A Blackboard System For Distributed Analysis of Image Sequences

K. Welz, C.-E. Liedtke
Processes on a Dynamic Blackboard Processor
road edge tracking

candidate search, traffic sign tracking and interpreting
Road Scene with Windows for
(a) Road Edge Tracking,
(b) Candidate Search, and
(c) Traffic Sign Tracking and Interpreting
Task 1: init_road_model
Task 2: init_road_edge_tracking
Task 3: road_edge_tracking
Task 4: update_road_model

Task 8: init_traffic_sign_model
Task 9: traffic_sign_tracking
Task 10: traffic_sign_feature_extraction
Task 11: traffic_sign_interpretation

Task 5: init_candidate_search
Task 6: candidate_search:
  - searching_for_circles
  - searching_for_triangles
  - searching_for_colored_areas
Task 7: init_candidate_list
Relative execution time depending on the number of transputers $n$

<table>
<thead>
<tr>
<th>Number of transputers $n$</th>
<th>Speed up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
<td>1.70</td>
</tr>
<tr>
<td>3</td>
<td>2.20</td>
</tr>
<tr>
<td>4</td>
<td>3.10</td>
</tr>
<tr>
<td>5</td>
<td>3.30</td>
</tr>
</tbody>
</table>

Speed up depending on the number of transputers $n$