SmartRoot gets topological

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Semi-automated root drawing
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- Sub-pixel resolution, vector based
- Individual root as object
- Partial analysis of messy images
- OS independent (written in Java)
Semi-automated root drawing

- Sub-pixel resolution, vector based
Semi-automated root drawing

With real roots?
Semi-automated root drawing

With real roots?
Automated drawing initiation
Automated drawing initiation
Topological information

Topology = architecture + connections

SmartRoot gets topological information

- child list
- first child
- last child
- branching density

- parent
- insertion angle
- insertion point

New tools
Automated lateral detection (I)
Automated lateral detection (I)

“Find laterals” function

(1) search for laterals along the root

(2) automatically trace them
Automated lateral detection (1)

“Find laterals” function

(1) search for laterals along the root

(2) automatically trace them
Automatic lateral detection (II)

With real roots?
Automatic lateral detection (II)

With real roots?
Automatic lateral detection (II)

With real roots?
New tools

Derived from topology
Key features

- Semi-automated root drawing
- Automated drawing initiation
- Automated drawing of lateral roots
- Topology
- New visualization tools
Thank you for your attention.