In the small-scale arithmetic case, we set the number of container tasks to 20, and the number of yard cranes to 2. There are 5 ULVs in the underground tunnels, and the frequency of ULV departures is 7 minutes. The time for loading and unloading a container at the yard crane is 2.5 minutes. The towed ULVs take 10 minutes to pass through underground tunnels. In the objective function, we set=5，=0.5，=1. The moment of arrival of the AGV at the departure terminal is randomly generated within a given range. As termination conditions for this small-scale example, the maximum number of iterations of the GA is 500, the population size is set to 30, and the crossover and mutation probabilities are 0.7 and 0.4, respectively. In addition, the initial chromosome information is shown in the attachment 'information of chromosomes.xls'.