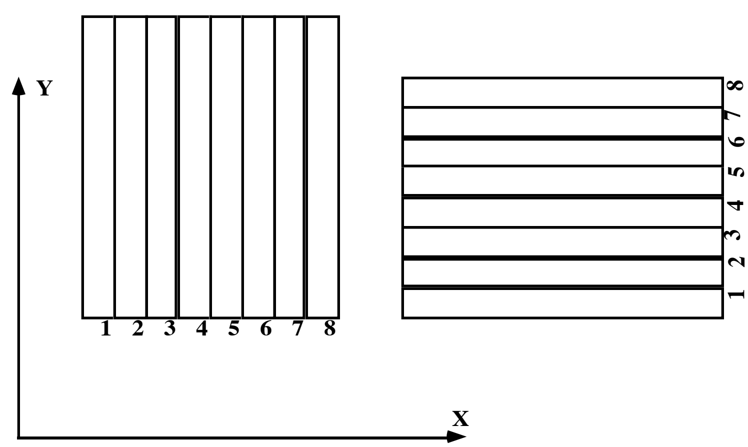
To:	E154 Distribution
From:	Charlie Young
Subject:	Numbering Convention
Date:	9/30/94

A numbering convention is needed. I propose the following scheme, which is based on the E142 /E143 convention, and slightly extended to deal with detector changes.

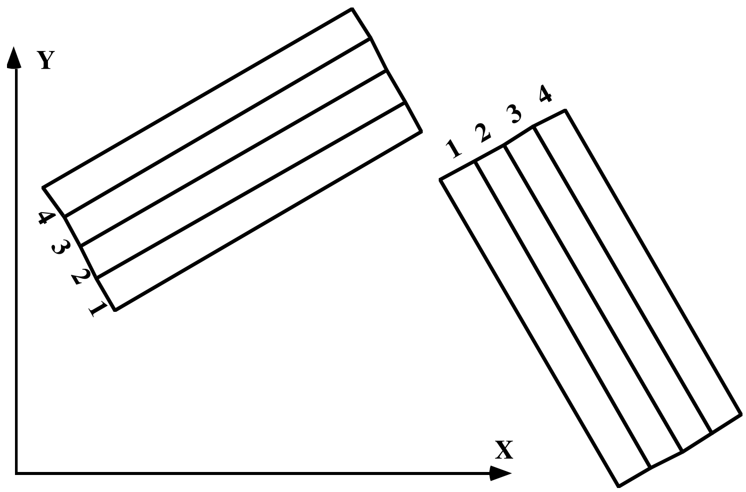
Numbers start with 1 at the most negative Z, and increase with positive Z. The front Cerenkov is C1 and the back one is C2.

In the case of hodoscopes, we will add a subscript to denote the measurement direction. Let us take the baseline design with 4 planes as an example. Assume the first plane measures X, i.e. its fingers are long in the Y direction. Then, they would be named H1X, H2Y, H3X and H4Y. Note that the numbers are not just 1 and 2 referring to front and back. In the final design, we have more planes in both the front and rear; so the numbers will range up to 7 or 8.

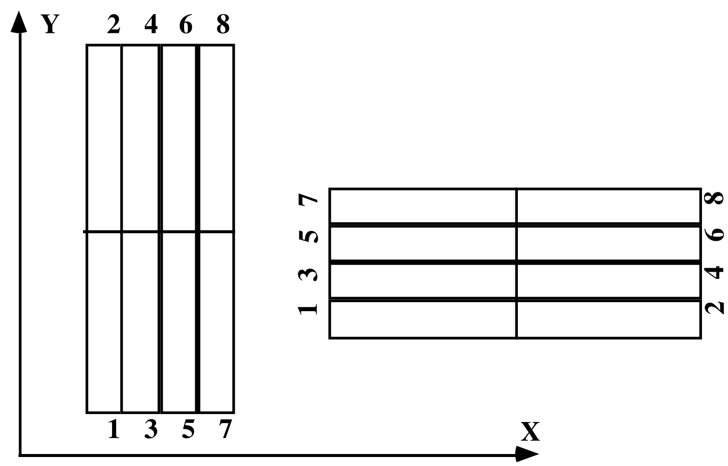
For X measuring hodoscopes, the numbering of elements within each plane starts with 1 at the most negative X, and increases with positive X. A similar scheme applies for Y.



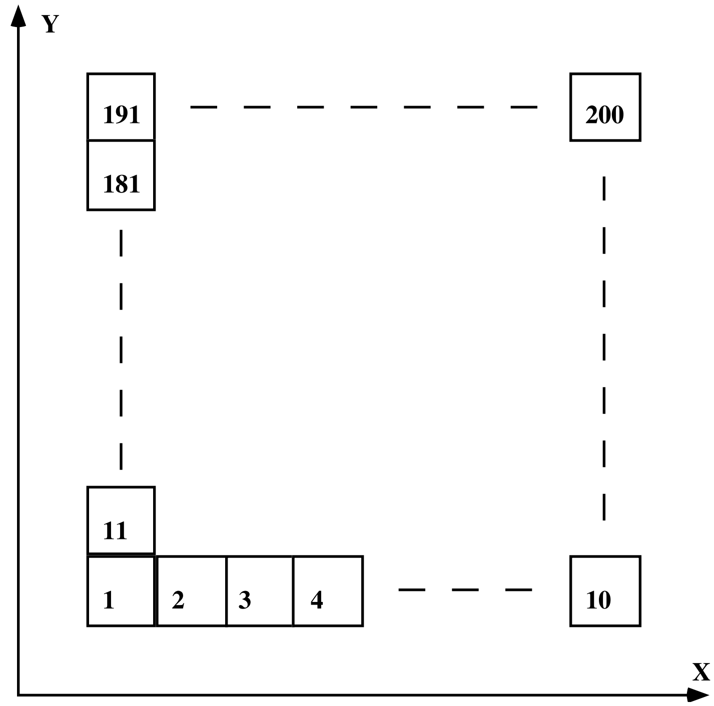
The case with elements not aligned with either X or Y axis follows the rule for Y measuring planes. The position of each element is its centroid, and the one at the most negative Y is number 1. Note that the rotation angle relative to an axis is not an important parameter for the numbering scheme. See sketch for examples.



The new hodoscope elements are split along their length. They are numbered so odd and even numbers are on the two sides, with odd numbers on the smaller Y(X) side for X(Y) measuring planes:



The 200 lead glass blocks are numbered starting with 1 at the most negative X and Y location, and increasing first in the X direction. Thus, the bottom most row is numbered 1 through 10, the next row is numbered 11 through 20, and so on. Number 200 is at the most positive X and Y.


Y
191
200
181
11
1
2
3
4
10
X