

SmartStation



By Bill Dye

Intent

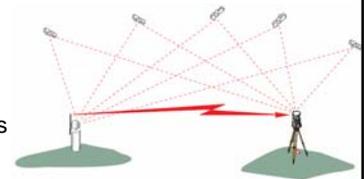
- Basic explanation of RTK
- Differences between the SmartStation and total station
- How to survey with the SmartStation

Basic RTK

- RTK means Real
Time Kinematic

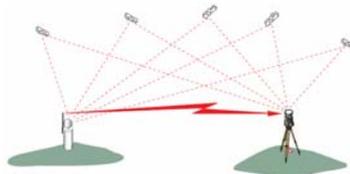
Basic RTK

- RTK means Real
Time Kinematic
- Rover must receive satellite data & correctors



Basic RTK

- RTK means Real
Time Kinematic
- Rover must receive satellite data & correctors
- Reference can be public or private



Basic RTK

- Reference transmits by 3 methods

Basic RTK

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- Radio



Basic RTK

- Reference transmits by 3 methods
- Radio
- Phone

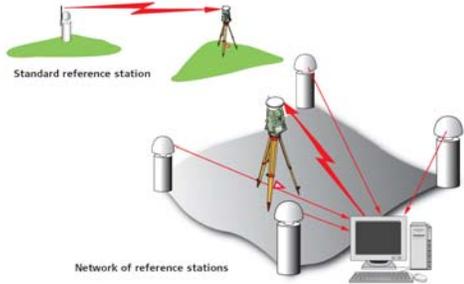


Basic RTK

- Reference transmits by 3 methods
- Radio
- Phone
- Internet

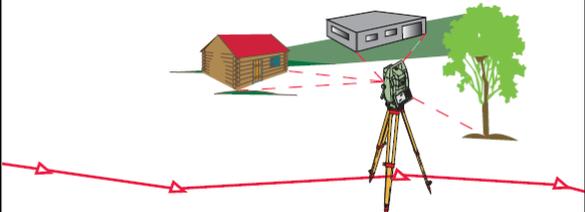


Basic RTK



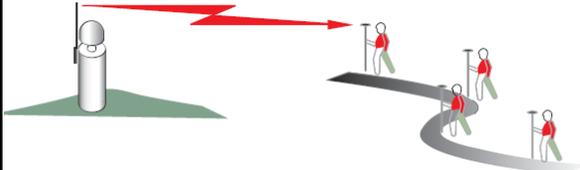
Differences

- (-) Total Stations need control
- (+) Can work in trees



Differences

- (-) RTK rovers need open sky
- (+) RTK rovers only need one reference station



Differences

- SmartStation combines both
- Set wherever you want

Differences

- RTK determines coordinates
- Measure or stakeout areas RTK can not

Differences

- You established control points only where need them using RTK
- Points occupied only once

Differences

- Only one piece of equipment is needed
- Transformations made automatically in SmartStation

How to survey with the SmartStation

- Setting the horizontal circle
 - Three ways

Setting the horizontal circle

- Orienting to a known point

Setting the horizontal circle

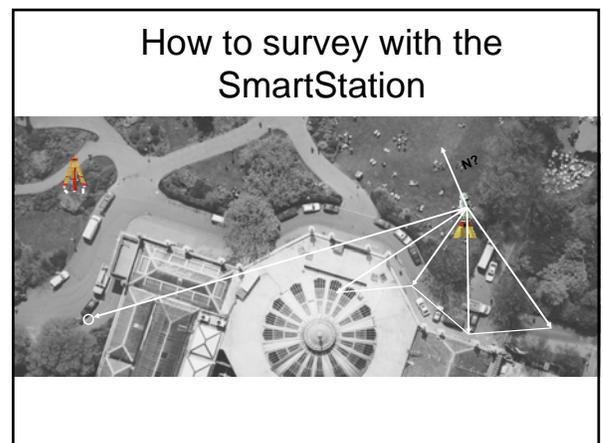
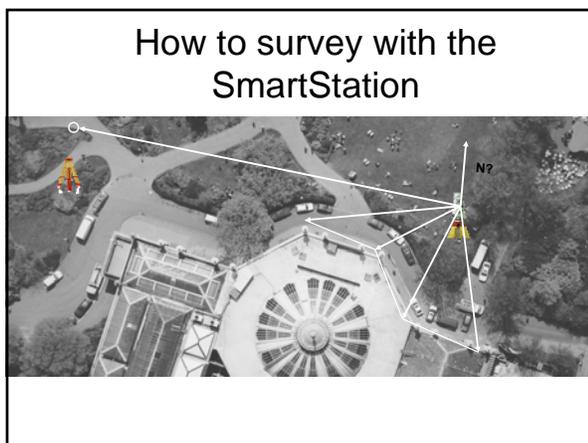
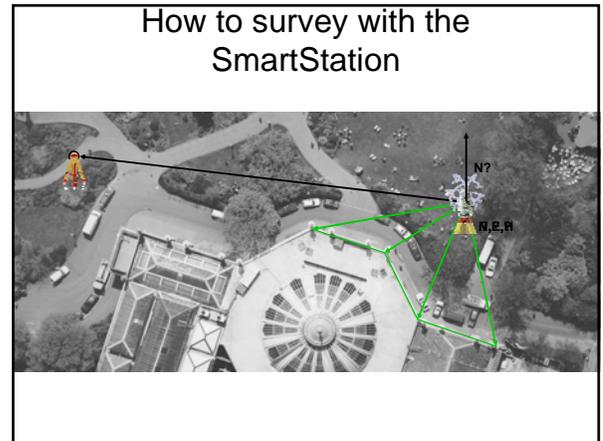
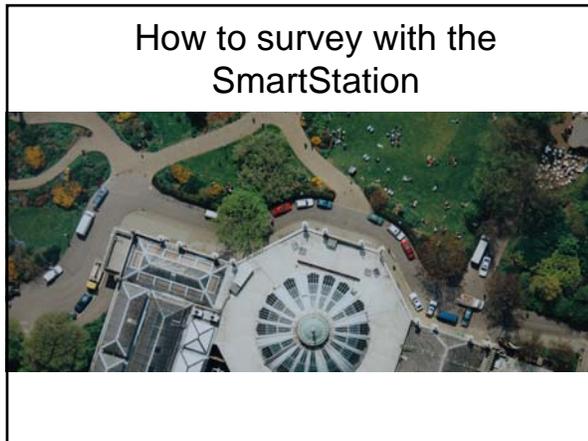
- Orienting to one or more known points and transfer the height from one or more of these points (Ori & Ht Transfr)

Circle orientation and height transfer

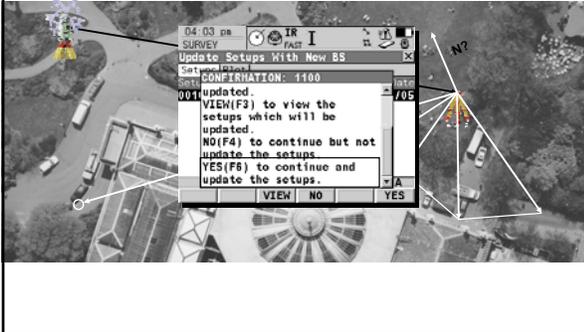
Setting the horizontal circle

- Orienting to an unknown point

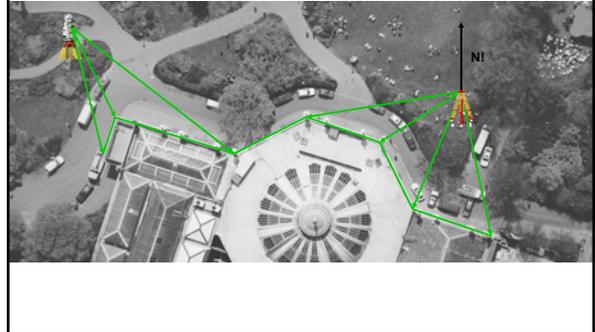
P2 Coordinates determined later



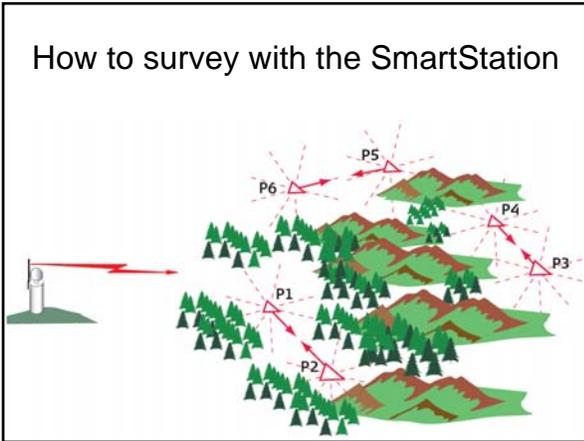
How to survey with the SmartStation



How to survey with the SmartStation



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