH            .EQU    079h            ; var iData  byte
ADCL            .EQU    078h            ; var iData  byte
XMCRB           .EQU    075h            ; var iData  byte
XMCRA           .EQU    074h            ; var iData  byte
TIMSK5          .EQU    073h            ; var iData  byte
TIMSK4          .EQU    072h            ; var iData  byte
TIMSK3          .EQU    071h            ; var iData  byte
TIMSK2          .EQU    070h            ; var iData  byte
TIMSK1          .EQU    06Fh            ; var iData  byte
TIMSK0          .EQU    06Eh            ; var iData  byte
PCMSK2          .EQU    06Dh            ; var iData  byte
PCMSK1          .EQU    06Ch            ; var iData  byte
PCMSK0          .EQU    06Bh            ; var iData  byte
EICRB           .EQU    06Ah            ; var iData  byte
EICRA           .EQU    069h            ; var iData  byte
PCICR           .EQU    068h            ; var iData  byte
OSCCAL          .EQU    066h            ; var iData  byte
PRR1            .EQU    065h            ; var iData  byte
PRR0            .EQU    064h            ; var iData  byte
CLKPR           .EQU    061h            ; var iData  byte
WDTCR           .EQU    060h            ; var iData  byte
WDTCSR          .EQU    060h            ; var iData  byte
SREG            .EQU    05Fh            ; var pData  byte
SPH             .EQU    05Eh            ; var pData  byte
SPL             .EQU    05Dh            ; var pData  byte
EIND            .EQU    05Ch            ; var pData  byte
```

```
TCNT1H          .EQU    085h            ; var iData  byte
TCNT1L          .EQU    084h            ; var iData  byte
TCCR1C          .EQU    082h            ; var iData  byte
TCCR1B          .EQU    081h            ; var iData  byte
TCCR1A          .EQU    080h            ; var iData  byte
DIDR1           .EQU    07Fh            ; var iData  byte
DIDR0           .EQU    07Eh            ; var iData  byte
DIDR2           .EQU    07Dh            ; var iData  byte
ADMUX           .EQU    07Ch            ; var iData  byte
ADCSRB          .EQU    07Bh            ; var iData  byte
ADCSR           .EQU    07Ah            ; var iData  byte
ADCSRA          .EQU    07Ah            ; var iData  byte
ADCH            .EQU    079h            ; var iData  byte
ADCL            .EQU    078h            ; var iData  byte
XMCRB           .EQU    075h            ; var iData  byte
XMCRA           .EQU    074h            ; var iData  byte
TIMSK5          .EQU    073h            ; var iData  byte
TIMSK4          .EQU    072h            ; var iData  byte
TIMSK3          .EQU    071h            ; var iData  byte
TIMSK2          .EQU    070h            ; var iData  byte
TIMSK1          .EQU    06Fh            ; var iData  byte
TIMSK0          .EQU    06Eh            ; var iData  byte
PCMSK2          .EQU    06Dh            ; var iData  byte
PCMSK1          .EQU    06Ch            ; var iData  byte
PCMSK0          .EQU    06Bh            ; var iData  byte
EICRB           .EQU    06Ah            ; var iData  byte
EICRA           .EQU    069h            ; var iData  byte
PCICR           .EQU    068h            ; var iData  byte
OSCCAL          .EQU    066h            ; var iData  byte
PRR1            .EQU    065h            ; var iData  byte
PRR0            .EQU    064h            ; var iData  byte
CLKPR           .EQU    061h            ; var iData  byte
WDTCR           .EQU    060h            ; var iData  byte
WDTCSR          .EQU    060h            ; var iData  byte
SREG            .EQU    05Fh            ; var pData  byte
SPH             .EQU    05Eh            ; var pData  byte
SPL             .EQU    05Dh            ; var pData  byte
EIND            .EQU    05Ch            ; var pData  byte
```

```
RAMPZ                   .EQU    05Bh            ; var pData  byte
SPMCSR                  .EQU    057h            ; var pData  byte
SPMCR                   .EQU    057h            ; var pData  byte
MCUCR                   .EQU    055h            ; var pData  byte
MCUCSR                  .EQU    054h            ; var pData  byte
MCUSR                   .EQU    054h            ; var pData  byte
SMCR                    .EQU    053h            ; var pData  byte
OCDR                    .EQU    051h            ; var pData  byte
MONDR                   .EQU    051h            ; var pData  byte
ACSR                    .EQU    050h            ; var pData  byte
SPDR                    .EQU    04Eh            ; var pData  byte
SPSR                    .EQU    04Dh            ; var pData  byte
SPCR                    .EQU    04Ch            ; var pData  byte
GPIOR2                  .EQU    04Bh            ; var pData  byte
GPIOR1                  .EQU    04Ah            ; var pData  byte
OCR0B                   .EQU    048h            ; var pData  byte
OCR0                    .EQU    047h            ; var pData  byte
OCR0A                   .EQU    047h            ; var pData  byte
TCNT0                   .EQU    046h            ; var pData  byte
TCCR0B                  .EQU    045h            ; var pData  byte
TCCR0                   .EQU    045h            ; var pData  byte
TCCR0A                  .EQU    044h            ; var pData  byte
GTCCR                   .EQU    043h            ; var pData  byte
EEARH                   .EQU    042h            ; var pData  byte
EEARL                   .EQU    041h            ; var pData  byte
EEDR                    .EQU    040h            ; var pData  byte
EECR                    .EQU    03Fh            ; var pData  byte
GPIOR0                  .EQU    03Eh            ; var pData  byte
EIMSK                   .EQU    03Dh            ; var pData  byte
EIFR                    .EQU    03Ch            ; var pData  byte
PCIFR                   .EQU    03Bh            ; var pData  byte
TIFR5                   .EQU    03Ah            ; var pData  byte
TIFR4                   .EQU    039h            ; var pData  byte
TIFR3                   .EQU    038h            ; var pData  byte
TIFR2                   .EQU    037h            ; var pData  byte
TIFR1                   .EQU    036h            ; var pData  byte
TIFR0                   .EQU    035h            ; var pData  byte
PORTG                   .EQU    034h            ; var pData  byte
```

```
RAMPZ                   .EQU    05Bh            ; var pData  byte
SPMCSR                  .EQU    057h            ; var pData  byte
SPMCR                   .EQU    057h            ; var pData  byte
MCUCR                   .EQU    055h            ; var pData  byte
MCUCSR                  .EQU    054h            ; var pData  byte
MCUSR                   .EQU    054h            ; var pData  byte
SMCR                    .EQU    053h            ; var pData  byte
OCDR                    .EQU    051h            ; var pData  byte
MONDR                   .EQU    051h            ; var pData  byte
ACSR                    .EQU    050h            ; var pData  byte
SPDR                    .EQU    04Eh            ; var pData  byte
SPSR                    .EQU    04Dh            ; var pData  byte
SPCR                    .EQU    04Ch            ; var pData  byte
GPIOR2                  .EQU    04Bh            ; var pData  byte
GPIOR1                  .EQU    04Ah            ; var pData  byte
OCR0B                   .EQU    048h            ; var pData  byte
OCR0                    .EQU    047h            ; var pData  byte
OCR0A                   .EQU    047h            ; var pData  byte
TCNT0                   .EQU    046h            ; var pData  byte
TCCR0B                  .EQU    045h            ; var pData  byte
TCCR0                   .EQU    045h            ; var pData  byte
TCCR0A                  .EQU    044h            ; var pData  byte
GTCCR                   .EQU    043h            ; var pData  byte
EEARH                   .EQU    042h            ; var pData  byte
EEARL                   .EQU    041h            ; var pData  byte
EEDR                    .EQU    040h            ; var pData  byte
EECR                    .EQU    03Fh            ; var pData  byte
GPIOR0                  .EQU    03Eh            ; var pData  byte
EIMSK                   .EQU    03Dh            ; var pData  byte
EIFR                    .EQU    03Ch            ; var pData  byte
PCIFR                   .EQU    03Bh            ; var pData  byte
TIFR5                   .EQU    03Ah            ; var pData  byte
TIFR4                   .EQU    039h            ; var pData  byte
TIFR3                   .EQU    038h            ; var pData  byte
TIFR2                   .EQU    037h            ; var pData  byte
TIFR1                   .EQU    036h            ; var pData  byte
TIFR0                   .EQU    035h            ; var pData  byte
PORTG                   .EQU    034h            ; var pData  byte
```

```
DDRG                    .EQU    033h            ; var pData  byte
PING                    .EQU    032h            ; var pData  byte
PORTF                   .EQU    031h            ; var pData  byte
DDRF                    .EQU    030h            ; var pData  byte
PINF                    .EQU    02Fh            ; var pData  byte
PORTE                   .EQU    02Eh            ; var pData  byte
DDRE                    .EQU    02Dh            ; var pData  byte
PINE                    .EQU    02Ch            ; var pData  byte
PORTD                   .EQU    02Bh            ; var pData  byte
DDRD                    .EQU    02Ah            ; var pData  byte
PIND                    .EQU    029h            ; var pData  byte
PORTC                   .EQU    028h            ; var pData  byte
DDRC                    .EQU    027h            ; var pData  byte
PINC                    .EQU    026h            ; var pData  byte
PORTB                   .EQU    025h            ; var pData  byte
DDRB                    .EQU    024h            ; var pData  byte
PINB                    .EQU    023h            ; var pData  byte
PORTA                   .EQU    022h            ; var pData  byte
DDRA                    .EQU    021h            ; var pData  byte
PINA                    .EQU    020h            ; var pData  byte
TCNT5                   .EQU    124h            ; var iData  word
OCR5A                   .EQU    128h            ; var iData  word
OCR5B                   .EQU    12Ah            ; var iData  word
OCR5C                   .EQU    12Ch            ; var iData  word
ICR5                    .EQU    126h            ; var iData  word
TCNT4                   .EQU    0A4h            ; var iData  word
OCR4A                   .EQU    0A8h            ; var iData  word
OCR4B                   .EQU    0AAh            ; var iData  word
OCR4C                   .EQU    0ACh            ; var iData  word
ICR4                    .EQU    0A6h            ; var iData  word
TCNT3                   .EQU    094h            ; var iData  word
OCR3A                   .EQU    098h            ; var iData  word
OCR3B                   .EQU    09Ah            ; var iData  word
OCR3C                   .EQU    09Ch            ; var iData  word
ICR3                    .EQU    096h            ; var iData  word
OCR1C                   .EQU    08Ch            ; var iData  word
TCNT1                   .EQU    084h            ; var iData  word
OCR1A                   .EQU    088h            ; var iData  word
```

```
DDRG                    .EQU    033h            ; var pData  byte
PING                    .EQU    032h            ; var pData  byte
PORTF                   .EQU    031h            ; var pData  byte
DDRF                    .EQU    030h            ; var pData  byte
PINF                    .EQU    02Fh            ; var pData  byte
PORTE                   .EQU    02Eh            ; var pData  byte
DDRE                    .EQU    02Dh            ; var pData  byte
PINE                    .EQU    02Ch            ; var pData  byte
PORTD                   .EQU    02Bh            ; var pData  byte
DDRD                    .EQU    02Ah            ; var pData  byte
PIND                    .EQU    029h            ; var pData  byte
PORTC                   .EQU    028h            ; var pData  byte
DDRC                    .EQU    027h            ; var pData  byte
PINC                    .EQU    026h            ; var pData  byte
PORTB                   .EQU    025h            ; var pData  byte
DDRB                    .EQU    024h            ; var pData  byte
PINB                    .EQU    023h            ; var pData  byte
PORTA                   .EQU    022h            ; var pData  byte
DDRA                    .EQU    021h            ; var pData  byte
PINA                    .EQU    020h            ; var pData  byte
TCNT5                   .EQU    124h            ; var iData  word
OCR5A                   .EQU    128h            ; var iData  word
OCR5B                   .EQU    12Ah            ; var iData  word
OCR5C                   .EQU    12Ch            ; var iData  word
ICR5                    .EQU    126h            ; var iData  word
TCNT4                   .EQU    0A4h            ; var iData  word
OCR4A                   .EQU    0A8h            ; var iData  word
OCR4B                   .EQU    0AAh            ; var iData  word
OCR4C                   .EQU    0ACh            ; var iData  word
ICR4                    .EQU    0A6h            ; var iData  word
TCNT3                   .EQU    094h            ; var iData  word
OCR3A                   .EQU    098h            ; var iData  word
OCR3B                   .EQU    09Ah            ; var iData  word
OCR3C                   .EQU    09Ch            ; var iData  word
ICR3                    .EQU    096h            ; var iData  word
OCR1C                   .EQU    08Ch            ; var iData  word
TCNT1                   .EQU    084h            ; var iData  word
OCR1A                   .EQU    088h            ; var iData  word
```

```
OCR1B                   .EQU    08Ah            ; var iData  word
ICR1                    .EQU    086h            ; var iData  word
EEAR                    .EQU    041h            ; var pData  word
ADC                     .EQU    078h            ; var iData  word
_iDataStart             .EQU    200h            ; const
_iDataEnd               .EQU    21FFh           ; const
_EEpromStart            .EQU    000h            ; const
_EEpromEnd              .EQU    0FFFh           ; const
_FlashStart             .EQU    000h            ; const
_FlashEnd               .EQU    1FFFFh          ; const
SysTickTime             .EQU    200h            ; var iData  byte
EEPROM                  .EQU    000h            ; var EEprom array
EEPROMEND               .EQU    0FFFh           ; const



                        .RESET     000000h
                        .ORG       000000h, CODE_START
;_STARTCODE
                        .STARTCODE 0000E4h

                        .UNIT     LCD_Test

                        .XDATASTART -1


                        ; ============ user definitions module: LCD_



                        ; ++++++++++++++++++++++++++++++++++++++++++++
                        ; Program body
                        ; ++++++++++++++++++++++++++++++++++++++++++++

                        .FUNC     $_Main, 00018h, 00020h
                        .ENTRYMAIN $
LCD_Test.$_Main:
```

```
OCR1B                   .EQU    08Ah            ; var iData  word
ICR1                    .EQU    086h            ; var iData  word
EEAR                    .EQU    041h            ; var pData  word
ADC                     .EQU    078h            ; var iData  word
_iDataStart             .EQU    200h            ; const
_iDataEnd               .EQU    21FFh           ; const
_EEpromStart            .EQU    000h            ; const
_EEpromEnd              .EQU    0FFFh           ; const
_FlashStart             .EQU    000h            ; const
_FlashEnd               .EQU    3FFFFh          ; const
SysTickTime             .EQU    200h            ; var iData  byte
EEPROM                  .EQU    000h            ; var EEprom array
EEPROMEND               .EQU    0FFFh           ; const



                        .RESET     000000h
                        .ORG       000000h, CODE_START
;_STARTCODE
                        .STARTCODE 0000E4h

                        .UNIT     LCD_Test

                        .XDATASTART -1


                        ; ============ user definitions module: LCD_



                        ; ++++++++++++++++++++++++++++++++++++++++++++
                        ; Program body
                        ; ++++++++++++++++++++++++++++++++++++++++++++

                        .FUNC     $_Main, 00018h, 00020h
                        .ENTRYMAIN $
LCD_Test.$_Main:
```

Left (test_1280.asm)		Right (test_2560.asm)
.BLOCK 24		.BLOCK 24
.LINE 25		.LINE 25
LDI _ACCA, 1 SHLB IntFlag		LDI _ACCA, 1 SHLB IntFlag
OR Flags, _ACCA		OR Flags, _ACCA
SEI		SEI
.LINE 26		.LINE 26
PUSH _FRAMEPTR		PUSH _FRAMEPTR
PUSH _FPTRHI		PUSH _FPTRHI
LDI _ACCA, 1 SHLB _DEVICE		LDI _ACCA, 1 SHLB _DEVICE
OR Flags, _ACCA		OR Flags, _ACCA
LDI _ACCB, SYSTEM.LCDOut SHRB 1		LDI _ACCB, SYSTEM.LCDOut SHRB 1
LDI _ACCA, SYSTEM.LCDOut SHRB 9		LDI _ACCA, SYSTEM.LCDOut SHRB 9
	-+	LDI _ACCALO, SYSTEM.LCDOut SHRB 17
ST -Y, _ACCA	=	ST -Y, _ACCA
ST -Y, _ACCB		ST -Y, _ACCB
	<>	ST -Y, _ACCALO
.FRAME 2		.FRAME 3
LDI _ACCCLO, $St_String1 AND 0FFh	=	LDI _ACCCLO, $St_String1 AND 0FFh
LDI _ACCCHI, $St_String1 SHRB 8		LDI _ACCCHI, $St_String1 SHRB 8
RCALL SYSTEM.StrConst2Str		RCALL SYSTEM.StrConst2Str
POP _FPTRHI		POP _FPTRHI
POP _FRAMEPTR		POP _FRAMEPTR
.FRAME 0		.FRAME 0
LCD_Test._L0001:		LCD_Test._L0001:
.BLOCK 28		.BLOCK 28
.ENDBLOCK 28		.ENDBLOCK 28
.LINE 28		.LINE 28
.BRANCH 20,LCD_Test._L0001		.BRANCH 20,LCD_Test._L0001
RJMP LCD_Test._L0001		RJMP LCD_Test._L0001
.ENDBLOCK 30		.ENDBLOCK 30
LCD_Test.$_MAINEX:		LCD_Test.$_MAINEX:
.LINE 30		.LINE 30
NOP		NOP
.LINE 30		.LINE 30
.BRANCH 20,LCD_Test.$_MAINEX		.BRANCH 20,LCD_Test.$_MAINEX
RJMP LCD_Test.$_MAINEX		RJMP LCD_Test.$_MAINEX

```
                        .ENDFUNC  30

SYSTEM.$Main_stk        .EQU    00201h          ; var iData  Process
SYSTEM.$Main_stk_e      .EQU    002FFh          ; var iData  Process
SYSTEM.$Main_reg        .EQU    00300h          ; var iData  Process
SYSTEM.$Main_reg_e      .EQU    00310h          ; var iData  Process
SYSTEM.$Main_Frame      .EQU    00311h          ; var iData  Process
SYSTEM.$Main_Frame_e    .EQU    0040Fh          ; var iData  Process

                        ; ++++++++++++++++++++++++++++++++++++++++++++
                        ; Initialisation and Library Routines
                        ; ++++++++++++++++++++++++++++++++++++++++++++

                        .ENTRY
SYSTEM.RESET:
                        LDI       _ACCA, 01h
                        OUT       RAMPZ, _ACCA
                        CLI
                        ; >> Stack Init [main process only] <<
                        LDI       _ACCA, 002h
                        LDI       _ACCB, 0FFh
                        OUT       sph, _ACCA
                        OUT       spl, _ACCB

                        ; External SRAM control
                        LDS       _ACCA, xmcra
                        CBR       _ACCA, 0Fh
; one Peripheral sram-waits
                        SBR       _ACCA, 05h
                        STS       xmcra, _ACCA

                        ; >> Memory init <<
                        CLR       _ACCA
                        LDI       _ACCCLO, 16
                        LDI       _ACCCHI, 0
```

```
                        .ENDFUNC  30

SYSTEM.$Main_stk        .EQU    00201h          ; var iData  Process
SYSTEM.$Main_stk_e      .EQU    002FFh          ; var iData  Process
SYSTEM.$Main_reg        .EQU    00300h          ; var iData  Process
SYSTEM.$Main_reg_e      .EQU    00310h          ; var iData  Process
SYSTEM.$Main_Frame      .EQU    00311h          ; var iData  Process
SYSTEM.$Main_Frame_e    .EQU    0040Fh          ; var iData  Process

                        ; ++++++++++++++++++++++++++++++++++++++++++++
                        ; Initialisation and Library Routines
                        ; ++++++++++++++++++++++++++++++++++++++++++++

                        .ENTRY
SYSTEM.RESET:
                        LDI       _ACCA, 0
                        OUT       EIND, _ACCA
                        LDI       _ACCA, 03h
                        OUT       RAMPZ, _ACCA
                        CLI
                        ; >> Stack Init [main process only] <<
                        LDI       _ACCA, 002h
                        LDI       _ACCB, 0FFh
                        OUT       sph, _ACCA
                        OUT       spl, _ACCB

                        ; External SRAM control
                        LDS       _ACCA, xmcra
                        CBR       _ACCA, 0Fh
; one Peripheral sram-waits
                        SBR       _ACCA, 05h
                        STS       xmcra, _ACCA

                        ; >> Memory init <<
                        CLR       _ACCA
                        LDI       _ACCCLO, 16
                        LDI       _ACCCHI, 0
```

```
                        LDI       _ACCBLO, 0
                        LDI       _ACCBHI, 0
                        ADIW      _ACCCLO, 1
                        NOP
SYSTEM._L0003:
                        SBIW      _ACCCLO, 001h
                        BREQ      SYSTEM._L0005
                        ST        X+, _ACCA
                        RJMP      SYSTEM._L0003
SYSTEM._L0005:
                        LDI       _ACCBLO, 00200h AND 0FFh
                        LDI       _ACCBHI, 00200h SHRB 8
                        LDI       _ACCCLO, 02000h AND 0FFh
                        LDI       _ACCCHI, 02000h SHRB 8
                        ADIW      _ACCCLO, 1
                        NOP
SYSTEM._L0006:
                        SBIW      _ACCCLO, 001h
                        BREQ      SYSTEM._L0008
                        ST        X+, _ACCA
                        RJMP      SYSTEM._L0006
SYSTEM._L0008:
                        LDI       _FRAMEPTR, 0040Fh AND 0FFh
                        LDI       _FPTRHI, 0040Fh SHRB 8

                        CLI
                        LDI       _ACCA, 0FEH ROLB IntFlag
                        AND       Flags, _ACCA

                        ; ============ init structured constants ===
                        ; >> Hardware Init <<

                        ; >> SysTick init: 10msec <<
                        ; >> real SysTick (exact): 9.984 msec <<
                        LDI       _ACCA, 064h
                        STS       SysTickTime, _ACCA
                        OUT       tcnt0, _ACCA
                        LDI       _ACCA, 5
```

```
                        LDI       _ACCBLO, 0
                        LDI       _ACCBHI, 0
                        ADIW      _ACCCLO, 1
                        NOP
SYSTEM._L0003:
                        SBIW      _ACCCLO, 001h
                        BREQ      SYSTEM._L0005
                        ST        X+, _ACCA
                        RJMP      SYSTEM._L0003
SYSTEM._L0005:
                        LDI       _ACCBLO, 00200h AND 0FFh
                        LDI       _ACCBHI, 00200h SHRB 8
                        LDI       _ACCCLO, 02000h AND 0FFh
                        LDI       _ACCCHI, 02000h SHRB 8
                        ADIW      _ACCCLO, 1
                        NOP
SYSTEM._L0006:
                        SBIW      _ACCCLO, 001h
                        BREQ      SYSTEM._L0008
                        ST        X+, _ACCA
                        RJMP      SYSTEM._L0006
SYSTEM._L0008:
                        LDI       _FRAMEPTR, 0040Fh AND 0FFh
                        LDI       _FPTRHI, 0040Fh SHRB 8

                        CLI
                        LDI       _ACCA, 0FEH ROLB IntFlag
                        AND       Flags, _ACCA

                        ; ============ init structured constants ===
                        ; >> Hardware Init <<

                        ; >> SysTick init: 10msec <<
                        ; >> real SysTick (exact): 9.984 msec <<
                        LDI       _ACCA, 064h
                        STS       SysTickTime, _ACCA
                        OUT       tcnt0, _ACCA
                        LDI       _ACCA, 5
```

```
                    OUT       tccr0, _ACCA
                    LDI       _ACCA, 001h
                    STS       timsk0, _ACCA

                    ; >> LCD Init <<
                    IN        _ACCA, 022h
                    ANDI      _ACCA, 080h
                    OUT       022h, _ACCA
                    IN        _ACCA, 021h
                    ORI       _ACCA, 07Fh
                    OUT       021h, _ACCA
                    IN        _ACCA, 022h
                    ORI       _ACCA, 03h
                    OUT       022h, _ACCA
                    LDI       _ACCB, 16
                    CLR       _ACCA
                    RCALL     SYSTEM.MDELAY
                    IN        _ACCA, 022h
                    ORI       _ACCA, 10h
                    OUT       022h, _ACCA
                    PUSH      _ACCA
                    LDI       _ACCA, 30h
SYSTEM._L0011:
                    DEC       _ACCA
                    BRNE       SYSTEM._L0011
                    POP       _ACCA
                    IN        _ACCA, 022h
                    ANDI      _ACCA, 0EFh
                    OUT       022h, _ACCA
                    LDI       _ACCB, 5
                    CLR       _ACCA
                    RCALL     SYSTEM.MDELAY
                    IN        _ACCA, 022h
                    ORI       _ACCA, 10h
                    OUT       022h, _ACCA
                    PUSH      _ACCA
                    LDI       _ACCA, 30h
SYSTEM._L0012:
```

```
                    OUT       tccr0, _ACCA
                    LDI       _ACCA, 001h
                    STS       timsk0, _ACCA

                    ; >> LCD Init <<
                    IN        _ACCA, 022h
                    ANDI      _ACCA, 080h
                    OUT       022h, _ACCA
                    IN        _ACCA, 021h
                    ORI       _ACCA, 07Fh
                    OUT       021h, _ACCA
                    IN        _ACCA, 022h
                    ORI       _ACCA, 03h
                    OUT       022h, _ACCA
                    LDI       _ACCB, 16
                    CLR       _ACCA
                    RCALL     SYSTEM.MDELAY
                    IN        _ACCA, 022h
                    ORI       _ACCA, 10h
                    OUT       022h, _ACCA
                    PUSH      _ACCA
                    LDI       _ACCA, 30h
SYSTEM._L0011:
                    DEC       _ACCA
                    BRNE       SYSTEM._L0011
                    POP       _ACCA
                    IN        _ACCA, 022h
                    ANDI      _ACCA, 0EFh
                    OUT       022h, _ACCA
                    LDI       _ACCB, 5
                    CLR       _ACCA
                    RCALL     SYSTEM.MDELAY
                    IN        _ACCA, 022h
                    ORI       _ACCA, 10h
                    OUT       022h, _ACCA
                    PUSH      _ACCA
                    LDI       _ACCA, 30h
SYSTEM._L0012:
```

```
                    DEC     _ACCA
                    BRNE     SYSTEM._L0012
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0013:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0013
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 2
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0014:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0014
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
```

```
                    DEC     _ACCA
                    BRNE     SYSTEM._L0012
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0013:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0013
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 2
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0014:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0014
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
```

```
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0015:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0015
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 8
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0016:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0016
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 0Ch
                    RCALL   SYSTEM.LCDCTRL
                    LDI     _ACCA, 1
                    RCALL   SYSTEM.LCDCTRL
                    LDI     _ACCA, 6
                    RCALL   SYSTEM.LCDCTRL
```

```
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0015:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0015
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 8
                    OUT     022h, _ACCA
                    LDI     _ACCB, 1
                    CLR     _ACCA
                    RCALL   SYSTEM.MDELAY
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0016:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0016
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    LDI     _ACCA, 0Ch
                    RCALL   SYSTEM.LCDCTRL
                    LDI     _ACCA, 1
                    RCALL   SYSTEM.LCDCTRL
                    LDI     _ACCA, 6
                    RCALL   SYSTEM.LCDCTRL
```

Left		Right
CLR Flags		CLR Flags
CLR Flags2		CLR Flags2
; ============ Start User Main Program =====		; ============ Start User Main Program =====
.DEB MAINENTRY		.DEB MAINENTRY
RJMP LCD_Test.$_Main		RJMP LCD_Test.$_Main
; ============ Interrupt Service ==========		; ============ Interrupt Service ==========
SYSTEM.$INTERRUPT_TIMER0:		SYSTEM.$INTERRUPT_TIMER0:
.DEB SYSTICKENTRY		.DEB SYSTICKENTRY
PUSH _ACCCLO		PUSH _ACCCLO
PUSH _ACCCHI		PUSH _ACCCHI
PUSH _ACCB		PUSH _ACCB
PUSH _ACCA		PUSH _ACCA
IN _ACCA, SREG		IN _ACCA, SREG
PUSH _ACCA		PUSH _ACCA
	-+	IN _ACCA, EIND
		PUSH _ACCA
LDS _ACCA, SysTickTime	=	LDS _ACCA, SysTickTime
IN _ACCB, tcnt0		IN _ACCB, tcnt0
ADD _ACCA, _ACCB		ADD _ACCA, _ACCB
OUT tcnt0, _ACCA		OUT tcnt0, _ACCA
LDI _ACCA, 0FEH ROLB IntFlag		LDI _ACCA, 0FEH ROLB IntFlag
AND Flags, _ACCA		AND Flags, _ACCA
LDI _ACCA, 1 SHLB IntFlag		LDI _ACCA, 1 SHLB IntFlag
OR Flags, _ACCA		OR Flags, _ACCA
	-+	POP _ACCA
		OUT EIND, _ACCA
POP _ACCA	=	POP _ACCA
OUT SREG, _ACCA		OUT SREG, _ACCA
POP _ACCA		POP _ACCA
POP _ACCB		POP _ACCB
POP _ACCCHI		POP _ACCCHI
POP _ACCCLO		POP _ACCCLO
.DEB SYSTICKEXIT		.DEB SYSTICKEXIT

```
                        RETI
                        ; ============ Library ============
                        .DEB      LCDOUT
SYSTEM.LCDOUT:
                        PUSH      _ACCA
                        RCALL     SYSTEM.LCDWAIT
                        IN        _ACCA, 021h
                        ORI       _ACCA, 07Fh
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 090h
                        ORI       _ACCA, 020h
                        OUT       022h, _ACCA
                        RJMP      SYSTEM.LCDOUTX
                        .DEB      LCDCTRL
SYSTEM.LCDCTRL:
                        PUSH      _ACCA
                        RCALL     SYSTEM.LCDWAIT
                        IN        _ACCA, 021h
                        ORI       _ACCA, 07Fh
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 090h
                        OUT       022h, _ACCA
SYSTEM.LCDOUTX:
                        POP       _ACCA
                        PUSH      _ACCA
                        SWAP      _ACCA
                        ANDI      _ACCA, 0Fh
                        IN        _ACCB, 022h
                        OR        _ACCB, _ACCA
                        OUT       022h, _ACCB
                        POP       _ACCA
```

```
                        RETI
                        ; ============ Library ============
                        .DEB      LCDOUT
SYSTEM.LCDOUT:
                        PUSH      _ACCA
                        RCALL     SYSTEM.LCDWAIT
                        IN        _ACCA, 021h
                        ORI       _ACCA, 07Fh
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 090h
                        ORI       _ACCA, 020h
                        OUT       022h, _ACCA
                        RJMP      SYSTEM.LCDOUTX
                        .DEB      LCDCTRL
SYSTEM.LCDCTRL:
                        PUSH      _ACCA
                        RCALL     SYSTEM.LCDWAIT
                        IN        _ACCA, 021h
                        ORI       _ACCA, 07Fh
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 090h
                        OUT       022h, _ACCA
SYSTEM.LCDOUTX:
                        POP       _ACCA
                        PUSH      _ACCA
                        SWAP      _ACCA
                        ANDI      _ACCA, 0Fh
                        IN        _ACCB, 022h
                        OR        _ACCB, _ACCA
                        OUT       022h, _ACCB
                        POP       _ACCA
```

```
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0017:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0017
                        POP       _ACCA
                        ORI       _ACCB, 10h
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0018:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0018
                        POP       _ACCA
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0EFh
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0019:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0019
                        POP       _ACCA
                        ANDI      _ACCA, 0Fh
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0F0h
                        OR        _ACCB, _ACCA
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0020:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0020
                        POP       _ACCA
                        ORI       _ACCB, 10h
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
```

```
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0017:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0017
                        POP       _ACCA
                        ORI       _ACCB, 10h
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0018:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0018
                        POP       _ACCA
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0EFh
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0019:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0019
                        POP       _ACCA
                        ANDI      _ACCA, 0Fh
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0F0h
                        OR        _ACCB, _ACCA
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0020:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0020
                        POP       _ACCA
                        ORI       _ACCB, 10h
                        OUT       022h, _ACCB
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
```

```
SYSTEM._L0021:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0021
                        POP       _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        OUT       022h, _ACCA
                        RET

SYSTEM._L0022:
                        ROL       _ACCA
                        DEC       _ACCAHI
                        BRNE       SYSTEM._L0022
                        RET


SYSTEM._L0024:
                        ROR       _ACCA
                        DEC       _ACCAHI
                        BRNE       SYSTEM._L0024
                        RET

SYSTEM.LCDWAIT:
                        LDI       _ACCCLO, 00280h AND 0FFh
                        LDI       _ACCCHI, 00280h SHRB 8
                        SET
                        BLD       Flags, _WAITLCD
                        IN        _ACCA, 021h
                        ANDI      _ACCA, 0F0h
                        ORI       _ACCA, 030h
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 09Fh
                        OUT       022h, _ACCA
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0029:
```

```
SYSTEM._L0021:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0021
                        POP       _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        OUT       022h, _ACCA
                        RET

SYSTEM._L0022:
                        ROL       _ACCA
                        DEC       _ACCAHI
                        BRNE       SYSTEM._L0022
                        RET


SYSTEM._L0024:
                        ROR       _ACCA
                        DEC       _ACCAHI
                        BRNE       SYSTEM._L0024
                        RET

SYSTEM.LCDWAIT:
                        LDI       _ACCCLO, 00280h AND 0FFh
                        LDI       _ACCCHI, 00280h SHRB 8
                        SET
                        BLD       Flags, _WAITLCD
                        IN        _ACCA, 021h
                        ANDI      _ACCA, 0F0h
                        ORI       _ACCA, 030h
                        OUT       021h, _ACCA
                        IN        _ACCA, 022h
                        ANDI      _ACCA, 0EFh
                        ANDI      _ACCA, 09Fh
                        OUT       022h, _ACCA
                        PUSH      _ACCA
                        LDI       _ACCA, 30h
SYSTEM._L0029:
```

```
                    DEC     _ACCA
                    BRNE     SYSTEM._L0029
                    POP     _ACCA
                    ORI     _ACCA, 040h
                    OUT     022h, _ACCA
SYSTEM.LCDINPX:
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0030:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0030
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0031:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0031
                    POP     _ACCA
                    IN      _ACCB, 020h
                    SWAP    _ACCB
                    ANDI    _ACCB, 0F0H
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0032:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0032
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
```

```
                    DEC     _ACCA
                    BRNE     SYSTEM._L0029
                    POP     _ACCA
                    ORI     _ACCA, 040h
                    OUT     022h, _ACCA
SYSTEM.LCDINPX:
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0030:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0030
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0031:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0031
                    POP     _ACCA
                    IN      _ACCB, 020h
                    SWAP    _ACCB
                    ANDI    _ACCB, 0F0H
                    IN      _ACCA, 022h
                    ANDI    _ACCA, 0EFh
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
SYSTEM._L0032:
                    DEC     _ACCA
                    BRNE     SYSTEM._L0032
                    POP     _ACCA
                    IN      _ACCA, 022h
                    ORI     _ACCA, 10h
                    OUT     022h, _ACCA
                    PUSH    _ACCA
                    LDI     _ACCA, 30h
```

```
SYSTEM._L0033:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0033
                        POP       _ACCA
                        IN        _ACCA, 020h
                        ANDI      _ACCA, 0FH
                        OR        _ACCA, _ACCB
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0EFh
                        ANDI      _ACCB, 0F0h
                        OUT       022h, _ACCB
                        BST       Flags, _WAITLCD
                        BRTS      SYSTEM._L0026
                        .DEB      LCDINP
                        RET
SYSTEM._L0026:
                        SBIW      _ACCCLO, 1
                        BREQ      SYSTEM._L0027
                        ROL       _ACCA
                        .BRANCH   1, SYSTEM.LCDINPX
                        BRCS      SYSTEM.LCDINPX
                        RET
SYSTEM._L0027:
                        SER       _ACCA
                        RET
```

```
SYSTEM._L0033:
                        DEC       _ACCA
                        BRNE       SYSTEM._L0033
                        POP       _ACCA
                        IN        _ACCA, 020h
                        ANDI      _ACCA, 0FH
                        OR        _ACCA, _ACCB
                        IN        _ACCB, 022h
                        ANDI      _ACCB, 0EFh
                        ANDI      _ACCB, 0F0h
                        OUT       022h, _ACCB
                        BST       Flags, _WAITLCD
                        BRTS      SYSTEM._L0026
                        .DEB      LCDINP
                        RET
SYSTEM._L0026:
                        SBIW      _ACCCLO, 1
                        BREQ      SYSTEM._L0027
                        ROL       _ACCA
                        .BRANCH   1, SYSTEM.LCDINPX
                        BRCS      SYSTEM.LCDINPX
                        RET
SYSTEM._L0027:
                        SER       _ACCA
                        RET
```

```
SYSTEM._L0043:
                        PUSH      _ACCA
                        LDI       _ACCA, 20h
                        RCALL     SYSTEM.LCDOUT
                        POP       _ACCA
                        DEC       _ACCA
```

```
SYSTEM._L0043:
                        PUSH      _ACCA
                        LDI       _ACCA, 20h
                        RCALL     SYSTEM.LCDOUT
                        POP       _ACCA
                        DEC       _ACCA
```

```
                        BRNE        SYSTEM._L0043
                        POP         _ACCA
                        RCALL       SYSTEM.LCDCTRL
                        RET



SYSTEM.MDELAY:
                        .DEB        DEBdelay
                        MOVW        _ACCDLO, _ACCB
                        CLR         _ACCA
                        CP          _ACCDLO, _ACCA
                        CPC         _ACCDHI, _ACCA
                        BREQ        SYSTEM.MDELAY3
SYSTEM.MDELAY1:
                        LDI         _ACCB, 00C7Ah AND 0FFh
                        LDI         _ACCA, 00C7Ah SHRB 8
SYSTEM.MDELAY2:
                        SUBI        _ACCB, 001h
                        SBCI        _ACCA, 000h
                        NOP
                        BRNE        SYSTEM.MDELAY2
                        SUBI        _ACCDLO, 001h
                        SBCI        _ACCDHI, 000h
                        BRNE        SYSTEM.MDELAY1
SYSTEM.MDELAY3:
                        RET

SYSTEM.UDELAY1:
                        LDI         _ACCB, 00026h AND 0FFh
SYSTEM.UDELAY2:
                        DEC         _ACCB
                        NOP
                        BRNE        SYSTEM.UDELAY2
                        DEC         _ACCA
                        BRNE        SYSTEM.UDELAY1
                        RET
```

```
                        BRNE        SYSTEM._L0043
                        POP         _ACCA
                        RCALL       SYSTEM.LCDCTRL
                        RET



SYSTEM.MDELAY:
                        .DEB        DEBdelay
                        MOVW        _ACCDLO, _ACCB
                        CLR         _ACCA
                        CP          _ACCDLO, _ACCA
                        CPC         _ACCDHI, _ACCA
                        BREQ        SYSTEM.MDELAY3
SYSTEM.MDELAY1:
                        LDI         _ACCB, 00C7Ah AND 0FFh
                        LDI         _ACCA, 00C7Ah SHRB 8
SYSTEM.MDELAY2:
                        SUBI        _ACCB, 001h
                        SBCI        _ACCA, 000h
                        NOP
                        BRNE        SYSTEM.MDELAY2
                        SUBI        _ACCDLO, 001h
                        SBCI        _ACCDHI, 000h
                        BRNE        SYSTEM.MDELAY1
SYSTEM.MDELAY3:
                        RET

SYSTEM.UDELAY1:
                        LDI         _ACCB, 00026h AND 0FFh
SYSTEM.UDELAY2:
                        DEC         _ACCB
                        NOP
                        BRNE        SYSTEM.UDELAY2
                        DEC         _ACCA
                        BRNE        SYSTEM.UDELAY1
                        RET
```

Left file: C:\Users\scart\Desktop\test_1280.asm Right file: C:\Users\scart\Desktop\test_2560.asm (continued)

SYSTEM._L0046:				SYSTEM._L0046:		
	SUBI	_ACCALO, 001h			SUBI	_ACCALO, 001h
	SBCI	_ACCAHI, 000h			SBCI	_ACCAHI, 000h
	BRCS	SYSTEM._L0047			BRCS	SYSTEM._L0047
	LD	_ACCA, Z+			LD	_ACCA, Z+
	ST	X+, _ACCA			ST	X+, _ACCA
	RJMP	SYSTEM._L0046			RJMP	SYSTEM._L0046
SYSTEM._L0047:				SYSTEM._L0047:		
	RET				RET	
SYSTEM.StrConst2Str:				SYSTEM.StrConst2Str:		
	LDI	_ACCBHI, 01h	<>		LDI	_ACCBHI, 03h
	OUT	RAMPZ, _ACCBHI	=		OUT	RAMPZ, _ACCBHI
	ELPM	_ACCBHI, Z+			ELPM	_ACCBHI, Z+
	TST	_ACCBHI			TST	_ACCBHI
	BREQ	SYSTEM._L0049			BREQ	SYSTEM._L0049
SYSTEM._L0048:				SYSTEM._L0048:		
	LDI	_ACCA, 01h	<>		LDI	_ACCA, 03h
	OUT	RAMPZ, _ACCA	=		OUT	RAMPZ, _ACCA
	ELPM	_ACCA, Z+			ELPM	_ACCA, Z+
	RCALL	SYSTEM.Char2Str			RCALL	SYSTEM.Char2Str
	DEC	_ACCBHI			DEC	_ACCBHI
	BRNE	SYSTEM._L0048			BRNE	SYSTEM._L0048
SYSTEM._L0049:				SYSTEM._L0049:		
	RET				RET	
SYSTEM.Char2Str:				SYSTEM.Char2Str:		
	PUSH	_ACCCLO			PUSH	_ACCCLO
	PUSH	_ACCCHI			PUSH	_ACCCHI
	BST	Flags, _DEVICE			BST	Flags, _DEVICE
	BRTS	SYSTEM._L0053			BRTS	SYSTEM._L0053
	PUSH	_ACCA			PUSH	_ACCA
	LDD	_ACCCLO, Y+001h			LDD	_ACCCLO, Y+001h
	LDD	_ACCCHI, Y+002h			LDD	_ACCCHI, Y+002h
	LDD	_ACCA, Y+000h			LDD	_ACCA, Y+000h
	TST	_ACCA			TST	_ACCA

	BRNE	SYSTEM._L0050			BRNE	SYSTEM._L0050
	POP	_ACCA			POP	_ACCA
	SET				SET	
	BLD	Flags, _ERRFLAG			BLD	Flags, _ERRFLAG
	POP	_ACCCHI			POP	_ACCCHI
	POP	_ACCCLO			POP	_ACCCLO
	RET				RET	
SYSTEM._L0050:				SYSTEM._L0050:		
	DEC	_ACCA			DEC	_ACCA
	STD	Y+000h, _ACCA			STD	Y+000h, _ACCA
	POP	_ACCA			POP	_ACCA
	ST	Z+, _ACCA			ST	Z+, _ACCA
	STD	Y+002h, _ACCCHI			STD	Y+002h, _ACCCHI
	STD	Y+001h, _ACCCLO			STD	Y+001h, _ACCCLO
	POP	_ACCCHI			POP	_ACCCHI
	POP	_ACCCLO			POP	_ACCCLO
	RET				RET	
SYSTEM._L0053:				SYSTEM._L0053:		
	LDD	_ACCCLO, Y+000h			LDD	_ACCCLO, Y+000h
			<>		OUT	EIND, _ACCCLO
					LDD	_ACCCLO, Y+001h
	LDD	_ACCCHI, Y+001h			LDD	_ACCCHI, Y+002h
	PUSH	_ACCA	=		PUSH	_ACCA
	PUSH	_ACCB			PUSH	_ACCB
	PUSH	_ACCALO			PUSH	_ACCALO
	PUSH	_ACCAHI			PUSH	_ACCAHI
	PUSH	_ACCBLO			PUSH	_ACCBLO
	PUSH	_ACCBHI			PUSH	_ACCBHI
	PUSH	_ACCELO			PUSH	_ACCELO
	PUSH	_ACCEHI			PUSH	_ACCEHI
	PUSH	_ACCDLO			PUSH	_ACCDLO
	PUSH	_ACCDHI			PUSH	_ACCDHI
	PUSH	_ACCFLO			PUSH	_ACCFLO
	PUSH	_ACCFHI			PUSH	_ACCFHI
	ICALL		<>		EICALL	
	POP	_ACCFHI	=		POP	_ACCFHI
	POP	_ACCFLO			POP	_ACCFLO
	POP	_ACCDHI			POP	_ACCDHI

Left		Right
`POP _ACCDLO`		`POP _ACCDLO`
`POP _ACCEHI`		`POP _ACCEHI`
`POP _ACCELO`		`POP _ACCELO`
`POP _ACCBHI`		`POP _ACCBHI`
`POP _ACCBLO`		`POP _ACCBLO`
`POP _ACCAHI`		`POP _ACCAHI`
`POP _ACCALO`		`POP _ACCALO`
`POP _ACCB`		`POP _ACCB`
`POP _ACCA`		`POP _ACCA`
`POP _ACCCHI`		`POP _ACCCHI`
`POP _ACCCLO`		`POP _ACCCLO`
`RET`		`RET`
`SYSTEM.DefIntErr:`		`SYSTEM.DefIntErr:`
`RETI`		`RETI`
`.ROMCONST 10000h`	<>	`.ROMCONST 30000h`
	=	
`; ============ String-constant tables ======`		`; ============ String-constant tables ======`
`$St_String1:`		`$St_String1:`
`.BYTE 3`		`.BYTE 3`
`.ASCII "ABC"`		`.ASCII "ABC"`
`; ============ Fixed addr String-constant ta`		`; ============ Fixed addr String-constant ta`
`; ============ fixed addr array-constant tab`		`; ============ fixed addr array-constant tab`
`; ++++++++++++++++++++++++++++++++++++++++`		`; ++++++++++++++++++++++++++++++++++++++++`
`; Reset and Interrupt vectors`		`; Reset and Interrupt vectors`
`; ++++++++++++++++++++++++++++++++++++++++`		`; ++++++++++++++++++++++++++++++++++++++++`
`.ENDCODE`		`.ENDCODE`
`SYSTEM.ENDCODE:`		`SYSTEM.ENDCODE:`
`.ORG 000000h, VECTTAB`		`.ORG 000000h, VECTTAB`
`.VECTTAB`		`.VECTTAB`

Left		Right
SYSTEM.VectTab:		SYSTEM.VectTab:
JMP SYSTEM.RESET		JMP SYSTEM.RESET
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.DefIntErr		JMP SYSTEM.DefIntErr
JMP SYSTEM.$INTERRUPT_TIMER0		JMP SYSTEM.$INTERRUPT_TIMER0
.VECTTABE		.VECTTABE
SYSTEM.ENDPROG:		SYSTEM.ENDPROG:
.END		.END
; ============ End of Program ============		; ============ End of Program ============
; System uses registers		; System uses registers
; from bottom = 00000h		; from bottom = 00000h
; upto = 00006h	<>	; upto = 00007h
; and	=	; and

; from = 00010h		; from = 00010h
; upto = 0001Fh		; upto = 0001Fh
;		;
; Stackframe at = ...002FFh		; Stackframe at = ...002FFh
; ===== Current top of User Vars in Data is	<>	; ===== Current top of User Vars in Data is
	=	
; ===== Current top of User Vars in IData is		; ===== Current top of User Vars in IData is
; ===== EEprom currently not used =====		; ===== EEprom currently not used =====
; ===== Imported Library Routines =====		; ===== Imported Library Routines =====
; Pascal Statements : 3		; Pascal Statements : 3
; Assembler Lines : 2667	<>	; Assembler Lines : 2703
; Optimizer removed : 0 lines = 0Bytes	=	; Optimizer removed : 0 lines = 0Bytes
; >> real SysTick (exact): 9.984 msec <<		; >> real SysTick (exact): 9.984 msec <<
; Merlin Optimiser Version 3.4.2.1 saved 310	<>	; Merlin Optimiser Version 3.4.2.1 saved 324
; Original size was 1298 so % saved = 23%		; Original size was 1332 so % saved = 24%
; Analysis Time (hh:mm:ss) : 00:00:00	=	; Analysis Time (hh:mm:ss) : 00:00:00
; Optimisation Time (hh:mm:ss) : 00:00:00		; Optimisation Time (hh:mm:ss) : 00:00:00
; Total Time (hh:mm:ss) : 00:00:00		; Total Time (hh:mm:ss) : 00:00:00