

## Transcripts of videos in module “Basic Concepts”

### Slide 4

We are going to establish our initial instrument height. We call that HI1, from a backsight to reference mark number two, which were calling our origin. I'm using a PDA to record this using the station levels program.

My first shot to RM2 is 2 feet, 2.150, and I'm going to record that. I'm going to add that number to the elevation of the reference mark to establish my height of instrument.

### Slide 5

We are now going to take our first foresight to reference mark number one, RM1. My initial reading is 5.346 feet. I'm going to do a quick check read, which is also 5.346 feet, which gives me an elevation of 3.391 feet for reference mark 1.

### Slide 11

When running levels at a gaging station you must consider the effects of thermal expansion or contraction of the rod scale material. This is particularly important when you are dealing with a rod that's made of a material such as fiberglass which has a fairly high coefficient of thermal expansion. To make the corrections for expansion or contraction of the rod scale material you need to have the temperature of the rod material itself. The best way to get this temperature is with a non-contact infrared thermister such that I'm showing here. You just point the gun at the rod, shoot it, and it will give you the surface temperature of the rod scale. Today we have a rod scale temperature of 85.5 degrees Fahrenheit.