

```
LDRPCI r7, C0
MOVRSP r7
LDRPCI r0, C1
STRSPI r0, [sp, #0]
LDRPCI r0, C2
STRSPI r0, [sp, #2]
LDRPCI r0, C3
STRSPI r0, [sp, #8]
LDRPCI r0, C4
STRSPI r0, [sp, #11]
LDRPCI r0, C5
STRSPI r0, [sp, #14]
LDRPCI r0, C6
STRSPI r0, [sp, #18]
LDRPCI r0, C7
STRSPI r0, [sp, #19]
LDRPCI r0, C8
STRSPI r0, [sp, #22]
LDRPCI r0, C9
STRSPI r0, [sp, #25]
LDRPCI r0, C10
STRSPI r0, [sp, #35]
LDRPCI r0, C11
STRSPI r0, [sp, #37]
BL L142
SVC #0
L142
```

PROC main

L2

```
PUSH
DECSP    #1
MOVI     r0,    #0
BL       L3
BL       L11
STRSPI   r0,    [sp, #0]
ADDPCI   r0,    S0
BL       L8
LDRI     r0,    [r7, #3]
BL       L9
BL       L5
LDRSPI   r0,    [sp, #0]
BL       L64
ADDPCI   r0,    S3
BL       L8
MOVI     r0,    #2
LDRI     r1,    [r7, #30]
MULR     r0,    r1
BL       L9
BL       L5
ADDPCI   r0,    S7
BL       L8
MOVI     r0,    #4
LDRI     r1,    [r7, #28]
MULR     r0,    r1
MOVI     r1,    #2
LDRI     r2,    [r7, #30]
MULR     r1,    r2
ADDR     r0,    r0,    r1
BL       L9
BL       L5
INCSP    #1
POP
```

PROC selectoutput

L3

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

STRI r0, [r7, #1]

INCSP #1

POP

PROC putval

L4

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #1]

SVC #1

INCSP #1

POP

```
PROC newline
L5
  PUSH
  MOVI    r0, #10
  BL     L4
  POP
```

FUNC div

L6

PUSH

DECSP #6

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #0]

STRSPI r0, [sp, #3]

MOVI r0, #1

STRSPI r0, [sp, #4]

MOVI r0, #0

STRSPI r0, [sp, #5]

L144

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #2]

SUBR r0, r1, r0

BGE L143

LDRSPI r0, [sp, #2]

LSLI r0, r0, #1

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #4]

LSLI r0, r0, #1

STRSPI r0, [sp, #4]

BU L144

L143

L146

LDRSPI r0, [sp, #4]

MOVI r1, #0

SUBR r0, r1, r0

BGE L145

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #3]

SUBR r0, r1, r0

BLT L147

LDRSPI r0, [sp, #4]

LDRSPI r1, [sp, #5]

ORR r0, r1

STRSPI r0, [sp, #5]

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #3]

SUBR r0, r1, r0

STRSPI r0, [sp, #3]

L147

LDRSPI r0, [sp, #2]

LSRI r0, r0, #1

STRSPI r0, [sp, #2]

```
LDRSPI r0, [sp, #4]
LSRI   r0, r0, #1
STRSPI r0, [sp, #4]
BU     L146
L145
LDRSPI r0, [sp, #5]
INCSP  #6
POP
```

FUNC rem

L7

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

BL L6

LDRSPI r1, [sp, #1]

MULR r0, r1

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

INCSP #2

POP

PROC prints

L8

PUSH

DECSP #6

STRSPI r0, [sp, #0]

MOVI r0, #1

STRSPI r0, [sp, #1]

MOVI r0, #0

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #2]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #3]

MOVI r0, #255

LDRSPI r1, [sp, #3]

ANDR r0, r1

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #3]

LSRI r0, r0, #8

STRSPI r0, [sp, #3]

MOVI r0, #1

STRSPI r0, [sp, #5]

L149

LDRSPI r0, [sp, #1]

LDRSPI r1, [sp, #4]

SUBR r0, r1, r0

BLT L148

MOVI r0, #255

LDRSPI r1, [sp, #3]

ANDR r0, r1

BL L4

LDRSPI r0, [sp, #3]

LSRI r0, r0, #8

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #1]

ADDI r0, #1

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #5]

ADDI r0, #1

STRSPI r0, [sp, #5]

LDRSPI r0, [sp, #5]

SUBI r0, #4

BNE L149

MOVI r0, #0

STRSPI r0, [sp, #5]

LDRSPI r0, [sp, #2]

ADDI r0, #1

STRSPI r0, [sp, #2]
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #2]
LSLI r1, r1, #2
LDRR r0, [r0, r1]
STRSPI r0, [sp, #3]
BU L149
L148
INCSP #6
POP

PROC printn

L9

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

SUBI r0, #0

BGE L151

MOVI r0, #45

BL L4

LDRSPI r0, [sp, #0]

NEGR r0, r0

BU L9+2

L151

LDRSPI r0, [sp, #0]

MOVI r1, #9

SUBR r0, r1, r0

BGE L152

LDRSPI r0, [sp, #0]

MOVI r1, #10

BL L6

BL L9

L152

LDRSPI r0, [sp, #0]

MOVI r1, #10

BL L7

ADDI r0, #48

BL L4

L150

INCSP #1

POP

PROC printhex

L10

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

MOVI r1, #15

SUBR r0, r1, r0

BGE L153

LDRSPI r0, [sp, #0]

LSRI r0, r0, #4

BL L10

L153

MOVI r0, #15

LDRSPI r1, [sp, #0]

ANDR r0, r1

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #1]

SUBI r0, #10

BGE L155

LDRSPI r0, [sp, #1]

ADDI r0, #48

BL L4

BU L154

L155

LDRSPI r0, [sp, #1]

SUBI r0, #10

ADDI r0, #97

BL L4

L154

INCSP #2

POP

FUNC formtree

L11

```

PUSH
DECSP    #3
MOVI     r0, #0
STRI     r0, [r7, #15]
MOVI     r0, #0
STRI     r0, [r7, #9]
MOVI     r0, #0
STRI     r0, [r7, #12]
MOVI     r0, #1
STRI     r0, [r7, #3]
MOVI     r0, #0
STRSPI   r0, [sp, #0]

```

L157

```

LDRSPI   r0, [sp, #0]
SUBI     r0, #128
BGE      L156
LDRSPI   r0, [sp, #0]
MOVI     r1, #0
LDRI     r2, [r7, #0]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #0]
ADDI     r0, #1
STRSPI   r0, [sp, #0]
BU       L157

```

L156

```

BL       L22
MOVI     r0, #0
BL       L14
STRI     r0, [r7, #5]
MOVI     r0, #0
STRI     r0, [r7, #17]
BL       L24
BL       L25
BL       L31
LDRI     r0, [r7, #7]
SUBI     r0, #22
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRI     r1, [r7, #7]
SUBI     r1, #35
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1

```

LDRI	r1, [r7, #7]
SUBI	r1, #21
BEQ	#1
MOVI	r1, #1
SUBI	r1, #1
ORR	r0, r1
BEQ	L159
BL	L44
STRSPI	r0, [sp, #1]
BU	L158
L159	
LDRI	r0, [r7, #5]
STRSPI	r0, [sp, #1]
L158	
BL	L41
STRSPI	r0, [sp, #2]
MOVI	r0, #23
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #2]
BL	L16
INCSP	#3
POP	
ADDI	r0, #0
C0	
DCD	43704
C1	
DCD	43888
C2	
DCD	44400
C3	
DCD	144400
C4	
DCD	144800
C5	
DCD	145200
C6	
DCD	146000
C7	
DCD	148000
C8	
DCD	150000
C9	
DCD	152000
C10	
DCD	156000
C11	
DCD	160000
S0	
DCD	1701999627

DCD 1769152613
DCD 540697978

S3

DCD 1869770766
DCD 1835102823
DCD 2053731104
DCD 2112101

S7

DCD 2053731078
DCD 2112101

PROC cmperror
L12

```
PUSH
DECSP    #1
STRSPI   r0, [sp, #0]
ADDPCI   r0, S9
BL       L8
LDRI     r0, [r7, #17]
BL       L9
ADDPCI   r0, S14
BL       L8
LDRSPI   r0, [sp, #0]
BL       L8
BL       L5
INCSP    #1
POP
```

FUNC newvec

L13

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRI r0, [r7, #3]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #3]

ADDR r0, r0, r1

STRI r0, [r7, #3]

LDRI r0, [r7, #3]

LDRPCI r1, C12

SUBR r0, r1, r0

BGE L160

ADDPCI r0, S15

BL L12

L160

LDRSPI r0, [sp, #1]

INCSP #2

POP

FUNC cons1

L14

PUSH

DECSP #2

STRSPI r0, [sp, #0]

MOVI r0, #1

BL L13

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #1]

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #1]

INCSP #2

POP

FUNC cons2

L15

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

MOVI r0, #2

BL L13

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #2]

ADDI r0, #1

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #2]

INCSP #3

POP

FUNC cons3

L16

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

MOVI r0, #3

BL L13

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #3]

ADDI r0, #1

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #3]

ADDI r0, #2

LDRSPI r1, [sp, #2]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #3]

INCSP #4

POP

FUNC cons4

L17

```

PUSH
DECSP    #5
STRSPI   r0, [sp, #0]
STRSPI   r1, [sp, #1]
STRSPI   r2, [sp, #2]
STRSPI   r3, [sp, #3]
MOVI     r0, #4
BL       L13
STRSPI   r0, [sp, #4]
LDRSPI   r0, [sp, #4]
LDRSPI   r1, [sp, #0]
LDRI     r2, [r7, #2]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #4]
ADDI     r0, #1
LDRSPI   r1, [sp, #1]
LDRI     r2, [r7, #2]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #4]
ADDI     r0, #2
LDRSPI   r1, [sp, #2]
LDRI     r2, [r7, #2]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #4]
ADDI     r0, #3
LDRSPI   r1, [sp, #3]
LDRI     r2, [r7, #2]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #4]
INCSP    #5
POP

```

FUNC lookupword

L18

PUSH
 DECSP #6
 LDRI r0, [r7, #8]
 LDRI r0, [r0, #0]
 STRSPI r0, [sp, #0]
 LDRI r0, [r7, #8]
 LDRI r1, [r7, #10]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 LSLI r0, r0, #2
 LDRSPI r1, [sp, #0]
 LSRI r1, r1, #3
 LDRSPI r2, [sp, #0]
 ADDR r1, r1, r2
 ADDR r0, r0, r1
 MOVI r1, #127
 ANDR r0, r1
 STRSPI r0, [sp, #1]
 LDRI r0, [r7, #0]
 LDRSPI r1, [sp, #1]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRI r0, [r7, #4]
 MOVI r0, #0
 STRSPI r0, [sp, #4]
 MOVI r0, #1
 NEGR r0, r0
 STRSPI r0, [sp, #5]

L162

LDRSPI r0, [sp, #5]
 ADDI r0, #0
 BEQ L161
 LDRI r0, [r7, #4]
 ADDI r0, #0
 BNE L163
 MOVI r0, #0
 STRSPI r0, [sp, #4]
 MOVI r0, #0
 STRSPI r0, [sp, #5]
 BU L162

L163

MOVI r0, #0
 STRSPI r0, [sp, #2]

L165

LDRI r0, [r7, #8]
 LDRSPI r1, [sp, #2]

LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#2]
LDRI	r3,	[r7,	#4]
ADDR	r2,	r2,	r3
ADDI	r2,	#2	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
SUBR	r0,	r1,	r0
BEQ	#1		
MOVI	r0,	#1	
SUBI	r0,	#1	
LDRSPI	r1,	[sp,	#2]
LDRI	r2,	[r7,	#10]
SUBR	r1,	r2,	r1
ASRI	r1,	r1,	#31
MOVNR	r1,	r1	
ANDR	r0,	r1	
BEQ	L164		
LDRSPI	r0,	[sp,	#2]
ADDI	r0,	#1	
STRSPI	r0,	[sp,	#2]
BU	L165		
L164			
LDRSPI	r0,	[sp,	#2]
LDRI	r1,	[r7,	#10]
SUBR	r0,	r1,	r0
BLT	L166		
LDRI	r0,	[r7,	#2]
LDRI	r1,	[r7,	#4]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRI	r0,	[r7,	#4]
BU	L162		
L166			
LDRI	r0,	[r7,	#2]
LDRI	r1,	[r7,	#4]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#3]
MOVI	r0,	#1	
NEGR	r0,	r0	
STRSPI	r0,	[sp,	#4]
MOVI	r0,	#0	
STRSPI	r0,	[sp,	#5]
BU	L162		
L161			

LDRSPI	r0,	[sp,	#4]
ADDI	r0,	#0	
BNE	L167		
LDRI	r0,	[r7,	#10]
ADDI	r0,	#3	
BL	L13		
STRI	r0,	[r7,	#4]
LDRI	r0,	[r7,	#4]
MOVI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRI	r0,	[r7,	#4]
ADDI	r0,	#1	
LDRI	r1,	[r7,	#0]
LDRSPI	r2,	[sp,	#1]
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
MOVI	r0,	#0	
STRSPI	r0,	[sp,	#2]
L169			
LDRSPI	r0,	[sp,	#2]
LDRI	r1,	[r7,	#10]
SUBR	r0,	r1,	r0
BLT	L168		
LDRSPI	r0,	[sp,	#2]
LDRI	r1,	[r7,	#4]
ADDR	r0,	r0,	r1
ADDI	r0,	#2	
LDRI	r1,	[r7,	#8]
LDRSPI	r2,	[sp,	#2]
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#2]
ADDI	r0,	#1	
STRSPI	r0,	[sp,	#2]
BU	L169		
L168			
LDRSPI	r0,	[sp,	#1]
LDRI	r1,	[r7,	#4]
LDRI	r2,	[r7,	#0]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]

```
    MOVI    r0, #1
    STRSPI  r0, [sp, #3]
L167
    LDRSPI  r0, [sp, #3]
    INCSP   #6
    POP
```

FUNC packstring

L19

PUSH

DECSP #7

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LDRI r0, [r0, #0]

STRSPI r0, [sp, #2]

MOVI r0, #0

STRSPI r0, [sp, #3]

MOVI r0, #0

STRSPI r0, [sp, #4]

MOVI r0, #0

STRSPI r0, [sp, #6]

MOVI r0, #0

STRSPI r0, [sp, #5]

L171

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

SUBR r0, r1, r0

BLT L170

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #3]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRSPI r1, [sp, #6]

LSLI r1, r1, #3

LSLR r0, r1

LDRSPI r1, [sp, #5]

ORR r0, r1

STRSPI r0, [sp, #5]

LDRSPI r0, [sp, #6]

ADDI r0, #1

STRSPI r0, [sp, #6]

LDRSPI r0, [sp, #6]

SUBI r0, #4

BNE L172

LDRSPI r0, [sp, #4]

LDRSPI r1, [sp, #5]

LDRSPI r2, [sp, #1]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRSPI r0, [sp, #4]

ADDI r0, #1

STRSPI r0, [sp, #4]

MOVI r0, #0

STRSPI r0, [sp, #5]

```

    MOVI    r0, #0
    STRSPI  r0, [sp, #6]
L172
    LDRSPI  r0, [sp, #3]
    ADDI    r0, #1
    STRSPI  r0, [sp, #3]
    BU      L171
L170
    LDRSPI  r0, [sp, #6]
    ADDI    r0, #0
    BNE     L174
    LDRSPI  r0, [sp, #4]
    SUBI    r0, #1
    STRSPI  r0, [sp, #4]
    BU      L173
L174
    LDRSPI  r0, [sp, #4]
    LDRSPI  r1, [sp, #5]
    LDRSPI  r2, [sp, #1]
    LSLI    r0, r0, #2
    STRR    r1, [r2, r0]
L173
    LDRSPI  r0, [sp, #4]
    INCSP   #7
    POP
C12
    DCD    25000
S9
    DCD    1920099600
    DCD    1847620207
    DCD    544366949
    DCD    1701734764
    DCD    32
S14
    DCD    2112002
S15
    DCD    1953853196
    DCD    543584032
    DCD    1667330163
    DCD    101

```

PROC unpackstring

L20

```

PUSH
DECSP    #7
STRSPI   r0, [sp, #0]
STRSPI   r1, [sp, #1]
MOVI     r0, #0
STRSPI   r0, [sp, #2]
MOVI     r0, #0
STRSPI   r0, [sp, #3]
MOVI     r0, #0
STRSPI   r0, [sp, #4]
LDRSPI   r0, [sp, #0]
LDRI     r0, [r0, #0]
STRSPI   r0, [sp, #5]
MOVI     r0, #255
LDRSPI   r1, [sp, #5]
ANDR     r0, r1
STRSPI   r0, [sp, #6]

```

L176

```

LDRSPI   r0, [sp, #3]
LDRSPI   r1, [sp, #6]
SUBR     r0, r1, r0
BLT      L175
MOVI     r1, #255
LDRSPI   r2, [sp, #5]
ANDR     r1, r2
LDRSPI   r0, [sp, #3]
LDRSPI   r2, [sp, #1]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #5]
LSRI     r0, r0, #8
STRSPI   r0, [sp, #5]
LDRSPI   r0, [sp, #3]
ADDI     r0, #1
STRSPI   r0, [sp, #3]
LDRSPI   r0, [sp, #4]
ADDI     r0, #1
STRSPI   r0, [sp, #4]
LDRSPI   r0, [sp, #4]
SUBI     r0, #4
BNE      L176
MOVI     r0, #0
STRSPI   r0, [sp, #4]
LDRSPI   r0, [sp, #2]
ADDI     r0, #1
STRSPI   r0, [sp, #2]

```

LDRSPI	r0,	[sp,	#0]
LDRSPI	r1,	[sp,	#2]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#5]
BU		L176	
L175			
INCSP		#7	
POP			

PROC declare

L21

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #11]

BL L20

LDRI r0, [r7, #11]

LDRI r1, [r7, #8]

BL L19

STRI r0, [r7, #10]

BL L18

LDRI r0, [r7, #4]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

INCSP #2

POP

PROC declsyswords

L22

```
PUSH
ADDPCI r0, S19
MOVI r1, #70
BL L21
ADDPCI r0, S20
MOVI r1, #22
BL L21
ADDPCI r0, S22
MOVI r1, #14
BL L21
ADDPCI r0, S23
MOVI r1, #12
BL L21
ADDPCI r0, S25
MOVI r1, #43
BL L21
ADDPCI r0, S27
MOVI r1, #25
BL L21
ADDPCI r0, S29
MOVI r1, #10
BL L21
ADDPCI r0, S30
MOVI r1, #26
BL L21
ADDPCI r0, S31
MOVI r1, #69
BL L21
ADDPCI r0, S32
MOVI r1, #24
BL L21
ADDPCI r0, S34
MOVI r1, #44
BL L21
ADDPCI r0, S36
MOVI r1, #16
BL L21
ADDPCI r0, S38
MOVI r1, #27
BL L21
ADDPCI r0, S40
MOVI r1, #11
BL L21
ADDPCI r0, S42
MOVI r1, #42
BL L21
```

```
ADDPCI r0, S44
MOVI   r1, #35
BL     L21
ADDPCI r0, S45
MOVI   r1, #21
BL     L21
ADDPCI r0, S46
MOVI   r1, #13
BL     L21
ADDPCI r0, S48
MOVI   r1, #71
BL     L21
POP
```

```
FUNC getchar
L23
    PUSH
    MOVI    r0, #0
    SVC    #2
    POP
```

PROC rdline

L24

```

PUSH
MOVI    r0, #1
STRI    r0, [r7, #16]
MOVI    r0, #1
STRI    r0, [r7, #15]
LDRI    r0, [r7, #17]
ADDI    r0, #1
STRI    r0, [r7, #17]
BL      L23
STRI    r0, [r7, #13]
LDRI    r0, [r7, #16]
LDRI    r1, [r7, #13]
LDRI    r2, [r7, #14]
LSLI    r0, r0, #2
STRR    r1, [r2, r0]

```

L178

```

LDRI    r0, [r7, #16]
SUBI    r0, #200
ASRI    r0, r0, #31
LDRI    r1, [r7, #13]
SUBI    r1, #255
BEQ     #1
MOVI    r1, #1
NEGR    r1, r1
ANDR    r0, r1
LDRI    r1, [r7, #13]
SUBI    r1, #10
BEQ     #1
MOVI    r1, #1
NEGR    r1, r1
ANDR    r0, r1
BEQ     L177
BL      L23
STRI    r0, [r7, #13]
LDRI    r0, [r7, #16]
ADDI    r0, #1
STRI    r0, [r7, #16]
LDRI    r0, [r7, #16]
LDRI    r1, [r7, #13]
LDRI    r2, [r7, #14]
LSLI    r0, r0, #2
STRR    r1, [r2, r0]
BU      L178

```

L177

```

POP

```

PROC rch

L25

PUSH

LDRI r0, [r7, #15]

LDRI r1, [r7, #16]

SUBR r0, r1, r0

BGE L179

BL L24

L179

LDRI r0, [r7, #14]

LDRI r1, [r7, #15]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRI r0, [r7, #13]

LDRI r0, [r7, #15]

ADDI r0, #1

STRI r0, [r7, #15]

POP

PROC rdtag

L26

PUSH

MOVI r0, #0

STRI r0, [r7, #12]

L181

LDRI r0, [r7, #13]

MOVI r1, #57

SUBR r0, r1, r0

ASRI r0, r0, #31

LDRI r1, [r7, #13]

SUBI r1, #48

ASRI r1, r1, #31

ORR r0, r1

MOVNR r0, r0

LDRI r1, [r7, #13]

SUBI r1, #95

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

LDRI r1, [r7, #13]

MOVI r2, #122

SUBR r1, r2, r1

ASRI r1, r1, #31

LDRI r2, [r7, #13]

SUBI r2, #97

ASRI r2, r2, #31

ORR r1, r2

MOVNR r1, r1

ORR r0, r1

LDRI r1, [r7, #13]

MOVI r2, #90

SUBR r1, r2, r1

ASRI r1, r1, #31

LDRI r2, [r7, #13]

SUBI r2, #65

ASRI r2, r2, #31

ORR r1, r2

MOVNR r1, r1

ORR r0, r1

BEQ L180

LDRI r0, [r7, #12]

ADDI r0, #1

STRI r0, [r7, #12]

LDRI r0, [r7, #12]

LDRI r1, [r7, #13]

LDRI r2, [r7, #11]

LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
BL	L25		
BU	L181		
L180			
LDRI	r0,	[r7,	#12]
LDRI	r1,	[r7,	#11]
STRI	r0,	[r1,	#0]
LDRI	r0,	[r7,	#11]
LDRI	r1,	[r7,	#8]
BL	L19		
STRI	r0,	[r7,	#10]
POP			

PROC readnumber

L27

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRI r0, [r7, #13]

BL L28

STRSPI r0, [sp, #1]

MOVI r0, #0

STRI r0, [r7, #6]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

SUBR r0, r1, r0

BLT L183

ADDPCI r0, S49

BL L12

BU L182

L183

L184

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

SUBR r0, r1, r0

BGE L182

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #6]

MULR r0, r1

LDRSPI r1, [sp, #1]

ADDR r0, r0, r1

STRI r0, [r7, #6]

BL L25

LDRI r0, [r7, #13]

BL L28

STRSPI r0, [sp, #1]

BU L184

L182

INCSP #2

POP

FUNC value

L28

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

MOVI r1, #57

SUBR r0, r1, r0

ASRI r0, r0, #31

LDRSPI r1, [sp, #0]

SUBI r1, #48

ASRI r1, r1, #31

ORR r0, r1

BNE L186

LDRSPI r0, [sp, #0]

SUBI r0, #48

BU L185

L186

LDRSPI r0, [sp, #0]

MOVI r1, #90

SUBR r0, r1, r0

ASRI r0, r0, #31

LDRSPI r1, [sp, #0]

SUBI r1, #65

ASRI r1, r1, #31

ORR r0, r1

BNE L187

LDRSPI r0, [sp, #0]

ADDI r0, #10

SUBI r0, #65

BU L185

L187

MOVI r0, #125

LSLI r0, r0, #2

L185

INCSP #1

POP

ADDI r0, #0

S19

DCD 1684955395

S20

DCD 1920098565

DCD 31073

S22

DCD 7300098

S23

DCD 1936483588

DCD 101

S25		
	DCD	1818322437
	DCD	25971
S27		
	DCD	1853187588
	DCD	99
S29		
	DCD	6711554
S30		
	DCD	7563522
S31		
	DCD	7499522
S32		
	DCD	1869770756
	DCD	99
S34		
	DCD	1952805382
	DCD	7238261
S36		
	DCD	1768649476
	DCD	112
S38		
	DCD	1869902596
	DCD	112
S40		
	DCD	1701344260
	DCD	110
S42		
	DCD	1970435076
	DCD	101
S44		
	DCD	1818326531
S45		
	DCD	1918989827
S46		
	DCD	1768453893
	DCD	25964
S48		
	DCD	1919907843
S49		
	DCD	1920099599
	DCD	1763734127
	DCD	1970151534
	DCD	1919246957

FUNC readcharco

L29

```
PUSH
DECSP    #1
LDRI     r0, [r7, #13]
SUBI     r0, #92
BNE      L189
BL       L25
LDRI     r0, [r7, #13]
SUBI     r0, #92
BNE      L190
MOVI     r0, #92
STRSPI   r0, [sp, #0]
BU       L188
```

L190

```
LDRI     r0, [r7, #13]
SUBI     r0, #39
BNE      L191
MOVI     r0, #39
STRSPI   r0, [sp, #0]
BU       L188
```

L191

```
LDRI     r0, [r7, #13]
SUBI     r0, #34
BNE      L192
MOVI     r0, #34
STRSPI   r0, [sp, #0]
BU       L188
```

L192

```
LDRI     r0, [r7, #13]
SUBI     r0, #110
BNE      L193
MOVI     r0, #10
STRSPI   r0, [sp, #0]
BU       L188
```

L193

```
LDRI     r0, [r7, #13]
SUBI     r0, #114
BNE      L194
MOVI     r0, #13
STRSPI   r0, [sp, #0]
BU       L188
```

L194

```
ADDPCI   r0, S53
BL       L12
BU       L188
```

L189

```
LDRI     r0, [r7, #13]
```

```
    STRSPI r0, [sp, #0]
L188
    BL     L25
    LDRSPI r0, [sp, #0]
    INCSP  #1
    POP
```

PROC readstring

L30

PUSH

DECSP #1

MOVI r0, #0

STRI r0, [r7, #12]

L196

LDRI r0, [r7, #13]

SUBI r0, #34

BEQ L195

LDRI r0, [r7, #12]

SUBI r0, #255

BNE L197

ADDPCI r0, S60

BL L12

L197

BL L29

STRSPI r0, [sp, #0]

LDRI r0, [r7, #12]

ADDI r0, #1

STRI r0, [r7, #12]

LDRI r0, [r7, #12]

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #11]

LSLI r0, r0, #2

STRR r1, [r2, r0]

BU L196

L195

LDRI r0, [r7, #12]

LDRI r1, [r7, #11]

STRI r0, [r1, #0]

LDRI r0, [r7, #11]

LDRI r1, [r7, #8]

BL L19

STRI r0, [r7, #10]

INCSP #1

POP

```

PROC nextsymbol
L31
    PUSH
L199
    LDRI    r0, [r7, #13]
    SUBI    r0, #32
    BEQ     #1
    MOVI    r0, #1
    SUBI    r0, #1
    LDRI    r1, [r7, #13]
    SUBI    r1, #13
    BEQ     #1
    MOVI    r1, #1
    SUBI    r1, #1
    ORR     r0, r1
    LDRI    r1, [r7, #13]
    SUBI    r1, #10
    BEQ     #1
    MOVI    r1, #1
    SUBI    r1, #1
    ORR     r0, r1
    BEQ     L198
    BL      L25
    BU      L199
L198
    LDRI    r0, [r7, #13]
    SUBI    r0, #124
    BNE     L201
    BL      L25
L203
    LDRI    r0, [r7, #13]
    SUBI    r0, #124
    BEQ     L202
    BL      L25
    BU      L203
L202
    BL      L25
    BU      L31+1
L201
    LDRI    r0, [r7, #13]
    MOVI    r1, #122
    SUBR    r0, r1, r0
    ASRI    r0, r0, #31
    LDRI    r1, [r7, #13]
    SUBI    r1, #97
    ASRI    r1, r1, #31
    ORR     r0, r1
    LDRI    r1, [r7, #13]

```

```

MOVI    r2,    #90
SUBR    r1,    r2,    r1
ASRI    r1,    r1,    #31
LDRI    r2,    [r7,    #13]
SUBI    r2,    #65
ASRI    r2,    r2,    #31
ORR     r1,    r2
ANDR    r0,    r1
BNE     L204
BL      L26
BL      L18
STRI    r0,    [r7,    #7]
BU      L200
L204
LDRI    r0,    [r7,    #13]
MOVI    r1,    #57
SUBR    r0,    r1,    r0
ASRI    r0,    r0,    #31
LDRI    r1,    [r7,    #13]
SUBI    r1,    #48
ASRI    r1,    r1,    #31
ORR     r0,    r1
BNE     L205
MOVI    r0,    #2
STRI    r0,    [r7,    #7]
MOVI    r0,    #10
BL      L27
BU      L200
L205
LDRI    r0,    [r7,    #13]
SUBI    r0,    #35
BNE     L206
BL      L25
MOVI    r0,    #2
STRI    r0,    [r7,    #7]
MOVI    r0,    #16
BL      L27
BU      L200
L206
LDRI    r0,    [r7,    #13]
SUBI    r0,    #91
BNE     L207
BL      L25
MOVI    r0,    #3
STRI    r0,    [r7,    #7]
BU      L200
L207
LDRI    r0,    [r7,    #13]
SUBI    r0,    #93

```

BNE	L208
BL	L25
MOVI	r0, #4
STRI	r0, [r7, #7]
BU	L200
L208	
LDRI	r0, [r7, #13]
SUBI	r0, #40
BNE	L209
BL	L25
MOVI	r0, #6
STRI	r0, [r7, #7]
BU	L200
L209	
LDRI	r0, [r7, #13]
SUBI	r0, #41
BNE	L210
BL	L25
MOVI	r0, #7
STRI	r0, [r7, #7]
BU	L200
L210	
LDRI	r0, [r7, #13]
SUBI	r0, #123
BNE	L211
BL	L25
MOVI	r0, #17
STRI	r0, [r7, #7]
BU	L200
L211	
LDRI	r0, [r7, #13]
SUBI	r0, #125
BNE	L212
BL	L25
MOVI	r0, #18
STRI	r0, [r7, #7]
BU	L200
L212	
LDRI	r0, [r7, #13]
SUBI	r0, #59
BNE	L213
BL	L25
MOVI	r0, #19
STRI	r0, [r7, #7]
BU	L200
L213	
LDRI	r0, [r7, #13]
SUBI	r0, #44
BNE	L214

BL	L25
MOVI	r0, #20
STRI	r0, [r7, #7]
BU	L200
L214	
LDRI	r0, [r7, #13]
SUBI	r0, #43
BNE	L215
BL	L25
MOVI	r0, #64
STRI	r0, [r7, #7]
BU	L200
L215	
LDRI	r0, [r7, #13]
SUBI	r0, #45
BNE	L216
BL	L25
MOVI	r0, #65
STRI	r0, [r7, #7]
BU	L200
L216	
LDRI	r0, [r7, #13]
SUBI	r0, #42
BNE	L217
BL	L25
MOVI	r0, #66
STRI	r0, [r7, #7]
BU	L200
L217	
LDRI	r0, [r7, #13]
SUBI	r0, #61
BNE	L218
BL	L25
MOVI	r0, #74
STRI	r0, [r7, #7]
BU	L200
L218	
LDRI	r0, [r7, #13]
SUBI	r0, #60
BNE	L219
BL	L25
LDRI	r0, [r7, #13]
SUBI	r0, #61
BNE	L220
BL	L25
MOVI	r0, #77
STRI	r0, [r7, #7]
BU	L200
L220	

LDRI	r0, [r7, #13]
SUBI	r0, #60
BNE	L221
BL	L25
MOVI	r0, #72
STRI	r0, [r7, #7]
BU	L200
L221	
MOVI	r0, #76
STRI	r0, [r7, #7]
BU	L200
L219	
LDRI	r0, [r7, #13]
SUBI	r0, #62
BNE	L222
BL	L25
LDRI	r0, [r7, #13]
SUBI	r0, #61
BNE	L223
BL	L25
MOVI	r0, #79
STRI	r0, [r7, #7]
BU	L200
L223	
LDRI	r0, [r7, #13]
SUBI	r0, #62
BNE	L224
BL	L25
MOVI	r0, #73
STRI	r0, [r7, #7]
BU	L200
L224	
MOVI	r0, #78
STRI	r0, [r7, #7]
BU	L200
L222	
LDRI	r0, [r7, #13]
SUBI	r0, #126
BNE	L225
BL	L25
LDRI	r0, [r7, #13]
SUBI	r0, #61
BNE	L226
BL	L25
MOVI	r0, #75
STRI	r0, [r7, #7]
BU	L200
L226	
MOVI	r0, #32

STRI	r0, [r7, #7]
BU	L200
L225	
LDRI	r0, [r7, #13]
SUBI	r0, #58
BNE	L227
BL	L25
LDRI	r0, [r7, #13]
SUBI	r0, #61
BNE	L228
BL	L25
MOVI	r0, #15
STRI	r0, [r7, #7]
BU	L200
L228	
ADDPCI	r0, S67
BL	L12
BU	L200
L227	
LDRI	r0, [r7, #13]
SUBI	r0, #39
BNE	L229
BL	L25
BL	L29
STRI	r0, [r7, #6]
LDRI	r0, [r7, #13]
SUBI	r0, #39
BNE	L231
BL	L25
BU	L230
L231	
ADDPCI	r0, S71
BL	L12
L230	
MOVI	r0, #2
STRI	r0, [r7, #7]
BU	L200
L229	
LDRI	r0, [r7, #13]
SUBI	r0, #34
BNE	L232
BL	L25
BL	L30
LDRI	r0, [r7, #13]
SUBI	r0, #34
BNE	L234
BL	L25
BU	L233
L234	

```

    ADDPCI r0, S78
    BL     L12
L233
    MOVI   r0, #36
    STRI   r0, [r7, #7]
    BU     L200
    ADDI   r0, #0
S53
    DCD    1920099611
    DCD    1763734127
    DCD    1751326830
    DCD    1667330657
    DCD    544367988
    DCD    1936617315
    DCD    1953390964
S60
    DCD    1920099608
    DCD    1763734127
    DCD    1953701998
    DCD    1735289202
    DCD    1852793632
    DCD    1851880563
    DCD    116
S67
    DCD    658319116
    DCD    1886938400
    DCD    1702126437
    DCD    100
S71
    DCD    1920099611
    DCD    1763734127
    DCD    1751326830
    DCD    1667330657
    DCD    544367988
    DCD    1936617315
    DCD    1953390964
S78
    DCD    1920099608
    DCD    1763734127
    DCD    1953701998
    DCD    1735289202
    DCD    1852793632
    DCD    1851880563
    DCD    116
L232
    LDRI   r0, [r7, #13]
    SUBI   r0, #255
    BNE    L235
    MOVI   r0, #60

```

```
    STRI    r0, [r7, #7]
    BU      L200
L235
    ADDPCI  r0, S85
    BL      L12
L200
    POP
```

PROC checkfor

L32

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #7]

SUBR r0, r1, r0

BNE L237

BL L31

BU L236

L237

LDRSPI r0, [sp, #1]

BL L12

L236

INCSP #2

POP

FUNC rname

L33

PUSH

DECSP #1

LDRI r0, [r7, #7]

SUBI r0, #1

BNE L239

LDRI r0, [r7, #4]

STRSPI r0, [sp, #0]

BL L31

BU L238

L239

ADDPCI r0, S90

BL L12

L238

LDRSPI r0, [sp, #0]

INCSP #1

POP

FUNC relement

L34

PUSH
 DECSP #3
 LDRI r0, [r7, #7]
 SUBI r0, #1
 BNE L241
 BL L33
 STRSPI r0, [sp, #0]
 LDRI r0, [r7, #7]
 SUBI r0, #3
 BNE L242
 BL L31
 BL L35
 STRSPI r0, [sp, #1]
 MOVI r0, #4
 ADDPCI r1, S94
 BL L32
 MOVI r0, #80
 LDRSPI r1, [sp, #0]
 LDRSPI r2, [sp, #1]
 BL L16
 STRSPI r0, [sp, #0]
 BU L240

L242

LDRI r0, [r7, #7]
 SUBI r0, #6
 BNE L240
 BL L31
 LDRI r0, [r7, #7]
 SUBI r0, #7
 BNE L244
 LDRI r0, [r7, #5]
 STRSPI r0, [sp, #1]
 BU L243

L244

BL L38
 STRSPI r0, [sp, #1]

L243

MOVI r0, #7
 ADDPCI r1, S98
 BL L32
 MOVI r0, #8
 LDRSPI r1, [sp, #0]
 LDRSPI r2, [sp, #1]
 BL L16
 STRSPI r0, [sp, #0]
 BU L240

L241

LDRI	r0,	[r7, #7]
SUBI	r0,	#2
BNE	L245	
MOVI	r0,	#2
LDRI	r1,	[r7, #6]
BL	L15	
STRSPI	r0,	[sp, #0]
BL	L31	
BU	L240	

L245

LDRI	r0,	[r7, #7]
SUBI	r0,	#43
BEQ	#1	
MOVI	r0,	#1
SUBI	r0,	#1
LDRI	r1,	[r7, #7]
SUBI	r1,	#42
BEQ	#1	
MOVI	r1,	#1
SUBI	r1,	#1
ORR	r0,	r1
BEQ	L246	
LDRI	r0,	[r7, #4]
STRSPI	r0,	[sp, #0]
BL	L31	
BU	L240	

L246

LDRI	r0,	[r7, #7]
SUBI	r0,	#36
BNE	L247	
LDRI	r0,	[r7, #10]
ADDI	r0,	#2
BL	L13	
STRSPI	r0,	[sp, #0]
LDRSPI	r0,	[sp, #0]
MOVI	r1,	#36
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
MOVI	r0,	#0
STRSPI	r0,	[sp, #2]

L249

LDRSPI	r0,	[sp, #2]
LDRI	r1,	[r7, #10]
SUBR	r0,	r1, r0
BLT	L248	
LDRSPI	r0,	[sp, #2]
ADDI	r0,	#1

LDRSPI	r1,	[sp,	#0]
ADDR	r0,	r0,	r1
LDRI	r1,	[r7,	#8]
LDRSPI	r2,	[sp,	#2]
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#2]
ADDI	r0,	#1	
STRSPI	r0,	[sp,	#2]
BU	L249		
L248			
BL	L31		
BU	L240		
L247			
LDRI	r0,	[r7,	#7]
SUBI	r0,	#6	
BNE	L250		
BL	L31		
BL	L35		
STRSPI	r0,	[sp,	#0]
MOVI	r0,	#7	
ADDPCI	r1,	S102	
BL	L32		
BU	L240		
L250			
ADDPCI	r0,	S106	
BL	L12		
L240			
LDRSPI	r0,	[sp,	#0]
INCSP	#3		
POP			

FUNC reexpression

L35

PUSH
 DECSP #4
 LDRI r0, [r7, #7]
 SUBI r0, #65
 BNE L252
 BL L31
 BL L34
 STRSPI r0, [sp, #1]
 MOVI r0, #34
 LDRSPI r1, [sp, #1]
 BL L15
 BU L251

L252

LDRI r0, [r7, #7]
 SUBI r0, #32
 BNE L253
 BL L31
 BL L34
 STRSPI r0, [sp, #1]
 MOVI r0, #32
 LDRSPI r1, [sp, #1]
 BL L15
 BU L251

L253

BL L34
 STRSPI r0, [sp, #0]
 MOVI r0, #64
 LDRI r1, [r7, #7]
 ANDR r0, r1
 BEQ L254
 LDRI r0, [r7, #7]
 STRSPI r0, [sp, #2]
 BL L31
 LDRSPI r0, [sp, #2]
 BL L36
 STRSPI r0, [sp, #3]
 LDRSPI r0, [sp, #2]
 LDRSPI r1, [sp, #0]
 LDRSPI r2, [sp, #3]
 BL L16
 BU L251

L254

LDRSPI r0, [sp, #0]

L251

INCSP #4
 POP

FUNC right

L36

PUSH

DECSP #3

STRSPI r0, [sp, #0]

BL L34

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

BL L37

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #7]

SUBR r1, r2, r1

BEQ #1

MOVI r1, #1

SUBI r1, #1

ANDR r0, r1

BEQ L256

BL L31

LDRSPI r0, [sp, #0]

BL L36

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #2]

BL L16

BU L255

L256

LDRSPI r0, [sp, #1]

L255

INCSP #3

POP

FUNC associative

L37

```

PUSH
DECSP    #1
STRSPI   r0, [sp, #0]
LDRSPI   r0, [sp, #0]
SUBI     r0, #66
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRSPI   r1, [sp, #0]
SUBI     r1, #64
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
LDRSPI   r1, [sp, #0]
SUBI     r1, #71
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
LDRSPI   r1, [sp, #0]
SUBI     r1, #69
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
LDRSPI   r1, [sp, #0]
SUBI     r1, #70
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
INCSP    #1
POP

```

S85

```

DCD      1819044113
DCD      1818322789
DCD      1634231072
DCD      1952670066
DCD      29285

```

S90

```

DCD      1835101709
DCD      2019893349
DCD      1952671088
DCD      25701

```

S94

DCD 660416268
DCD 1886938400
DCD 1702126437
DCD 100

S98

DCD 657008396
DCD 1886938400
DCD 1702126437
DCD 100

S102

DCD 657008396
DCD 1886938400
DCD 1702126437
DCD 100

S106

DCD 1920099603
DCD 1763734127
DCD 2019893358
DCD 1936028272
DCD 1852795251

FUNC rexplicit

L38

PUSH

DECSP #2

BL L35

STRSPI r0, [sp, #0]

LDRI r0, [r7, #7]

SUBI r0, #20

BNE L258

BL L31

BL L38

STRSPI r0, [sp, #1]

MOVI r0, #20

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L16

BU L257

L258

LDRSPI r0, [sp, #0]

L257

INCSP #2

POP

FUNC rstatement

L39

```

PUSH
DECSP    #4
LDRI     r0, [r7, #7]
SUBI     r0, #16
BNE      L260
BL       L31
MOVI     r0, #16
BL       L14
BU       L259

```

L260

```

LDRI     r0, [r7, #7]
SUBI     r0, #27
BNE      L261
BL       L31
MOVI     r0, #27
BL       L14
BU       L259

```

L261

```

LDRI     r0, [r7, #7]
SUBI     r0, #44
BNE      L262
BL       L31
BL       L35
STRSPI   r0, [sp, #3]
MOVI     r0, #44
LDRSPI   r1, [sp, #3]
BL       L15
BU       L259

```

L262

```

LDRI     r0, [r7, #7]
SUBI     r0, #10
BNE      L263
BL       L31
BL       L35
STRSPI   r0, [sp, #0]
MOVI     r0, #11
ADDPCI   r1, S111
BL       L32
BL       L39
STRSPI   r0, [sp, #1]
MOVI     r0, #12
ADDPCI   r1, S115
BL       L32
BL       L39
STRSPI   r0, [sp, #2]
MOVI     r0, #10

```

LDRSPI	r1,	[sp,	#0]
LDRSPI	r2,	[sp,	#1]
LDRSPI	r3,	[sp,	#2]
BL	L17		
BU	L259		
L263			
LDRI	r0,	[r7,	#7]
SUBI	r0,	#13	
BNE	L264		
BL	L31		
BL	L35		
STRSPI	r0,	[sp,	#0]
MOVI	r0,	#14	
ADDPCI	r1,	S119	
BL	L32		
BL	L39		
STRSPI	r0,	[sp,	#1]
MOVI	r0,	#13	
LDRSPI	r1,	[sp,	#0]
LDRSPI	r2,	[sp,	#1]
BL	L16		
BU	L259		
L264			
LDRI	r0,	[r7,	#7]
SUBI	r0,	#17	
BNE	L265		
BL	L31		
BL	L40		
STRSPI	r0,	[sp,	#0]
MOVI	r0,	#18	
ADDPCI	r1,	S123	
BL	L32		
LDRSPI	r0,	[sp,	#0]
BU	L259		
L265			
LDRI	r0,	[r7,	#7]
SUBI	r0,	#1	
BNE	L266		
BL	L34		
STRSPI	r0,	[sp,	#0]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#8	
BNE	L267		
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#9	
LDRI	r2,	[r7,	#2]

LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#0]
BU	L259		
L267			
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#80	
BNE	L268		
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#81	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
L268			
MOVI	r0,	#15	
ADDPCI	r1,	S127	
BL	L32		
BL	L35		
STRSPI	r0,	[sp,	#3]
MOVI	r0,	#15	
LDRSPI	r1,	[sp,	#0]
LDRSPI	r2,	[sp,	#3]
BL	L16		
BU	L259		
L266			
ADDPCI	r0,	S131	
BL	L12		
MOVI	r0,	#27	
BL	L14		
L259			
INCSP	#4		
POP			

FUNC rstatements

L40

PUSH

DECSP #2

BL L39

STRSPI r0, [sp, #0]

LDRI r0, [r7, #7]

SUBI r0, #19

BNE L270

BL L31

BL L40

STRSPI r0, [sp, #1]

MOVI r0, #19

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L16

BU L269

L270

LDRSPI r0, [sp, #0]

L269

INCSP #2

POP

FUNC rprocdecls

L41

PUSH

DECSP #2

BL L42

STRSPI r0, [sp, #0]

LDR r0, [r7, #7]

SUBI r0, #25

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDR r1, [r7, #7]

SUBI r1, #24

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

BEQ L272

BL L41

STRSPI r0, [sp, #1]

MOVI r0, #19

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L16

BU L271

L272

LDRSPI r0, [sp, #0]

L271

INCSP #2

POP

FUNC rprocdecl

L42

```

PUSH
DECSP    #5
LDRI     r0, [r7, #7]
STRSPI   r0, [sp, #0]
BL       L31
BL       L33
STRSPI   r0, [sp, #1]
MOVI     r0, #6
ADDPCI   r1, S136
BL       L32
LDRI     r0, [r7, #7]
SUBI     r0, #7
BNE      L274
LDRI     r0, [r7, #5]
STRSPI   r0, [sp, #2]
BU       L273

```

L274

```

BL       L43
STRSPI   r0, [sp, #2]

```

L273

```

MOVI     r0, #7
ADDPCI   r1, S140
BL       L32
MOVI     r0, #26
ADDPCI   r1, S144
BL       L32
LDRI     r0, [r7, #7]
SUBI     r0, #35
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRI     r1, [r7, #7]
SUBI     r1, #21
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
BEQ      L276
BL       L45
STRSPI   r0, [sp, #3]
BU       L275

```

L276

```

LDRI     r0, [r7, #5]
STRSPI   r0, [sp, #3]

```

L275

```

BL       L39

```

```
STRSPI r0, [sp, #4]
MOVI   r0, #23
LDRSPI r1, [sp, #3]
LDRSPI r2, [sp, #4]
BL     L16
STRSPI r0, [sp, #3]
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #2]
LDRSPI r3, [sp, #3]
BL     L17
INCSP  #5
POP
```

FUNC rformals

L43

```

PUSH
DECSP    #4
LDRI     r0, [r7, #7]
SUBI     r0, #24
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRI     r1, [r7, #7]
SUBI     r1, #22
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
LDRI     r1, [r7, #7]
SUBI     r1, #35
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
BEQ      L277
LDRI     r0, [r7, #7]
STRSPI   r0, [sp, #0]
BL       L31
LDRI     r0, [r7, #7]
SUBI     r0, #1
BNE      L278
BL       L33
STRSPI   r0, [sp, #3]
LDRSPI   r0, [sp, #0]
LDRSPI   r1, [sp, #3]
BL       L15
STRSPI   r0, [sp, #1]
BU       L277

```

L278

```

ADDPCI   r0, S148
BL       L12

```

L277

```

LDRI     r0, [r7, #7]
SUBI     r0, #20
BNE      L280
BL       L31
BL       L43
STRSPI   r0, [sp, #2]
MOVI     r0, #20
LDRSPI   r1, [sp, #1]
LDRSPI   r2, [sp, #2]

```

BL	L16
BU	L279
L280	
LDRSPI	r0, [sp, #1]
L279	
INCSP	#4
POP	
S111	
DCD	1752442639
DCD	539455077
DCD	1701869669
DCD	1684370531
S115	
DCD	1818568463
DCD	539452787
DCD	1701869669
DCD	1684370531
S119	
DCD	1868834573
DCD	2019893287
DCD	1952671088
DCD	25701
S123	
DCD	662513420
DCD	1886938400
DCD	1702126437
DCD	100
S127	
DCD	1027221261
DCD	2019893287
DCD	1952671088
DCD	25701
S131	
DCD	1920099600
DCD	1763734127
DCD	1868767342
DCD	1851878765
DCD	100
S136	
DCD	656942860
DCD	1886938400
DCD	1702126437
DCD	100
S140	
DCD	657008396
DCD	1886938400
DCD	1702126437
DCD	100
S144	

DCD 1936271117
DCD 2019893287
DCD 1952671088
DCD 25701

S148

DCD 1835101709
DCD 2019893349
DCD 1952671088
DCD 25701

FUNC rgdecls

L44

PUSH

DECSP #2

BL L46

STRSPI r0, [sp, #0]

LDRI r0, [r7, #7]

SUBI r0, #22

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRI r1, [r7, #7]

SUBI r1, #21

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

LDRI r1, [r7, #7]

SUBI r1, #35

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

BEQ L282

BL L44

STRSPI r0, [sp, #1]

MOVI r0, #19

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L16

BU L281

L282

LDRSPI r0, [sp, #0]

L281

INCSP #2

POP

FUNC rdecls

L45

PUSH

DECSP #2

BL L46

STRSPI r0, [sp, #0]

LDR r0, [r7, #7]

SUBI r0, #21

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDR r1, [r7, #7]

SUBI r1, #35

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

BEQ L284

BL L45

STRSPI r0, [sp, #1]

MOVI r0, #19

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L16

BU L283

L284

LDRSPI r0, [sp, #0]

L283

INCSP #2

POP

FUNC rdecl

L46

PUSH
 DECSP #3
 LDRI r0, [r7, #7]
 SUBI r0, #21
 BNE L286
 BL L31
 BL L33
 STRSPI r0, [sp, #2]
 MOVI r0, #21
 LDRSPI r1, [sp, #2]
 BL L15
 STRSPI r0, [sp, #0]
 BU L285

L286

LDRI r0, [r7, #7]
 SUBI r0, #22
 BNE L287
 BL L31
 BL L33
 STRSPI r0, [sp, #0]
 MOVI r0, #3
 ADDPCI r1, S152
 BL L32
 BL L35
 STRSPI r0, [sp, #1]
 MOVI r0, #4
 ADDPCI r1, S156
 BL L32
 MOVI r0, #22
 LDRSPI r1, [sp, #0]
 LDRSPI r2, [sp, #1]
 BL L16
 STRSPI r0, [sp, #0]
 BU L285

L287

LDRI r0, [r7, #7]
 SUBI r0, #35
 BNE L285
 BL L31
 BL L33
 STRSPI r0, [sp, #0]
 MOVI r0, #74
 ADDPCI r1, S160
 BL L32
 BL L35
 STRSPI r0, [sp, #1]

```
MOVI    r0,    #35
LDRSPI  r1,    [sp, #0]
LDRSPI  r2,    [sp, #1]
BL      L16
STRSPI  r0,    [sp, #0]
L285
MOVI    r0,    #19
ADDPCI  r1,    S164
BL      L32
LDRSPI  r0,    [sp, #0]
INCSP   #3
POP
```

PROC namemessage

L47

PUSH
 DECSP #7
 STRSPI r0, [sp, #0]
 STRSPI r1, [sp, #1]
 LDRSPI r0, [sp, #0]
 BL L8
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #1]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 SUBI r0, #1
 BNE L288
 MOVI r0, #1
 STRSPI r0, [sp, #2]
 MOVI r0, #2
 STRSPI r0, [sp, #3]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #3]
 LDRSPI r2, [sp, #1]
 ADDR r1, r1, r2
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #4]
 MOVI r0, #255
 LDRSPI r1, [sp, #4]
 ANDR r0, r1
 STRSPI r0, [sp, #5]
 LDRSPI r0, [sp, #4]
 LSRI r0, r0, #8
 STRSPI r0, [sp, #4]
 MOVI r0, #1
 STRSPI r0, [sp, #6]

L289

LDRSPI r0, [sp, #2]
 LDRSPI r1, [sp, #5]
 SUBR r0, r1, r0
 BLT L288
 MOVI r0, #255
 LDRSPI r1, [sp, #4]
 ANDR r0, r1
 BL L4
 LDRSPI r0, [sp, #4]
 LSRI r0, r0, #8
 STRSPI r0, [sp, #4]
 LDRSPI r0, [sp, #2]
 ADDI r0, #1

STRSPI	r0,	[sp,	#2]
LDRSPI	r0,	[sp,	#6]
ADDI	r0,	#1	
STRSPI	r0,	[sp,	#6]
LDRSPI	r0,	[sp,	#6]
SUBI	r0,	#4	
BNE	L289		
MOVI	r0,	#0	
STRSPI	r0,	[sp,	#6]
LDRSPI	r0,	[sp,	#3]
ADDI	r0,	#1	
STRSPI	r0,	[sp,	#3]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#3]
LDRSPI	r2,	[sp,	#1]
ADDR	r1,	r1,	r2
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#4]
BU	L289		
L288			
BL	L5		
INCSP	#7		
POP			

PROC generror

L48

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

BL L8

BL L5

ADDPCI r0, S168

LDRI r1, [r7, #2]

LDRI r2, [r7, #31]

ADDI r2, #1

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L47

INCSP #1

POP

PROC declprocs

L49

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #19

BNE L291

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L49

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BU L49+2

L291

BL L112

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

BL L55

L290

INCSP #2

POP

PROC declformals

L50

```

PUSH
DECSP    #2
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
ADDI     r0, #0
BEQ      L292
LDRSPI   r0, [sp, #1]
SUBI     r0, #20
BNE      L293
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L50
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BU       L50+2

```

L293

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #35
BNE      L294
LDRSPI   r0, [sp, #0]
MOVI     r1, #21
LDRI     r2, [r7, #2]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]

```

L294

```

LDRSPI   r0, [sp, #0]
MOVI     r1, #132
LDRR     r1, [r7, r1]
BL       L55
MOVI     r0, #132
LDRR     r0, [r7, r0]
ADDI     r0, #1
MOVI     r1, #132
STRR     r0, [r7, r1]

```

L292

INCSP #2
POP

PROC tformals

L51

```

PUSH
DECSP    #2
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
ADDI     r0, #0
BEQ      L295
LDRSPI   r0, [sp, #1]
SUBI     r0, #20
BNE      L296
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L51
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BU       L51+2

```

L296

```

MOVI     r0, #18
MOVI     r1, #132
LDRR     r1, [r7, r1]
MOVI     r2, #132
LDRR     r2, [r7, r2]
BL       L100
MOVI     r0, #132
LDRR     r0, [r7, r0]
ADDI     r0, #1
MOVI     r1, #132
STRR     r0, [r7, r1]

```

L295

```

INCSP    #2
POP

```

PROC declglobals

L52

```

PUSH
DECSP    #3
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
SUBI     r0, #19
BNE      L298
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L52
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BU       L52+2

```

L298

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #21
BNE      L299
LDRSPI   r0, [sp, #0]
MOVI     r1, #132
LDRR     r1, [r7, r1]
BL       L55
MOVI     r0, #132
LDRR     r0, [r7, r0]
ADDI     r0, #1
MOVI     r1, #132
STRR     r0, [r7, r1]
BU       L297

```

L299

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #35
BNE      L300
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]

```

BL	L59
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LDRI	r2, [r7, #2]
LSLI	r1, r1, #2
STRR	r0, [r2, r1]
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L60
BEQ	L301
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L61
STRSPI	r0, [sp, #2]
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #2]
BL	L55
BU	L297
L301	
ADDPCI	r0, S172
BL	L48
BU	L297
L300	
LDRSPI	r0, [sp, #1]
SUBI	r0, #22
BNE	L297
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L59
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LDRI	r2, [r7, #2]
LSLI	r1, r1, #2
STRR	r0, [r2, r1]
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L60

BEQ	L302
LDR	r0, [r7, #2]
LDRSP	r1, [sp, #0]
ADD	r1, #2
LSL	r1, r1, #2
LDR	r0, [r0, r1]
BL	L61
LDR	r1, [r7, #28]
ADDR	r0, r0, r1
STR	r0, [r7, #28]
LDRSP	r0, [sp, #0]
MOVI	r1, #132
LDR	r1, [r7, r1]
BL	L55
MOVI	r0, #132
LDR	r0, [r7, r0]
ADD	r0, #1
MOVI	r1, #132
STR	r0, [r7, r1]
BU	L297
S152	
DCD	660285196
DCD	1886938400
DCD	1702126437
DCD	100
S156	
DCD	660416268
DCD	1886938400
DCD	1702126437
DCD	100
S160	
DCD	658319116
DCD	1886938400
DCD	1702126437
DCD	100
S164	
DCD	658188044
DCD	1886938400
DCD	1702126437
DCD	100
S168	
DCD	544106764
DCD	1668183398
DCD	1852795252
DCD	32
S172	
DCD	1852793628
DCD	1851880563
DCD	2019893364

DCD 1936028272
DCD 1852795251
DCD 1886938400
DCD 1702126437
DCD 100

L302

ADDPCI r0, S180
BL L48

L297

INCSP #3
POP

PROC tglobals

L53

```

PUSH
DECSP    #3
MOVI    r0,    #0
STRSPI  r0,    [sp, #0]
LDRI    r0,    [r7, #28]
LSLI    r0,    r0,    #2
LDRPCI  r1,    C13
SUBR    r0,    r1,    r0
STRSPI  r0,    [sp, #1]
MOVI    r0,    #7
MOVI    r1,    #132
LDRR    r1,    [r7, r1]
LSLI    r1,    r1,    #2
LDRSPI  r2,    [sp, #1]
SUBR    r1,    r2,    r1
BL      L91
MOVI    r0,    #7
BL      L101

```

L304

```

LDRI    r0,    [r7, #20]
LDRSPI  r1,    [sp, #0]
SUBR    r0,    r1,    r0
BGE     L303
LDRI    r0,    [r7, #18]
LDRSPI  r1,    [sp, #0]
LSLI    r1,    r1,    #2
LDRR    r0,    [r0, r1]
STRSPI  r0,    [sp, #2]
LDRI    r0,    [r7, #2]
LDRSPI  r1,    [sp, #2]
LSLI    r1,    r1,    #2
LDRR    r0,    [r0, r1]
SUBI    r0,    #22
BNE     L305
MOVI    r0,    #0
LDRSPI  r1,    [sp, #1]
BL      L91
MOVI    r0,    #18
MOVI    r1,    #0
LDRI    r2,    [r7, #19]
LDRSPI  r3,    [sp, #0]
LSLI    r3,    r3,    #2
LDRR    r2,    [r2, r3]
BL      L100
LDRI    r0,    [r7, #2]
LDRSPI  r1,    [sp, #2]

```

```

ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L61
LSLI    r0, r0, #2
LDRSPI  r1, [sp, #1]
ADDR    r0, r0, r1
STRSPI  r0, [sp, #1]
L305
LDRSPI  r0, [sp, #0]
ADDI    r0, #1
STRSPI  r0, [sp, #0]
BU      L304
L303
INCSP   #3
POP

```

PROC decllocals

L54

```

PUSH
DECSP    #3
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
ADDI     r0, #0
BEQ      L306
LDRSPI   r0, [sp, #1]
SUBI     r0, #19
BNE      L307
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L54
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BU       L54+2

```

L307

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #21
BNE      L308
LDRSPI   r0, [sp, #0]
MOVI     r1, #132
LDRR     r1, [r7, r1]
BL       L55
MOVI     r0, #132
LDRR     r0, [r7, r0]
ADDI     r0, #1
MOVI     r1, #132
STRR     r0, [r7, r1]
BU       L306

```

L308

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #35
BNE      L306
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]

```

```

ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L59
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LDRI    r2, [r7, #2]
LSLI    r1, r1, #2
STRR    r0, [r2, r1]
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L60
BEQ     L309
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L61
STRSPI  r0, [sp, #2]
LDRSPI  r0, [sp, #0]
LDRSPI  r1, [sp, #2]
BL      L55
BU      L306
L309
  ADDPCI r0, S188
  BL     L48
L306
  INCSP  #3
  POP

```

PROC addname

L55

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #20]

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #18]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRI r0, [r7, #20]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #19]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRI r0, [r7, #20]

ADDI r0, #1

STRI r0, [r7, #20]

INCSP #2

POP

FUNC findname

L56

PUSH

DECSP #3

STRSPI r0, [sp, #0]

MOVI r0, #0

STRSPI r0, [sp, #2]

LDRI r0, [r7, #20]

SUBI r0, #1

STRSPI r0, [sp, #1]

L311

LDRSPI r0, [sp, #1]

SUBI r0, #0

ASRI r0, r0, #31

MOVNR r0, r0

LDRSPI r1, [sp, #2]

SUBI r1, #0

BEQ #1

MOVI r1, #1

SUBI r1, #1

ANDR r0, r1

BEQ L310

LDRI r0, [r7, #2]

LDRI r1, [r7, #18]

LDRSPI r2, [sp, #1]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRSPI r1, [sp, #0]

SUBR r0, r0, r1

BNE L312

MOVI r0, #1

NEGR r0, r0

STRSPI r0, [sp, #2]

BU L311

L312

LDRSPI r0, [sp, #1]

SUBI r0, #1

STRSPI r0, [sp, #1]

BU L311

L310

LDRSPI r0, [sp, #2]

ADDI r0, #0

BNE L313

ADDPCI r0, S196

LDRSPI r1, [sp, #0]

BL	L47
ADDPCI	r0, S201
LDRI	r1, [r7, #2]
LDRI	r2, [r7, #31]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
BL	L47
L313	
LDRSPI	r0, [sp, #1]
INCSP	#3
POP	

FUNC islocal

L57

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRI r0, [r7, #21]

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

ASRI r0, r0, #31

MOVNR r0, r0

INCSP #1

POP

PROC optimise

L58

```

PUSH
DECSP    #2
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
SUBI     r0, #27
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRSPI   r1, [sp, #1]
SUBI     r1, #16
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
BEQ      #1
BU       L314
LDRSPI   r0, [sp, #1]
SUBI     r0, #44
BNE      L315
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L59
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LDRI     r2, [r7, #2]
LSLI     r1, r1, #2
STRR     r0, [r2, r1]
BU       L314

```

L315

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #10
BNE      L316
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L59

```

LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L58		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#3	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BU	L58+2		
L316			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#13	
BNE	L317		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BU	L58+2		
L317			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#15	
BNE	L318		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]

ADDI	r1,	#2
LDRI	r2,	[r7, #2]
LSLI	r1,	r1, #2
STRR	r0,	[r2, r1]
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL		L59
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LDRI	r2,	[r7, #2]
LSLI	r1,	r1, #2
STRR	r0,	[r2, r1]
BU		L314
L318		
LDRSPI	r0,	[sp, #1]
SUBI	r0,	#9
BNE		L319
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL		L59
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LDRI	r2,	[r7, #2]
LSLI	r1,	r1, #2
STRR	r0,	[r2, r1]
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL		L59
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LDRI	r2,	[r7, #2]
LSLI	r1,	r1, #2
STRR	r0,	[r2, r1]
BU		L314
C13		
DCD		200000
S180		
DCD		1852793628
DCD		1851880563
DCD		2019893364

DCD	1936028272
DCD	1852795251
DCD	1886938400
DCD	1702126437
DCD	100
S188	
DCD	1852793628
DCD	1851880563
DCD	2019893364
DCD	1936028272
DCD	1852795251
DCD	1886938400
DCD	1702126437
DCD	100
S196	
DCD	1835101714
DCD	1869488229
DCD	1701060724
DCD	1918987363
DCD	2122853
S201	
DCD	544106763
DCD	1668183398
DCD	1852795252
L319	
LDRSPI	r0, [sp, #1]
SUBI	r0, #19
BNE	L314
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #1
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L58
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BU	L58+2
L314	
INCSP	#2
POP	

FUNC optimiseexpr

L59

```

PUSH
DECSP    #10
STRSPI   r0, [sp, #0]
LDRSPI   r0, [sp, #0]
STRSPI   r0, [sp, #3]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
SUBI     r0, #1
BNE      L321
LDRSPI   r0, [sp, #0]
BL       L56
STRSPI   r0, [sp, #2]
LDRI     r0, [r7, #2]
LDRI     r1, [r7, #18]
LDRSPI   r2, [sp, #2]
LSLI     r2, r2, #2
LDRR     r1, [r1, r2]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
SUBI     r0, #35
BEQ      #1
BU       L320
LDRI     r0, [r7, #2]
LDRI     r1, [r7, #18]
LDRSPI   r2, [sp, #2]
LSLI     r2, r2, #2
LDRR     r1, [r1, r2]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #3]
BU       L320

```

L321

```

LDRSPI   r0, [sp, #1]
BL       L95
BEQ      L322
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L59

```

LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#3]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L60		
BNE	#1		
BU	L320		
LDRSPI	r0,	[sp,	#0]
BL	L62		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#2	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
BU	L320		
L322			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#8	
BNE	L323		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	

LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
BU	L320		
L323			
LDRSPI	r0,	[sp,	#1]
BL	L96		
BNE	#1		
BU	L324		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L59		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#5]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#6]
LDRI	r0,	[r7,	#2]

LDRSPI	r1,	[sp,	#5]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#7]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#6]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#8]
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#81	
BEQ	#1		
MOVI	r0,	#1	
SUBI	r0,	#1	
LDRSPI	r1,	[sp,	#1]
SUBI	r1,	#80	
BEQ	#1		
MOVI	r1,	#1	
SUBI	r1,	#1	
ORR	r0,	r1	
BEQ	#1		
BU	L320		
LDRSPI	r0,	[sp,	#6]
BL	L60		
STRSPI	r0,	[sp,	#9]
LDRSPI	r0,	[sp,	#5]
BL	L60		
LDRSPI	r1,	[sp,	#9]
ANDR	r0,	r1	
BEQ	L325		
LDRSPI	r0,	[sp,	#0]
BL	L63		
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LDRI	r2,	[r7,	#2]
LSLI	r1,	r1,	#2
STRR	r0,	[r2,	r1]
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#2	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
BU	L320		
L325			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#74	
BNE	L326		
LDRSPI	r0,	[sp,	#8]
SUBI	r0,	#32	

BEQ	#1
MOVI	r0, #1
SUBI	r0, #1
LDRSPI	r1, [sp, #7]
SUBI	r1, #32
BEQ	#1
MOVI	r1, #1
SUBI	r1, #1
ANDR	r0, r1
BNE	#1
BU	L320
LDRSPI	r0, [sp, #0]
ADDI	r0, #1
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #5]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
LDRSPI	r0, [sp, #0]
ADDI	r0, #2
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #6]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
BU	L320
L326	
LDRSPI	r0, [sp, #1]
SUBI	r0, #75
BNE	L327
LDRSPI	r0, [sp, #0]
MOVI	r1, #74
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
MOVI	r0, #32
LDRSPI	r1, [sp, #0]
BL	L15
STRSPI	r0, [sp, #3]
LDRSPI	r0, [sp, #8]
SUBI	r0, #32
BEQ	#1
MOVI	r0, #1

SUBI	r0,	#1
LDRSPI	r1,	[sp, #7]
SUBI	r1,	#32
BEQ		#1
MOVI	r1,	#1
SUBI	r1,	#1
ANDR	r0,	r1
BNE		#1
BU		L320
LDRSPI	r0,	[sp, #0]
ADDI	r0,	#1
LDRI	r1,	[r7, #2]
LDRSPI	r2,	[sp, #5]
ADDI	r2,	#1
LSLI	r2,	r2, #2
LDRR	r1,	[r1, r2]
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
LDRSPI	r0,	[sp, #0]
ADDI	r0,	#2
LDRI	r1,	[r7, #2]
LDRSPI	r2,	[sp, #6]
ADDI	r2,	#1
LSLI	r2,	r2, #2
LDRR	r1,	[r1, r2]
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
BU		L320
L327		
LDRSPI	r0,	[sp, #1]
SUBI	r0,	#79
BNE		L328
LDRSPI	r0,	[sp, #0]
MOVI	r1,	#76
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
MOVI	r0,	#32
LDRSPI	r1,	[sp, #0]
BL		L15
STRSPI	r0,	[sp, #3]
BU		L320
L328		
LDRSPI	r0,	[sp, #1]
SUBI	r0,	#78
BNE		L329
LDRI	r0,	[r7, #2]

LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#4]
LDRSPI	r0,	[sp,	#0]
ADDI	r0,	#1	
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#0]
ADDI	r2,	#2	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#0]
ADDI	r0,	#2	
LDRSPI	r1,	[sp,	#4]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#76	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
BU	L320		
L329			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#77	
BNE	L330		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#4]
LDRSPI	r0,	[sp,	#0]
ADDI	r0,	#1	
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#0]
ADDI	r2,	#2	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#0]
ADDI	r0,	#2	

LDRSPI	r1,	[sp,	#4]
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
LDRSPI	r0,	[sp,	#0]
MOVI	r1,	#76	
LDRI	r2,	[r7,	#2]
LSLI	r0,	r0,	#2
STRR	r1,	[r2,	r0]
MOVI	r0,	#32	
LDRSPI	r1,	[sp,	#0]
BL	L15		
STRSPI	r0,	[sp,	#3]
BU	L320		
L330			
LDRSPI	r0,	[sp,	#1]
SUBI	r0,	#70	
BEQ	#1		
MOVI	r0,	#1	
SUBI	r0,	#1	
LDRSPI	r1,	[sp,	#1]
SUBI	r1,	#69	
BEQ	#1		
MOVI	r1,	#1	
SUBI	r1,	#1	
ORR	r0,	r1	
BEQ	L331		
LDRSPI	r0,	[sp,	#8]
SUBI	r0,	#32	
BEQ	#1		
MOVI	r0,	#1	
SUBI	r0,	#1	
LDRSPI	r1,	[sp,	#7]
SUBI	r1,	#32	
BEQ	#1		
MOVI	r1,	#1	
SUBI	r1,	#1	
ANDR	r0,	r1	
BNE	#1		
BU	L320		
MOVI	r0,	#32	
LDRSPI	r1,	[sp,	#0]
BL	L15		
STRSPI	r0,	[sp,	#3]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#0]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#70	

BNE	L333
LDRSPI	r0, [sp, #0]
MOVI	r1, #69
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
BU	L332
L333	
LDRSPI	r0, [sp, #0]
MOVI	r1, #70
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
L332	
LDRSPI	r0, [sp, #0]
ADDI	r0, #1
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #5]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
LDRSPI	r0, [sp, #0]
ADDI	r0, #2
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #6]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
LDRI	r2, [r7, #2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
BU	L320
L331	
LDRSPI	r0, [sp, #1]
SUBI	r0, #71
BNE	L334
LDRSPI	r0, [sp, #8]
SUBI	r0, #32
BEQ	#1
MOVI	r0, #1
SUBI	r0, #1
LDRSPI	r1, [sp, #7]
SUBI	r1, #32
BEQ	#1
MOVI	r1, #1
SUBI	r1, #1

ANDR	r0,	r1
BNE	#1	
BU	L320	
LDRSPI	r0,	[sp, #0]
ADDI	r0,	#1
LDRI	r1,	[r7, #2]
LDRSPI	r2,	[sp, #5]
ADDI	r2,	#1
LSLI	r2,	r2, #2
LDRR	r1,	[r1, r2]
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
LDRSPI	r0,	[sp, #0]
ADDI	r0,	#2
LDRI	r1,	[r7, #2]
LDRSPI	r2,	[sp, #6]
ADDI	r2,	#1
LSLI	r2,	r2, #2
LDRR	r1,	[r1, r2]
LDRI	r2,	[r7, #2]
LSLI	r0,	r0, #2
STRR	r1,	[r2, r0]
BU	L320	
L334		
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L76	
STRSPI	r0,	[sp, #9]
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L76	
LDRSPI	r1,	[sp, #9]
ORR	r0,	r1
LDRSPI	r1,	[sp, #1]
SUBI	r1,	#71
BEQ	#1	
MOVI	r1,	#1
SUBI	r1,	#1
LDRSPI	r2,	[sp, #1]
SUBI	r2,	#69
BEQ	#1	
MOVI	r2,	#1

SUBI	r2,	#1
ORR	r1,	r2
LDRSPI	r2,	[sp, #1]
SUBI	r2,	#64
BEQ	#1	
MOVI	r2,	#1
SUBI	r2,	#1
ORR	r1,	r2
ANDR	r0,	r1
BEQ	L335	
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L76	
BEQ	L336	
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
STRSPI	r0,	[sp, #3]
BU	L320	
L336		
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L76	
BEQ	L320	
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
STRSPI	r0,	[sp, #3]
BU	L320	
L335		
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L76	
LDRSPI	r1,	[sp, #1]
SUBI	r1,	#73
BEQ	#1	

```

MOVI    r1, #1
SUBI    r1, #1
LDRSPI  r2, [sp, #1]
SUBI    r2, #72
BEQ     #1
MOVI    r2, #1
SUBI    r2, #1
ORR     r1, r2
LDRSPI  r2, [sp, #1]
SUBI    r2, #65
BEQ     #1
MOVI    r2, #1
SUBI    r2, #1
ORR     r1, r2
ANDR    r0, r1
BEQ     L320
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #1
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
STRSPI  r0, [sp, #3]
BU      L320
L324
LDRSPI  r0, [sp, #1]
SUBI    r0, #20
BNE     L320
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L59
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LDRI    r2, [r7, #2]
LSLI    r1, r1, #2
STRR    r0, [r2, r1]
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #1
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L59
LDRSPI  r1, [sp, #0]
ADDI    r1, #1
LDRI    r2, [r7, #2]
LSLI    r1, r1, #2
STRR    r0, [r2, r1]

```

L320

LDRSPI r0, [sp, #3]

INCSP #10

POP

FUNC isval

L60

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDR r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSL r1, r1, #2

LDR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #1]

SUBI r0, #2

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRSPI r1, [sp, #1]

SUBI r1, #43

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

LDRSPI r1, [sp, #1]

SUBI r1, #42

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

INCSP #2

POP

FUNC getval

L61

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #1]

SUBI r0, #42

BNE L338

MOVI r0, #1

NEGR r0, r0

BU L337

L338

LDRSPI r0, [sp, #1]

SUBI r0, #43

BNE L339

MOVI r0, #0

BU L337

L339

LDRSPI r0, [sp, #1]

SUBI r0, #2

BNE L340

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BU L337

L340

MOVI r0, #0

L337

INCSP #2

POP

FUNC evalmonadic

L62

PUSH
 DECSP #3
 STRSPI r0, [sp, #0]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #1]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #1
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 BL L61
 STRSPI r0, [sp, #2]
 LDRSPI r0, [sp, #1]
 SUBI r0, #34
 BNE L342
 LDRSPI r0, [sp, #2]
 NEGR r0, r0
 BU L341

L342

LDRSPI r0, [sp, #1]
 SUBI r0, #32
 BNE L343
 LDRSPI r0, [sp, #2]
 MOVNR r0, r0
 BU L341

L343

ADDPCI r0, S204
 BL L48
 MOVI r0, #0

L341

INCSP #3
 POP

FUNC evaldiadic

L63

PUSH

DECSP #4

STRSPI r0, [sp, #0]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L61

STRSPI r0, [sp, #2]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L61

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #1]

SUBI r0, #64

BNE L345

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

ADDR r0, r0, r1

BU L344

L345

LDRSPI r0, [sp, #1]

SUBI r0, #65

BNE L346

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

SUBR r0, r1, r0

BU L344

L346

LDRSPI r0, [sp, #1]

SUBI r0, #66

BNE L347

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

MULR r0, r1

BU L344

L347

```

LDRSPI r0, [sp, #1]
SUBI   r0, #74
BNE    L348
LDRSPI r0, [sp, #3]
LDRSPI r1, [sp, #2]
SUBR   r0, r1, r0
BEQ    #1
MOVI   r0, #1
SUBI   r0, #1
BU     L344
L348
LDRSPI r0, [sp, #1]
SUBI   r0, #75
BNE    L349
LDRSPI r0, [sp, #3]
LDRSPI r1, [sp, #2]
SUBR   r0, r1, r0
BEQ    #1
MOVI   r0, #1
NEGR   r0, r0
BU     L344
L349
LDRSPI r0, [sp, #1]
SUBI   r0, #76
BNE    L350
LDRSPI r0, [sp, #3]
LDRSPI r1, [sp, #2]
SUBR   r0, r1, r0
ASRI   r0, r0, #31
BU     L344
L350
LDRSPI r0, [sp, #1]
SUBI   r0, #78
BNE    L351
LDRSPI r0, [sp, #2]
LDRSPI r1, [sp, #3]
SUBR   r0, r1, r0
ASRI   r0, r0, #31
BU     L344
L351
LDRSPI r0, [sp, #1]
SUBI   r0, #77
BNE    L352
LDRSPI r0, [sp, #2]
LDRSPI r1, [sp, #3]
SUBR   r0, r1, r0
ASRI   r0, r0, #31
MOVNR  r0, r0
BU     L344

```

L352

LDRSPI r0, [sp, #1]
 SUBI r0, #79
 BNE L353
 LDRSPI r0, [sp, #3]
 LDRSPI r1, [sp, #2]
 SUBR r0, r1, r0
 ASRI r0, r0, #31
 MOVNR r0, r0
 BU L344

L353

LDRSPI r0, [sp, #1]
 SUBI r0, #69
 BNE L354
 LDRSPI r0, [sp, #3]
 LDRSPI r1, [sp, #2]
 ORR r0, r1
 BU L344

L354

LDRSPI r0, [sp, #1]
 SUBI r0, #70
 BNE L355
 LDRSPI r0, [sp, #3]
 LDRSPI r1, [sp, #2]
 ANDR r0, r1
 BU L344

L355

LDRSPI r0, [sp, #1]
 SUBI r0, #71
 BNE L356
 LDRSPI r0, [sp, #3]
 LDRSPI r1, [sp, #2]
 EORR r0, r1
 BU L344

L356

LDRSPI r0, [sp, #1]
 SUBI r0, #72
 BNE L357
 LDRSPI r0, [sp, #2]
 LDRSPI r1, [sp, #3]
 LSLR r0, r1
 BU L344

L357

LDRSPI r0, [sp, #1]
 SUBI r0, #73
 BNE L358
 LDRSPI r0, [sp, #2]
 LDRSPI r1, [sp, #3]
 LSRR r0, r1

```
    BU      L344
L358
    ADDPCI  r0, S208
    BL      L12
    MOVI    r0, #0
L344
    INCSP   #4
    POP
```

PROC translate

L64

```

PUSH
DECSP    #4
STRSPI   r0, [sp, #0]
MOVI     r0, #0
STRI     r0, [r7, #20]
MOVI     r0, #0
STRI     r0, [r7, #21]
MOVI     r0, #1
MOVI     r1, #144
STRR     r0, [r7, r1]
BL       L116
MOVI     r0, #0
STRI     r0, [r7, #28]
BL       L89
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L52
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L53
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L49
LDRI     r0, [r7, #20]
STRI     r0, [r7, #21]
BL       L112
STRSPI   r0, [sp, #3]
LDRSPI   r0, [sp, #3]
MOVI     r1, #1
NEGR     r1, r1
MOVI     r2, #0
MOVI     r3, #0
BL       L107
MOVI     r0, #223
MOVI     r1, #0
BL       L102
LDRSPI   r0, [sp, #3]

```

```
BL      L113
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L65
MOVI    r0, #0
BL      L118
BL      L129
INCSP   #4
POP
```

PROC genprocs

L65

PUSH
 DECSP #4
 STRSPI r0, [sp, #0]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 SUBI r0, #19
 BNE L360
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #1
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 BL L65
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #2
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 BU L65+2

L360

LDRI r0, [r7, #3]
 STRSPI r0, [sp, #2]
 LDRI r0, [r7, #21]
 STRI r0, [r7, #20]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #1
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 BL L56
 STRSPI r0, [sp, #3]
 LDRI r0, [r7, #19]
 LDRSPI r1, [sp, #3]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 MOVI r1, #128
 STRR r0, [r7, r1]
 LDRI r0, [r7, #18]
 LDRSPI r1, [sp, #3]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRI r0, [r7, #31]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]

```

ADDI    r1, #3
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
STRSPI  r0, [sp, #1]
BL      L89
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L50
BL      L114
MOVI    r0, #0
MOVI    r1, #132
STRR    r0, [r7, r1]
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L51
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #1]
ADDI    r1, #1
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L54
BL      L90
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #1]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
BL      L58
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #1]
ADDI    r1, #2
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
MOVI    r1, #1
NEGR    r1, r1
MOVI    r2, #0
MOVI    r3, #1
NEGR    r3, r3
BL      L67
BL      L115
LDRSPI  r0, [sp, #2]
STRI    r0, [r7, #3]

```

L359

INCSP	#4
POP	
S204	
DCD	1836016398
DCD	1701603696
DCD	1919230066
DCD	7499634
S208	
DCD	1953525518
DCD	1936289129
DCD	1919230053
DCD	7499634

FUNC funtail

L66

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRI r0, [r7, #2]

LDRI r1, [r7, #31]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #25

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRSPI r1, [sp, #0]

ANDR r0, r1

INCSP #1

POP

PROC genstatement

L67

PUSH

DECSP #10

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

STRSPI r3, [sp, #3]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #4]

SUBI r0, #19

BNE L362

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

MOVI r1, #1

NEGR r1, r1

MOVI r2, #0

MOVI r3, #0

BL L67

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #2]

LDRSPI r3, [sp, #3]

BU L67+2

L362

LDRSPI r0, [sp, #2]

SUBI r0, #0

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRSPI r1, [sp, #4]

SUBI r1, #10

BEQ #1

MOVI r1, #1

SUBI r1, #1

ANDR r0, r1

BEQ L363

BL	L112
STRSPI	r0, [sp, #6]
LDRSPI	r0, [sp, #0]
MOVI	r1, #1
NEGR	r1, r1
LDRSPI	r2, [sp, #6]
LDRSPI	r3, [sp, #3]
BL	L67
LDRSPI	r0, [sp, #6]
BL	L113
BU	L361
L363	
LDRSPI	r0, [sp, #4]
SUBI	r0, #10
BNE	L364
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
STRSPI	r0, [sp, #7]
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #3
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
STRSPI	r0, [sp, #8]
LDRSPI	r0, [sp, #3]
BL	L66
MOVNR	r0, r0
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #8]
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
SUBI	r1, #16
BEQ	#1
MOVI	r1, #1
SUBI	r1, #1
LDRI	r2, [r7, #2]
LDRSPI	r3, [sp, #7]
LSLI	r3, r3, #2
LDRR	r2, [r2, r3]
SUBI	r2, #16
BEQ	#1
MOVI	r2, #1
SUBI	r2, #1
ORR	r1, r2
ANDR	r0, r1
BEQ	L365

```

LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #1
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
LDRI    r1, [r7, #2]
LDRSPI  r2, [sp, #7]
LSLI    r2, r2, #2
LDRR    r1, [r1, r2]
SUBI    r1, #16
BEQ     #1
MOVI    r1, #1
SUBI    r1, #1
LDRSPI  r2, [sp, #2]
BL      L68
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #7]
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
SUBI    r0, #16
BNE     L366
LDRSPI  r0, [sp, #8]
LDRSPI  r1, [sp, #1]
LDRSPI  r2, [sp, #2]
LDRSPI  r3, [sp, #3]
BU      L67+2
L366
LDRSPI  r0, [sp, #7]
LDRSPI  r1, [sp, #1]
LDRSPI  r2, [sp, #2]
LDRSPI  r3, [sp, #3]
BU      L67+2
L365
BL      L112
STRSPI  r0, [sp, #9]
LDRI    r0, [r7, #2]
LDRSPI  r1, [sp, #0]
ADDI    r1, #1
LSLI    r1, r1, #2
LDRR    r0, [r0, r1]
MOVI    r1, #0
LDRSPI  r2, [sp, #9]
BL      L68
LDRSPI  r0, [sp, #7]
MOVI    r1, #0
LDRSPI  r2, [sp, #2]
LDRSPI  r3, [sp, #3]
BL      L67
LDRSPI  r0, [sp, #9]

```

BL	L113
LDRSPI	r0, [sp, #8]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #2]
LDRSPI	r3, [sp, #3]
BU	L67+2
L364	
LDRSPI	r0, [sp, #3]
BL	L66
BEQ	L367
LDRSPI	r0, [sp, #4]
SUBI	r0, #44
BNE	L368
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #1
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
STRSPI	r0, [sp, #5]
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #5]
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
SUBI	r0, #8
BNE	L369
LDRSPI	r0, [sp, #5]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #2]
LDRSPI	r3, [sp, #3]
BL	L69
BU	L361
L369	
MOVI	r0, #0
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #0]
ADDI	r2, #1
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
BL	L85
LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #2]
BL	L106
BU	L361
L368	
ADDPCI	r0, S212
BL	L48
BU	L361
L367	
LDRSPI	r0, [sp, #2]

SUBI	r0,	#0
BEQ		#1
MOVI	r0,	#1
SUBI	r0,	#1
LDRSPI	r1,	[sp, #4]
SUBI	r1,	#13
BEQ		#1
MOVI	r1,	#1
SUBI	r1,	#1
ANDR	r0,	r1
BEQ		L370
BL		L112
STRSPI	r0,	[sp, #6]
LDRSPI	r0,	[sp, #0]
MOVI	r1,	#0
LDRSPI	r2,	[sp, #6]
MOVI	r3,	#0
BL		L67
LDRSPI	r0,	[sp, #6]
BL		L113
BU		L361
L370		
LDRSPI	r0,	[sp, #4]
SUBI	r0,	#13
BNE		L371
BL		L112
STRSPI	r0,	[sp, #6]
LDRSPI	r0,	[sp, #6]
BL		L113
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
MOVI	r1,	#0
LDRSPI	r2,	[sp, #2]
BL		L68
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #0]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
MOVI	r1,	#0
LDRSPI	r2,	[sp, #6]
MOVI	r3,	#0
BU		L67+2
L371		
LDRSPI	r0,	[sp, #4]
SUBI	r0,	#9

BNE	L372
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #2]
LDRSPI	r3, [sp, #3]
BL	L69
BU	L361

L372

LDRSPI	r0, [sp, #4]
SUBI	r0, #27
BNE	L373
MOVI	r0, #223
MOVI	r1, #0
BL	L102
BU	L361

L373

LDRSPI	r0, [sp, #4]
SUBI	r0, #16
BEQ	L374
LDRSPI	r0, [sp, #4]
SUBI	r0, #15
BNE	L375
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #0]
ADDI	r1, #1
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #0]
ADDI	r2, #2
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
BL	L82
BU	L374

L375

LDRSPI	r0, [sp, #4]
SUBI	r0, #44
BNE	L374
ADDPCI	r0, S217
BL	L48

L374

LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #2]
BL	L106

L361

INCSP	#10
POP	

PROC gencondjump

L68

PUSH

DECSP #6

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

LDRSPI r0, [sp, #0]

STRSPI r0, [sp, #5]

LDRSPI r0, [sp, #1]

STRSPI r0, [sp, #3]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #4]

SUBI r0, #32

BNE L376

LDRSPI r0, [sp, #3]

MOVNR r0, r0

STRSPI r0, [sp, #3]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #5]

L376

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #5]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #76

BNE L378

MOVI r0, #65

MOVI r1, #0

LDRI r2, [r7, #2]

LDRSPI r3, [sp, #5]

ADDI r3, #1

LSLI r3, r3, #2

LDRR r2, [r2, r3]

LDRI r3, [r7, #2]

LDRSPI r4, [sp, #5]

ADDI r4, #2

LSLI r4, r4, #2

LDRR r3, [r3, r4]

BL L86

LDRSPI	r0,	[sp,	#3]
ADDI	r0,	#0	
BEQ	L379		
MOVI	r0,	#221	
LDRSPI	r1,	[sp,	#2]
BL	L105		
BU	L377		
L379			
MOVI	r0,	#218	
LDRSPI	r1,	[sp,	#2]
BL	L105		
BU	L377		
L378			
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#5]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#74	
BNE	L381		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#5]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L76		
BEQ	L383		
MOVI	r0,	#0	
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#5]
ADDI	r2,	#2	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
BL	L84		
BU	L382		
L383			
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#5]
ADDI	r1,	#2	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
BL	L76		
BEQ	L384		
MOVI	r0,	#0	
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#5]
ADDI	r2,	#1	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
BL	L84		

BU	L382
L384	
MOVI	r0, #65
MOVI	r1, #0
LDR	r2, [r7, #2]
LDRSPI	r3, [sp, #5]
ADDI	r3, #1
LSLI	r3, r3, #2
LDRR	r2, [r2, r3]
LDR	r3, [r7, #2]
LDRSPI	r4, [sp, #5]
ADDI	r4, #2
LSLI	r4, r4, #2
LDRR	r3, [r3, r4]
BL	L86
L382	
LDRSPI	r0, [sp, #3]
MOVNR	r0, r0
STRSPI	r0, [sp, #3]
BU	L380
L381	
MOVI	r0, #0
LDRSPI	r1, [sp, #5]
BL	L84
L380	
LDRSPI	r0, [sp, #3]
ADDI	r0, #0
BEQ	L385
MOVI	r0, #209
LDRSPI	r1, [sp, #2]
BL	L105
BU	L377
L385	
MOVI	r0, #208
LDRSPI	r1, [sp, #2]
BL	L105
L377	
INCSP	#6
POP	

PROC tcall

L69

PUSH

DECSP #8

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

STRSPI r3, [sp, #3]

MOVI r0, #132

LDRR r0, [r7, r0]

STRSPI r0, [sp, #4]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L70

BL L90

LDRSPI r0, [sp, #4]

MOVI r1, #132

STRR r0, [r7, r1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L72

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L60

BEQ L387

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L61

STRSPI r0, [sp, #7]

MOVI r0, #223

LDRSPI r1, [sp, #7]

BL L102

BU L386

L387

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L56	
STRSPI	r0,	[sp, #5]
LDRI	r0,	[r7, #18]
LDRSPI	r1,	[sp, #5]
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
STRSPI	r0,	[sp, #6]
LDRSPI	r0,	[sp, #5]
BL	L57	
BEQ	L388	
MOVI	r0,	#19
MOVI	r1,	#6
LDRI	r2,	[r7, #19]
LDRSPI	r3,	[sp, #5]
LSLI	r3,	r3, #2
LDRR	r2,	[r2, r3]
BL	L100	
MOVI	r0,	#143
MOVI	r1,	#6
BL	L103	
BU	L386	
L388		
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #6]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
LDRI	r1,	[r7, #2]
LDRSPI	r2,	[sp, #0]
ADDI	r2,	#2
LSLI	r2,	r2, #2
LDRR	r1,	[r1, r2]
BL	L74	
LDRI	r0,	[r7, #19]
LDRSPI	r1,	[sp, #5]
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
LDRSPI	r1,	[sp, #1]
LDRSPI	r2,	[sp, #2]
LDRSPI	r3,	[sp, #3]
BL	L107	
L386		
LDRSPI	r0,	[sp, #4]
MOVI	r1,	#132
STRR	r0,	[r7, r1]
INCSP	#8	

```
POP
ADDI    r0, #0
S212
DCD     1701978641
DCD     1852994932
DCD     2019893282
DCD     1952671088
DCD     25701
S217
DCD     1936289042
DCD     1667329136
DCD     572548197
DCD     1970562418
DCD     2256498
```

PROC prepareaps

L70

PUSH

DECSP #3

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

STRSPI r0, [sp, #1]

MOVI r0, #0

STRSPI r0, [sp, #2]

L390

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #20

BNE L389

LDRSPI r0, [sp, #2]

LDRI r1, [r7, #2]

LDRSPI r2, [sp, #1]

ADDI r2, #1

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L71

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #2]

ADDI r0, #1

STRSPI r0, [sp, #2]

BU L390

L389

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #1]

BL L71

INCSP #3

POP

PROC prepareap

L71

PUSH

DECSP #5

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #2]

ADDI r0, #0

BEQ L391

LDRSPI r0, [sp, #1]

BL L79

LDRSPI r1, [sp, #0]

MOVI r2, #7

SUBR r1, r2, r1

SUBR r0, r1, r0

ASRI r0, r0, #31

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #1]

BL L80

LDRSPI r1, [sp, #4]

ORR r0, r1

LDRSPI r1, [sp, #0]

MOVI r2, #0

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L391

MOVI r0, #0

LDRSPI r1, [sp, #1]

BL L85

MOVI r0, #18

MOVI r1, #0

MOVI r2, #132

LDRR r2, [r7, r2]

BL L100

MOVI r0, #132

LDRR r0, [r7, r0]

ADDI r0, #1

MOVI r1, #132

STRR r0, [r7, r1]

L391

INCSP #5

POP

PROC loadaps

L72

PUSH

DECSP #3

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

STRSPI r0, [sp, #1]

MOVI r0, #0

STRSPI r0, [sp, #2]

L393

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #20

BNE L392

LDRSPI r0, [sp, #2]

LDRI r1, [r7, #2]

LDRSPI r2, [sp, #1]

ADDI r2, #1

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L73

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #2]

ADDI r0, #1

STRSPI r0, [sp, #2]

BU L393

L392

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #1]

BL L73

INCSP #3

POP

PROC loadap

L73

PUSH

DECSP #6

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #2]

ADDI r0, #0

BEQ L394

LDRSPI r0, [sp, #2]

SUBI r0, #1

BNE L395

LDRSPI r0, [sp, #1]

BL L56

STRSPI r0, [sp, #3]

LDRI r0, [r7, #2]

LDRI r1, [r7, #18]

LDRSPI r2, [sp, #3]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #4]

SUBI r0, #35

BNE L396

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #19]

LDRSPI r2, [sp, #3]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L91

BU L394

L396

LDRSPI r0, [sp, #4]

SUBI r0, #24

BNE L397

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #3]

BL L92

BU L394

L397

LDRSPI r0, [sp, #0]

LDRSPI	r1,	[sp,	#3]
BL			L93
BU			L394
L395			
LDRSPI	r0,	[sp,	#1]
BL			L79
LDRSPI	r1,	[sp,	#0]
MOVI	r2,		#7
SUBR	r1,	r2,	r1
SUBR	r0,	r1,	r0
ASRI	r0,	r0,	#31
STRSPI	r0,	[sp,	#5]
LDRSPI	r0,	[sp,	#1]
BL			L80
LDRSPI	r1,	[sp,	#5]
ORR	r0,		r1
LDRSPI	r1,	[sp,	#0]
MOVI	r2,		#0
SUBR	r1,	r2,	r1
ASRI	r1,	r1,	#31
ANDR	r0,		r1
BEQ			L398
MOVI	r0,		#19
LDRSPI	r1,	[sp,	#0]
MOVI	r2,		#132
LDRR	r2,	[r7,	r2]
BL			L100
MOVI	r0,		#132
LDRR	r0,	[r7,	r0]
ADDI	r0,		#1
MOVI	r1,		#132
STRR	r0,	[r7,	r1]
BU			L394
L398			
LDRSPI	r0,	[sp,	#0]
LDRSPI	r1,	[sp,	#1]
BL			L85
L394			
INCSP			#6
POP			

PROC checkps

L74

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

L400

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #3]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #20

BNE L399

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #2]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #20

BNE L401

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #2]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRI r1, [r7, #2]

LDRSPI r2, [sp, #3]

ADDI r2, #1

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L75

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #3]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #3]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #2]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

BU L400

L401

ADDPCI r0, S222

BL L12

BU L400

L399

LDRSPI r0, [sp, #2]
LDRSPI r1, [sp, #3]
BL L75
INCSP #4
POP

PROC checkp

L75

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

ADDI r0, #0

BEQ L402

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #35

BEQ L402

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #22

BEQ L402

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #24

BEQ L402

L402

INCSP #2

POP

FUNC iszero

L76

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

BL L61

SUBI r0, #0

BEQ #1

MOVI r0, #1

SUBI r0, #1

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

BL L60

LDRSPI r1, [sp, #1]

ANDR r0, r1

INCSP #2

POP

FUNC immop5

L77

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

BL L61

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

BL L60

LDRSPI r1, [sp, #1]

SUBI r1, #32

ASRI r1, r1, #31

LDRSPI r2, [sp, #1]

SUBI r2, #0

ASRI r2, r2, #31

MOVNR r2, r2

ANDR r1, r2

ANDR r0, r1

INCSP #2

POP

FUNC immop8

L78

PUSH

DECSP #2

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

BL L61

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #0]

BL L60

MOVI r1, #1

LSLI r1, r1, #8

LDRSPI r2, [sp, #1]

SUBR r1, r2, r1

ASRI r1, r1, #31

LDRSPI r2, [sp, #1]

SUBI r2, #0

ASRI r2, r2, #31

MOVNR r2, r2

ANDR r1, r2

ANDR r0, r1

INCSP #2

POP

FUNC regsfor

L79

PUSH

DECSP #4

STRSPI r0, [sp, #0]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #1]

LDRSPI r0, [sp, #1]

BL L95

BEQ L404

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BU L79+2

L404

LDRSPI r0, [sp, #1]

BL L96

BEQ L405

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L79

STRSPI r0, [sp, #2]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #0]

ADDI r1, #2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

BL L79

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

SUBR r0, r1, r0

BNE L406

LDRSPI r0, [sp, #2]

ADDI r0, #1

BU L403

L406

LDRSPI r0, [sp, #2]

LDRSPI r1, [sp, #3]

SUBR r0, r1, r0

```
BGE      L407
LDRSPI   r0, [sp, #2]
BU       L403
L407
LDRSPI   r0, [sp, #3]
BU       L403
L405
MOVI     r0, #1
L403
INCSP    #4
POP
```

FUNC containscall

L80

```

PUSH
DECSP    #3
STRSPI   r0, [sp, #0]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
STRSPI   r0, [sp, #1]
LDRSPI   r0, [sp, #1]
BL       L95
BEQ      L409
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BU       L80+2

```

L409

```

LDRSPI   r0, [sp, #1]
BL       L96
LDRSPI   r1, [sp, #1]
SUBI     r1, #20
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ORR      r0, r1
BEQ      L410
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #2
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L80
STRSPI   r0, [sp, #2]
LDRI     r0, [r7, #2]
LDRSPI   r1, [sp, #0]
ADDI     r1, #1
LSLI     r1, r1, #2
LDRR     r0, [r0, r1]
BL       L80
LDRSPI   r1, [sp, #2]
ORR      r0, r1
BU       L408

```

L410

```

LDRSPI   r0, [sp, #1]
SUBI     r0, #8

```

```
BNE      L411
MOVI     r0, #1
NEGR     r0, r0
BU       L408
L411
MOVI     r0, #0
L408
INCSP    #3
POP
```

PROC loadbase

L81

PUSH
 DECSP #5
 STRSPI r0, [sp, #0]
 STRSPI r1, [sp, #1]
 LDRSPI r0, [sp, #1]
 BL L60
 BEQ L413
 LDRSPI r0, [sp, #1]
 BL L61
 STRSPI r0, [sp, #4]
 LDRSPI r0, [sp, #0]
 LDRSPI r1, [sp, #4]
 BL L91
 BU L412

L413

LDRSPI r0, [sp, #1]
 BL L56
 STRSPI r0, [sp, #2]
 LDRI r0, [r7, #18]
 LDRSPI r1, [sp, #2]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #3]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #3]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 SUBI r0, #22
 BNE L414
 LDRSPI r0, [sp, #0]
 LDRSPI r1, [sp, #2]
 BL L93
 BU L412

L414

ADDPCI r0, S227
 LDRI r1, [r7, #2]
 LDRSPI r2, [sp, #3]
 ADDI r2, #1
 LSLI r2, r2, #2
 LDRR r1, [r1, r2]
 BL L47

L412

INCSP #5
 POP

PROC genassign

L82

PUSH
 DECSP #9
 STRSPI r0, [sp, #0]
 STRSPI r1, [sp, #1]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #3]
 LDRSPI r0, [sp, #3]
 SUBI r0, #1
 BNE L416
 LDRSPI r0, [sp, #0]
 BL L56
 STRSPI r0, [sp, #4]
 MOVI r0, #0
 LDRSPI r1, [sp, #1]
 BL L85
 MOVI r0, #0
 LDRSPI r1, [sp, #4]
 BL L94
 BU L415

L416

LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #1
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #5]
 LDRI r0, [r7, #2]
 LDRSPI r1, [sp, #0]
 ADDI r1, #2
 LSLI r1, r1, #2
 LDRR r0, [r0, r1]
 STRSPI r0, [sp, #6]
 LDRSPI r0, [sp, #6]
 BL L60
 BEQ L417
 LDRSPI r0, [sp, #6]
 BL L61
 STRSPI r0, [sp, #7]
 LDRSPI r0, [sp, #7]
 SUBI r0, #32
 BGE L418
 MOVI r0, #0
 LDRSPI r1, [sp, #1]

```

BL      L85
MOVI   r0, #1
LDRSPI r1, [sp, #5]
BL      L81
MOVI   r0, #12
MOVI   r1, #0
MOVI   r2, #1
LDRSPI r3, [sp, #7]
BL      L97
BU      L415
L418
MOVI   r0, #0
LDRSPI r1, [sp, #1]
BL      L85
MOVI   r0, #1
LDRSPI r1, [sp, #0]
BL      L85
MOVI   r0, #12
MOVI   r1, #0
MOVI   r2, #1
MOVI   r3, #0
BL      L97
BU      L415
L417
LDRSPI r0, [sp, #1]
BL      L80
BEQ     L419
LDRSPI r0, [sp, #6]
BL      L80
BEQ     L421
MOVI   r0, #132
LDRR   r0, [r7, r0]
STRSPI r0, [sp, #2]
MOVI   r0, #0
LDRSPI r1, [sp, #6]
BL      L85
MOVI   r0, #132
LDRR   r0, [r7, r0]
ADDI   r0, #1
MOVI   r1, #132
STRR   r0, [r7, r1]
BL      L90
MOVI   r0, #18
MOVI   r1, #0
LDRSPI r2, [sp, #2]
BL      L100
MOVI   r0, #0
LDRSPI r1, [sp, #1]
BL      L85

```

```

MOVI    r0,  #19
MOVI    r1,  #1
LDRSPI  r2,  [sp, #2]
BL      L100
LDRSPI  r0,  [sp, #2]
MOVI    r1,  #132
STRR    r0,  [r7, r1]
BU      L420
L421
MOVI    r0,  #0
LDRSPI  r1,  [sp, #1]
BL      L85
MOVI    r0,  #1
LDRSPI  r1,  [sp, #6]
BL      L85
L420
MOVI    r0,  #0
LDRSPI  r1,  [sp, #5]
MOVI    r2,  #1
BL      L83
BU      L415
L419
LDRSPI  r0,  [sp, #6]
BL      L80
BEQ     L422
MOVI    r0,  #0
LDRSPI  r1,  [sp, #6]
BL      L85
MOVI    r0,  #1
LDRSPI  r1,  [sp, #1]
BL      L85
MOVI    r0,  #1
LDRSPI  r1,  [sp, #5]
MOVI    r2,  #0
BL      L83
BU      L415
L422
LDRSPI  r0,  [sp, #1]
BL      L79
STRSPI  r0,  [sp, #8]
LDRSPI  r0,  [sp, #6]
BL      L79
LDRSPI  r1,  [sp, #8]
SUBR    r0,  r0,  r1
BGE     L423
MOVI    r0,  #0
LDRSPI  r1,  [sp, #1]
BL      L85
MOVI    r0,  #1

```

```

LDRSPI r1, [sp, #6]
BL L85
MOVI r0, #0
LDRSPI r1, [sp, #5]
MOVI r2, #1
BL L83
BU L415
ADDI r0, #0
S222
DCD 1918988306
DCD 1952804193
DCD 1830842981
DCD 1634562921
DCD 6841204
S227
DCD 1920098574
DCD 1696627041
DCD 1667592312
DCD 6579572
L423
MOVI r0, #0
LDRSPI r1, [sp, #6]
BL L85
MOVI r0, #1
LDRSPI r1, [sp, #1]
BL L85
MOVI r0, #1
LDRSPI r1, [sp, #5]
MOVI r2, #0
BL L83
L415
INCSP #9
POP

```

PROC subassign

L83

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

MOVI r0, #2

LDRSPI r1, [sp, #1]

BL L81

MOVI r0, #0

LDRSPI r1, [sp, #2]

LDRSPI r2, [sp, #2]

MOVI r3, #2

BL L97

MOVI r0, #40

LDRSPI r1, [sp, #0]

MOVI r2, #2

LDRSPI r3, [sp, #2]

BL L98

INCSP #3

POP

PROC tbexp

L84

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

BL L85

LDRSPI r0, [sp, #2]

SUBI r0, #1

BNE L425

LDRSPI r0, [sp, #1]

BL L56

STRSPI r0, [sp, #3]

LDRI r0, [r7, #2]

LDRI r1, [r7, #18]

LDRSPI r2, [sp, #3]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #21

BNE L424

MOVI r0, #6

LDRSPI r1, [sp, #0]

MOVI r2, #0

BL L100

BU L424

L425

LDRSPI r0, [sp, #2]

SUBI r0, #80

BNE L424

MOVI r0, #6

LDRSPI r1, [sp, #0]

MOVI r2, #0

BL L100

L424

INCSP #4

POP

PROC texp

L85

PUSH

DECSP #8

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #1]

BL L60

BEQ L427

LDRSPI r0, [sp, #1]

BL L61

STRSPI r0, [sp, #6]

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #6]

BL L91

BU L426

L427

LDRSPI r0, [sp, #2]

SUBI r0, #1

BNE L428

LDRSPI r0, [sp, #1]

BL L56

STRSPI r0, [sp, #3]

LDRI r0, [r7, #18]

LDRSPI r1, [sp, #3]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #7]

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #7]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

SUBI r0, #35

BNE L429

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #19]

LDRSPI r2, [sp, #3]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L91

BU L426

L429

LDRI r0, [r7, #2]

LDRSPI	r1,	[sp,	#7]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#21	
BEQ	#1		
BU	L426		
LDRSPI	r0,	[sp,	#0]
LDRSPI	r1,	[sp,	#3]
BL	L93		
BU	L426		
L428			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#36	
BNE	L430		
LDRSPI	r0,	[sp,	#0]
LDRSPI	r1,	[sp,	#1]
BL	L109		
BU	L426		
L430			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#34	
BNE	L431		
LDRSPI	r0,	[sp,	#0]
LDRI	r1,	[r7,	#2]
LDRSPI	r2,	[sp,	#1]
ADDI	r2,	#1	
LSLI	r2,	r2,	#2
LDRR	r1,	[r1,	r2]
BL	L85		
MOVI	r0,	#9	
LDRSPI	r1,	[sp,	#0]
LDRSPI	r2,	[sp,	#0]
BL	L99		
BU	L426		
L431			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#32	
BNE	L432		
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#1]
ADDI	r1,	#1	
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
STRSPI	r0,	[sp,	#3]
LDRI	r0,	[r7,	#2]
LDRSPI	r1,	[sp,	#3]
LSLI	r1,	r1,	#2
LDRR	r0,	[r0,	r1]
SUBI	r0,	#74	

```

BNE      L433
MOVI     r0, #65
LDRSPI   r1, [sp, #0]
LDRI     r2, [r7, #2]
LDRSPI   r3, [sp, #3]
ADDI     r3, #1
LSLI     r3, r3, #2
LDRR     r2, [r2, r3]
LDRI     r3, [r7, #2]
LDRSPI   r4, [sp, #3]
ADDI     r4, #2
LSLI     r4, r4, #2
LDRR     r3, [r3, r4]
BL       L86
MOVI     r0, #208
MOVI     r1, #1
BL       L102
MOVI     r0, #4
LDRSPI   r1, [sp, #0]
MOVI     r2, #1
BL       L100
MOVI     r0, #9
LDRSPI   r1, [sp, #0]
LDRSPI   r2, [sp, #0]
BL       L99
BU       L426
L433
LDRSPI   r0, [sp, #0]
LDRI     r1, [r7, #2]
LDRSPI   r2, [sp, #1]
ADDI     r2, #1
LSLI     r2, r2, #2
LDRR     r1, [r1, r2]
BL       L85
MOVI     r0, #15
LDRSPI   r1, [sp, #0]
LDRSPI   r2, [sp, #0]
BL       L99
BU       L426
L432
LDRSPI   r0, [sp, #2]
SUBI     r0, #81
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRSPI   r1, [sp, #2]
SUBI     r1, #80
BEQ      #1
MOVI     r1, #1

```

SUBI	r1,	#1
ORR	r0,	r1
BNE	#1	
BU	L434	
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #1]
ADDI	r1,	#1
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
STRSPI	r0,	[sp, #3]
LDRI	r0,	[r7, #18]
LDRSPI	r1,	[sp, #3]
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
STRSPI	r0,	[sp, #7]
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #1]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L60	
BEQ	L435	
LDRSPI	r0,	[sp, #0]
LDRSPI	r1,	[sp, #3]
BL	L81	
LDRI	r0,	[r7, #2]
LDRSPI	r1,	[sp, #1]
ADDI	r1,	#2
LSLI	r1,	r1, #2
LDRR	r0,	[r0, r1]
BL	L61	
STRSPI	r0,	[sp, #6]
LDRSPI	r0,	[sp, #6]
SUBI	r0,	#32
BGE	L436	
LDRSPI	r0,	[sp, #2]
SUBI	r0,	#80
BNE	L437	
MOVI	r0,	#13
LDRSPI	r1,	[sp, #0]
LDRSPI	r2,	[sp, #0]
LDRSPI	r3,	[sp, #6]
BL	L97	
BU	L426	
L437		
MOVI	r0,	#6
LDRSPI	r1,	[sp, #0]
LDRSPI	r2,	[sp, #6]
LSLI	r2,	r2, #2

BL	L100
BU	L426
L436	
LDRSPI	r0, [sp, #0]
ADDI	r0, #1
LDRSPI	r1, [sp, #6]
LSLI	r1, r1, #2
BL	L91
LDRSPI	r0, [sp, #2]
SUBI	r0, #80
BNE	L438
MOVI	r0, #44
LDRSPI	r1, [sp, #0]
LDRSPI	r2, [sp, #0]
LDRSPI	r3, [sp, #0]
ADDI	r3, #1
BL	L98
BU	L426
L438	
MOVI	r0, #12
LDRSPI	r1, [sp, #0]
LDRSPI	r2, [sp, #0]
LDRSPI	r3, [sp, #0]
ADDI	r3, #1
BL	L98
BU	L426
L435	
LDRI	r0, [r7, #2]
LDRSPI	r1, [sp, #1]
ADDI	r1, #2
LSLI	r1, r1, #2
LDRR	r0, [r0, r1]
BL	L80
BEQ	L439
MOVI	r0, #0
LDRI	r1, [r7, #2]
LDRSPI	r2, [sp, #1]
ADDI	r2, #2
LSLI	r2, r2, #2
LDRR	r1, [r1, r2]
BL	L85
MOVI	r0, #0
MOVI	r1, #0
MOVI	r2, #0
MOVI	r3, #2
BL	L97
MOVI	r0, #1
LDRSPI	r1, [sp, #3]
BL	L81

```

LDRSPI r0, [sp, #2]
SUBI   r0, #80
BNE    L440
MOVI   r0, #44
MOVI   r1, #0
MOVI   r2, #1
MOVI   r3, #0
BL     L98
BU     L426
L440
MOVI   r0, #12
MOVI   r1, #0
MOVI   r2, #1
MOVI   r3, #0
BL     L98
BU     L426
L439
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #3]
BL     L81
LDRSPI r0, [sp, #0]
ADDI   r0, #1
LDRI   r1, [r7, #2]
LDRSPI r2, [sp, #1]
ADDI   r2, #2
LSLI   r2, r2, #2
LDRR   r1, [r1, r2]
BL     L85
MOVI   r0, #0
LDRSPI r1, [sp, #0]
ADDI   r1, #1
LDRSPI r2, [sp, #0]
ADDI   r2, #1
MOVI   r3, #2
BL     L97
LDRSPI r0, [sp, #2]
SUBI   r0, #80
BNE    L441
MOVI   r0, #44
LDRSPI r1, [sp, #0]
LDRSPI r2, [sp, #0]
LDRSPI r3, [sp, #0]
ADDI   r3, #1
BL     L98
BU     L426
L441
MOVI   r0, #12
LDRSPI r1, [sp, #0]
LDRSPI r2, [sp, #0]

```

LDRSPI	r3,	[sp,	#0]
ADDI	r3,	#1	
BL	L98		
BU	L426		
L434			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#8	
BNE	L442		
LDRSPI	r0,	[sp,	#1]
MOVI	r1,	#1	
NEGR	r1,	r1	
MOVI	r2,	#0	
MOVI	r3,	#0	
BL	L69		
BU	L426		
L442			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#76	
BNE	L443		
MOVI	r0,	#65	
LDRSPI	r1,	[sp,	#0]
LDRI	r2,	[r7,	#2]
LDRSPI	r3,	[sp,	#1]
ADDI	r3,	#1	
LSLI	r3,	r3,	#2
LDRR	r2,	[r2,	r3]
LDRI	r3,	[r7,	#2]
LDRSPI	r4,	[sp,	#1]
ADDI	r4,	#2	
LSLI	r4,	r4,	#2
LDRR	r3,	[r3,	r4]
BL	L86		
MOVI	r0,	#2	
LDRSPI	r1,	[sp,	#0]
LDRSPI	r2,	[sp,	#0]
MOVI	r3,	#31	
BL	L97		
BU	L426		
L443			
LDRSPI	r0,	[sp,	#2]
SUBI	r0,	#74	
BNE	L444		
MOVI	r0,	#65	
LDRSPI	r1,	[sp,	#0]
LDRI	r2,	[r7,	#2]
LDRSPI	r3,	[sp,	#1]
ADDI	r3,	#1	
LSLI	r3,	r3,	#2
LDRR	r2,	[r2,	r3]

LDRI	r3,	[r7,	#2]
LDRSPI	r4,	[sp,	#1]
ADDI	r4,	#2	
LSLI	r4,	r4,	#2
LDRR	r3,	[r3,	r4]
BL	L86		
MOVI	r0,	#208	
MOVI	r1,	#1	
BL	L102		
MOVI	r0,	#4	
LDRSPI	r1,	[sp,	#0]
MOVI	r2,	#1	
BL	L100		
MOVI	r0,	#7	
LDRSPI	r1,	[sp,	#0]
MOVI	r2,	#1	
BL	L100		
BU	L426		
L444			
LDRSPI	r0,	[sp,	#2]
LDRSPI	r1,	[sp,	#0]
LDRI	r2,	[r7,	#2]
LDRSPI	r3,	[sp,	#1]
ADDI	r3,	#1	
LSLI	r3,	r3,	#2
LDRR	r2,	[r2,	r3]
LDRI	r3,	[r7,	#2]
LDRSPI	r4,	[sp,	#1]
ADDI	r4,	#2	
LSLI	r4,	r4,	#2
LDRR	r3,	[r3,	r4]
BL	L86		
L426			
INCSP	#8		
POP			

PROC texp2

L86

```

PUSH
DECSP    #6
STRSPI   r0, [sp, #0]
STRSPI   r1, [sp, #1]
STRSPI   r2, [sp, #2]
STRSPI   r3, [sp, #3]
LDRSPI   r0, [sp, #2]
BL       L78
LDRSPI   r1, [sp, #0]
SUBI     r1, #64
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
ANDR     r0, r1
BEQ      L446
LDRSPI   r0, [sp, #1]
LDRSPI   r1, [sp, #3]
BL       L85
LDRSPI   r0, [sp, #2]
BL       L61
STRSPI   r0, [sp, #5]
LDRSPI   r0, [sp, #0]
LDRSPI   r1, [sp, #1]
LDRSPI   r2, [sp, #5]
BL       L88
BU       L445

```

L446

```

LDRSPI   r0, [sp, #3]
BL       L78
LDRSPI   r1, [sp, #0]
SUBI     r1, #65
BEQ      #1
MOVI     r1, #1
SUBI     r1, #1
LDRSPI   r2, [sp, #0]
SUBI     r2, #64
BEQ      #1
MOVI     r2, #1
SUBI     r2, #1
ORR      r1, r2
ANDR     r0, r1
BEQ      L447
LDRSPI   r0, [sp, #1]
LDRSPI   r1, [sp, #2]
BL       L85
LDRSPI   r0, [sp, #3]

```

BL	L61
STRSPI	r0, [sp, #5]
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #5]
BL	L88
BU	L445
L447	
LDRSPI	r0, [sp, #3]
BL	L77
LDRSPI	r1, [sp, #0]
SUBI	r1, #73
BEQ	#1
MOVI	r1, #1
SUBI	r1, #1
LDRSPI	r2, [sp, #0]
SUBI	r2, #72
BEQ	#1
MOVI	r2, #1
SUBI	r2, #1
ORR	r1, r2
ANDR	r0, r1
BEQ	L448
LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #2]
BL	L85
LDRSPI	r0, [sp, #3]
BL	L61
STRSPI	r0, [sp, #5]
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #5]
BL	L88
BU	L445
L448	
LDRSPI	r0, [sp, #3]
BL	L80
BEQ	L449
LDRSPI	r0, [sp, #2]
BL	L80
BEQ	L450
MOVI	r0, #132
LDRR	r0, [r7, r0]
STRSPI	r0, [sp, #4]
MOVI	r0, #0
LDRSPI	r1, [sp, #3]
BL	L85
MOVI	r0, #132
LDRR	r0, [r7, r0]

```

ADDI    r0, #1
MOVI    r1, #132
STRR    r0, [r7, r1]
BL      L90
MOVI    r0, #18
MOVI    r1, #0
LDRSPI  r2, [sp, #4]
BL      L100
MOVI    r0, #0
LDRSPI  r1, [sp, #2]
BL      L85
MOVI    r0, #19
MOVI    r1, #1
LDRSPI  r2, [sp, #4]
BL      L100
LDRSPI  r0, [sp, #0]
MOVI    r1, #0
MOVI    r2, #1
BL      L87
LDRSPI  r0, [sp, #4]
MOVI    r1, #132
STRR    r0, [r7, r1]
BU      L445
L450
MOVI    r0, #0
LDRSPI  r1, [sp, #3]
BL      L85
LDRSPI  r0, [sp, #0]
SUBI    r0, #73
BEQ     #1
MOVI    r0, #1
SUBI    r0, #1
LDRSPI  r1, [sp, #0]
SUBI    r1, #72
BEQ     #1
MOVI    r1, #1
SUBI    r1, #1
ORR     r0, r1
BEQ     L451
MOVI    r0, #0
MOVI    r1, #6
MOVI    r2, #0
MOVI    r3, #0
BL      L97
MOVI    r0, #0
LDRSPI  r1, [sp, #2]
BL      L85
LDRSPI  r0, [sp, #0]
MOVI    r1, #0

```

```

    MOVI    r2, #6
    BL      L87
    BU      L445
L451
    MOVI    r0, #1
    LDRSPI  r1, [sp, #2]
    BL      L85
    LDRSPI  r0, [sp, #0]
    SUBI    r0, #65
    BNE     L452
    MOVI    r0, #13
    MOVI    r1, #0
    MOVI    r2, #1
    MOVI    r3, #0
    BL      L98
    BU      L445
L452
    LDRSPI  r0, [sp, #0]
    MOVI    r1, #0
    MOVI    r2, #1
    BL      L87
    BU      L445
L449
    LDRSPI  r0, [sp, #2]
    BL      L80
    BEQ     L453
    MOVI    r0, #0
    LDRSPI  r1, [sp, #2]
    BL      L85
    MOVI    r0, #1
    LDRSPI  r1, [sp, #3]
    BL      L85
    LDRSPI  r0, [sp, #0]
    MOVI    r1, #0
    MOVI    r2, #1
    BL      L87
    BU      L445
L453
    LDRSPI  r0, [sp, #0]
    SUBI    r0, #73
    BEQ     #1
    MOVI    r0, #1
    SUBI    r0, #1
    LDRSPI  r1, [sp, #0]
    SUBI    r1, #72
    BEQ     #1
    MOVI    r1, #1
    SUBI    r1, #1
    ORR     r0, r1

```

BEQ	L454
LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #2]
BL	L85
LDRSPI	r0, [sp, #1]
ADDI	r0, #1
LDRSPI	r1, [sp, #3]
BL	L85
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #1]
ADDI	r2, #1
BL	L87
BU	L445
L454	
LDRSPI	r0, [sp, #2]
BL	L79
STRSPI	r0, [sp, #5]
LDRSPI	r0, [sp, #3]
BL	L79
LDRSPI	r1, [sp, #5]
SUBR	r0, r0, r1
BGE	L455
LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #2]
BL	L85
LDRSPI	r0, [sp, #1]
ADDI	r0, #1
LDRSPI	r1, [sp, #3]
BL	L85
LDRSPI	r0, [sp, #0]
LDRSPI	r1, [sp, #1]
LDRSPI	r2, [sp, #1]
ADDI	r2, #1
BL	L87
BU	L445
L455	
LDRSPI	r0, [sp, #1]
LDRSPI	r1, [sp, #3]
BL	L85
LDRSPI	r0, [sp, #1]
ADDI	r0, #1
LDRSPI	r1, [sp, #2]
BL	L85
LDRSPI	r0, [sp, #0]
SUBI	r0, #65
BNE	L456
MOVI	r0, #13
LDRSPI	r1, [sp, #1]

```
LDRSPI r2, [sp, #1]
ADDI   r2, #1
LDRSPI r3, [sp, #1]
BL     L98
BU     L445
L456
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #1]
ADDI   r2, #1
BL     L87
L445
INCSP  #6
POP
```

PROC genop

L87

PUSH
DECSP #3
STRSPI r0, [sp, #0]
STRSPI r1, [sp, #1]
STRSPI r2, [sp, #2]
LDRSPI r0, [sp, #0]
SUBI r0, #64
BNE L458
MOVI r0, #12
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #1]
LDRSPI r3, [sp, #2]
BL L98
BU L457

L458

LDRSPI r0, [sp, #0]
SUBI r0, #65
BNE L459
MOVI r0, #13
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #1]
LDRSPI r3, [sp, #2]
BL L98
BU L457

L459

LDRSPI r0, [sp, #0]
SUBI r0, #66
BNE L460
MOVI r0, #13
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #2]
BL L99
BU L457

L460

LDRSPI r0, [sp, #0]
SUBI r0, #70
BNE L461
MOVI r0, #0
LDRSPI r1, [sp, #1]
LDRSPI r2, [sp, #2]
BL L99
BU L457

L461

LDRSPI r0, [sp, #0]
SUBI r0, #69
BNE L462

```

    MOVI    r0,    #12
    LDRSPI  r1,    [sp, #1]
    LDRSPI  r2,    [sp, #2]
    BL      L99
    BU      L457
L462
    LDRSPI  r0,    [sp, #0]
    SUBI    r0,    #71
    BNE     L463
    MOVI    r0,    #1
    LDRSPI  r1,    [sp, #1]
    LDRSPI  r2,    [sp, #2]
    BL      L99
    BU      L457
L463
    LDRSPI  r0,    [sp, #0]
    SUBI    r0,    #72
    BNE     L464
    MOVI    r0,    #2
    LDRSPI  r1,    [sp, #1]
    LDRSPI  r2,    [sp, #2]
    BL      L99
    BU      L457
L464
    LDRSPI  r0,    [sp, #0]
    SUBI    r0,    #73
    BNE     L457
    MOVI    r0,    #3
    LDRSPI  r1,    [sp, #1]
    LDRSPI  r2,    [sp, #2]
    BL      L99
L457
    INCSP   #3
    POP

```

PROC genopimm

L88

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

LDRSPI r0, [sp, #0]

SUBI r0, #64

BNE L466

MOVI r0, #6

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #2]

BL L100

BU L465

L466

LDRSPI r0, [sp, #0]

SUBI r0, #65

BNE L467

MOVI r0, #7

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #2]

BL L100

BU L465

L467

LDRSPI r0, [sp, #0]

SUBI r0, #72

BNE L468

MOVI r0, #0

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #1]

LDRSPI r3, [sp, #2]

BL L97

BU L465

L468

LDRSPI r0, [sp, #0]

SUBI r0, #73

BNE L465

MOVI r0, #1

LDRSPI r1, [sp, #1]

LDRSPI r2, [sp, #1]

LDRSPI r3, [sp, #2]

BL L97

L465

INCSP #3

POP

PROC stk_init

L89

PUSH

MOVI r0, #0

MOVI r1, #132

STRR r0, [r7, r1]

MOVI r0, #0

MOVI r1, #136

STRR r0, [r7, r1]

POP

PROC setstack

L90

PUSH

MOVI r0, #132

LDRR r0, [r7, r0]

MOVI r1, #136

LDRR r1, [r7, r1]

SUBR r0, r1, r0

BGE L469

MOVI r0, #132

LDRR r0, [r7, r0]

MOVI r1, #136

STRR r0, [r7, r1]

L469

POP

PROC loadconst

L91

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #1]

SUBI r0, #0

BLT L471

MOVI r0, #1

LSLI r0, r0, #8

LDRSPI r1, [sp, #1]

SUBR r0, r1, r0

BGE L472

MOVI r0, #4

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L100

BU L470

L472

LDRSPI r0, [sp, #1]

STRSPI r0, [sp, #2]

MOVI r0, #0

STRSPI r0, [sp, #3]

L474

MOVI r0, #1

LDRSPI r1, [sp, #2]

ANDR r0, r1

BNE L473

LDRSPI r0, [sp, #2]

LSRI r0, r0, #1

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #3]

ADDI r0, #1

STRSPI r0, [sp, #3]

BU L474

L473

MOVI r0, #1

LSLI r0, r0, #8

LDRSPI r1, [sp, #2]

SUBR r0, r1, r0

BGE L475

MOVI r0, #4

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #2]

BL L100

MOVI r0, #0

LDRSPI r1, [sp, #0]

```

LDRSPI r2, [sp, #0]
LDRSPI r3, [sp, #3]
BL L97
BU L470
L475
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #1]
BL L108
BU L470
L471
LDRSPI r0, [sp, #1]
LDRPCI r1, C14
SUBR r0, r1, r0
BGE L476
MOVI r0, #4
LDRSPI r1, [sp, #0]
LDRSPI r2, [sp, #1]
NEGR r2, r2
BL L100
MOVI r0, #9
LDRSPI r1, [sp, #0]
LDRSPI r2, [sp, #0]
BL L99
BU L470
L476
LDRSPI r0, [sp, #0]
LDRSPI r1, [sp, #1]
BL L108
L470
INCSP #4
POP

```

PROC loadproc

L92

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #1]

BL L57

BEQ L478

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

BL L93

BU L477

L478

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #19]

LDRSPI r2, [sp, #1]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

BL L110

L477

INCSP #2

POP

PROC loadvar

L93

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #19]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #1]

BL L57

BEQ L480

MOVI r0, #19

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #2]

BL L100

BU L479

L480

LDRSPI r0, [sp, #2]

SUBI r0, #32

BGE L481

MOVI r0, #13

LDRSPI r1, [sp, #0]

MOVI r2, #7

LDRSPI r3, [sp, #2]

BL L97

BU L479

L481

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #2]

LSLI r1, r1, #2

BL L91

MOVI r0, #44

LDRSPI r1, [sp, #0]

MOVI r2, #7

LDRSPI r3, [sp, #0]

BL L98

L479

INCSP #3

POP

PROC storevar

L94

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRI r0, [r7, #19]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #1]

BL L57

BEQ L483

MOVI r0, #18

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #2]

BL L100

BU L482

L483

LDRSPI r0, [sp, #2]

SUBI r0, #32

BGE L484

MOVI r0, #12

LDRSPI r1, [sp, #0]

MOVI r2, #7

LDRSPI r3, [sp, #2]

BL L97

BU L482

L484

LDRSPI r0, [sp, #0]

ADDI r0, #1

LDRSPI r1, [sp, #2]

LSLI r1, r1, #2

BL L91

MOVI r0, #40

LDRSPI r1, [sp, #0]

MOVI r2, #7

LDRSPI r3, [sp, #0]

ADDI r3, #1

BL L98

L482

INCSP #3

POP

FUNC monadic

L95

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

SUBI r0, #34

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRSPI r1, [sp, #0]

SUBI r1, #32

BEQ #1

MOVI r1, #1

SUBI r1, #1

ORR r0, r1

INCSP #1

POP

FUNC diadic

L96

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #64

LDRSPI r1, [sp, #0]

ANDR r0, r1

SUBI r0, #0

BEQ #1

MOVI r0, #1

NEGR r0, r0

INCSP #1

POP

PROC gen3i

L97

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

STRSPI r3, [sp, #3]

LDRSPI r0, [sp, #2]

LSLI r0, r0, #3

LDRSPI r1, [sp, #1]

ORR r0, r1

LDRSPI r1, [sp, #3]

LSLI r1, r1, #6

ORR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #11

ORR r0, r1

BL L104

INCSP #4

POP

PROC gen3

L98

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

STRSPI r3, [sp, #3]

LDRSPI r0, [sp, #2]

LSLI r0, r0, #3

LDRSPI r1, [sp, #1]

ORR r0, r1

LDRSPI r1, [sp, #3]

LSLI r1, r1, #6

ORR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #9

ORR r0, r1

BL L104

INCSP #4

POP

PROC gen2

L99

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

LDRSPI r0, [sp, #2]

LSLI r0, r0, #3

LDRSPI r1, [sp, #1]

ORR r0, r1

MOVI r1, #1

LSLI r1, r1, #8

LDRSPI r2, [sp, #0]

ORR r1, r2

LSLI r1, r1, #6

ORR r0, r1

BL L104

INCSP #3

POP

PROC gen2i

L100

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

LDRSPI r0, [sp, #1]

LSLI r0, r0, #8

LDRSPI r1, [sp, #2]

ORR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #11

ORR r0, r1

BL L104

INCSP #3

POP

PROC gensetsp

L101

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

LSLI r0, r0, #3

MOVI r1, #5

ORR r0, r1

MOVI r1, #141

LSLI r1, r1, #7

ORR r0, r1

BL L104

INCSP #1

POP

PROC genli

L102

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LSLI r0, r0, #8

LDRSPI r1, [sp, #1]

ORR r0, r1

BL L104

INCSP #2

POP

PROC gen1

L103

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #1]

LSLI r0, r0, #3

LDRSPI r1, [sp, #0]

LSLI r1, r1, #7

ORR r0, r1

BL L104

INCSP #2

POP

PROC geni

L104

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #1

MOVI r1, #0

LDRSPI r2, [sp, #0]

BL L111

INCSP #1

POP

PROC gencbr

L105

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

MOVI r0, #4

LDRSPI r1, [sp, #0]

LDRSPI r2, [sp, #1]

BL L111

INCSP #2

POP

PROC genbr

L106

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

ADDI r0, #0

BNE L485

MOVI r0, #5

MOVI r1, #0

LDRSPI r2, [sp, #1]

BL L111

MOVI r0, #25

LSLI r0, r0, #4

BL L118

L485

INCSP #2

POP

PROC gencall

L107

```
PUSH
DECSP    #4
STRSPI   r0, [sp, #0]
STRSPI   r1, [sp, #1]
STRSPI   r2, [sp, #2]
STRSPI   r3, [sp, #3]
MOVI     r0, #128
LDRR     r0, [r7, r0]
LDRSPI   r1, [sp, #0]
SUBR     r0, r1, r0
BEQ      #1
MOVI     r0, #1
SUBI     r0, #1
LDRSPI   r1, [sp, #3]
ANDR     r0, r1
BEQ      L487
MOVI     r0, #13
MOVI     r1, #0
LDRSPI   r2, [sp, #0]
BL       L111
BU       L486
```

L487

```
MOVI     r0, #6
MOVI     r1, #0
LDRSPI   r2, [sp, #0]
BL       L111
LDRSPI   r0, [sp, #1]
LDRSPI   r1, [sp, #2]
BL       L106
```

L486

```
INCSP    #4
POP
ADDI     r0, #0
```

C14

```
DCD     -256
```

PROC genconst

L108

PUSH

DECSP #5

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

BL L117

MOVI r0, #0

STRSPI r0, [sp, #4]

LDRI r0, [r7, #24]

STRSPI r0, [sp, #2]

L489

LDRSPI r0, [sp, #4]

SUBI r0, #0

BEQ #1

MOVI r0, #1

SUBI r0, #1

LDRI r1, [r7, #23]

LDRSPI r2, [sp, #2]

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L488

LDRI r0, [r7, #22]

LDRSPI r1, [sp, #2]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRSPI r1, [sp, #1]

SUBR r0, r0, r1

BNE L490

MOVI r0, #1

NEGR r0, r0

STRSPI r0, [sp, #4]

LDRSPI r0, [sp, #2]

STRSPI r0, [sp, #3]

BU L489

L490

LDRSPI r0, [sp, #2]

ADDI r0, #1

STRSPI r0, [sp, #2]

BU L489

L488

LDRSPI r0, [sp, #4]

ADDI r0, #0

BNE L491

LDRI r0, [r7, #23]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #22]

```

LSLI    r0,  r0,  #2
STRR    r1,  [r2, r0]
LDRI    r0,  [r7, #23]
STRSPI  r0,  [sp, #3]
LDRI    r0,  [r7, #23]
ADDI    r0,  #1
STRI    r0,  [r7, #23]
L491
MOVI    r0,  #9
LDRSPI  r1,  [sp, #0]
MOVI    r2,  #136
ORR     r1,  r2
LDRSPI  r2,  [sp, #3]
BL      L111
INCSP   #5
POP

```

PROC genstring

L109

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

BL L117

LDRI r0, [r7, #26]

STRSPI r0, [sp, #3]

MOVI r0, #0

STRSPI r0, [sp, #2]

L493

LDRI r0, [r7, #2]

LDRSPI r1, [sp, #1]

ADDI r1, #1

LSLI r1, r1, #2

LDRR r0, [r0, r1]

MOVI r1, #255

ANDR r0, r1

LSRI r0, r0, #2

LDRSPI r1, [sp, #2]

SUBR r0, r0, r1

BLT L492

LDRI r1, [r7, #2]

LDRSPI r2, [sp, #2]

ADDI r2, #1

LDRSPI r3, [sp, #1]

ADDR r2, r2, r3

LSLI r2, r2, #2

LDRR r1, [r1, r2]

LDRI r0, [r7, #26]

LDRI r2, [r7, #25]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRI r0, [r7, #26]

ADDI r0, #1

STRI r0, [r7, #26]

LDRSPI r0, [sp, #2]

ADDI r0, #1

STRSPI r0, [sp, #2]

BU L493

L492

MOVI r0, #10

LDRSPI r1, [sp, #0]

MOVI r2, #160

ORR r1, r2

LDRSPI r2, [sp, #3]

BL L111

INCSP #4
POP

PROC genpref

L110

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

MOVI r0, #8

LDRSPI r1, [sp, #0]

LDRI r2, [r7, #23]

BL L111

LDRI r0, [r7, #23]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #22]

LSLI r0, r0, #2

STRR r1, [r2, r0]

LDRI r0, [r7, #23]

ADDI r0, #1

STRI r0, [r7, #23]

INCSP #2

POP

PROC gen

L111

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

MOVI r0, #168

LDRR r0, [r7, r0]

ADDI r0, #1

MOVI r1, #168

STRR r0, [r7, r1]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #16

LDRSPI r2, [sp, #2]

ORR r1, r2

LDRSPI r2, [sp, #0]

LSLI r2, r2, #28

ORR r1, r2

MOVI r0, #152

LDRR r0, [r7, r0]

MOVI r2, #148

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

MOVI r0, #152

LDRR r0, [r7, r0]

ADDI r0, #1

MOVI r1, #152

STRR r0, [r7, r1]

LDRPCI r0, C15

MOVI r1, #152

LDRR r1, [r7, r1]

SUBR r0, r1, r0

BNE L494

ADDPCI r0, S231

BL L48

L494

INCSP #3

POP

FUNC getlabel

L112

PUSH

MOVI r0, #125

LSLI r0, r0, #3

MOVI r1, #144

LDRR r1, [r7, r1]

SUBR r0, r1, r0

BGE L496

MOVI r0, #144

LDRR r0, [r7, r0]

ADDI r0, #1

MOVI r1, #144

STRR r0, [r7, r1]

BU L495

L496

ADDPCI r0, S237

BL L48

L495

MOVI r0, #144

LDRR r0, [r7, r0]

POP

PROC setlab

L113

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

MOVI r1, #168

LDRR r1, [r7, r1]

MOVI r2, #140

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

MOVI r0, #7

MOVI r1, #0

LDRSPI r2, [sp, #0]

BL L111

INCSP #1

POP

PROC genentry

L114

PUSH

MOVI r0, #152

LDRR r0, [r7, r0]

MOVI r1, #160

STRR r0, [r7, r1]

MOVI r0, #128

LDRR r0, [r7, r0]

MOVI r1, #168

LDRR r1, [r7, r1]

MOVI r2, #140

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

MOVI r0, #11

MOVI r1, #0

MOVI r2, #128

LDRR r2, [r7, r2]

BL L111

POP

PROC genexit

L115

PUSH

MOVI r0, #160

LDRR r0, [r7, r0]

MOVI r1, #136

LDRR r1, [r7, r1]

BL L121

MOVI r0, #12

MOVI r1, #136

LDRR r1, [r7, r1]

MOVI r2, #0

BL L111

MOVI r0, #75

LSLI r0, r0, #2

BL L118

POP

PROC initbuffer

L116

```
PUSH
MOVI    r0,  #0
MOVI    r1,  #168
STRR    r0,  [r7, r1]
MOVI    r0,  #0
MOVI    r1,  #156
STRR    r0,  [r7, r1]
MOVI    r0,  #0
STRI    r0,  [r7, #23]
MOVI    r0,  #0
STRI    r0,  [r7, #24]
MOVI    r0,  #0
STRI    r0,  [r7, #26]
MOVI    r0,  #0
STRI    r0,  [r7, #27]
MOVI    r0,  #0
MOVI    r1,  #152
STRR    r0,  [r7, r1]
MOVI    r0,  #0
MOVI    r1,  #164
STRR    r0,  [r7, r1]
POP
```

PROC startblock

L117

PUSH

MOVI r0, #180

LDRR r0, [r7, r0]

ADDI r0, #0

BNE L497

MOVI r0, #168

LDRR r0, [r7, r0]

MOVI r1, #156

STRR r0, [r7, r1]

LDRI r0, [r7, #23]

STRI r0, [r7, #24]

LDRI r0, [r7, #26]

STRI r0, [r7, #27]

MOVI r0, #152

LDRR r0, [r7, r0]

MOVI r1, #164

STRR r0, [r7, r1]

MOVI r0, #2

MOVI r1, #0

MOVI r2, #0

BL L111

MOVI r0, #1

NEGR r0, r0

MOVI r1, #180

STRR r0, [r7, r1]

L497

POP

PROC endblock

L118

PUSH

DECSP #4

STRSPI r0, [sp, #0]

MOVI r0, #156

LDRR r0, [r7, r0]

MOVI r1, #168

LDRR r1, [r7, r1]

SUBR r0, r1, r0

STRSPI r0, [sp, #1]

LDRI r0, [r7, #24]

LDRI r1, [r7, #23]

SUBR r0, r1, r0

STRSPI r0, [sp, #2]

LDRI r0, [r7, #27]

LDRI r1, [r7, #26]

SUBR r0, r1, r0

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #3]

LDRSPI r1, [sp, #2]

ADDR r0, r0, r1

LSLI r0, r0, #1

LDRSPI r1, [sp, #1]

ADDR r0, r0, r1

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

ASRI r0, r0, #31

MOVI r1, #180

LDRR r1, [r7, r1]

ANDR r0, r1

BEQ L498

MOVI r0, #164

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #1]

BL L121

MOVI r0, #164

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #2]

LSLI r1, r1, #8

LDRSPI r2, [sp, #3]

ORR r1, r2

BL L123

MOVI r0, #3

MOVI r1, #0

MOVI r2, #0

BL L111

MOVI r0, #0

```
    MOVI    r1,    #180
    STRR    r0,    [r7, r1]
L498
    INCSP   #4
    POP
```

PROC cb_setflag

L119

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #28

MOVI r2, #148

LDRR r2, [r7, r2]

LDRSPI r3, [sp, #0]

LSLI r3, r3, #2

LDRR r2, [r2, r3]

LDRPCI r3, C16

ANDR r2, r3

ORR r1, r2

LDRSPI r0, [sp, #0]

MOVI r2, #148

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

INCSP #2

POP

FUNC cb_flag

L120

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #148

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LSRI r0, r0, #28

INCSP #1

POP

PROC cb_sethigh

L121

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r1, [sp, #1]

LSLI r1, r1, #16

MOVI r2, #148

LDRR r2, [r7, r2]

LDRSPI r3, [sp, #0]

LSLI r3, r3, #2

LDRR r2, [r2, r3]

LDRPCI r3, C17

ANDR r2, r3

ORR r1, r2

LDRSPI r0, [sp, #0]

MOVI r2, #148

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

INCSP #2

POP

FUNC cb_high

L122

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #148

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LSRI r0, r0, #16

LDRPCI r1, C18

ANDR r0, r1

INCSP #1

POP

PROC cb_setlow

L123

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

MOVI r1, #148

LDRR r1, [r7, r1]

LDRSPI r2, [sp, #0]

LSLI r2, r2, #2

LDRR r1, [r1, r2]

LDRPCI r2, C19

ANDR r1, r2

LDRSPI r2, [sp, #1]

ORR r1, r2

LDRSPI r0, [sp, #0]

MOVI r2, #148

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

INCSP #2

POP

FUNC cb_low

L124

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #148

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #0]

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRPCI r1, C20

ANDR r0, r1

INCSP #1

POP

ADDI r0, #0

C15

DCD 10000

C16

DCD 268435455

C17

DCD -268369921

C18

DCD 4095

C19

DCD -65536

C20

DCD 65535

S231

DCD 1685021460

DCD 1969365093

DCD 1919247974

DCD 1702260512

DCD 1869375090

DCD 119

S237

DCD 1869575183

DCD 1851878688

DCD 1634476153

DCD 1936483682

FUNC cbrlength

L125

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

SUBI r0, #128

ASRI r0, r0, #31

LDRSPI r1, [sp, #0]

MOVI r2, #127

NEGR r2, r2

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L500

MOVI r0, #1

BU L499

L500

LDRSPI r0, [sp, #0]

SUBI r0, #1

BL L126

ADDI r0, #1

L499

INCSP #1

POP

FUNC brlength

L126

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRPCI r0, C21

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

ASRI r0, r0, #31

LDRSPI r1, [sp, #0]

LDRPCI r2, C22

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L502

MOVI r0, #1

BU L501

L502

MOVI r0, #2

L501

INCSP #1

POP

FUNC cb_entrylen

L127

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

BL L122

BNE L504

MOVI r0, #1

BU L503

L504

MOVI r0, #2

L503

INCSP #1

POP

PROC expand

L128

PUSH

DECSP #5

MOVI r0, #0

STRSPI r0, [sp, #0]

L506

MOVI r0, #152

LDRR r0, [r7, r0]

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

BLT #1

BU L505

LDRSPI r0, [sp, #0]

BL L120

STRSPI r0, [sp, #3]

LDRSPI r0, [sp, #3]

SUBI r0, #11

BNE L508

LDRSPI r0, [sp, #0]

BL L124

LSLI r0, r0, #2

MOVI r1, #140

LDRR r1, [r7, r1]

LDRR r0, [r1, r0]

MOVI r1, #168

LDRR r1, [r7, r1]

SUBR r0, r0, r1

BEQ L509

LDRSPI r0, [sp, #0]

BL L124

MOVI r1, #168

LDRR r1, [r7, r1]

MOVI r2, #140

LDRR r2, [r7, r2]

LSLI r0, r0, #2

STRR r1, [r2, r0]

L509

LDRSPI r0, [sp, #0]

BL L127

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #2]

MOVI r1, #168

LDRR r1, [r7, r1]

ADDR r0, r0, r1

MOVI r1, #168

STRR r0, [r7, r1]

BU L507

L508

```

LDRSPI r0, [sp, #3]
SUBI   r0, #12
BNE    L510
LDRSPI r0, [sp, #2]
MOVI   r1, #168
LDRR   r1, [r7, r1]
ADDR   r0, r0, r1
MOVI   r1, #168
STRR   r0, [r7, r1]
BU     L507

```

L510

```

LDRSPI r0, [sp, #3]
SUBI   r0, #1
BNE    L511
MOVI   r0, #168
LDRR   r0, [r7, r0]
ADDI   r0, #1
MOVI   r1, #168
STRR   r0, [r7, r1]
BU     L507

```

L511

```

LDRSPI r0, [sp, #3]
SUBI   r0, #2
BNE    L512
MOVI   r0, #168
LDRR   r0, [r7, r0]
MOVI   r1, #156
STRR   r0, [r7, r1]
LDRSPI r0, [sp, #0]
BL     L122
MOVI   r1, #168
LDRR   r1, [r7, r1]
ADDR   r0, r0, r1
MOVI   r1, #172
STRR   r0, [r7, r1]
LDRSPI r0, [sp, #0]
BL     L124
LSRI   r0, r0, #8
LSLI   r0, r0, #1
MOVI   r1, #172
LDRR   r1, [r7, r1]
ADDR   r0, r0, r1
MOVI   r1, #176
STRR   r0, [r7, r1]
LDRSPI r0, [sp, #0]
MOVI   r1, #164
STRR   r0, [r7, r1]
BU     L507

```

L512

```

LDRSPI r0, [sp, #3]
SUBI   r0, #3
BNE    L513
MOVI   r0, #1
MOVI   r1, #168
LDRR   r1, [r7, r1]
ANDR   r0, r1
BEQ    L514
MOVI   r0, #168
LDRR   r0, [r7, r0]
ADDI   r0, #1
MOVI   r1, #168
STRR   r0, [r7, r1]

```

L514

```

MOVI   r0, #164
LDRR   r0, [r7, r0]
BL     L122
MOVI   r1, #156
LDRR   r1, [r7, r1]
MOVI   r2, #168
LDRR   r2, [r7, r2]
SUBR   r1, r2, r1
SUBR   r0, r1, r0
BEQ    L515
MOVI   r0, #164
LDRR   r0, [r7, r0]
MOVI   r1, #156
LDRR   r1, [r7, r1]
MOVI   r2, #168
LDRR   r2, [r7, r2]
SUBR   r1, r2, r1
BL     L121

```

L515

```

MOVI   r0, #164
LDRR   r0, [r7, r0]
BL     L124
MOVI   r1, #255
ANDR   r0, r1
STRSPI r0, [sp, #4]
MOVI   r0, #164
LDRR   r0, [r7, r0]
BL     L124
LSRI   r0, r0, #8
LDRSPI r1, [sp, #4]
ADDR   r0, r0, r1
LSLI   r0, r0, #1
MOVI   r1, #168
LDRR   r1, [r7, r1]

```

ADDR	r0, r0, r1
MOVI	r1, #168
STRR	r0, [r7, r1]
BU	L507
L513	
LDRSPI	r0, [sp, #3]
SUBI	r0, #7
BNE	L516
LDRSPI	r0, [sp, #0]
BL	L124
LSLI	r0, r0, #2
MOVI	r1, #140
LDRR	r1, [r7, r1]
LDRR	r0, [r1, r0]
MOVI	r1, #168
LDRR	r1, [r7, r1]
SUBR	r0, r0, r1
BEQ	L507
LDRSPI	r0, [sp, #0]
BL	L124
MOVI	r1, #168
LDRR	r1, [r7, r1]
MOVI	r2, #140
LDRR	r2, [r7, r2]
LSLI	r0, r0, #2
STRR	r1, [r2, r0]
BU	L507
L516	
LDRSPI	r0, [sp, #3]
SUBI	r0, #4
BNE	L517
LDRSPI	r0, [sp, #0]
BL	L124
LSLI	r0, r0, #2
MOVI	r1, #140
LDRR	r1, [r7, r1]
LDRR	r0, [r1, r0]
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDI	r1, #1
SUBR	r0, r0, r1
STRSPI	r0, [sp, #1]
LDRSPI	r0, [sp, #1]
BL	L125
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDR	r0, r0, r1
MOVI	r1, #168
STRR	r0, [r7, r1]

BU	L507
L517	
LDRSPI	r0, [sp, #3]
SUBI	r0, #5
BNE	L518
LDRSPI	r0, [sp, #0]
BL	L124
LSLI	r0, r0, #2
MOVI	r1, #140
LDRR	r1, [r7, r1]
LDRR	r0, [r1, r0]
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDI	r1, #1
SUBR	r0, r0, r1
STRSPI	r0, [sp, #1]
LDRSPI	r0, [sp, #1]
BL	L126
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDR	r0, r0, r1
MOVI	r1, #168
STRR	r0, [r7, r1]
BU	L507
L518	
LDRSPI	r0, [sp, #3]
SUBI	r0, #13
BNE	L519
LDRSPI	r0, [sp, #0]
BL	L124
LSLI	r0, r0, #2
MOVI	r1, #140
LDRR	r1, [r7, r1]
LDRR	r0, [r1, r0]
LDRSPI	r1, [sp, #2]
ADDR	r0, r0, r1
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDI	r1, #1
SUBR	r0, r0, r1
STRSPI	r0, [sp, #1]
LDRSPI	r0, [sp, #1]
BL	L126
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDR	r0, r0, r1
MOVI	r1, #168
STRR	r0, [r7, r1]
BU	L507

L519

LDRSPI r0, [sp, #3]
SUBI r0, #6
BNE L520
MOVI r0, #168
LDRR r0, [r7, r0]
ADDI r0, #2
MOVI r1, #168
STRR r0, [r7, r1]
BU L507

L520

LDRSPI r0, [sp, #3]
SUBI r0, #8
BNE L521
MOVI r0, #168
LDRR r0, [r7, r0]
ADDI r0, #3
MOVI r1, #168
STRR r0, [r7, r1]
BU L507

L521

LDRSPI r0, [sp, #3]
SUBI r0, #10
BEQ #1
MOVI r0, #1
SUBI r0, #1
LDRSPI r1, [sp, #3]
SUBI r1, #9
BEQ #1
MOVI r1, #1
SUBI r1, #1
ORR r0, r1
BEQ L522
MOVI r0, #168
LDRR r0, [r7, r0]
ADDI r0, #1
MOVI r1, #168
STRR r0, [r7, r1]
BU L507

L522

ADDPCI r0, S241
BL L12

L507

LDRSPI r0, [sp, #0]
ADDI r0, #1
STRSPI r0, [sp, #0]
BU L506

L505

INCSP #5

```
POP
  ADDI    r0, #0
C21
  DCD     1023
C22
  DCD     -1023
S241
  DCD     1685021457
  DCD     1969365093
  DCD     1919247974
  DCD     1920099616
  DCD     29295
```

PROC flushbuffer

L129

```
PUSH
DECSP    #6
MOVI     r0,  #0
MOVI     r1,  #168
STRR     r0,  [r7,  r1]
MOVI     r0,  #0
STRSPI   r0,  [sp,  #1]
BL       L128
```

L524

```
LDRSPI   r0,  [sp,  #1]
MOVI     r1,  #168
LDRR     r1,  [r7,  r1]
SUBR     r0,  r1,  r0
BEQ      L523
MOVI     r0,  #168
LDRR     r0,  [r7,  r0]
STRSPI   r0,  [sp,  #1]
MOVI     r0,  #0
MOVI     r1,  #168
STRR     r0,  [r7,  r1]
BL       L128
BU       L524
```

L523

```
BL       L141
MOVI     r0,  #0
STRI     r0,  [r7,  #24]
MOVI     r0,  #0
STRI     r0,  [r7,  #27]
MOVI     r0,  #0
STRSPI   r0,  [sp,  #0]
MOVI     r0,  #0
MOVI     r1,  #168
STRR     r0,  [r7,  r1]
```

L526

```
MOVI     r0,  #152
LDRR     r0,  [r7,  r0]
LDRSPI   r1,  [sp,  #0]
SUBR     r0,  r1,  r0
BLT      #1
BU       L525
LDRSPI   r0,  [sp,  #0]
BL       L120
STRSPI   r0,  [sp,  #4]
LDRSPI   r0,  [sp,  #4]
SUBI     r0,  #11
BNE      L528
```

```

MOVI    r0,  #181
LSLI    r0,  r0,  #8
BL      L140
LDRSPI  r0,  [sp,  #0]
BL      L127
STRSPI  r0,  [sp,  #3]
LDRSPI  r0,  [sp,  #3]
SUBI    r0,  #1
BEQ     L529
LDRSPI  r0,  [sp,  #0]
BL      L122
LDRPCI  r1,  C23
ORR     r0,  r1
BL      L140
L529
LDRSPI  r0,  [sp,  #3]
MOVI    r1,  #168
LDRR    r1,  [r7,  r1]
ADDR    r0,  r0,  r1
MOVI    r1,  #168
STRR    r0,  [r7,  r1]
BU      L527
L528
LDRSPI  r0,  [sp,  #4]
SUBI    r0,  #12
BNE     L530
LDRSPI  r0,  [sp,  #3]
SUBI    r0,  #1
BEQ     L531
LDRSPI  r0,  [sp,  #0]
BL      L122
MOVI    r1,  #11
LSLI    r1,  r1,  #12
ORR     r0,  r1
BL      L140
L531
LDRSPI  r0,  [sp,  #3]
MOVI    r1,  #168
LDRR    r1,  [r7,  r1]
ADDR    r0,  r0,  r1
MOVI    r1,  #168
STRR    r0,  [r7,  r1]
MOVI    r0,  #189
LSLI    r0,  r0,  #8
BL      L140
BU      L527
L530
LDRSPI  r0,  [sp,  #4]
SUBI    r0,  #1

```

BNE	L532
LDRSPI	r0, [sp, #0]
BL	L124
BL	L140
MOVI	r0, #168
LDRR	r0, [r7, r0]
ADDI	r0, #1
MOVI	r1, #168
STRR	r0, [r7, r1]
BU	L527
L532	
LDRSPI	r0, [sp, #4]
SUBI	r0, #2
BNE	L533
LDRSPI	r0, [sp, #0]
BL	L122
MOVI	r1, #168
LDRR	r1, [r7, r1]
ADDR	r0, r0, r1
MOVI	r1, #172
STRR	r0, [r7, r1]
LDRSPI	r0, [sp, #0]
BL	L124
LSRI	r0, r0, #8
LSLI	r0, r0, #1
MOVI	r1, #172
LDRR	r1, [r7, r1]
ADDR	r0, r0, r1
MOVI	r1, #176
STRR	r0, [r7, r1]
LDRSPI	r0, [sp, #0]
MOVI	r1, #164
STRR	r0, [r7, r1]
BU	L527
L533	
LDRSPI	r0, [sp, #4]
SUBI	r0, #3
BNE	L534
MOVI	r0, #1
MOVI	r1, #168
LDRR	r1, [r7, r1]
ANDR	r0, r1
BEQ	L535
MOVI	r0, #168
LDRR	r0, [r7, r0]
ADDI	r0, #1
MOVI	r1, #168
STRR	r0, [r7, r1]
MOVI	r0, #6

```

    MOVI    r1,  #0
    MOVI    r2,  #0
    BL      L137
L535
    MOVI    r0,  #164
    LDRR    r0,  [r7, r0]
    BL      L124
    LSRI    r0,  r0,  #8
    BL      L138
    MOVI    r0,  #164
    LDRR    r0,  [r7, r0]
    BL      L124
    MOVI    r1,  #255
    ANDR    r0,  r1
    BL      L139
    MOVI    r0,  #164
    LDRR    r0,  [r7, r0]
    BL      L124
    MOVI    r1,  #255
    ANDR    r0,  r1
    STRSPI  r0,  [sp, #5]
    MOVI    r0,  #164
    LDRR    r0,  [r7, r0]
    BL      L124
    LSRI    r0,  r0,  #8
    LDRSPI  r1,  [sp, #5]
    ADDR    r0,  r0,  r1
    LSLI    r0,  r0,  #1
    MOVI    r1,  #168
    LDRR    r1,  [r7, r1]
    ADDR    r0,  r0,  r1
    MOVI    r1,  #168
    STRR    r0,  [r7, r1]
    BU      L527
L534
    LDRSPI  r0,  [sp, #4]
    SUBI    r0,  #7
    BNE     #1
    BU      L527
    LDRSPI  r0,  [sp, #4]
    SUBI    r0,  #4
    BNE     L536
    LDRSPI  r0,  [sp, #0]
    BL      L124
    LSLI    r0,  r0,  #2
    MOVI    r1,  #140
    LDRR    r1,  [r7, r1]
    LDRR    r0,  [r1, r0]
    MOVI    r1,  #168

```

```

LDRR    r1, [r7, r1]
ADDI    r1, #1
SUBR    r0, r0, r1
STRSPI  r0, [sp, #2]
LDRSPI  r0, [sp, #0]
BL      L122
LDRSPI  r1, [sp, #2]
BL      L130
LDRSPI  r0, [sp, #2]
BL      L125
MOVI    r1, #168
LDRR    r1, [r7, r1]
ADDR    r0, r0, r1
MOVI    r1, #168
STRR    r0, [r7, r1]
BU      L527

```

L536

```

LDRSPI  r0, [sp, #4]
SUBI    r0, #5
BNE     L537
LDRSPI  r0, [sp, #0]
BL      L124
LSLI    r0, r0, #2
MOVI    r1, #140
LDRR    r1, [r7, r1]
LDRR    r0, [r1, r0]
MOVI    r1, #168
LDRR    r1, [r7, r1]
ADDI    r1, #1
SUBR    r0, r0, r1
STRSPI  r0, [sp, #2]
LDRSPI  r0, [sp, #2]
BL      L132
LDRSPI  r0, [sp, #2]
BL      L126
MOVI    r1, #168
LDRR    r1, [r7, r1]
ADDR    r0, r0, r1
MOVI    r1, #168
STRR    r0, [r7, r1]
BU      L527

```

L537

```

LDRSPI  r0, [sp, #4]
SUBI    r0, #13
BNE     L538
LDRSPI  r0, [sp, #0]
BL      L124
LSLI    r0, r0, #2
MOVI    r1, #140

```

LDRR	r1,	[r7, r1]
LDRR	r0,	[r1, r0]
LDRSPI	r1,	[sp, #3]
ADDR	r0,	r0, r1
MOVI	r1,	#168
LDRR	r1,	[r7, r1]
ADDI	r1,	#1
SUBR	r0,	r0, r1
STRSPI	r0,	[sp, #2]
LDRSPI	r0,	[sp, #2]
BL		L132
LDRSPI	r0,	[sp, #2]
BL		L126
MOVI	r1,	#168
LDRR	r1,	[r7, r1]
ADDR	r0,	r0, r1
MOVI	r1,	#168
STRR	r0,	[r7, r1]
BU		L527
L538		
LDRSPI	r0,	[sp, #4]
SUBI	r0,	#6
BNE		L539
LDRSPI	r0,	[sp, #0]
BL		L124
LSLI	r0,	r0, #2
MOVI	r1,	#140
LDRR	r1,	[r7, r1]
LDRR	r0,	[r1, r0]
MOVI	r1,	#168
LDRR	r1,	[r7, r1]
ADDI	r1,	#2
SUBR	r0,	r0, r1
STRSPI	r0,	[sp, #2]
LDRSPI	r0,	[sp, #2]
BL		L133
MOVI	r0,	#168
LDRR	r0,	[r7, r0]
ADDI	r0,	#2
MOVI	r1,	#168
STRR	r0,	[r7, r1]
BU		L527
L539		
LDRSPI	r0,	[sp, #4]
SUBI	r0,	#8
BNE		L540
LDRSPI	r0,	[sp, #0]
BL		L124
LDRI	r1,	[r7, #24]

SUBR	r0,	r0,	r1
MOVI	r1,	#172	
LDRR	r1,	[r7,	r1]
LSRI	r1,	r1,	#1
ADDR	r0,	r0,	r1
MOVI	r1,	#168	
LDRR	r1,	[r7,	r1]
ADDI	r1,	#1	
LSRI	r1,	r1,	#1
SUBR	r0,	r0,	r1
STRSPI	r0,	[sp,	#2]
LDRSPI	r0,	[sp,	#0]
BL	L124		
STRSPI	r0,	[sp,	#5]
LDRSPI	r0,	[sp,	#0]
BL	L122		
LDRSPI	r1,	[sp,	#2]
LDRSPI	r2,	[sp,	#5]
BL	L134		
MOVI	r0,	#168	
LDRR	r0,	[r7,	r0]
ADDI	r0,	#3	
MOVI	r1,	#168	
STRR	r0,	[r7,	r1]
BU	L527		
L540			
LDRSPI	r0,	[sp,	#4]
SUBI	r0,	#9	
BNE	L541		
LDRSPI	r0,	[sp,	#0]
BL	L124		
LDRI	r1,	[r7,	#24]
SUBR	r0,	r0,	r1
MOVI	r1,	#172	
LDRR	r1,	[r7,	r1]
LSRI	r1,	r1,	#1
ADDR	r0,	r0,	r1
MOVI	r1,	#168	
LDRR	r1,	[r7,	r1]
ADDI	r1,	#1	
LSRI	r1,	r1,	#1
SUBR	r0,	r0,	r1
STRSPI	r0,	[sp,	#2]
LDRSPI	r0,	[sp,	#0]
BL	L122		
LDRSPI	r1,	[sp,	#2]
BL	L135		
MOVI	r0,	#168	
LDRR	r0,	[r7,	r0]

```

    ADDI    r0, #1
    MOVI    r1, #168
    STRR    r0, [r7, r1]
    BU      L527
L541
    LDRSPI  r0, [sp, #4]
    SUBI    r0, #10
    BNE     L527
    LDRSPI  r0, [sp, #0]
    BL      L124
    LDRI    r1, [r7, #27]
    SUBR    r0, r0, r1
    MOVI    r1, #176
    LDRR    r1, [r7, r1]
    LSRI    r1, r1, #1
    ADDR    r0, r0, r1
    MOVI    r1, #168
    LDRR    r1, [r7, r1]
    ADDI    r1, #1
    LSRI    r1, r1, #1
    SUBR    r0, r0, r1
    STRSPI  r0, [sp, #2]
    LDRSPI  r0, [sp, #0]
    BL      L122
    LDRSPI  r1, [sp, #2]
    BL      L135
    MOVI    r0, #168
    LDRR    r0, [r7, r0]
    ADDI    r0, #1
    MOVI    r1, #168
    STRR    r0, [r7, r1]
L527
    LDRSPI  r0, [sp, #0]
    ADDI    r0, #1
    STRSPI  r0, [sp, #0]
    BU      L526
L525
    MOVI    r0, #168
    LDRR    r0, [r7, r0]
    STRI    r0, [r7, #30]
    INCSP   #6
    POP
    ADDI    r0, #0
C23
    DCD     45184

```

PROC outcbr

L130

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #1]

SUBI r0, #128

ASRI r0, r0, #31

LDRSPI r1, [sp, #1]

MOVI r2, #127

NEGR r2, r2

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L543

MOVI r0, #255

LDRSPI r1, [sp, #1]

ANDR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #8

ORR r0, r1

BL L140

BU L542

L543

LDRSPI r0, [sp, #1]

BL L126

STRSPI r0, [sp, #2]

LDRSPI r0, [sp, #0]

BL L131

LSLI r0, r0, #8

LDRSPI r1, [sp, #2]

ORR r0, r1

BL L140

LDRSPI r0, [sp, #1]

SUBI r0, #1

BL L132

L542

INCSP #3

POP

FUNC invert

L131

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

SUBI r0, #208

BNE L545

MOVI r0, #209

BU L544

L545

LDRSPI r0, [sp, #0]

SUBI r0, #209

BNE L546

MOVI r0, #208

BU L544

L546

LDRSPI r0, [sp, #0]

SUBI r0, #221

BNE L547

MOVI r0, #218

BU L544

L547

MOVI r0, #221

L544

INCSP #1

POP

PROC outbr

L132

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRPCI r0, C24

LDRSPI r1, [sp, #0]

SUBR r0, r1, r0

ASRI r0, r0, #31

LDRSPI r1, [sp, #0]

LDRPCI r2, C25

SUBR r1, r2, r1

ASRI r1, r1, #31

ANDR r0, r1

BEQ L549

LDRPCI r0, C26

LDRSPI r1, [sp, #0]

ANDR r0, r1

MOVI r1, #7

LSLI r1, r1, #13

ORR r0, r1

BL L140

BU L548

L549

LDRSPI r0, [sp, #0]

BL L133

L548

INCSP #1

POP

PROC outcall

L133

PUSH

DECSP #1

STRSPI r0, [sp, #0]

LDRSPI r0, [sp, #0]

LSRI r0, r0, #11

LDRPCI r1, C26

ANDR r0, r1

MOVI r1, #15

LSLI r1, r1, #12

ORR r0, r1

BL L140

LDRPCI r0, C26

LDRSPI r1, [sp, #0]

ANDR r0, r1

MOVI r1, #31

LSLI r1, r1, #11

ORR r0, r1

BL L140

INCSP #1

POP

PROC outoffs

L134

```

PUSH
DECSP    #4
STRSPI   r0, [sp, #0]
STRSPI   r1, [sp, #1]
STRSPI   r2, [sp, #2]
MOVI     r0, #1
MOVI     r1, #168
LDRR     r1, [r7, r1]
ANDR     r0, r1
BNE      L551
MOVI     r0, #168
LDRR     r0, [r7, r0]
ADDI     r0, #2
STRSPI   r0, [sp, #3]
BU       L550

```

L551

```

MOVI     r0, #168
LDRR     r0, [r7, r0]
ADDI     r0, #1
STRSPI   r0, [sp, #3]

```

L550

```

MOVI     r1, #140
LDRR     r1, [r7, r1]
LDRI     r2, [r7, #22]
LDRSPI   r3, [sp, #2]
LSLI     r3, r3, #2
LDRR     r2, [r2, r3]
LSLI     r2, r2, #2
LDRR     r1, [r1, r2]
LDRSPI   r2, [sp, #3]
SUBR     r1, r1, r2
LSLI     r1, r1, #1
LDRSPI   r0, [sp, #2]
LDRI     r2, [r7, #22]
LSLI     r0, r0, #2
STRR     r1, [r2, r0]
LDRSPI   r0, [sp, #0]
MOVI     r1, #136
ORR      r0, r1
LDRSPI   r1, [sp, #1]
BL       L135
MOVI     r0, #20
MOVI     r1, #6
MOVI     r2, #0
BL       L137
MOVI     r0, #12

```

```
LDRSPI r1, [sp, #0]
LDRSPI r2, [sp, #0]
MOVI   r3, #6
BL     L136
INCSP  #4
POP
```

PROC outcref

L135

PUSH

DECSP #2

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

LDRSPI r0, [sp, #0]

LSLI r0, r0, #8

LDRSPI r1, [sp, #1]

ORR r0, r1

BL L140

INCSP #2

POP

PROC out3

L136

PUSH

DECSP #4

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

STRSPI r3, [sp, #3]

LDRSPI r0, [sp, #2]

LSLI r0, r0, #3

LDRSPI r1, [sp, #1]

ORR r0, r1

LDRSPI r1, [sp, #3]

LSLI r1, r1, #6

ORR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #9

ORR r0, r1

BL L140

INCSP #4

POP

PROC out2i

L137

PUSH

DECSP #3

STRSPI r0, [sp, #0]

STRSPI r1, [sp, #1]

STRSPI r2, [sp, #2]

LDRSPI r0, [sp, #1]

LSLI r0, r0, #8

LDRSPI r1, [sp, #2]

ORR r0, r1

LDRSPI r1, [sp, #0]

LSLI r1, r1, #11

ORR r0, r1

BL L140

INCSP #3

POP

PROC outconsts

L138

PUSH

DECSP #2

STRSPI r0, [sp, #0]

MOVI r0, #0

STRSPI r0, [sp, #1]

L553

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

SUBR r0, r1, r0

BGE L552

LDRI r0, [r7, #22]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #24]

ADDR r1, r1, r2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRPCI r1, C27

ANDR r0, r1

BL L140

LDRI r0, [r7, #22]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #24]

ADDR r1, r1, r2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LSRI r0, r0, #16

BL L140

LDRSPI r0, [sp, #1]

ADDI r0, #1

STRSPI r0, [sp, #1]

BU L553

L552

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #24]

ADDR r0, r0, r1

STRI r0, [r7, #24]

INCSP #2

POP

PROC outstrings

L139

PUSH

DECSP #2

STRSPI r0, [sp, #0]

MOVI r0, #0

STRSPI r0, [sp, #1]

L555

LDRSPI r0, [sp, #0]

LDRSPI r1, [sp, #1]

SUBR r0, r1, r0

BGE L554

LDRI r0, [r7, #25]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #27]

ADDR r1, r1, r2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LDRPCI r1, C27

ANDR r0, r1

BL L140

LDRI r0, [r7, #25]

LDRSPI r1, [sp, #1]

LDRI r2, [r7, #27]

ADDR r1, r1, r2

LSLI r1, r1, #2

LDRR r0, [r0, r1]

LSRI r0, r0, #16

BL L140

LDRSPI r0, [sp, #1]

ADDI r0, #1

STRSPI r0, [sp, #1]

BU L555

L554

LDRSPI r0, [sp, #0]

LDRI r1, [r7, #27]

ADDR r0, r0, r1

STRI r0, [r7, #27]

INCSP #2

POP

PROC outbin

L140

PUSH

DECSP #1

STRSPI r0, [sp, #0]

MOVI r0, #1

LSLI r0, r0, #9

BL L3

MOVI r0, #255

LDRSPI r1, [sp, #0]

ANDR r0, r1

BL L4

LDRSPI r0, [sp, #0]

LSRI r0, r0, #8

BL L4

MOVI r0, #0

BL L3

INCSP #1

POP

PROC outhdr

L141

PUSH

DECSP #1

MOVI r0, #168

LDRR r0, [r7, r0]

LSRI r0, r0, #1

STRI r0, [r7, #10]

LDRPCI r0, C27

LDRI r1, [r7, #10]

ANDR r0, r1

BL L140

LDRI r0, [r7, #10]

LSRI r0, r0, #16

BL L140

INCSP #1

POP

C24

DCD 1023

C25

DCD -1023

C26

DCD 2047

C27

DCD 65535