1. 主函式

End

Line2Function.c

計算m.b值及SumDis2

WriteResult.c

計算Diff, 寫出L1, SumDis1, L2, SumDis2, Diff至OutputResult.txt

Line1Function.c

計算m值及SumDis1

ReadPoints.c

讀取InputPoint.txt中的50個座標點

並存入資料結構中

Start

1. 子函式Line1Function.c

SumDis1==0

||

Total\_d<SumDis1

Start

SumDis1 = 0 ;

i

for( i=1 ; i<=20 ; i++)

yes

no

Total\_d=0;

m=pow(2,i);

SumDis1=Total\_d;

Line1\_m=m;

for(j=0 ; j<50 ; j++)

i

d=fabs(-m\*X[j]+Y[j])/

pow(pow(m,2.0)+1,0.5);

Total\_d+=d;

End

j

1. 子函式Line2Function. c

Start

Line2\_m=

Sum\_MultiDxDy/Sum\_DxSqua ;

Line2\_b = Yavg - Line2\_m\*Xavg ;

for( i=0 ; i<50 ; i++)

Sum\_X += X[ i ] ;

Sum\_Y += Y[ i ] ;

SumDis2 = 0 ;

for( i=0 ; i<50 ; i++)

i

y\_line = Line2\_m\*X[i]+ Line2\_b;

temp = fabs(Y[i] - y\_line) ;

SumDis2 += temp ;

Xavg = Sum\_X/50 ;

Yavg = Sum\_Y/50 ;

i

for( i=0 ; i<50 ; i++)

i

End

Diff\_Xi\_Xavg = X[i] – Xavg ;

Diff\_Yi\_Yavg = Y[i] – Yavg ;

temp = Diff\_Xi\_Xavg\*Diff\_Yi\_Yavg ;

Sum\_MultiDxDy += temp ;

temp = pow(Diff\_Xi\_Xavg , 2) ;

Sum\_DxSqua += temp ;