

FILE: POOL.F90

```
1 module pool
2
3     implicit none
4
5     integer, dimension(:), allocatable :: walker_id_pool
6     integer :: n_walkers, max_walkers
7     integer :: walker_id_root, i
8
9 contains
10
11     subroutine walker_id_pool_init()
12
13         allocate(walker_id_pool(max_walkers))
14
15         walker_id_pool(1 : n_walkers) = 0
16         do i = n_walkers + 1, max_walkers - 1
17             walker_id_pool(i) = i + 1
18         end do
19         walker_id_pool(max_walkers) = -1
20
21         walker_id_root = n_walkers + 1
22
23     end subroutine
24
25     subroutine walker_id_pool_push(id)
26
27         ! Put an id back in the pool. This is the equivalent of
28         ! removing a particle.
29
30         integer, intent(in) :: id
```

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31
32     n_walkers = n_walkers - 1
33     walker_id_pool(id) = walker_id_root
34     walker_id_root = id
35
36 end subroutine
37
38 subroutine walker_id_pool_pull(id)
39
40     ! Pull an id from the pool. This is the equivalent of
41     ! adding
42     ! a particle.
43
44     integer, intent(out) :: id
45
46     n_walkers = n_walkers + 1
47     id = walker_id_root
48     walker_id_root = walker_id_pool(id)
49     walker_id_pool(id) = 0
50
51 end subroutine
52 end module pool

```