```
-   1 memset(A, 0, A1_size * A2_size * sizeof(double));
+   1 memset(v, 0, v1_size * sizeof(double));
    2 for (int pB1 = B1_pos[0]; pB1 < B1_pos[1]; pB1++) {
    3   int i = B1_crd[pB1];
    4   for (int pB2 = B2_pos[pB1]; pB2 < B2_pos[pB1+1]; pB2++) {
    5     int k = B2_crd[pB2];
    6     memset(w, 0, w1_size * sizeof(double));
    7     for (int pB3 = B3_pos[pB2]; pB3 < B3_pos[pB2+1]; pB3++) {
    8       int l = B3_crd[pB3];
    9       for (int pC2 = C2_pos[l]; pC2 < C2_pos[l+1]; pC2++) {
   10         int j = C2_crd[pC2];
   11         w[j] += B[pB3] * C[pC2];
   12       }
   13     }
   14
   15     for (int pD2 = D2_pos[k]; pD2 < D2_pos[k+1]; pD2++) {
   16       int j = D2_crd[pD2];
-  17       int pA2 = (i * A2_size) + j;
-  18       A[pA2] += w[j] * D[pD2];
+  19       v[j]  += w[j] * D[pD2];
   20     }
   21   }
   22
+  23   for (int pA2 = A2_pos[i]; pA2 < A2_pos[i+1]; pA2++) {
+  24     int j = A2_crd[pA2];
+  25     A[pA2] = v[j];
+  26     v[j] = 0.0;
+  27   }
   28 }
```