

extqh - fancy byte operation

```
long int my_atoi(char *s) {
    long int val = 0;
    char c;
    while (c = *s++) {
        val = 10*val + c-'0';
    }
    return val;
}

my_atoi:
0x0:      ldq_u    v0, 0(a0)
0x4:      lda     at, 1(a0)
0x8:      bis     zero, zero, a1
0xc:      addq   a0, 0x1, a0
0x10:     extqh  v0, at, v0
0x14:     sra    v0, 0x38, v0
0x18:     beq    v0, 0x48
0x1c:     bis     zero, zero, zero
0x20:     s4addq a1, a1, t0
0x24:     addq   t0, t0, t0
0x28:     addq   t0, v0, a1
0x2c:     ldq_u  v0, 0(a0)
0x30:     lda     at, 1(a0)
0x34:     subq   a1, 0x30, a1
0x38:     extqh  v0, at, v0
0x3c:     addq   a0, 0x1, a0
0x40:     sra    v0, 0x38, v0
0x44:     bne    v0, 0x20
0x48:     bis     a1, a1, v0
0x4c:     ret    zero, (ra), 1
```

loop unrolling

```

void copy_vals(long int *dest,
               long int *src,
               long int n)
{
    while (n--) {
        *dest++ = *src++;
    }
}

```

