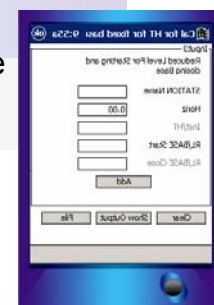
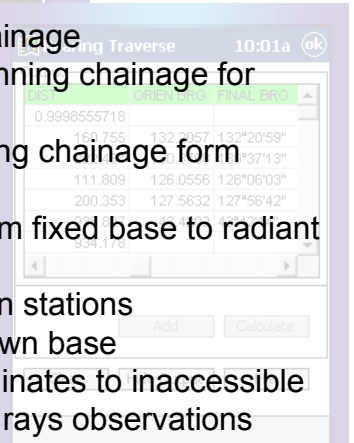
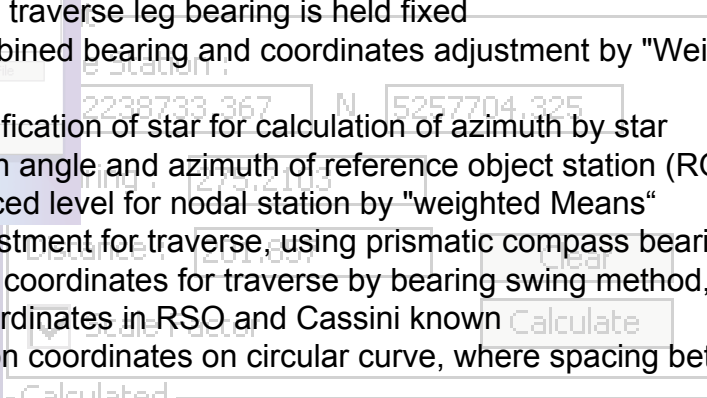
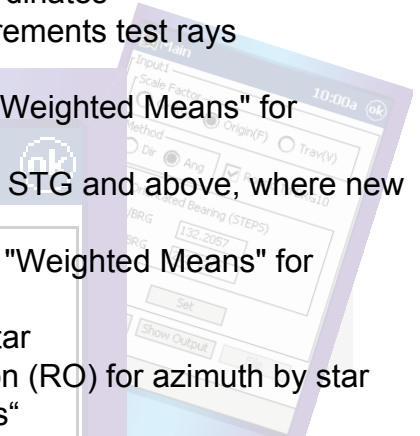


# MysCad CE Survey Computation (SurCompCE)

## FUNCTIONAL SPECIFICATION

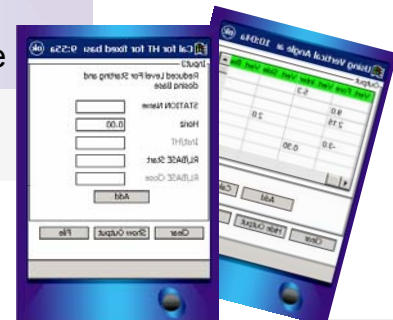
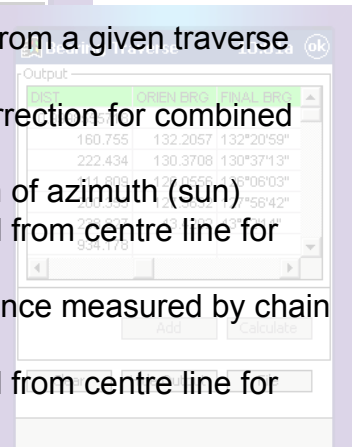
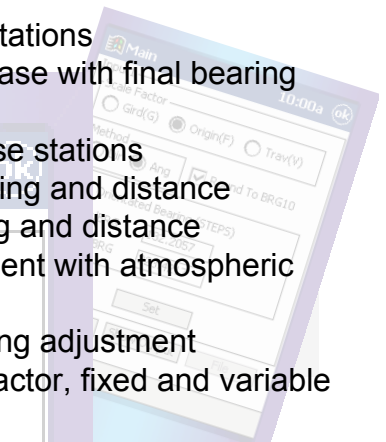
- ✓ Calculation of RSO meters coordinates from given latitude and longitude
- ✓ Calculation of latitude and longitude from given RSO meters coordinates
- ✓ Calculation of zero constant for short range edit using 21 measurements test rays
- ✓ Calculation of bearing from a station within Sarawak to Mecca
- ✓ Calculation for combined bearing and coordinate adjustment by "Weighted Means" for divisional control traverse
- ✓ Calculation for combined bearing and coordinates adjustment for STG and above, where new starting and closing traverse leg bearing is held fixed
- ✓ Calculation for combined bearing and coordinates adjustment by "Weighted Means" for STG and above
- ✓ Calculation of identification of star for calculation of azimuth by star
- ✓ Calculation of zenith angle and azimuth of reference object station (RO) for azimuth by star
- ✓ Calculation of reduced level for nodal station by "weighted Means"
- ✓ Calculation for adjustment for traverse, using prismatic compass bearing
- ✓ Calculation of RSO coordinates for traverse by bearing swing method, where starting and ending stations coordinates in RSO and Cassini known
- ✓ Calculation of station coordinates on circular curve, where spacing between station is equal that is equal cord
- ✓ Calculation of station coordinates on circular curve with running chainage
- ✓ Calculation of all stations coordinates, bearing and distance with running chainage for circular curves, spiral curves or combined circular and spiral curve.
- ✓ Calculation of stations coordinates, bearing and distance with running chainage form starting station, for curve with transition spiral curve
- ✓ Calculation of direct bearing and distance between two stations, from fixed base to radiant rays and for traverse for Cassini project
- ✓ Calculation of intersection station coordinates form four given known stations
- ✓ Calculation of reduced level of an inaccessible station from two known base
- ✓ Calculation of direction and distance or bearing, distance and coordinates to inaccessible centre of circular object by measurement of circumference and two rays observations
- ✓ Calculation of station coordinates on semi-circle on line joining two given base
- ✓ Calculation of arc-chord from fixed base to radiant rays to bring observation to plane
- ✓ Calculation of orientation bearing based on one line given bearing
- ✓ Calculation for location of distant stations from a given base station
- ✓ Calculation of convergence from given RSO meters coordinates
- ✓ Calculation of arc-chord for traverse to bring observation to plane
- ✓ Calculation for reduction of Telcurometer Measurements
- ✓ Calculation for eccentric reduction to centre for observation
- ✓ Calculation of convergence from given latitude and longitude



# MysCad CE Survey Computation (SurCompCE)

## FUNCTIONAL SPECIFICATION

- ✓ Calculation of direct bearing and distance from given coordinates for line scale factor, (K-T) correction and plane bearing
- ✓ Calculation for points on line stations coordinates with known end stations
- ✓ Calculation for shooting line stations coordinates from given fixed base with final bearing and distance for single or more rays
- ✓ Calculation of coordinates of intersection station from two given base stations
- ✓ Calculation of bearing and distance of single missing line from bearing and distance
- ✓ Calculation of hanging coordinates from given fixed base by bearing and distance
- ✓ Calculation of EDM reduction from vertical readings and measurement with atmospheric correction applied during measurements
- ✓ Calculation for combined bearing adjustment and traverse for bearing adjustment
- ✓ Calculation for traverse with optional calculation of using no scale factor, fixed and variable scale factor for line
- ✓ Calculation of points on line coordinates for road survey with running chainage
- ✓ Calculation of geodimeter reduction with optional calculation to spheroid or grid distance
- ✓ Calculation of trigonometrical heighting for traverse base using vertical angle and distance.
- ✓ Calculation of perpendicular distance displacement from given base line for nearly on line stations with known coordinates
- ✓ For calculation of fixing of radiant stations with known coordinates from a given traverse station of hanging coordinates
- ✓ For calculation of azimuth by altitude of sun, required tables are correction for combined refraction and parallax and polynomial co-efficient for R
- ✓ Calculation of bubble correction to horizontal reading for calculation of azimuth (sun)
- ✓ For calculation of distance, running distance and final reduced level from centre line for stations taken in cross-section to centre line
- ✓ Calculation of horizontal distance for detail survey using slope distance measured by chain or edit and for edit with zero correction applied
- ✓ For calculation of distance, running distance and final reduced level from centre line for stations taken in cross-section to centre line by stadia method
- ✓ For calculation of area conversion between square meters, acres and square feet and conversion from rods, perches into acres, square meters and square feet
- ✓ For calculation of reduction of measured distance by chain correction for slope, temperature and sag
- ✓ Calculation for bearing adjustment and coordinates for shooting line
- ✓ For calculation of reduction of horizontal readings
- ✓ For calculation of linear conversion between meters, lines and feet
- ✓ Calculation of area and round close check y bearing and distance
- ✓ For calculation of bearing adjustment and traverse for round close
- ✓ Calculation for level by rise and fall method for fixed base
- ✓ Calculation for heighting for fixed base or traverse.



# MysCad CE Survey Computation (SurCompCE)



10:00a

Input1

Scale Factor  
 Gird(G)  Origin(F)  Tray(V)

Method  
 Dir  Ang

Orientated Bearing (STEPS)

Start/BRG: 132.2057  
 Close/BRG: 223.4217

Buttons: Set, Clear, Show Output

10:05a

Main

Input1

Base Station

1st Base/Sta :  
 E 2238532.409 N 5257723.149

2nd Base/Sta :  
 E 2238354.900 N 5257529.764

Station Coordinate :  
 E 2238464.732 N 5257649.545

Bearing :

9:55a

Cal for HT for fixed base

Input3

Reduced Level For Starting and se

Name:

0.00

Start:

Close:

Buttons: Add, Show Output, File

10:06a

Main

Cadastral

Direct Bearing Distance      Hanging Coordinates

Points On Line      Bearing and Adjust

Shooting Line      Traverse A

Round Close and Area By Brg and Dist      Bearing Ac For Shoot

Area By Bearing

10:00

Shooting Line

Input

Base Station :  
 E 2238733.367 N 5257704.325

Bearing : 275.2103

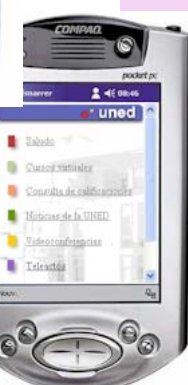
Distance : 201.857      Clear

Scale Factor      Calcula...

Calculated

Coordinates  
 E 2238532.412 N 5257723.147

Grid Distance : 201.835



9:58a

on

Trav  Point

STAFF in

Feet  Metres

Display Rise and Fall

Traverse And Intermediate Station

Buttons: Set, Clear, Show Output, File

10:02a

Main

Input1

MIS/LINE(Y/N)

E 2252748.152 N 5246603.232

Scale Factor (V)       All Coords  
 or (G)       Last Hanging

OP324

5247728.564

Buttons: Set, Show Output, File

HT for fix

TAR/HT

2.000	-2.354	98.52
0.750	2.344	96.17
1.500	5.078	101.25
1.345	-5.084	101.25
1.400	5.053	106.30
0.986	-5.055	106.30

Buttons: Add, Remove, Calculate, Show Output, File

10:01a

Bearing Traverse

Dist	OPEN BRG	FINAL BRG
0.999055/19		
180.755	132.2057	132°20'59"
222.434	130.3700	130°37'13"
111.809	126.0556	126°06'03"
200.353	127.6632	127°56'42"
230.027	43.4202	43°24'21"
894.178		

Buttons: Add, Calculate, Clear, Hide Output, File

Hanging Coordinate B

BEARING	DIST	2253436
257.2315	96.478	

Buttons: Add, Remove, Calculate, Clear, Hide Output, File

