MM Search - Implemented Algorithm

MM search or Meet in the Middle search is a path finding technique that does a search from both the ends, i.e.; from the source and the destination nodes. When a common node is obtained then the search is stopped and the path is generated.

In order to implement the MM search algorithm two Open Lists and two Closed Listed as given below have been used(in Ring class):

1. OpenList
2. OpenList2
3. ClosedList
4. ClosedList2

These Lists are generated as d-queues or double ended queues. The first pair is used to traverse from the source to the destination and the second to traverse from the destination to the source nodes respectively. When a current node is selected it is checked for availability in its respective Lists and if not found then added to the OpenList. After each time a new element is added to one of the ClosedList, both the closed lists are searched to see if they have any element in common and if found then the search is a success and the path is obtained.