Drivers behavior constrained by laws

Business Analysts need a Descriptive Model to know how drivers behave wrt HoS

We address the problem by HTN Plan and Goal Recognition

HoS regulation

<table>
<thead>
<tr>
<th>Break</th>
<th>Break T1</th>
<th>15min &lt; 30min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break T2</td>
<td>15min &lt; 30min</td>
<td></td>
</tr>
<tr>
<td>Break T3</td>
<td>30min &lt; 45min</td>
<td></td>
</tr>
<tr>
<td>Break T1</td>
<td>45min &lt; 3hrs</td>
<td></td>
</tr>
</tbody>
</table>

Defines Basic Concepts like Breaks and Rests

Defines Legal Sequences in Terms of Driving Periods

Composed of any combination of [DOP] whenever P < 15mins

Driving period split by two breaks: break_t2 and then another break_t3, with duration <= 4.5hours

Knowledge Engineering

Legal event and sequence recognition

Temporal HTN Planner (SIADEX)

Recognize temporal subsequences and label them according to HoS terms

Descriptive model

THE PLANNER FILLS THESE COLUMNS

Driver activity log

Weibull Distribution

The planner fills these columns

Descriptive model

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