```
For dread.out          Ave real = 9.59 Ave sys = 2.78  Ave user = 0.03
For dwrite.out         Ave real = 3.56 Ave sys = 1.64  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.00  Ave user = 1.13
For loop.out           Ave real = 7.92 Ave sys = 0.03  Ave user = 7.80
For multi1.out         Ave real = 5.04 Ave sys = 2.18  Ave user = 0.39
For multi10.out        Ave real = 34.51        Ave sys = 19.92 Ave user = 4.13
For multi2.out         Ave real = 7.50 Ave sys = 4.12  Ave user = 0.78
For multi20.out        Ave real = 76.92        Ave sys = 42.14 Ave user = 7.99
For multi3.out         Ave real = 9.81 Ave sys = 5.79  Ave user = 1.19
For multi4.out         Ave real = 12.91        Ave sys = 7.66  Ave user = 1.61
For multi5.out         Ave real = 15.67        Ave sys = 9.75  Ave user = 1.87
For multi6.out         Ave real = 17.89        Ave sys = 11.49 Ave user = 2.39
For pipes.out          Ave real = 5.38 Ave sys = 2.52  Ave user = 0.02
For scall.out          Ave real = 9.77 Ave sys = 8.70  Ave user = 1.00
For sieve.out          Ave real = 3.21 Ave sys = 0.03  Ave user = 3.10
```

3.1 KERNEL AS RELEASED
Z80CTL56 3:1 DISK 9:1 FS

```
For dread.out        Ave real = 11.17          Ave sys = 2.87  Ave user = 0.02
For dwrite.out       Ave real = 5.57 Ave sys = 1.74  Ave user = 0.00
For fcalla.out       Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out       Ave real = 1.22 Ave sys = 0.00  Ave user = 1.14
For loop.out         Ave real = 7.92 Ave sys = 0.02  Ave user = 7.80
For multi1.out       Ave real = 5.68 Ave sys = 2.11  Ave user = 0.40
For multi10.out      Ave real = 34.97          Ave sys = 19.73 Ave user = 4.18
For multi2.out       Ave real = 7.73 Ave sys = 4.00  Ave user = 0.78
For multi20.out      Ave real = 77.40          Ave sys = 41.49 Ave user = 8.56
For multi3.out       Ave real = 10.47          Ave sys = 5.91  Ave user = 1.15
For multi4.out       Ave real = 13.93          Ave sys = 7.85  Ave user = 1.63
For multi5.out       Ave real = 15.40          Ave sys = 9.58  Ave user = 1.91
For multi6.out       Ave real = 18.63          Ave sys = 11.63 Ave user = 2.34
For pipes.out        Ave real = 5.38 Ave sys = 2.51  Ave user = 0.03
For scall.out        Ave real = 9.75 Ave sys = 8.64  Ave user = 1.06
For sieve.out        Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

Z80CTL 64 111 3\1

```
For dread.out      Ave real = 11.13          Ave sys = 2.78  Ave user = 0.02
For dwrite.out     Ave real = 2.61 Ave sys = 1.75  Ave user = 0.00
For fcalla.out     Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.21 Ave sys = 0.01  Ave user = 1.14
For loop.out       Ave real = 7.92 Ave sys = 0.04  Ave user = 7.80
For multi1.out     Ave real = 5.02 Ave sys = 2.18  Ave user = 0.43
For multi10.out    Ave real = 35.14          Ave sys = 19.76 Ave user = 4.17
For multi2.out     Ave real = 7.92 Ave sys = 4.06  Ave user = 0.72
For multi20.out    Ave real = 76.96          Ave sys = 41.29 Ave user = 8.25
For multi3.out     Ave real = 10.20          Ave sys = 5.68  Ave user = 1.12
For multi4.out     Ave real = 12.57          Ave sys = 7.53  Ave user = 1.60
For multi5.out     Ave real = 15.58          Ave sys = 9.36  Ave user = 2.07
For multi6.out     Ave real = 18.11          Ave sys = 11.38 Ave user = 2.33
For pipes.out      Ave real = 5.36 Ave sys = 2.51  Ave user = 0.03
For scall.out      Ave real = 9.75 Ave sys = 8.62  Ave user = 1.07
For sieve.out      Ave real = 3.21 Ave sys = 0.02  Ave user = 3.10
```

280CT164 211 111

```
For dread.out      Ave real = 9.49 Ave sys = 2.67  Ave user = 0.01
For dwrite.out     Ave real = 4.01 Ave sys = 1.75  Ave user = 0.00
For fcalla.out     Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.21 Ave sys = 0.00  Ave user = 1.13
For loop.out       Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out     Ave real = 5.10 Ave sys = 2.21  Ave user = 0.42
For multi10.out    Ave real = 33.87        Ave sys = 20.05 Ave user = 4.02
For multi2.out     Ave real = 8.02 Ave sys = 4.29  Ave user = 0.83
For multi20.out    Ave real = 76.44        Ave sys = 41.69 Ave user = 8.47
For multi3.out     Ave real = 10.11        Ave sys = 5.84  Ave user = 1.15
For multi4.out     Ave real = 12.54        Ave sys = 7.73  Ave user = 1.54
For multi5.out     Ave real = 15.28        Ave sys = 9.67  Ave user = 1.93
For multi6.out     Ave real = 18.49        Ave sys = 11.68 Ave user = 2.34
For pipes.out      Ave real = 5.36 Ave sys = 2.57  Ave user = 0.01
For scall.out      Ave real = 9.74 Ave sys = 8.67  Ave user = 1.03
For sieve.out      Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

280CTL64 4.1 3.1

```
For dread.out      Ave real = 9.04 Ave sys = 2.85  Ave user = 0.03
For dwrite.out     Ave real = 3.16 Ave sys = 1.72  Ave user = 0.01
For fcalla.out     Ave real = 0.30 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.21 Ave sys = 0.00  Ave user = 1.14
For loop.out       Ave real = 7.93 Ave sys = 0.03  Ave user = 7.80
For multi1.out     Ave real = 4.73 Ave sys = 2.22  Ave user = 0.41
For multi10.out    Ave real = 33.60        Ave sys = 19.69 Ave user = 4.06
For multi2.out     Ave real = 7.28 Ave sys = 4.06  Ave user = 0.80
For multi20.out    Ave real = 82.57        Ave sys = 41.66 Ave user = 8.49
For multi3.out     Ave real = 10.29        Ave sys = 5.98  Ave user = 1.11
For multi4.out     Ave real = 13.43        Ave sys = 7.93  Ave user = 1.57
For multi5.out     Ave real = 15.06        Ave sys = 9.49  Ave user = 1.89
For multi6.out     Ave real = 17.38        Ave sys = 11.38 Ave user = 2.24
For pipes.out      Ave real = 5.36 Ave sys = 2.53  Ave user = 0.01
For scall.out      Ave real = 9.77 Ave sys = 8.64  Ave user = 1.05
For sieve.out      Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

Z80CTL64 3:1 3:1

```
For dread.out          Ave real = 9.99 Ave sys = 2.85  Ave user = 0.02
For dwrite.out         Ave real = 4.61 Ave sys = 1.76  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out         Ave real = 1.22 Ave sys = 0.01  Ave user = 1.14
For loop.out           Ave real = 7.93 Ave sys = 0.03  Ave user = 7.80
For multi1.out         Ave real = 5.31 Ave sys = 2.13  Ave user = 0.45
For multi10.out        Ave real = 34.77        Ave sys = 20.17 Ave user = 4.06
For multi2.out         Ave real = 7.15 Ave sys = 4.01  Ave user = 0.76
For multi20.out        Ave real = 78.04        Ave sys = 41.72 Ave user = 8.57
For multi3.out         Ave real = 10.15        Ave sys = 6.02  Ave user = 1.16
For multi4.out         Ave real = 14.20        Ave sys = 7.99  Ave user = 1.58
For multi5.out         Ave real = 15.48        Ave sys = 9.70  Ave user = 2.02
For multi6.out         Ave real = 18.95        Ave sys = 11.88 Ave user = 2.40
For pipes.out          Ave real = 5.38 Ave sys = 2.52  Ave user = 0.02
For scall.out          Ave real = 9.75 Ave sys = 8.69  Ave user = 1.01
For sieve.out          Ave real = 3.21 Ave sys = 0.03  Ave user = 3.10
```

Z80CTL64 5:1 3:1

```
For dread.out          Ave real = 10.71          Ave sys = 2.76  Ave user = 0.01
For dwrite.out         Ave real = 5.31 Ave sys = 1.74  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.01  Ave user = 1.13
For loop.out           Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out         Ave real = 5.57 Ave sys = 2.14  Ave user = 0.41
For multi10.out        Ave real = 34.47          Ave sys = 20.18 Ave user = 3.94
For multi2.out         Ave real = 7.02 Ave sys = 3.97  Ave user = 0.74
For multi20.out        Ave real = 83.08          Ave sys = 42.12 Ave user = 8.61
For multi3.out         Ave real = 10.89          Ave sys = 5.97  Ave user = 1.16
For multi4.out         Ave real = 14.40          Ave sys = 7.87  Ave user = 1.67
For multi5.out         Ave real = 15.46          Ave sys = 9.65  Ave user = 1.94
For multi6.out         Ave real = 18.11          Ave sys = 11.49 Ave user = 2.45
For pipes.out          Ave real = 5.39 Ave sys = 2.44  Ave user = 0.01
For scall.out          Ave real = 9.76 Ave sys = 8.66  Ave user = 1.03
For sieve.out          Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

Z80CTL64 5:1 3:1

```
For dread.out      Ave real = 11.12          Ave sys = 2.85  Ave user = 0.02
For dwrite.out     Ave real = 2.78 Ave sys = 1.67  Ave user = 0.01
For fcalla.out     Ave real = 0.30 Ave sys = 0.01  Ave user = 0.20
For fcalle.out     Ave real = 1.21 Ave sys = 0.00  Ave user = 1.12
For loop.out       Ave real = 7.93 Ave sys = 0.01  Ave user = 7.80
For multi1.out     Ave real = 5.08 Ave sys = 2.22  Ave user = 0.38
For multi10.out    Ave real = 33.76          Ave sys = 19.63 Ave user = 4.09
For multi2.out     Ave real = 7.03 Ave sys = 4.02  Ave user = 0.72
For multi20.out    Ave real = 78.77          Ave sys = 40.99 Ave user = 8.43
For multi3.out     Ave real = 10.84          Ave sys = 6.09  Ave user = 1.16
For multi4.out     Ave real = 12.81          Ave sys = 7.64  Ave user = 1.64
For multi5.out     Ave real = 15.70          Ave sys = 9.58  Ave user = 1.97
For multi6.out     Ave real = 18.16          Ave sys = 11.45 Ave user = 2.34
For pipes.out      Ave real = 5.36 Ave sys = 2.51  Ave user = 0.01
For scall.out      Ave real = 9.74 Ave sys = 8.70  Ave user = 0.99
For sieve.out      Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

Z80CTL64 8:1 3:1

```
For dread.out          Ave real = 11.11          Ave sys = 2.87  Ave user = 0.02
For dwrite.out         Ave real = 5.11 Ave sys = 1.69  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out         Ave real = 1.22 Ave sys = 0.00  Ave user = 1.13
For loop.out           Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out         Ave real = 5.63 Ave sys = 2.22  Ave user = 0.37
For multi10.out        Ave real = 35.73          Ave sys = 20.19 Ave user = 3.96
For multi2.out         Ave real = 7.71 Ave sys = 3.98  Ave user = 0.80
For multi20.out        Ave real = 82.02          Ave sys = 41.89 Ave user = 8.61
For multi3.out         Ave real = 10.00          Ave sys = 5.73  Ave user = 1.16
For multi4.out         Ave real = 13.39          Ave sys = 7.73  Ave user = 1.59
For multi5.out         Ave real = 15.10          Ave sys = 9.33  Ave user = 1.96
For multi6.out         Ave real = 17.75          Ave sys = 11.06 Ave user = 2.44
For pipes.out          Ave real = 5.37 Ave sys = 2.51  Ave user = 0.02
For scall.out          Ave real = 9.74 Ave sys = 8.66  Ave user = 1.04
For sieve.out          Ave real = 3.22 Ave sys = 0.02  Ave user = 3.10
```

Z80@T64 7:1 3:1

```
For dread.out        Ave real = 9.08 Ave sys = 2.79   Ave user = 0.01
For dwrite.out       Ave real = 3.54 Ave sys = 1.74   Ave user = 0.00
For fcalla.out       Ave real = 0.30 Ave sys = 0.00   Ave user = 0.20
For fcalle.out       Ave real = 1.21 Ave sys = 0.00   Ave user = 1.13
For loop.out         Ave real = 7.92 Ave sys = 0.01   Ave user = 7.80
For multi1.out       Ave real = 4.89 Ave sys = 2.22   Ave user = 0.35
For multi10.out      Ave real = 33.96        Ave sys = 20.06 Ave user = 3.90
For multi2.out       Ave real = 6.88 Ave sys = 4.02   Ave user = 0.73
For multi20.out      Ave real = 77.98        Ave sys = 42.28 Ave user = 8.25
For multi3.out       Ave real = 9.62 Ave sys = 5.90   Ave user = 1.13
For multi4.out       Ave real = 13.55        Ave sys = 7.83  Ave user = 1.60
For multi5.out       Ave real = 15.14        Ave sys = 9.40  Ave user = 1.90
For multi6.out       Ave real = 16.99        Ave sys = 11.14 Ave user = 2.41
For pipes.out        Ave real = 5.37 Ave sys = 2.50   Ave user = 0.01
For scall.out        Ave real = 9.75 Ave sys = 8.65   Ave user = 1.03
For sieve.out        Ave real = 3.21 Ave sys = 0.01   Ave user = 3.10
```

Z80CTL64 911 311

```
For dread.out          Ave real = 9.51 Ave sys = 2.78  Ave user = 0.00
For dwrite.out         Ave real = 4.31 Ave sys = 1.80  Ave user = 0.00
For fcalla.out         Ave real = 0.30 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.01  Ave user = 1.12
For loop.out           Ave real = 7.92 Ave sys = 0.04  Ave user = 7.80
For multi1.out         Ave real = 5.16 Ave sys = 2.20  Ave user = 0.37
For multi10.out        Ave real = 32.68        Ave sys = 19.97 Ave user = 4.07
For multi2.out         Ave real = 8.12 Ave sys = 4.27  Ave user = 0.77
For multi20.out        Ave real = 77.67        Ave sys = 41.65 Ave user = 8.25
For multi3.out         Ave real = 10.97        Ave sys = 6.12  Ave user = 1.13
For multi4.out         Ave real = 13.29        Ave sys = 7.96  Ave user = 1.50
For multi5.out         Ave real = 15.43        Ave sys = 9.75  Ave user = 2.07
For multi6.out         Ave real = 18.53        Ave sys = 11.57 Ave user = 2.36
For pipes.out          Ave real = 5.39 Ave sys = 2.47  Ave user = 0.01
For scall.out          Ave real = 9.77 Ave sys = 8.64  Ave user = 1.05
For sieve.out          Ave real = 3.21 Ave sys = 0.00  Ave user = 3.10
```

Z80CTL64 10:1 3:1

```
For dread.out          Ave real = 10.19          Ave sys = 2.88  Ave user = 0.02
For dwrite.out         Ave real = 4.96 Ave sys = 1.74  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.00  Ave user = 1.14
For loop.out           Ave real = 7.93 Ave sys = 0.04  Ave user = 7.80
For multi1.out         Ave real = 5.43 Ave sys = 2.17  Ave user = 0.39
For multi10.out        Ave real = 34.47          Ave sys = 20.21 Ave user = 4.04
For multi2.out         Ave real = 7.97 Ave sys = 4.16  Ave user = 0.78
For multi20.out        Ave real = 75.40          Ave sys = 41.71 Ave user = 8.40
For multi3.out         Ave real = 10.65          Ave sys = 6.01  Ave user = 1.14
For multi4.out         Ave real = 13.47          Ave sys = 8.04  Ave user = 1.48
For multi5.out         Ave real = 16.68          Ave sys = 9.89  Ave user = 1.97
For multi6.out         Ave real = 17.91          Ave sys = 11.48 Ave user = 2.37
For pipes.out          Ave real = 5.41 Ave sys = 2.46  Ave user = 0.01
For scall.out          Ave real = 9.75 Ave sys = 8.64  Ave user = 1.05
For sieve.out          Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

280CT164 1111 311

```
For dread.out        Ave real = 10.82          Ave sys = 2.87  Ave user = 0.05
For dwrite.out       Ave real = 5.42 Ave sys = 1.73  Ave user = 0.00
For fcalla.out       Ave real = 0.31 Ave sys = 0.01  Ave user = 0.20
For fcalle.out       Ave real = 1.22 Ave sys = 0.03  Ave user = 1.13
For loop.out         Ave real = 7.93 Ave sys = 0.03  Ave user = 7.80
For multi1.out       Ave real = 5.60 Ave sys = 2.11  Ave user = 0.41
For multi10.out      Ave real = 35.38          Ave sys = 20.24 Ave user = 4.09
For multi2.out       Ave real = 7.06 Ave sys = 3.94  Ave user = 0.74
For multi20.out      Ave real = 79.06          Ave sys = 41.63 Ave user = 8.41
For multi3.out       Ave real = 11.73          Ave sys = 6.11  Ave user = 1.15
For multi4.out       Ave real = 13.43          Ave sys = 7.80  Ave user = 1.53
For multi5.out       Ave real = 15.92          Ave sys = 9.57  Ave user = 2.00
For multi6.out       Ave real = 18.21          Ave sys = 11.52 Ave user = 2.32
For pipes.out        Ave real = 5.37 Ave sys = 2.39  Ave user = 0.00
For scall.out        Ave real = 9.76 Ave sys = 8.65  Ave user = 1.06
For sieve.out        Ave real = 3.21 Ave sys = 0.02  Ave user = 3.10
```

Z80CTL64 1211 311

```
For dread.out      Ave real = 11.57          Ave sys = 2.83  Ave user = 0.04
For dwrite.out     Ave real = 2.41 Ave sys = 1.68  Ave user = 0.00
For fcalla.out     Ave real = 0.30 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.22 Ave sys = 0.00  Ave user = 1.15
For loop.out       Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out     Ave real = 5.56 Ave sys = 2.15  Ave user = 0.40
For multi10.out    Ave real = 33.69          Ave sys = 19.77 Ave user = 4.03
For multi2.out     Ave real = 7.46 Ave sys = 3.82  Ave user = 0.84
For multi20.out    Ave real = 75.42          Ave sys = 41.27 Ave user = 8.14
For multi3.out     Ave real = 11.14          Ave sys = 5.94  Ave user = 1.16
For multi4.out     Ave real = 12.69          Ave sys = 7.70  Ave user = 1.50
For multi5.out     Ave real = 15.40          Ave sys = 9.46  Ave user = 1.98
For multi6.out     Ave real = 18.08          Ave sys = 11.32 Ave user = 2.37
For pipes.out      Ave real = 5.35 Ave sys = 2.47  Ave user = 0.02
For scall.out      Ave real = 9.76 Ave sys = 8.64  Ave user = 1.03
For sieve.out      Ave real = 3.21 Ave sys = 0.02  Ave user = 3.10
```

280CT64 13:1 3:1

```
For dread.out          Ave real = 10.12          Ave sys = 2.76  Ave user = 0.01
For dwrite.out         Ave real = 2.88 Ave sys = 1.70  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.00  Ave user = 1.14
For loop.out           Ave real = 7.92 Ave sys = 0.02  Ave user = 7.80
For multi1.out         Ave real = 4.90 Ave sys = 2.18  Ave user = 0.36
For multi10.out        Ave real = 34.63          Ave sys = 19.94 Ave user = 3.95
For multi2.out         Ave real = 7.41 Ave sys = 4.19  Ave user = 0.71
For multi20.out        Ave real = 76.96          Ave sys = 41.35 Ave user = 8.32
For multi3.out         Ave real = 10.36          Ave sys = 6.05  Ave user = 1.15
For multi4.out         Ave real = 12.57          Ave sys = 7.67  Ave user = 1.52
For multi5.out         Ave real = 15.77          Ave sys = 9.61  Ave user = 1.94
For multi6.out         Ave real = 17.72          Ave sys = 11.38 Ave user = 2.35
For pipes.out          Ave real = 5.37 Ave sys = 2.32  Ave user = 0.04
For scall.out          Ave real = 9.77 Ave sys = 8.65  Ave user = 1.05
For sieve.out          Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

Z80CTL64 1411 311

```
For dread.out      Ave real = 8.89 Ave sys = 2.87  Ave user = 0.02
For dwrite.out     Ave real = 3.63 Ave sys = 1.72  Ave user = 0.00
For fcalla.out     Ave real = 0.30 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.21 Ave sys = 0.00  Ave user = 1.13
For loop.out       Ave real = 7.93 Ave sys = 0.04  Ave user = 7.80
For multi1.out     Ave real = 4.99 Ave sys = 2.18  Ave user = 0.39
For multi10.out    Ave real = 34.06        Ave sys = 20.01 Ave user = 4.22
For multi2.out     Ave real = 6.86 Ave sys = 3.96  Ave user = 0.77
For multi20.out    Ave real = 80.10        Ave sys = 42.38 Ave user = 8.34
For multi3.out     Ave real = 10.09        Ave sys = 5.95  Ave user = 1.17
For multi4.out     Ave real = 12.74        Ave sys = 7.73  Ave user = 1.59
For multi5.out     Ave real = 14.78        Ave sys = 9.49  Ave user = 1.99
For multi6.out     Ave real = 18.05        Ave sys = 11.41 Ave user = 2.34
For pipes.out      Ave real = 5.39 Ave sys = 2.41  Ave user = 0.00
For scall.out      Ave real = 9.76 Ave sys = 8.69  Ave user = 1.00
For sieve.out      Ave real = 3.21 Ave sys = 0.02  Ave user = 3.10
```

Z80CTL64 15'1 3'1

```
For dread.out      Ave real = 9.58 Ave sys = 2.77  Ave user = 0.03
For dwrite.out     Ave real = 4.42 Ave sys = 1.75  Ave user = 0.00
For fcalla.out     Ave real = 0.31 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.22 Ave sys = 0.00  Ave user = 1.16
For loop.out       Ave real = 7.93 Ave sys = 0.03  Ave user = 7.80
For multi1.out     Ave real = 5.26 Ave sys = 2.21  Ave user = 0.41
For multi10.out    Ave real = 33.02        Ave sys = 20.09 Ave user = 3.98
For multi2.out     Ave real = 7.49 Ave sys = 4.14  Ave user = 0.69
For multi20.out    Ave real = 76.74        Ave sys = 42.03 Ave user = 8.36
For multi3.out     Ave real = 10.93        Ave sys = 6.02  Ave user = 1.13
For multi4.out     Ave real = 12.77        Ave sys = 7.74  Ave user = 1.60
For multi5.out     Ave real = 16.23        Ave sys = 9.88  Ave user = 1.89
For multi6.out     Ave real = 18.96        Ave sys = 11.83 Ave user = 2.30
For pipes.out      Ave real = 5.38 Ave sys = 2.42  Ave user = 0.02
For scall.out      Ave real = 9.76 Ave sys = 8.67  Ave user = 1.03
For sieve.out      Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

28OCTL64 1611 3\1

```
For dread.out          Ave real = 10.23          Ave sys = 2.76  Ave user = 0.02
For dwrite.out         Ave real = 4.96 Ave sys = 1.72  Ave user = 0.01
For fcalla.out         Ave real = 0.30 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.22 Ave sys = 0.01  Ave user = 1.14
For loop.out           Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out         Ave real = 5.49 Ave sys = 2.23  Ave user = 0.31
For multi10.out        Ave real = 46.47          Ave sys = 19.48 Ave user = 4.27
For multi2.out         Ave real = 7.24 Ave sys = 3.96  Ave user = 0.85
For multi20.out        Ave real = 131.30         Ave sys = 40.43 Ave user = 8.00
For multi3.out         Ave real = 10.93          Ave sys = 6.10  Ave user = 1.23
For multi4.out         Ave real = 13.05          Ave sys = 7.86  Ave user = 1.58
For multi5.out         Ave real = 15.73          Ave sys = 9.79  Ave user = 2.01
For multi6.out         Ave real = 18.21          Ave sys = 11.50 Ave user = 2.36
For pipes.out          Ave real = 5.40 Ave sys = 2.49  Ave user = 0.02
For scall.out          Ave real = 9.76 Ave sys = 8.66  Ave user = 1.03
For sieve.out          Ave real = 3.21 Ave sys = 0.02  Ave user = 3.10
```

28XTC65 8\1 2\1

```
For dread.out          Ave real = 5.98 Ave sys = 2.08  Ave user = 0.01
For dwrite.out         Ave real = 2.32 Ave sys = 1.28  Ave user = 0.00
For fcalla.out         Ave real = 0.31 Ave sys = 0.01  Ave user = 0.20
For fcalle.out         Ave real = 1.22 Ave sys = 0.00  Ave user = 1.13
For loop.out           Ave real = 7.92 Ave sys = 0.01  Ave user = 7.80
For multi1.out         Ave real = 2.49 Ave sys = 1.76  Ave user = 0.37
For multi10.out        Ave real = 22.68        Ave sys = 16.41 Ave user = 3.78
For multi2.out         Ave real = 4.57 Ave sys = 3.33  Ave user = 0.73
For multi20.out        Ave real = 46.19        Ave sys = 33.16 Ave user = 7.64
For multi3.out         Ave real = 6.77 Ave sys = 4.91  Ave user = 1.14
For multi4.out         Ave real = 9.02 Ave sys = 6.44  Ave user = 1.59
For multi5.out         Ave real = 11.29        Ave sys = 8.16  Ave user = 1.85
For multi6.out         Ave real = 13.62        Ave sys = 9.88  Ave user = 2.22
For pipes.out          Ave real = 5.11 Ave sys = 2.30  Ave user = 0.05
For scall.out          Ave real = 7.81 Ave sys = 6.62  Ave user = 1.13
For sieve.out          Ave real = 3.21 Ave sys = 0.00  Ave user = 3.10
```

```
For dread.out          Ave real = 11.09          Ave sys = 2.82  Ave user = 0.03
For dwrite.out         Ave real = 2.74 Ave sys = 1.72  Ave user = 0.01
For fcalla.out         Ave real = 0.30 Ave sys = 0.00  Ave user = 0.20
For fcalle.out         Ave real = 1.21 Ave sys = 0.01  Ave user = 1.13
For loop.out           Ave real = 7.93 Ave sys = 0.01  Ave user = 7.80
For multi1.out         Ave real = 5.08 Ave sys = 2.20  Ave user = 0.39
For multi10.out        Ave real = 35.10          Ave sys = 20.30 Ave user = 4.10
For multi2.out         Ave real = 7.65 Ave sys = 4.11  Ave user = 0.76
For multi20.out        Ave real = 79.79          Ave sys = 41.77 Ave user = 8.21
For multi3.out         Ave real = 10.98          Ave sys = 6.02  Ave user = 1.20
For multi4.out         Ave real = 12.75          Ave sys = 7.63  Ave user = 1.57
For multi5.out         Ave real = 15.47          Ave sys = 9.60  Ave user = 1.99
For multi6.out         Ave real = 17.43          Ave sys = 11.09 Ave user = 2.30
For pipes.out          Ave real = 5.37 Ave sys = 2.41  Ave user = 0.01
For scall.out          Ave real = 9.76 Ave sys = 8.66  Ave user = 1.04
For sieve.out          Ave real = 3.21 Ave sys = 0.01  Ave user = 3.10
```

28OCTL65 811 311

```
For dread.out          Ave real = 9.10 Ave sys = 2.69  Ave user = 0.04
For dwrite.out         Ave real = 3.60 Ave sys = 1.63  Ave user = 0.00
For fcalla.out         Ave real = 0.50 Ave sys = 0.08  Ave user = 0.21
For fcalle.out         Ave real = 1.40 Ave sys = 0.08  Ave user = 1.14
For loop.out           Ave real = 8.00 Ave sys = 0.09  Ave user = 7.80
For multi1.out         Ave real = 4.00 Ave sys = 1.94  Ave user = 0.23
For multi10.out        Ave real = 27.80        Ave sys = 17.18 Ave user = 2.86
For multi2.out         Ave real = 7.00 Ave sys = 3.73  Ave user = 0.55
For multi20.out        Ave real = 58.10        Ave sys = 35.66 Ave user = 5.44
For multi3.out         Ave real = 8.40 Ave sys = 5.02  Ave user = 0.85
For multi4.out         Ave real = 10.20        Ave sys = 6.62  Ave user = 1.16
For multi5.out         Ave real = 12.80        Ave sys = 8.31  Ave user = 1.26
For multi6.out         Ave real = 15.00        Ave sys = 9.86  Ave user = 1.50
For pipes.out          Ave real = 5.70 Ave sys = 2.49  Ave user = 0.02
For scall.out          Ave real = 9.90 Ave sys = 8.70  Ave user = 1.04
For sieve.out          Ave real = 3.20 Ave sys = 0.09  Ave user = 3.10
```

```
D  3:1      68K TESTS     25-MAR-85
Z  1:1
F  3:1
```

```
                .data
                .comm   _flags,8191
                .text
                .globl  _main
_main:
                link    a6,#-.LF1
                tstb    -.LM1-132(sp)
                moveml  #.LS1,-(a7)
! A1 = 8
                moveq   #1,d3
.L20008:
                moveq   #0,d4
                moveq   #0,d7
.L20001:
                movl    d7,a0
                addl    #_flags,a0
                movb    #1,(a0)
                addql   #1,d7
                cmpl    #8190,d7
                jle     .L20001
                moveq   #0,d7
.L20006:
                movl    d7,a0
                addl    #_flags,a0
                tstb    (a0)
                jeq     .L20
                movl    d7,d6
                addl    d7,d6
                addql   #3,d6
                movl    d7,d5
.L20002:
                addl    d6,d5
                jra     .L26
.L20004:
                movl    d5,a0
                addl    #_flags,a0
                clrb    (a0)
                jra     .L20002
.L26:
                cmpl    #8190,d5
                jle     .L20004
                addql   #1,d4
.L20:
                addql   #1,d7
                cmpl    #8190,d7
                jle     .L20006
                addql   #1,d3
                cmpl    #10,d3
                jle     .L20008
                moveml  (a7)+,#0xf8
                unlk    a6
                rts
.LF1 = 0
.LS1 = 0x1f00
.LM1 = 20
                .data
```

.LORIGI

MOVEQ #0,d7

MOVL d7,A0
ADDL #-flags,A0

4(1/0)
6(1/0) + **

8(1/0)+ε

.Lx:

MOVB #1,(A0)+
ADDQL #1,d7
CMPL #8190,d7
JLE .Lx

20-t × 8190

16 3,800 / ε = 20,475 usec

20msec.

.LC;

MOVL A,B
ADDL #-flags,B
(B)
SUBQL ADDQL #1,A
CMPL #8190,A
JLE .LC:

MOVL A,B
ADDL #-flags,B
.LC:
1:5 (B)+/-
ADDQL/SUBQL #1,A
CMPL #8190,A
JLE .LC

MOVQ #0,dn

LABEL
MOVL —,A0
ADDL —,A0
MOVB #1,(A0)
ADDQL #1,—
CMPL #—
JLE

MOVW —,(A0)
ADDQL #2,dn

MOVL —,(A0)
ADDQL —

```
For dread.out      Ave real = 8.60 Ave sys = 2.68  Ave user = 0.02
For dwrite.out     Ave real = 3.50 Ave sys = 1.63  Ave user = 0.00
For fcalla.out     Ave real = 0.30 Ave sys = 0.00  Ave user = 0.20
For fcalle.out     Ave real = 1.40 Ave sys = 0.01  Ave user = 1.13
For loop.out       Ave real = 8.00 Ave sys = 0.02  Ave user = 7.80
For multi1.out     Ave real = 3.80 Ave sys = 1.90  Ave user = 0.28
For multi10.out    Ave real = 27.89      Ave sys = 18.66 Ave user = 3.01
For multi2.out     Ave real = 6.90 Ave sys = 3.86  Ave user = 0.60
For multi20.out    Ave real = 61.10      Ave sys = 40.25 Ave user = 6.02
For multi3.out     Ave real = 8.40 Ave sys = 5.40  Ave user = 0.77
For multi4.out     Ave real = 11.20      Ave sys = 7.25  Ave user = 1.12
For multi5.out     Ave real = 13.70      Ave sys = 8.98  Ave user = 1.45
For multi6.out     Ave real = 16.30      Ave sys = 11.07 Ave user = 1.61
For pipes.out      Ave real = 5.40 Ave sys = 2.47  Ave user = 0.03
For scall.out      Ave real = 9.90 Ave sys = 8.60  Ave user = 1.10
For sieve.out      Ave real = 3.20 Ave sys = 0.04  Ave user = 3.10
```

Z80CTL 56 RELEASED 3.1 CORE 3:1/9:1

D/n/kime cat /usr/dict/words 1:33.0 7.1 48.1