

# Target:Structures™

## *Mobile structure positioning software*

*Centimeter accurate structure positioning and monitoring.*

Target:Structures software is designed specifically for the precise positioning of large mobile offshore structures or platforms, including bridge and tunnel sections. Combined with real-time GPS receivers such as Trimble's 7400 Series™ receiver, this innovative software enables barge and crane operators to efficiently guide large structures to any target location.

The Target:Structures software is designed to operate under both Windows95 and Windows NT. It provides the operator with visual display of the structure's positioning information. Three dimensional coordinate, attitude and orientation

information can be viewed relative to a pre-determined target position, enabling operators to easily guide and monitor structure movement without assistance from other personnel.

For accurate placement representation, a three dimensional shape of the structure can be displayed in a plan view map which shows positioning information to guide the operator towards a target. This can be oriented either north up, forward up, or bearing to target up. It also displays background DXF files, grid lines, a north indicator and the target shape. This allows the structure's position to be viewed in relation to the target location and surrounding obstacles.

The structure's attitude can be monitored and displayed using a dual axis inclinometer, and its heading determined using two GPS receivers or

any heading device capable of a NMEA output. Structure height or depth can also be monitored using a suitable device.

The Target:Structures software's user-definable reporting functions allow quality control and as-built reports to be generated on site at any stage of the placement operation. The final position can also be precisely calculated using position and orientations averaged over time.

For complete system integration and operation management, the software accepts data from a variety of devices such as gyros, tilt meters, and pressure sensors.

Ideal for use by marine companies all over the world, Target:Structures software offers a complete approach to improving the overall efficiency and safety of your placement operation.



# Target:Structures

## Applications

- Bridge truss positioning
- Submerged tunnel section positioning
- Marine and land-based pile driving or boring
- Deformation monitoring

## Features

- Windows95 or Windows NT 3.5 software for simple point and click operation
- Graphical and textual display of positioning information
- 3D coordinate (x, y, z) with attitude (pitch, roll, heading) positioning
- Definable 3D platform shape
- Definable map orientation—north up, forward up or bearing to target up
- Map display of:
  - AutoCAD DXF files
  - Projection grid lines and North indicator
  - Target shape at the designed position or target coordinate crosses
- Bullseye displays horizontal position guidance for platform offset and snail's trail of movement history
- Vertical bar shows relative position guidance height or depth for any platform depth
- Attitude and heading display
- Depth or height display
- Position and attitude averaging for precise calculation
- User-definable reporting
- Input device integration
- Multi-tasking Windows environment enables other programs to be run concurrently such as machine control software

## System Requirements

- Computer:** IBM 80486 PC or compatible with 80x87 math coprocessor, 16Mb RAM, 200Mb hard disk, and serial and parallel ports (Recommended: Pentium processor, 16Mb RAM, 500Mb hard disk, 2 serial and 1 parallel port, 1.44Mb 3.5" floppy disk)
- Graphics:** VGA, SVGA
- Operating system:** Windows95 or Windows NT 3.5 or later
- GPS:** Real-time GPS receivers for dynamic control such as Trimble's 7400 Series or 4000SSI GPS receivers (*Refer to the appropriate data sheet for more information*)
- Radio:** Trimble's TRIMTALK™ Series radio or user supplied radio (*Refer to the appropriate data sheet for more information*)

## Options

*Optional system components may be ordered through Trimble's Specials Department, or user supplied.*

- Computer:** Rugged 500Mb hard drive, 16Mb RAM, mono display and ISA expansion slot
- Tiltmeter:** Precise dual axis tiltmeter with serial output
- Compass:** Flux gate compass for non-vertical positioning or use an additional GPS system for heading determination

## Ordering Information

<b>Target:Structures software</b>	<b>Part Number 30931-00</b>
<b>Target:Structures installation and training</b>	<b>Part Number 30936-00</b>
<b>Four Button Controller</b>	<b>Part Number 30941-00</b>

*Specifications and descriptions subject to change without prior notice.*



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