XML Geometry, Rotations and the CAL
The “standard” CsIElemnt has its long axis in the x-direction, so is x-measuring. Segment number increases as x increases.
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.
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 is made just the way CALLayer is, namely by stacking CsIEElement 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.