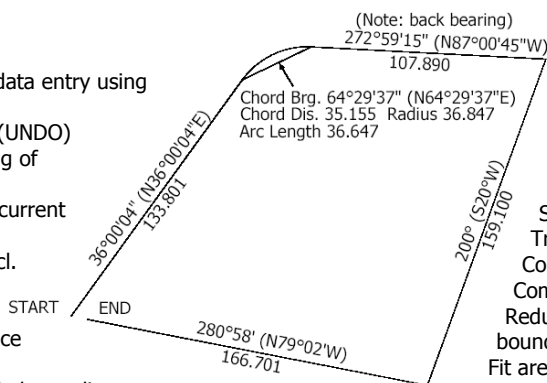


## QUICKCLOSE Version 3 Technical specifications

### CLOSE module

Flexible bearing and dist. data entry using the stack  
 Last entry can be deleted (UNDO)  
 Inline editing and reviewing of entered data  
 Insert or delete legs from current close  
 Curved boundary calcs (incl. segment area)  
 Distances can be entered in alternate distance units  
 Addition or subtraction of balance distances  
 Datum corrections can be applied to entered brgs  
 Misclose brg, dist and ratio can be displayed at any time  
 Missing bearings and distances can be computed (also on different lines)  
 Bowditch adjustment (1 or 2 fixed point) of close/traverse and/or area only  
 Close can be coordinated  
 Area of polygon can be viewed at any time  
 Data can be reviewed and edited  
 Fast resumption of data entry after saving  
 Close can be scaled and rotated  
 Close polygons can be saved to different jobs  
 Close can be exported to COGO module, or ASCII file  
 Data can be printed for QA requirements  
 Traverse data entry using angles instead of bearings



### UTILS module

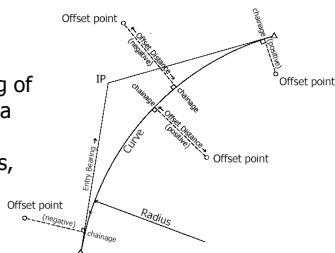
Degrees, Minutes and Seconds to Decimal and vice versa  
 Distance and area conversions (e.g. convert from Hectares to Acres, Roods and Perches)  
 Secant can be computed at intersection of two roads  
 Trigonometric Heighting program  
 Compute coords from bearing and distance (Radiation)  
 Compute coordinates from brg and dist (Join/Inverse)  
 Reduce ref. mark brg and dist to line and offset from boundary  
 Fit area or Cutarea program to compute boundary information to fit a design area  
 Compute elements of a circular arc from any 2 elements  
 Truncations can be computed for road severances  
 Missing line (tie) measurement between two radiations

### GEODESY module

Setup any geodetic datum and UTM or TM based map projection system (in Metres or US Survey feet)  
 Import pre-computed datum and projection files  
 Import ASCII files of grid, geographic or cartesian coords  
 Direct keyboard entry of co-ordinates (Grid, geographic, Cartesian) into Geodetic co-ordinate database  
 Transform coords between Geog., Grid and Cartesian  
 Edit 3 to 7 trans. parameters for datum transformations  
 Apply a block shift for higher accuracy transformation  
 Change Zone option  
 Compute point scale factors, grid convergence  
 Compute combined ht and grid scale factor for given E  
 Compute line scale factors and arc-to-chord corrections  
 Compute combined sea-level and grid scale factor  
 Compute co-ordinates from Grid brg and ellipsoidal dist  
 Compute co-ordinates from Grid brg and ground distance  
 Compute coordinates by difference in Cartesian coords  
 Compute Grid bearing, Plane bearing and ellipsoidal / grid distance from co-ordinates  
 Print data to an IR printer, or export to an ASCII text file

### COGO module

Coordinates can be stored to multiple jobs  
 Uses a database of points (2D or 3D)  
 ASCII import and export of co-ordinate data from/to PC  
 Joins/inverses calcs in radial or traverse mode  
 Radiations/sideshots  
 Co-ordinate traverse, allowing editing of entries, printing and adjustment, area calcs  
 Compute intersection of two bearings, two distances and bearing and distance on different lines  
 Compute a two or three point resection and eccentric stn  
 Transformation of data by rotation, scaling and shift  
 Compute points by line and offset  
 Compute points by curve chainage and offset  
 Compute line and offset distance from a line to a point  
 Compute curve chng. and offset from a curve to a point  
 Enter and store 3D COGO measurements (distance, zenith/vertical angle, bearing and Ht inst./ht. target)  
 One or two face measurement option  
 Turn Curvature and Refraction on or off  
 Edit coefficient of refraction, radius  
 Compute Join in 3D  
 Preset bearing and scale corrections can be applied to entered and viewed data



### ROAD module

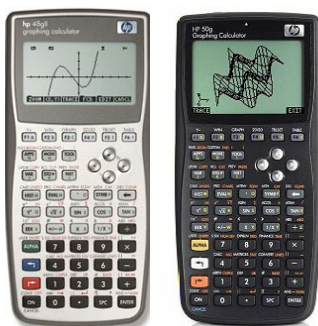
Enter a road centre line alignment (straights, curves and clothoid spirals)  
 Compute set-out data for an entered alignment for a given chainage and offset

### ASTRO module (In version 2 included with Ver 3)

Azimuth determination from sun/star observations and star prediction

### Memory requirements

80kB for CORE Operation (CLOSE, COGO, LEVEL and UTILS modules) (Allows 8kB for HP48Gii data storage. HP48Gii users can switch between CORE and PLUS modules using the HP Connectivity kit without loss of data)  
 110kB for Full Operation (CORE & PLUS programs including the CLOSE, COGO, LEVEL, UTILS, GEOD and ROAD modules).  
 Updates now much more straightforward than before.



### LEVEL module

Entry and storage of levelling data  
 Option to not enter IS for level traverses  
 View and enter observations and reduced levels  
 Adjustment of levelling run

Total Survey Systems Pty Ltd  
 7 South Street  
 Rydalmere NSW 2116  
 Ph 9638 0055 Fax 9638 3933  
 www.totalsurvey.com.au