

```
#####  
#  
#                      Results of RawTest                      #  
#                                                                #  
#####
```

date, time: 02/29/2004, 16:27:01
tested file: test.dat
size of file: 10000000 bytes

```
*****  
*  
*                      Results of the frequency test          *  
*                                                                *  
*****
```

test scope: first 10000000 bytes
relative frequency of bit 1: 0.50505120

block length L = 2: chi^2 = 0.6620, p-value = 0.88210864
block length L = 3: chi^2 = 7.4168, p-value = 0.38680778
block length L = 4: chi^2 = 18.4884, p-value = 0.23786033

```
*****  
*  
*                      Results of the serial test              *  
*                                                                *  
*****
```

test scope: first 10000000 bytes
relative frequency of bit 1: 0.50505120

block length L = 2: chi^2 = 0.1150, p-value = 0.94413876
block length L = 3: chi^2 = 3.9745, p-value = 0.40947036
block length L = 4: chi^2 = 5.1442, p-value = 0.74205373

```
*****  
*  
*                      Results of the modular monobit test    *  
*                                                                *  
*****
```

test scope: first 10000000 bytes
relative frequency of bit 1: 0.50505120

modular monobit test for block length L = 3:
bit 0: rf = 0.50496283, chi^2 = 0.83316434, p-value = 0.36135912
bit 1: rf = 0.50495945, chi^2 = 0.89801587, p-value = 0.34331429
bit 2: rf = 0.50523133, chi^2 = 3.46115985, p-value = 0.06282623

modular monobit test for block length L = 4:
bit 0: rf = 0.50516850, chi^2 = 1.10085555, p-value = 0.29407842
bit 1: rf = 0.50505825, chi^2 = 0.00397661, p-value = 0.94971846
bit 2: rf = 0.50501330, chi^2 = 0.11492453, p-value = 0.73460581
bit 3: rf = 0.50496475, chi^2 = 0.59794923, p-value = 0.43936156

modular monobit test for block length L = 5:
bit 0: rf = 0.50518125, chi^2 = 1.08254264, p-value = 0.29812945
bit 1: rf = 0.50485525, chi^2 = 2.45762058, p-value = 0.11695583
bit 2: rf = 0.50504469, chi^2 = 0.00271469, p-value = 0.95844689
bit 3: rf = 0.50509825, chi^2 = 0.14169142, p-value = 0.70660527
bit 4: rf = 0.50507656, chi^2 = 0.04117261, p-value = 0.83920510

modular monobit test for block length L = 6:
bit 0: rf = 0.50490774, chi^2 = 1.09778954, p-value = 0.29475172
bit 1: rf = 0.50487849, chi^2 = 1.59107250, p-value = 0.20717297
bit 2: rf = 0.50532459, chi^2 = 3.98658266, p-value = 0.04586399
bit 3: rf = 0.50501791, chi^2 = 0.05910199, p-value = 0.80792095

bit 4: rf = 0.50504041, chi^2 = 0.00620690, p-value = 0.93720454
bit 5: rf = 0.50513806, chi^2 = 0.40244726, p-value = 0.52582809

modular monobit test for block length L = 7:

bit 0: rf = 0.50510007, chi^2 = 0.10918478, p-value = 0.74107417
bit 1: rf = 0.50495666, chi^2 = 0.40865817, p-value = 0.52265135
bit 2: rf = 0.50511363, chi^2 = 0.17819806, p-value = 0.67292639
bit 3: rf = 0.50507741, chi^2 = 0.03139875, p-value = 0.85935372
bit 4: rf = 0.50515572, chi^2 = 0.49944339, p-value = 0.47974479
bit 5: rf = 0.50488806, chi^2 = 1.21684750, p-value = 0.26998022
bit 6: rf = 0.50506682, chi^2 = 0.01115320, p-value = 0.91589282

modular monobit test for block length L = 8:

bit 0: rf = 0.50511680, chi^2 = 0.17215197, p-value = 0.67820632
bit 1: rf = 0.50522620, chi^2 = 1.22512503, p-value = 0.26835720
bit 2: rf = 0.50479030, chi^2 = 2.72303031, p-value = 0.09891007
bit 3: rf = 0.50499200, chi^2 = 0.14019991, p-value = 0.70808236
bit 4: rf = 0.50522020, chi^2 = 1.14255661, p-value = 0.28511275
bit 5: rf = 0.50489030, chi^2 = 1.03565810, p-value = 0.30883344
bit 6: rf = 0.50523630, chi^2 = 1.37062028, p-value = 0.24170534
bit 7: rf = 0.50493750, chi^2 = 0.51716038, p-value = 0.47205550

modular monobit test for block length L = 9:

bit 0: rf = 0.50493729, chi^2 = 0.46141398, p-value = 0.49696389
bit 1: rf = 0.50534004, chi^2 = 2.96661038, p-value = 0.08499978
bit 2: rf = 0.50529155, chi^2 = 2.05419618, p-value = 0.15178734
bit 3: rf = 0.50513596, chi^2 = 0.25548448, p-value = 0.61323949
bit 4: rf = 0.50472376, chi^2 = 3.81247785, p-value = 0.05087214
bit 5: rf = 0.50491029, chi^2 = 0.70607001, p-value = 0.40075157
bit 6: rf = 0.50481511, chi^2 = 1.98196493, p-value = 0.15918356
bit 7: rf = 0.50481455, chi^2 = 1.99142063, p-value = 0.15819242
bit 8: rf = 0.50549203, chi^2 = 6.91011485, p-value = 0.00857095

modular monobit test for block length L = 10:

bit 0: rf = 0.50507675, chi^2 = 0.02089181, p-value = 0.88507407
bit 1: rf = 0.50469200, chi^2 = 4.12920990, p-value = 0.04214903
bit 2: rf = 0.50506825, chi^2 = 0.00930343, p-value = 0.92315978
bit 3: rf = 0.50500437, chi^2 = 0.07016974, p-value = 0.79108980
bit 4: rf = 0.50509887, chi^2 = 0.07274040, p-value = 0.78738776
bit 5: rf = 0.50528575, chi^2 = 1.76061817, p-value = 0.18454743
bit 6: rf = 0.50501850, chi^2 = 0.03422077, p-value = 0.85323800
bit 7: rf = 0.50502112, chi^2 = 0.02894713, p-value = 0.86490116
bit 8: rf = 0.50519212, chi^2 = 0.63558025, p-value = 0.42531580
bit 9: rf = 0.50505425, chi^2 = 0.00029771, p-value = 0.98623375

```
*****  
*  
*           Results of the autocorrelation test           *  
*  
*****
```

test scope: first 10000000 bytes
relative frequency of bit 1: 0.50505120

bit shift d = 1: chi^2 = 0.11504009, p-value = 0.73447745
bit shift d = 2: chi^2 = 3.03992514, p-value = 0.08123966
bit shift d = 3: chi^2 = 0.05906098, p-value = 0.80798630
bit shift d = 4: chi^2 = 0.23141304, p-value = 0.63047806

```
*****  
*  
*           Results of the dependency test           *  
*  
*****
```

test scope: first 10000000 bytes
relative frequency of bit 1: 0.50505120

dependency test for block length L = 3:

bit place 1 if bit 0 = 0:
rf = 0.50507837, chi^2 = 0.03898071, p-value = 0.84348688

bit place 1 if bit 0 = 1:
rf = 0.50484283, χ^2 = 2.33880231, p-value = 0.12618654
bit place 2 if bit 1 = 0:
rf = 0.50527309, χ^2 = 2.60011627, p-value = 0.10685588
bit place 2 if bit 1 = 1:
rf = 0.50519034, χ^2 = 1.04292336, p-value = 0.30714255
bit place 3 if bit 2 = 0:
rf = 0.50485943, χ^2 = 1.94104652, p-value = 0.16355495
bit place 3 if bit 2 = 1:
rf = 0.50506404, χ^2 = 0.00888879, p-value = 0.92488645

dependency test for block length L = 4:

bit place 1 if bit 0 = 0:
rf = 0.50491541, χ^2 = 0.73000090, p-value = 0.39288290
bit place 1 if bit 0 = 1:
rf = 0.50519812, χ^2 = 0.87240482, p-value = 0.35029041
bit place 2 if bit 1 = 0:
rf = 0.50514854, χ^2 = 0.37516979, p-value = 0.54019969
bit place 2 if bit 1 = 1:
rf = 0.50488082, χ^2 = 1.17299033, p-value = 0.27878766
bit place 3 if bit 2 = 0:
rf = 0.50517090, χ^2 = 0.56740685, p-value = 0.45129121
bit place 3 if bit 2 = 1:
rf = 0.50476265, χ^2 = 3.36425404, p-value = 0.06662575
bit place 4 if bit 3 = 0:
rf = 0.50504646, χ^2 = 0.00089032, p-value = 0.97619611
bit place 4 if bit 3 = 1:
rf = 0.50528809, χ^2 = 2.26724078, p-value = 0.13213497

dependency test for block length L = 5:

bit place 1 if bit 0 = 0:
rf = 0.50484357, χ^2 = 1.36541753, p-value = 0.24260078
bit place 1 if bit 0 = 1:
rf = 0.50486663, χ^2 = 1.10149195, p-value = 0.29393892
bit place 2 if bit 1 = 0:
rf = 0.50503603, χ^2 = 0.00729591, p-value = 0.93193057
bit place 2 if bit 1 = 1:
rf = 0.50505312, χ^2 = 0.00011910, p-value = 0.99129266
bit place 3 if bit 2 = 0:
rf = 0.50524208, χ^2 = 1.15424096, p-value = 0.28266312
bit place 3 if bit 2 = 1:
rf = 0.50495736, χ^2 = 0.28466864, p-value = 0.59365743
bit place 4 if bit 3 = 0:
rf = 0.50511206, χ^2 = 0.11734217, p-value = 0.73193519
bit place 4 if bit 3 = 1:
rf = 0.50504172, χ^2 = 0.00290723, p-value = 0.95699990
bit place 5 if bit 4 = 0:
rf = 0.50511790, χ^2 = 0.14093418, p-value = 0.70735407
bit place 5 if bit 4 = 1:
rf = 0.50524327, χ^2 = 1.19255525, p-value = 0.27481474

dependency test for block length L = 6:

bit place 1 if bit 0 = 0:
rf = 0.50498589, χ^2 = 0.11264241, p-value = 0.73715561
bit place 1 if bit 0 = 1:
rf = 0.50477325, χ^2 = 2.08061194, p-value = 0.14918036
bit place 2 if bit 1 = 0:
rf = 0.50528908, χ^2 = 1.49443008, p-value = 0.22153038
bit place 2 if bit 1 = 1:
rf = 0.50535933, χ^2 = 2.55687702, p-value = 0.10981532
bit place 3 if bit 2 = 0:
rf = 0.50488654, χ^2 = 0.71540444, p-value = 0.39765549
bit place 3 if bit 2 = 1:
rf = 0.50514645, χ^2 = 0.24451323, p-value = 0.62096526
bit place 4 if bit 3 = 0:
rf = 0.50517087, χ^2 = 0.37809099, p-value = 0.53862668
bit place 4 if bit 3 = 1:
rf = 0.50491248, χ^2 = 0.51839223, p-value = 0.47152832
bit place 5 if bit 4 = 0:
rf = 0.50525702, χ^2 = 1.11837876, p-value = 0.29026782
bit place 5 if bit 4 = 1:
rf = 0.50502141, χ^2 = 0.02391265, p-value = 0.87710736
bit place 6 if bit 5 = 0:
rf = 0.50483233, χ^2 = 1.26441183, p-value = 0.26081764
bit place 6 if bit 5 = 1:

rf = 0.50498153, χ^2 = 0.13076226, p-value = 0.71764301

dependency test for block length L = 7:

bit place 1 if bit 0 = 0:
rf = 0.50507726, χ^2 = 0.01537181, p-value = 0.90132866
bit place 1 if bit 0 = 1:
rf = 0.50483840, χ^2 = 1.04574468, p-value = 0.30648916
bit place 2 if bit 1 = 0:
rf = 0.50505282, χ^2 = 0.00005906, p-value = 0.99386851
bit place 2 if bit 1 = 1:
rf = 0.50517317, χ^2 = 0.34343231, p-value = 0.55785470
bit place 3 if bit 2 = 0:
rf = 0.50499554, χ^2 = 0.07009292, p-value = 0.79120153
bit place 3 if bit 2 = 1:
rf = 0.50515770, χ^2 = 0.26193900, p-value = 0.60879115
bit place 4 if bit 3 = 0:
rf = 0.50505378, χ^2 = 0.00015106, p-value = 0.99019371
bit place 4 if bit 3 = 1:
rf = 0.50525552, χ^2 = 0.96398710, p-value = 0.32618437
bit place 5 if bit 4 = 0:
rf = 0.50491330, χ^2 = 0.43021723, p-value = 0.51188238
bit place 5 if bit 4 = 1:
rf = 0.50486324, χ^2 = 0.81591569, p-value = 0.36637704
bit place 6 if bit 5 = 0:
rf = 0.50509471, χ^2 = 0.04284600, p-value = 0.83601552
bit place 6 if bit 5 = 1:
rf = 0.50503939, χ^2 = 0.00322199, p-value = 0.95473433
bit place 7 if bit 6 = 0:
rf = 0.50530472, χ^2 = 1.45433061, p-value = 0.22783434
bit place 7 if bit 6 = 1:
rf = 0.50489944, χ^2 = 0.53181807, p-value = 0.46584351

dependency test for block length L = 8:

bit place 1 if bit 0 = 0:
rf = 0.50511353, χ^2 = 0.07691282, p-value = 0.78152549
bit place 1 if bit 0 = 1:
rf = 0.50533669, χ^2 = 1.64691189, p-value = 0.19937976
bit place 2 if bit 1 = 0:
rf = 0.50500279, χ^2 = 0.04638119, p-value = 0.82948438
bit place 2 if bit 1 = 1:
rf = 0.50458211, χ^2 = 4.44743845, p-value = 0.03495364
bit place 3 if bit 2 = 0:
rf = 0.50516842, χ^2 = 0.27218939, p-value = 0.60186688
bit place 3 if bit 2 = 1:
rf = 0.50481883, χ^2 = 1.09033943, p-value = 0.29639601
bit place 4 if bit 3 = 0:
rf = 0.50494396, χ^2 = 0.22773306, p-value = 0.63320985
bit place 4 if bit 3 = 1:
rf = 0.50549088, χ^2 = 3.90537237, p-value = 0.04813196
bit place 5 if bit 4 = 0:
rf = 0.50471725, χ^2 = 2.20739083, p-value = 0.13735080
bit place 5 if bit 4 = 1:
rf = 0.50505968, χ^2 = 0.00145199, p-value = 0.96960397
bit place 6 if bit 5 = 0:
rf = 0.50529408, χ^2 = 1.16838684, p-value = 0.27973295
bit place 6 if bit 5 = 1:
rf = 0.50517974, χ^2 = 0.33371699, p-value = 0.56347854
bit place 7 if bit 6 = 0:
rf = 0.50517338, χ^2 = 0.29546135, p-value = 0.58674184
bit place 7 if bit 6 = 1:
rf = 0.50470641, χ^2 = 2.40272502, p-value = 0.12112410
bit place 8 if bit 7 = 0:
rf = 0.50514895, χ^2 = 0.18921733, p-value = 0.66356882
bit place 8 if bit 7 = 1:
rf = 0.50508518, χ^2 = 0.02332984, p-value = 0.87860246

dependency test for block length L = 9:

bit place 1 if bit 0 = 0:
rf = 0.50549999, χ^2 = 3.54561893, p-value = 0.05970289
bit place 1 if bit 0 = 1:
rf = 0.50518333, χ^2 = 0.31346641, p-value = 0.57556081
bit place 2 if bit 1 = 0:
rf = 0.50533367, χ^2 = 1.40342690, p-value = 0.23615064
bit place 2 if bit 1 = 1:
rf = 0.50525022, χ^2 = 0.71171895, p-value = 0.39887375

bit place 3 if bit 2 = 0:
rf = 0.50501591, χ^2 = 0.02190886, p-value = 0.88232980
bit place 3 if bit 2 = 1:
rf = 0.50525339, χ^2 = 0.73455069, p-value = 0.39141210
bit place 4 if bit 3 = 0:
rf = 0.50506923, χ^2 = 0.00572284, p-value = 0.93969797
bit place 4 if bit 3 = 1:
rf = 0.50438543, χ^2 = 7.96175632, p-value = 0.00477760
bit place 5 if bit 4 = 0:
rf = 0.50502015, χ^2 = 0.01697430, p-value = 0.89634060
bit place 5 if bit 4 = 1:
rf = 0.50480259, χ^2 = 1.10928039, p-value = 0.29223843
bit place 6 if bit 5 = 0:
rf = 0.50477118, χ^2 = 1.38040495, p-value = 0.24003218
bit place 6 if bit 5 = 1:
rf = 0.50485808, χ^2 = 0.66961568, p-value = 0.41318563
bit place 7 if bit 6 = 0:
rf = 0.50466610, χ^2 = 2.61137625, p-value = 0.10609965
bit place 7 if bit 6 = 1:
rf = 0.50496028, χ^2 = 0.14837969, p-value = 0.70008861
bit place 8 if bit 7 = 0:
rf = 0.50546534, χ^2 = 3.02005684, p-value = 0.08224058
bit place 8 if bit 7 = 1:
rf = 0.50551809, χ^2 = 3.91304801, p-value = 0.04791263
bit place 9 if bit 8 = 0:
rf = 0.50479113, χ^2 = 1.18937120, p-value = 0.27545643
bit place 9 if bit 8 = 1:
rf = 0.50508016, χ^2 = 0.01507872, p-value = 0.90226908

dependency test for block length L = 10:

bit place 1 if bit 0 = 0:
rf = 0.50465186, χ^2 = 2.52592390, p-value = 0.11198917
bit place 1 if bit 0 = 1:
rf = 0.50473121, χ^2 = 1.65508398, p-value = 0.19826838
bit place 2 if bit 1 = 0:
rf = 0.50523715, χ^2 = 0.54807551, p-value = 0.45910511
bit place 2 if bit 1 = 1:
rf = 0.50490237, χ^2 = 0.35775671, p-value = 0.54975475
bit place 3 if bit 2 = 0:
rf = 0.50532599, χ^2 = 1.19600105, p-value = 0.27412241
bit place 3 if bit 2 = 1:
rf = 0.50468934, χ^2 = 2.11650384, p-value = 0.14571885
bit place 4 if bit 3 = 0:
rf = 0.50519828, χ^2 = 0.34268912, p-value = 0.55828111
bit place 4 if bit 3 = 1:
rf = 0.50500132, χ^2 = 0.04021390, p-value = 0.84106295
bit place 5 if bit 4 = 0:
rf = 0.50537746, χ^2 = 1.68596463, p-value = 0.19413378
bit place 5 if bit 4 = 1:
rf = 0.50519577, χ^2 = 0.33783448, p-value = 0.56108187
bit place 6 if bit 5 = 0:
rf = 0.50503523, χ^2 = 0.00403796, p-value = 0.94933256
bit place 6 if bit 5 = 1:
rf = 0.50500200, χ^2 = 0.03914743, p-value = 0.84315688
bit place 7 if bit 6 = 0:
rf = 0.50483478, χ^2 = 0.74197879, p-value = 0.38902774
bit place 7 if bit 6 = 1:
rf = 0.50520365, χ^2 = 0.37561326, p-value = 0.53996035
bit place 8 if bit 7 = 0:
rf = 0.50515817, χ^2 = 0.18127711, p-value = 0.67027801
bit place 8 if bit 7 = 1:
rf = 0.50522553, χ^2 = 0.49116166, p-value = 0.48340957
bit place 9 if bit 8 = 0:
rf = 0.50502569, χ^2 = 0.01030568, p-value = 0.91914015
bit place 9 if bit 8 = 1:
rf = 0.50508210, χ^2 = 0.01543837, p-value = 0.90111637
bit place 10 if bit 9 = 0:
rf = 0.50485836, χ^2 = 0.58903733, p-value = 0.44279162
bit place 10 if bit 9 = 1:
rf = 0.50529065, χ^2 = 0.92671625, p-value = 0.33571766