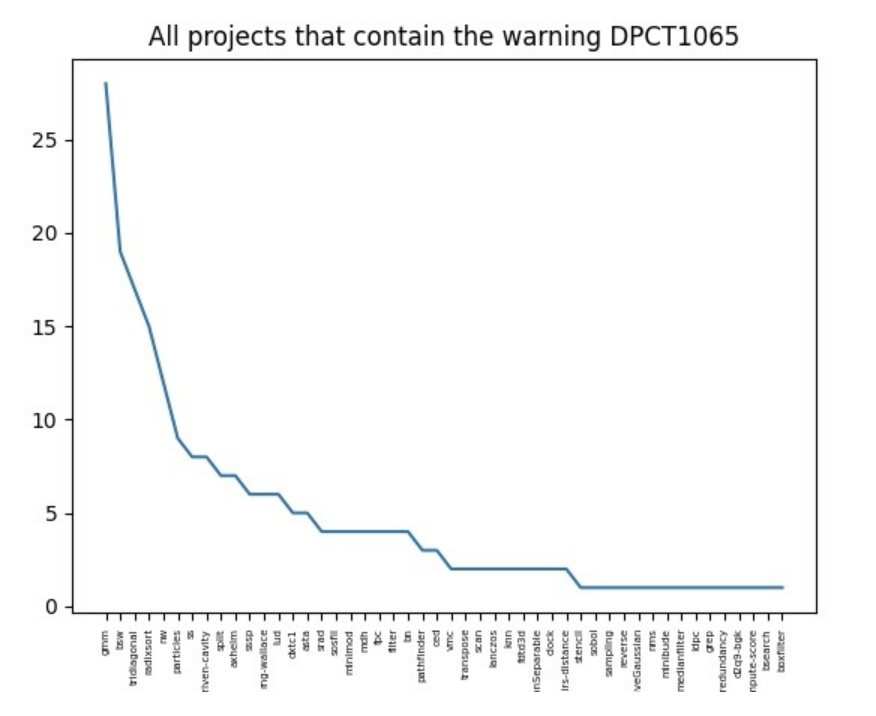
DPCT065 analysis：



1. Total number of 1065 warning： 230
2. Total number of project have this warning: 49
3. Total number of files have this warning: 59
4. Number of project miss the dpct-version: 11
5. Number of files miss the dpct-version: 13

Warning message type：

|  |  |  |  |
| --- | --- | --- | --- |
| Message\_id | Message | Numbers of file( remove files without dpct-version) | Number |
| 9 | Consider replacing sycl::nd\_item::barrier() with  sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space) for better performance, if there is no access to global memory. | 35 | 75 |
| 10 | Consider replacing sycl::nd\_item::barrier() with  sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space) for  better performance, if there is no access to global memory. | 5 | 8 |
| 33 | Consider replacing sycl::nd\_item::barrier() with  \* sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space) for better  \* performance, if there is no access to global memory. | 2 | 4 |
| 34 | Consider replacing sycl::nd\_item::barrier() with  sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space)  for better performance, if there is no access to global memory. | 3 | 6 |
| 50 | Consider replacing sycl::nd\_item::barrier() with  \* sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space) for  \* better performance, if there is no access to global memory. | 2 | 5 |
| 58 | Consider replacing  \* sycl::nd\_item::barrier() with  \* sycl::nd\_item::barrier(sycl::access::fence\_space::local\_space)  \* for better performance, if there is no access to global  \* memory. | 1 | 1 |

For message\_id = 9:

1. Totally occur 75 times in 35 files
2. Only 6 of them change the code. Change from “item\_ct1.barrier();” to ” item\_ct1.barrier(sycl::access::fence\_space::local\_space);”
3. Only 1 of them (num) is : \*pointsbitmap = (item\_ct1.barrier(), sycl::ONEAPI::all\_of(item\_ct1.get\_group(), cond));
4. Others all : item\_ct1.barrier();

For message\_id = 10:

1. Totally occur 8 times in 3 files
2. Only 1 (/b+tree/dpcpp/kernel/kernel2.dp.cpp) changed from “tem\_ct1.barrier();” to “item\_ct1.barrier(sycl::access::fence\_space::local\_space);”
3. Others not changed

For message\_id = 33:

1. Totally occur 4 times in 2 files
2. Only 1 (/srad/dpcpp/reduce\_kernel.dp.cpp) changed from “tem\_ct1.barrier();” to “item\_ct1.barrier(sycl::access::fence\_space::local\_space);”
3. Others not changed

For message\_id = 34:

1. Totally occur 6 times in 3 files
2. 5 (/srad/dpcpp/reduce\_kernel.dp.cpp [1] ;/b+tree/dpcpp/kernel/kernel2.dp.cpp [2]; /b+tree/dpcpp/kernel/kernel.dp.cpp [2]) changed from “tem\_ct1.barrier();” to “item\_ct1.barrier(sycl::access::fence\_space::local\_space);”
3. Only 1 did not changed

For message\_id = 50:

1. Totally occur 2 times in 5 files
2. 3 (/srad/dpcpp/reduce\_kernel.dp.cpp [3]) changed from “tem\_ct1.barrier();” to “item\_ct1.barrier(sycl::access::fence\_space::local\_space);”
3. Others (2) not changed

For message\_id = 58:

1. Totally occur 1 time in 1 file
2. Not changed

File /fdtd3d/dpcpp/FDTD3dGPU.dp.cpp:

1. Special cases
2. message\_id = 9
3. changed from “tem\_ct1.barrier();” to totally different way

Summary:

There only have two ways:

1. Changed type1:

changed from “tem\_ct1.barrier();” to “item\_ct1.barrier(sycl::access::fence\_space::local\_space);”

1. Not changed:
   1. Not changed1:

tem\_ct1.barrier();

* 1. Not changed2:

\*pointsbitmap = (item\_ct1.barrier(), sycl::ONEAPI::all\_of(item\_ct1.get\_group(), cond));

1. Special cases: