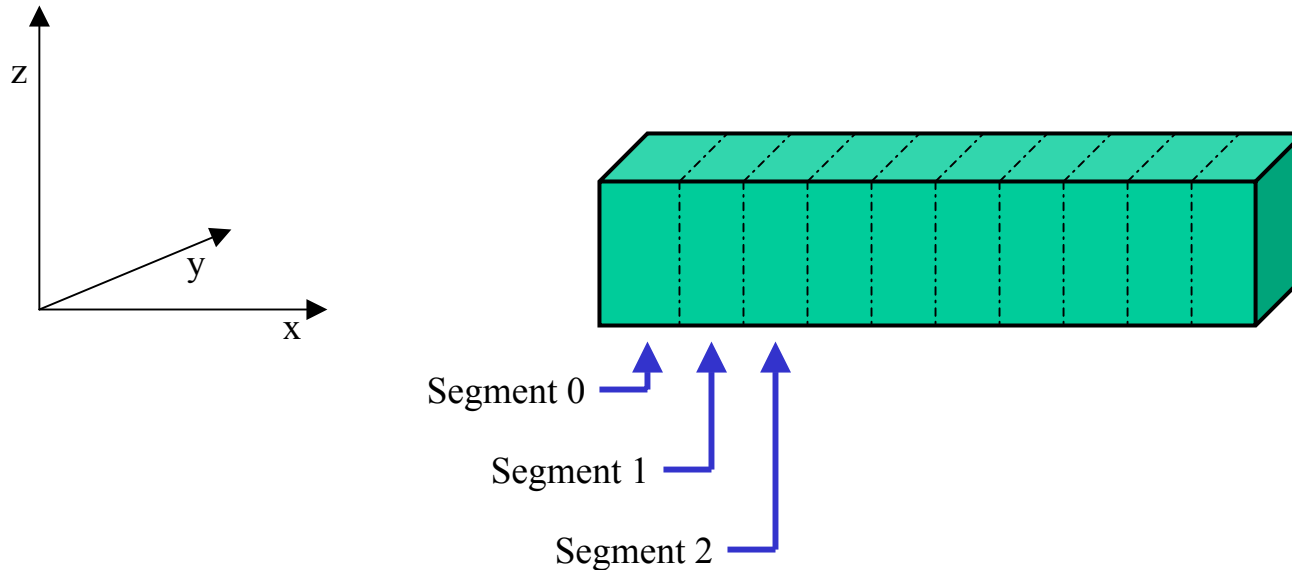


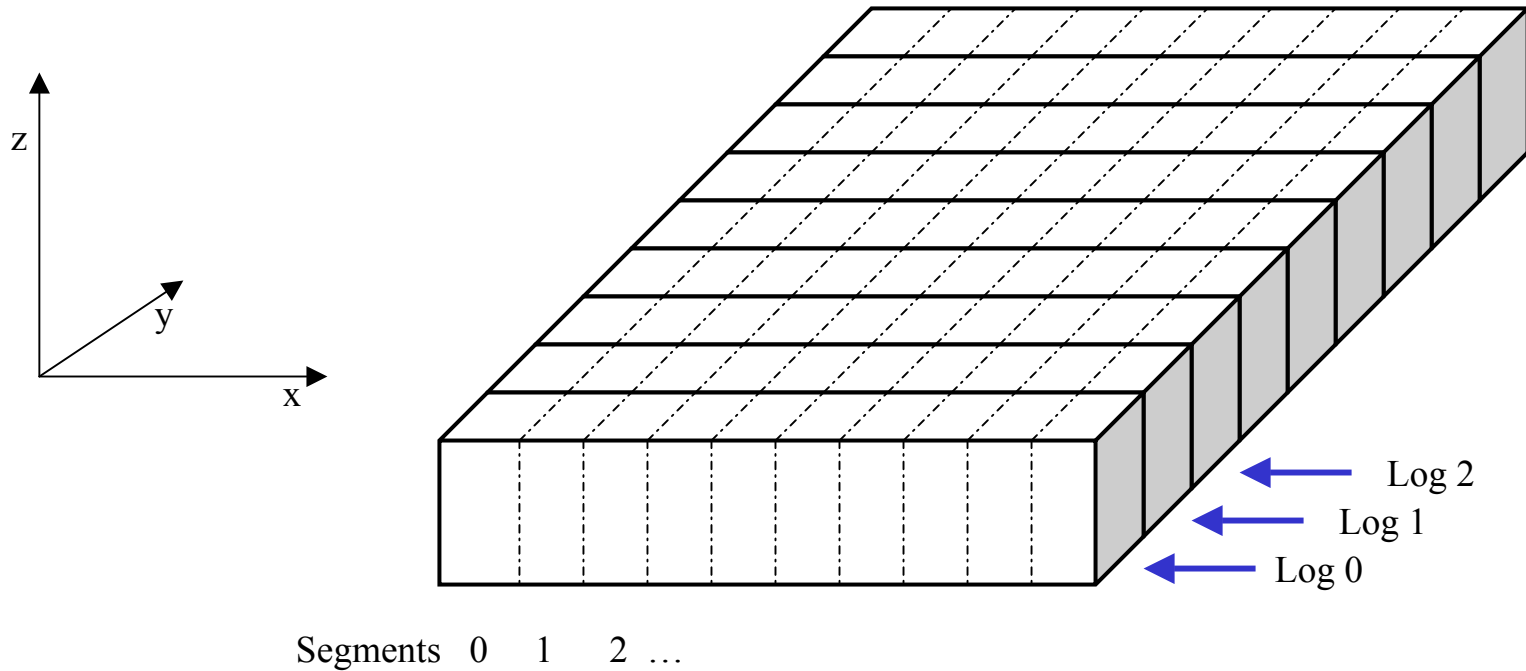
XML Geometry, Rotations and the CAL

CsIElement



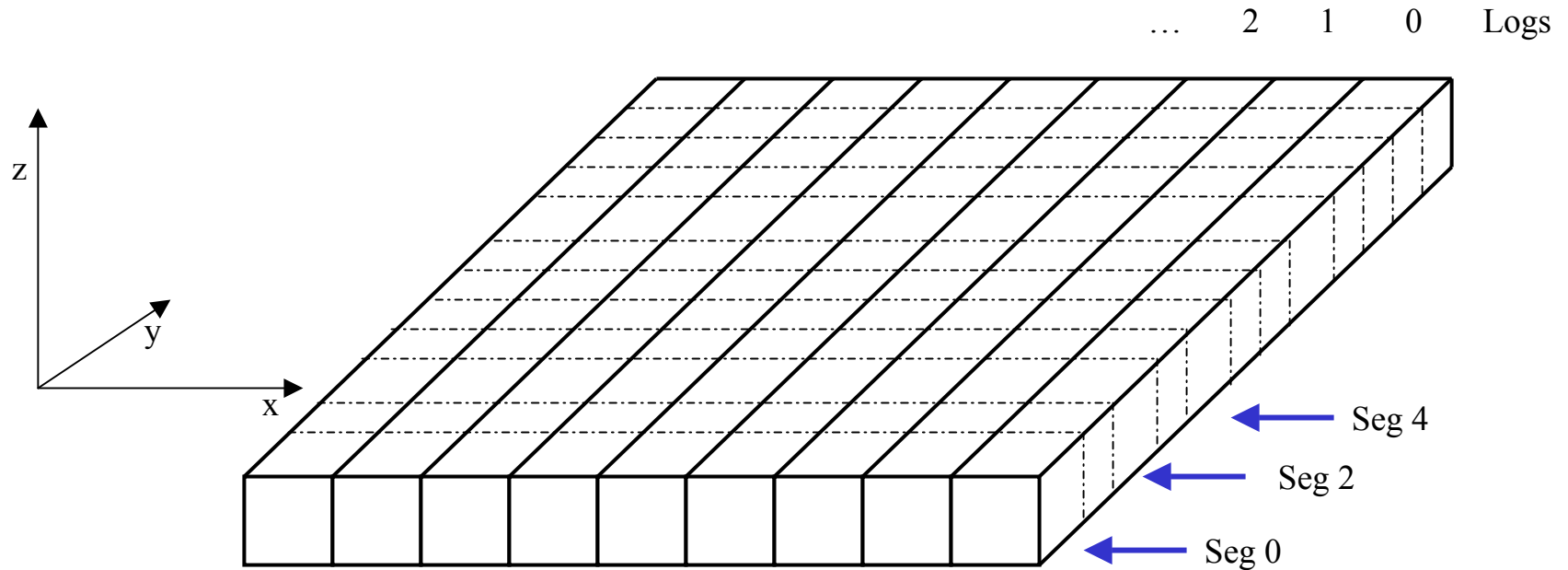
The “standard” CsIElement has its long axis in the x-direction, so is x-measuring. Segment number increases as x increases.

CALLayer



The CALLayer volume is made by stacking CsIElements in the y direction. Log number increases as y increases. Hence for CALLayer both segment indices and log indices increase in the proper direction.

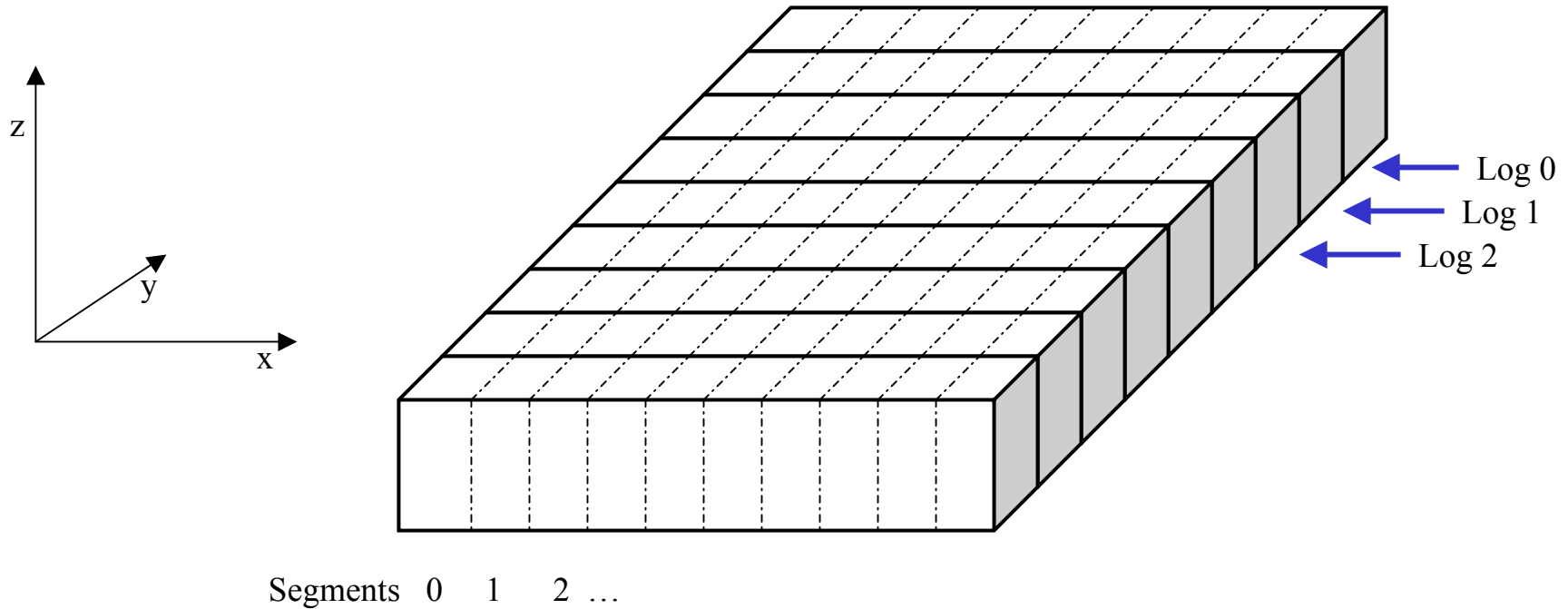
CALLayer Rotated



If CALLayer is rotated so that $+x$ goes to $+y$, the segment ordering increasing in the proper manner but the log indices are backwards.

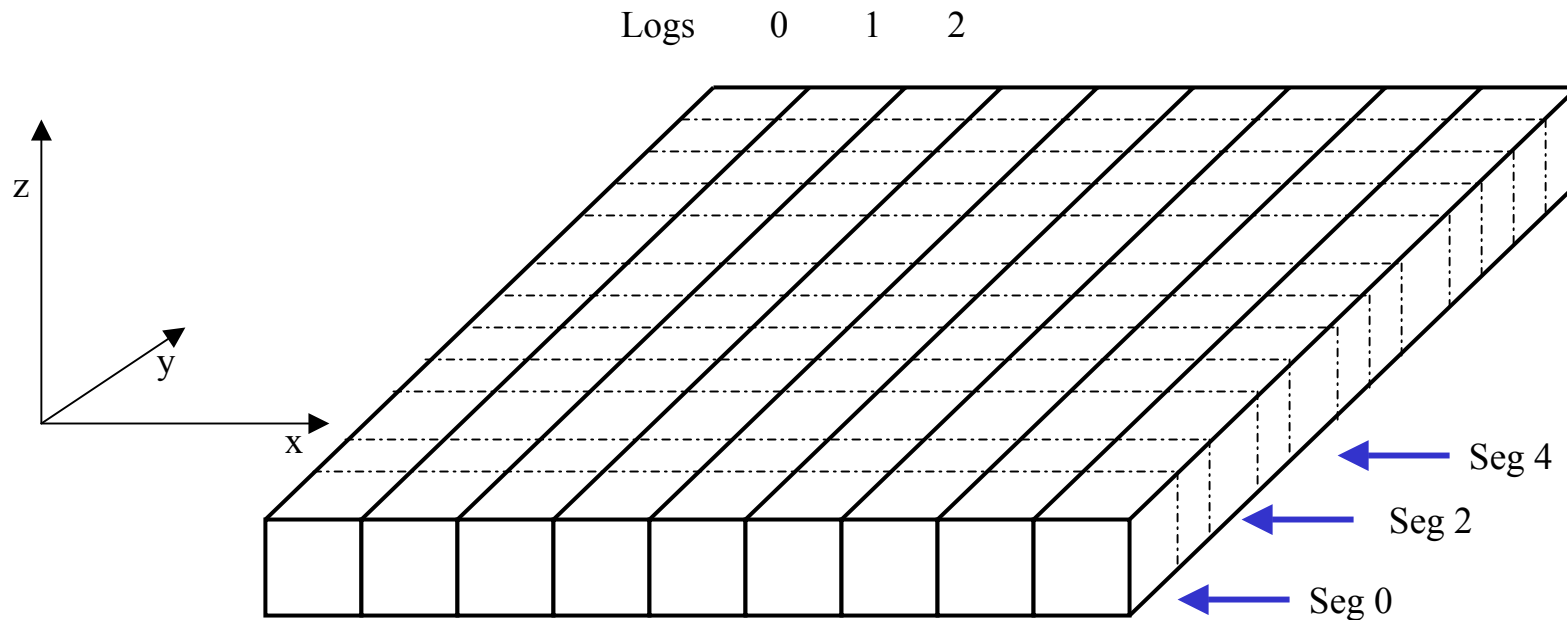
This is **not** how the y -measuring layers are created in the XML description.

CALLayerYMeas



CALLayerYMeas is made just the way CALLayer is, namely by stacking CsIElement in Y, except that the log numbers are assigned in the reverse order. Unrotated CALLayerYMeas has segment numbers increasing in x, log numbers decreasing in y.

CALLayerYMeas Rotated



If CALLayerYMeas is rotated so that $+x$ goes to $+y$, the segment ordering increasing in the proper manner (with increasing y) *and* the log numbers increase with increasing x .

The XML description in use alternately stacks CALLayerYMeas and CALLayer volumes.