

Original code

```
#define N 10000  
...  
...  
//Compute kernel  
for(i=0; i<N; i++){  
    c[i] = a[i] x b[i]  
}  
...
```

Loop kernel

```
// Group Size: G  
#define N 10000  
#define G 10  
  
for(i=0; i<N/G; i++){  
    To_FPGA(a[G], b[G])  
    Group_Execution();  
    To_Main_Mem(c[G])  
}
```

Group

```
// Unrolling factor: 2  
#define G 10  
#define U 2  
  
for(i=0; i<G/U; i++){  
    DFG_Execution();  
}
```

Unrolled loop

```
#define U 2  
  
for(i=0; i<U; i++){  
    c[i] = a[i] x b[i]  
}
```

DFG

