Super Vector Mario Report

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May 6, 2015

Results

Here are the paths lengths discovered by our algorithm:

Instance	Lenght	Comment
example	10	
L	21	
donut	42	
donut2	36	
eighty	54	
mushroom	35	
track1	3	
track2	25	
track3	5	
trackjeffe	8	
twice	15	

Implementation details

We solved the problem by using the principles of Breadth-First-Search and creating part of a graph while computing the minimum number of moves. We use a Queue to keep track of the possible states which Mario can go to and a Set that contains States already visited, so he doesn't go back to them.

Our total running time is $O(r * c)$ with rows and c columns.