

```

Header [80 characters]
x-pitch [um] y-pitch [um] thickness [um] time-slice-step [ps]
<cluster>
x-entry y-entry z-entry n_x n_y n_z number_eh_pairs y_module track_q_sign*pT
<time slice t_1>
pix_00_00 pix_00_01 pix_00_02 ... pix_00_20
pix_01_00 pix_01_01 pix_00_02 ... pix_01_20
.
.
.
pix_12_00 pix_12_01 pix_12_02 ... pix_12_20
<time slice t_2>
.
.
.
<time slice t_16>
pix_00_00 pix_00_01 pix_00_02 ... pix_00_20
pix_01_00 pix_01_01 pix_00_02 ... pix_01_20
.
.
.
pix_12_00 pix_12_01 pix_12_02 ... pix_12_20
<cluster>
x-entry y-entry z-entry n_x n_y n_z number_eh_pairs y_module track_q_sign*pT
.
.
.

```

$(n_x, n_y, n_z)$  is the track direction. Due to sampling, the pixel charges  $\text{pix}_{yy_{xx}}$  must be multiplied by 10 to get total charge = number\_eh\_pairs. The track position at the pixel midplane ( $x\text{-entry} + 0.5 \cdot t \cdot n_x / n_z$ ,  $y\text{-entry} + 0.5 \cdot t \cdot n_y / n_z$ ,  $z\text{-entry} + 0.5 \cdot t \cdot \text{sign}(n_z)$ ) is always in the 3x3 array about the center pixel  $\text{pix}_{06\_10}$  [it is uniformly distributed within the 3x3 pixel area].  $y_{\text{module}}$  is the local y of the track midplane coordinate in L1 [varies from -8.1 mm to +8.1 mm] and  $\text{track\_q\_sign} \cdot pT$  is the product of the track pT and sign of the track charge. Flipped modules have  $z\text{-entry}=0$  and  $n_z > 0$ . Unflipped modules have  $z\text{-entry}=100$  [um] and  $n_z < 0$ .