

PLANT DATA



Real plant



Virtual plants



Plant Generator

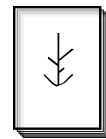
PIPELINE

2D Segmentation

Parameters:
- Trained model



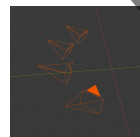
2D images



2D masks

Structure from motion

Off the shelf software (COLMAP)



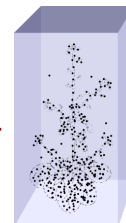
Camera poses

Space carving

Parameters:
- Voxel size
- Threshold for binarization
- Dilation size



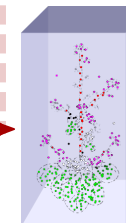
Binary volume
 $V[i,j,k] \in \{0,1\}$



Point cloud
 $\{x,y,z\}$

Level set method

Parameters:
- None



Segmented point cloud
 $\{x,y,z,label\}$

Backprojection and voting

Parameters:
- None

ASSESSMENT BLOCK