

WRITTEN

BY JOHN BUTCHER  
PROGRAMS FOR THE HP 33S  
TRAVERSE/INVERSE for south based azimuth only

T01 LBL T  
T02 INPUT N (BEGINNING NORTHING)  
T03 INPUT E (BEGINNING EASTING)  
T04 INPUT A ( AZIMUTH)  
T05 INPUT D (HORIZONTAL DISTANCE)  
T06 RCL A  
T07 ->HR  
T08 0  
T09 +  
T10 RCL D  
T11 O,r->y,x  
T12 RCL+N  
T13 STO N  
T14 x<>y  
T15 RCL+E  
T16 STO E  
T17 GTO T  
T18 RTN

NEW COORDINATES WILL BE DISPLAYED IN THE BEGINNING NORTHING AND EASTING INPUT LINES FOR CONTINUED TRAVERSING.

INVERSE

I01 LBL I  
I02 INPUT N(BEGINNING NORTHING)  
I03 INPUT E (BEGINNING EASTING)  
I04 INPUT Y (ENDING NORTHING)  
I05 INPUT X (ENDING EASTING)  
I06 RCL E  
I07 RCL X  
I08 -  
I09 RCL N  
I10 RCL Y  
I11 -  
I12 y,x->O,r  
I13 STO D  
I14 x<>y  
I15 0  
I16 +  
I17 ->HMS  
I18 STO A  
I19 R/S (STOP)  
I20 GTO I  
I21 RTN

LAST LINES DISPLAYED IS DISTANCE THEN AZIMUTH. PROGRAM RETURNS TO INVERSE AND FIRST NOTHING AND EASTING ARE RETURNED FOR CONTINIOUS INVERSING.

**BY JOHN BUTCHER**