The data set is downloaded as RAR files: Images.rar and Landmarks.rar. Several tools can extract the RAR files, like 7Zip and WinRAR on Windows, Unarchiver on Mac OS. All the image data and landmarks are filed under these two files, respectively. The 3D image data were stored in both ITK Meta and DICOM format. The 2D image data were stored in DICOM format.

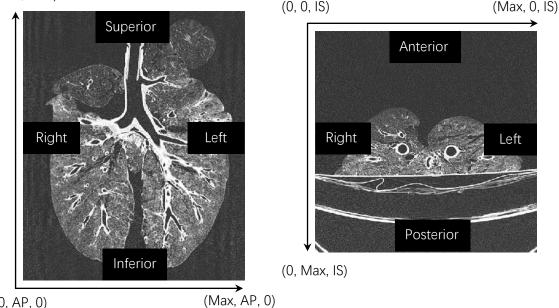
A publicly available application Matching Points Annotator embedded in isimatch software was used to annotated the landmark (http://isimatch.isi.uu.nl).

For each 3D image, totally 120 landmarks were manually annotated and the coordinates (in voxels) of the landmarks were stored in a text file. For 2D images (both CT scout and X-ray images), among 120 landmarks, eight landmark points located on large branch of the bronchial tree were annotated, and the coordinates were stored in the same way.

The text file contains a list of right/left (RL)-anterior/posterior (AP)-inferior/superior (IS) coordinate locations corresponding to 120 manually identified feature locations in each 3D image.

The lists are presented in (RL, AP, IS) format, with reference to the following coordinate system. The origin located at (0, 0, 0) represents the centroid of the right-anterior-inferior voxel of the image volume. Each row in the text file indicates the coordinates of one landmark in corresponding 3D image. The same row in different text files indicates the same landmark location in corresponding different 3D images.





(0, AP, 0)

To allow the users to visualize the annotated landmarks, we also provided the coordinates (in mm) stored in fcsv format (the full documentation of .fscv type files is available at http://www.slicer.org/wiki/Documentation/Nightly/Modules/Markups). The coordinates can be loaded in the 3D Slicer together with the corresponding images, followed by superimposing the landmarks on the images.