

# CI-600

## ■ In-Situ Root Imager

### Non-destructive, high-resolution root images

Capture high-resolution digital images of living roots in soil to monitor growth and behavior over multiple seasons with the CI-600 In-Situ Root Imager. Transparent acrylic root tubes installed in the soil allow plant roots growing naturally around the tube to be imaged and measured. The imager, powered by an included handheld tablet, takes 360-degree scans at multiple resolutions and is maximized for speed and precision. Consistent scan intervals are achieved using the collapsible indexing handle. RootSnap! Software, included with the CI-600, enables rapid and accurate analysis and measurement of roots.



## CI-600 In-Situ Root Imager Features

### Applications

- ▶ Plant Physiologists measure root responses to biotic and abiotic changes.
- ▶ Ecologists measure the architecture of roots in wetland plants.
- ▶ Agronomists track the formation of new roots to time nutrient applications.

### Product Features

- ▶ High-resolution scanner head
- ▶ White calibration tube
- ▶ Collapsible indexing handle for consistent, repeatable measurements at any depth
- ▶ Six 1-meter clear acrylic tubes included with scanner package
- ▶ Handheld tablet computer preloaded with CI-600 operational software, as well as RootSnap! Image Analysis Software

- ▶ High-resolution images (up to 23.5 million pixels)
- ▶ Linear scanning with no distortion
- ▶ 100, 300, 600 DPI scanning resolutions
- ▶ 360-degree scans (21.59 × 19.56 cm)
- ▶ Root images live-update to included tablet computer
- ▶ Portable and convenient to transport to and from root tubes
- ▶ Allows observation of root growth and behavior over multiple growing seasons

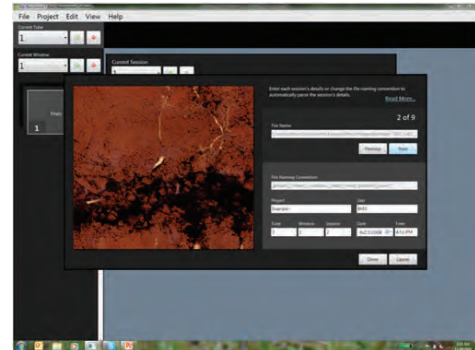
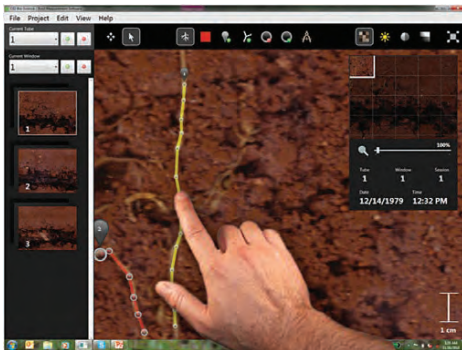
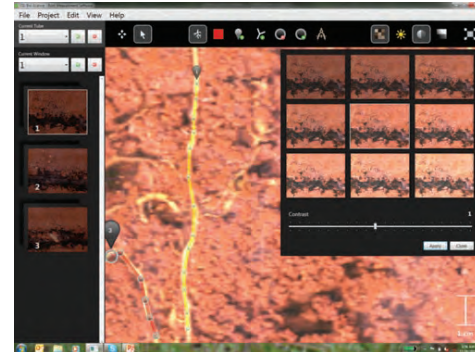
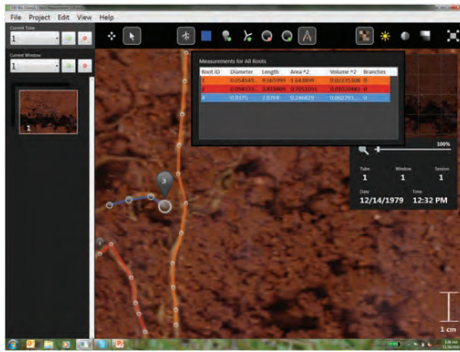


<b>Image size</b>	21.6 x 19.6 cm (8.5" x 7.7")
<b>Scan speed</b>	30-480 seconds * depending on scanning resolution, (100 DPI – 600 DPI)
<b>Image resolution</b>	Up to 600 DPI
<b>Scanner head dimensions</b>	34.3 cm long x 6.35 cm diameter
<b>Scanner unit weight</b>	750 g
<b>ROOT TUBE DIMENSIONS</b>	
<b>Inner diameter</b>	6.35 cm
<b>Outer diameter</b>	7 cm
<b>Wall thickness</b>	3.2 mm
<b>Standard length</b>	105 cm



## CI-690 RootSnap! Image Analysis Software

Our RootSnap! Image Analysis Software makes it simple to evaluate root parameters including length, width, volume, & diameter. Researchers and crop consultants use RootSnap! to monitor root growth, disease, dynamics and behavior over time. With an intuitive user interface, mapping roots using the multi-touch feature and proprietary "Snap to Root" function is smooth and efficient. Users can easily save and export files to Excel for further statistical analysis.



## CI-690 RootSnap! Analysis Software Features

- ▶ Measurements of individual and average root length, area, volume, diameter & branching angle
- ▶ Multi-touch interface, optimized for touch-screen
- ▶ Individual roots can be mapped in under 6 seconds
- ▶ Integrated image enhancement
- ▶ Automated "Snap to Root" functionality
- ▶ Comprehensive image analysis package
- ▶ Time-series root analysis feature
- ▶ Intuitive and efficient user interface