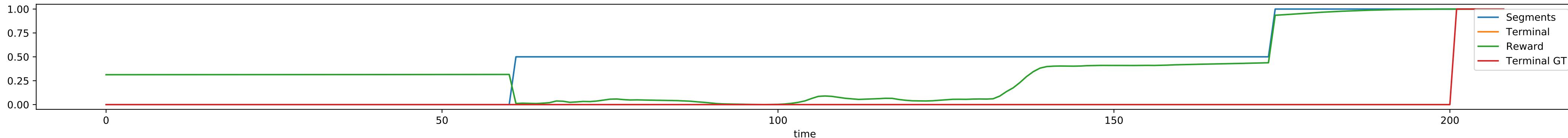
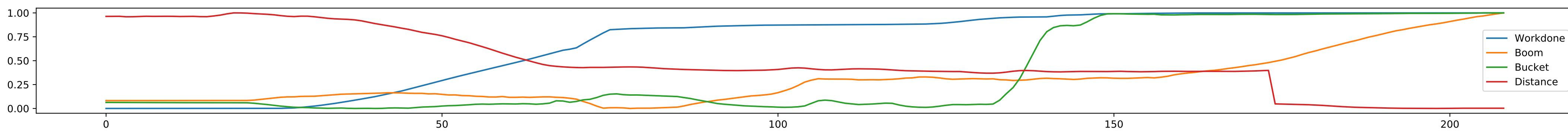
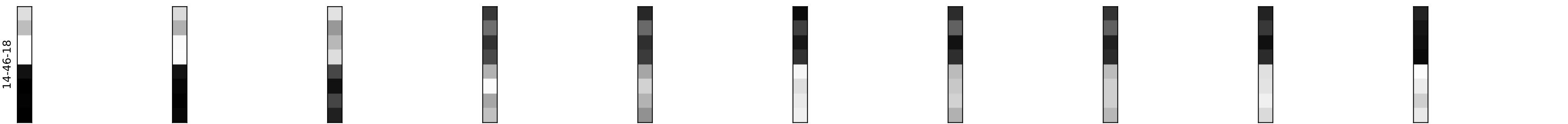


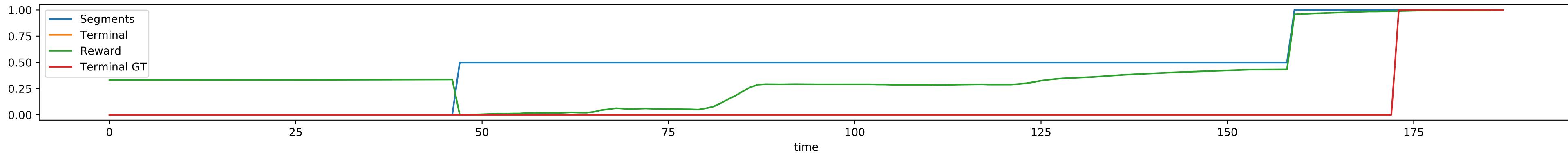
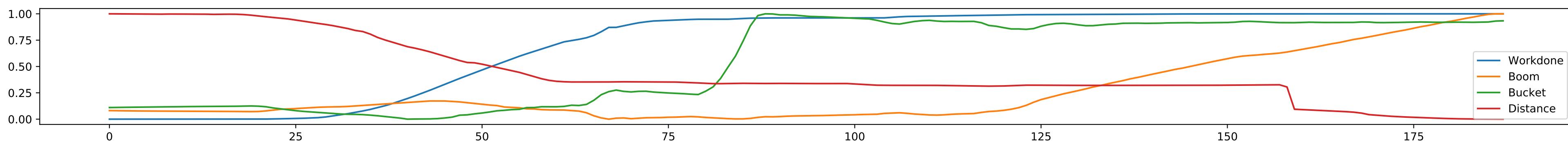
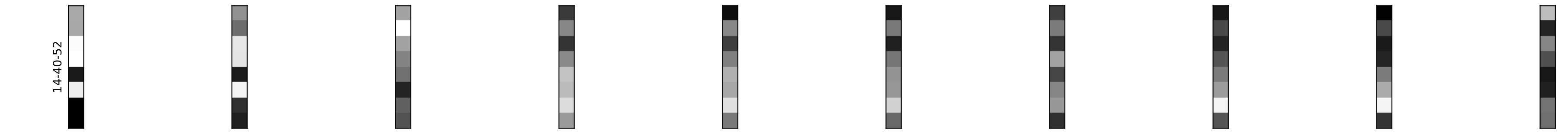
Learning Reward from Demonstrations w/sensors ($R_{max} = 400$)

Training Data		Sensor Values	Clustering & Classification	Reward
80 % of positive demos: mix of winter and autumn	Boom angle, Bucket angle, Distance to the pile, Segment, Reward	Difference R_{max} and Distance to the next cluster center	K-means clustering and KNN Classifier	20 % of positive demos: mix of winter and autumn

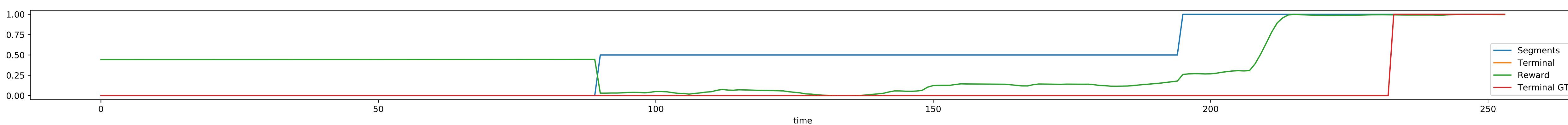
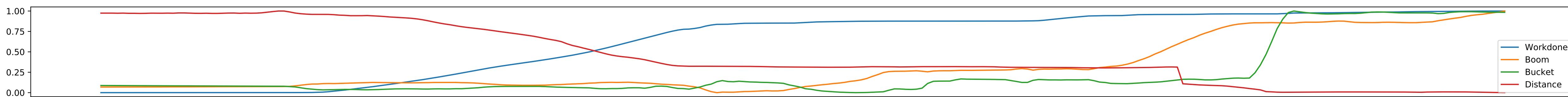
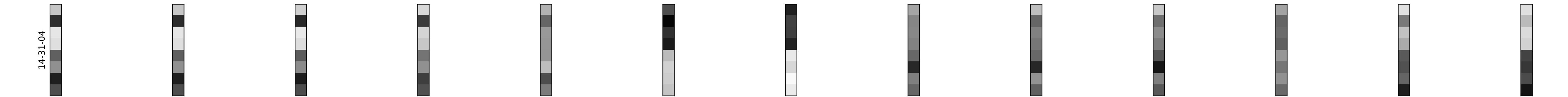
winter - 14-46-18



winter - 14-40-52

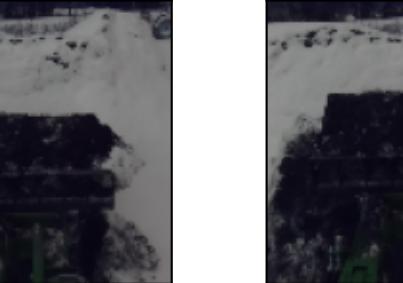
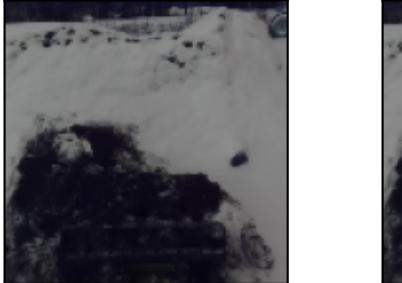
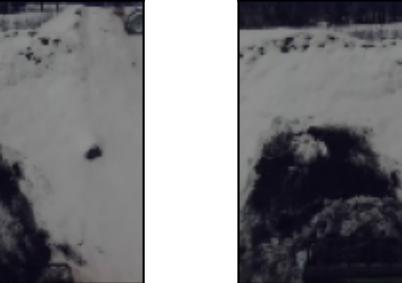


winter - 14-31-04

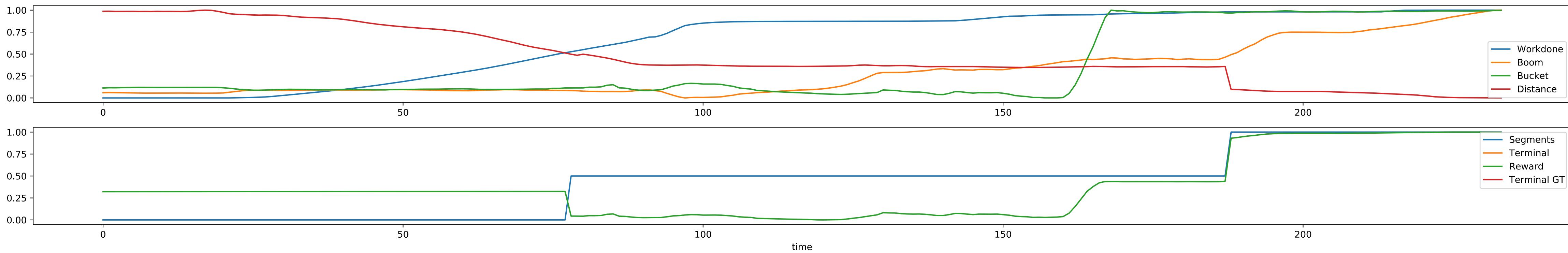
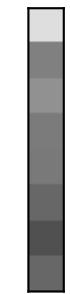
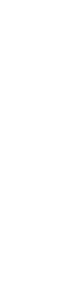


winter - 14-28-58

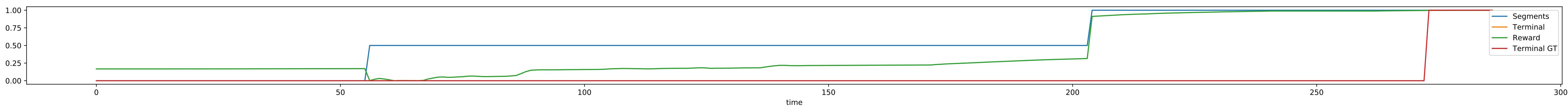
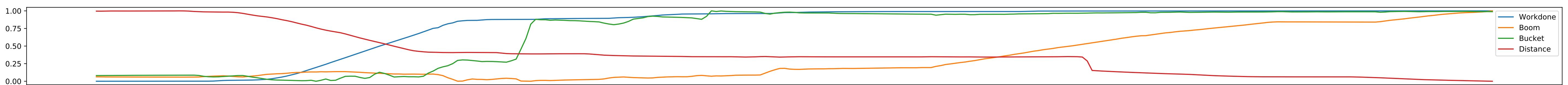
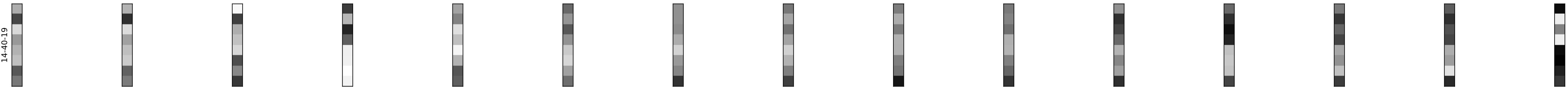
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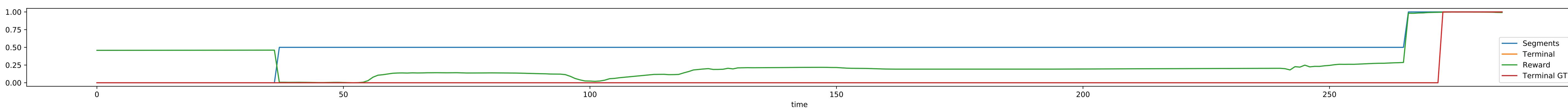
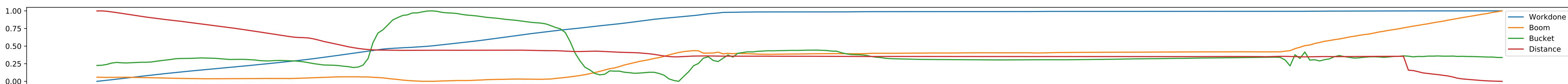
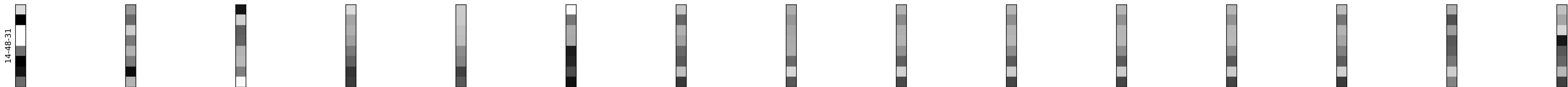
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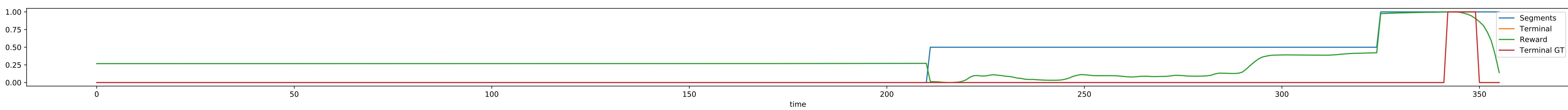
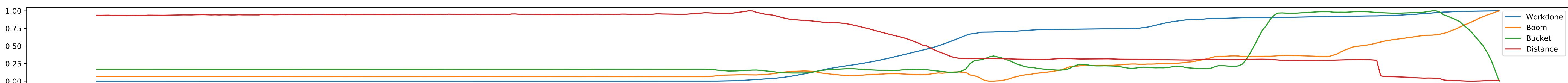
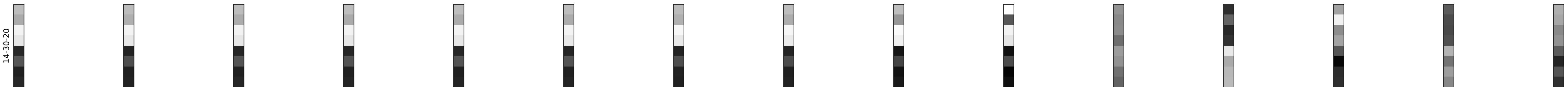
winter - 14-40-19



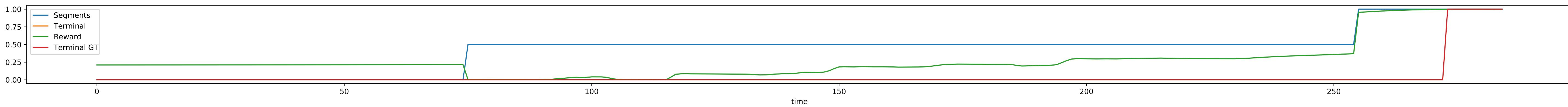
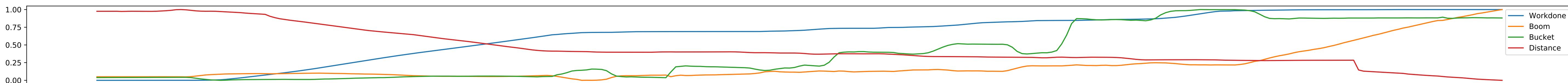
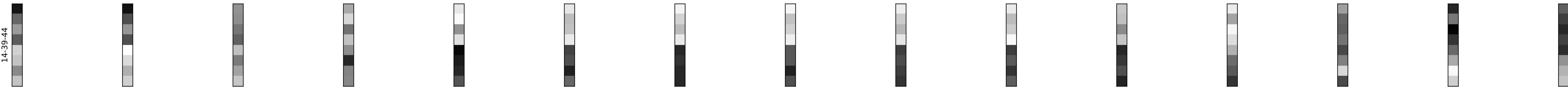
winter - 14-48-31

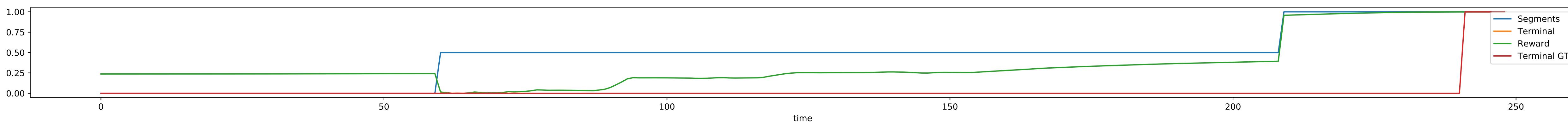
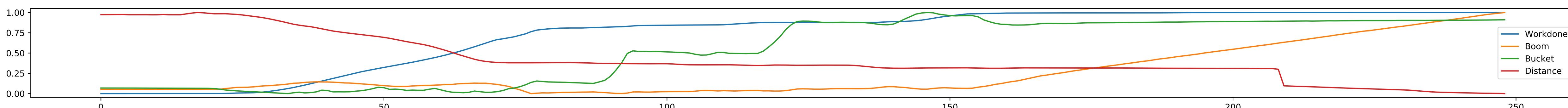
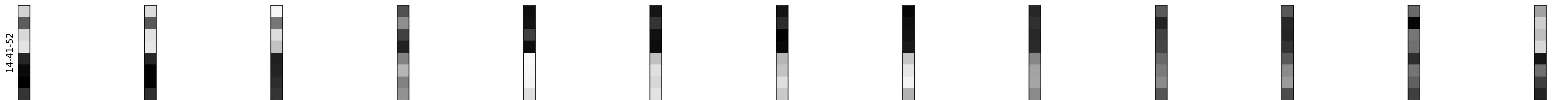
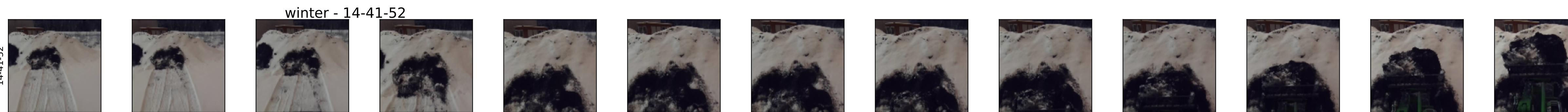


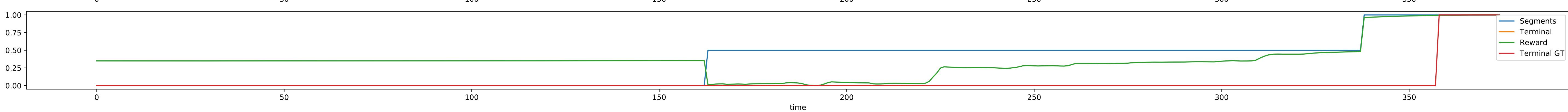
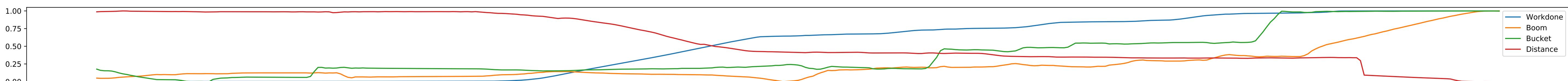
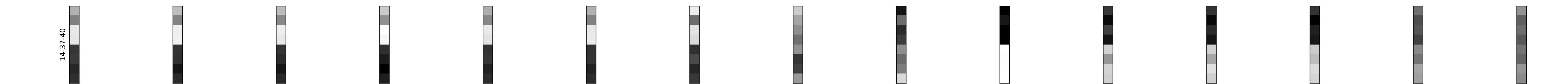
winter - 14-30-20



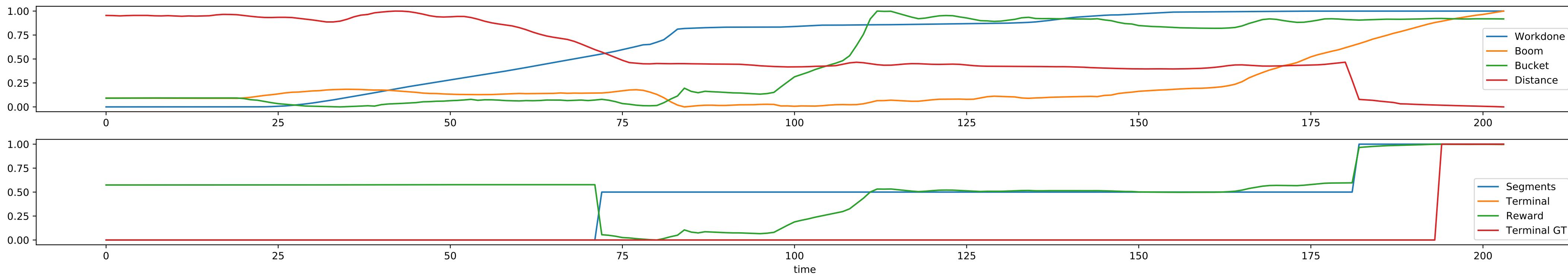
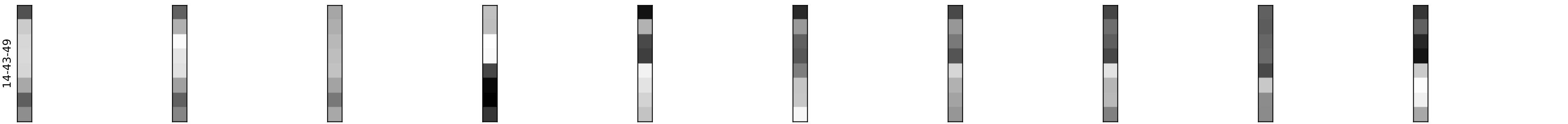
winter - 14-39-44



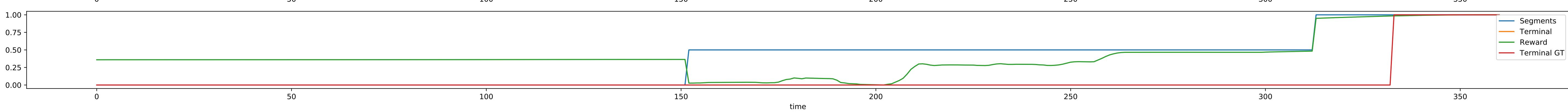
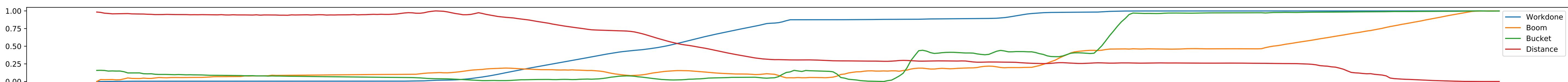
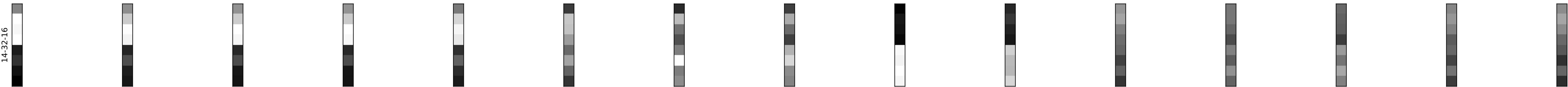




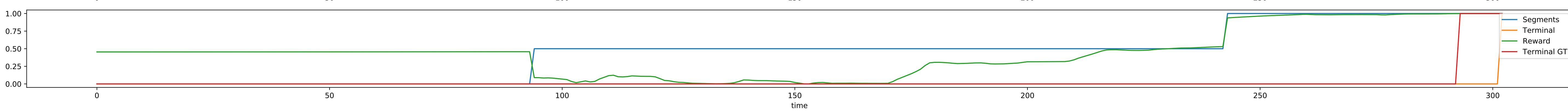
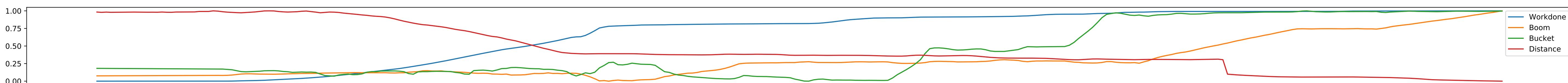
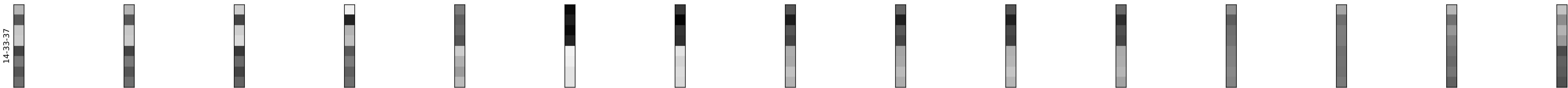
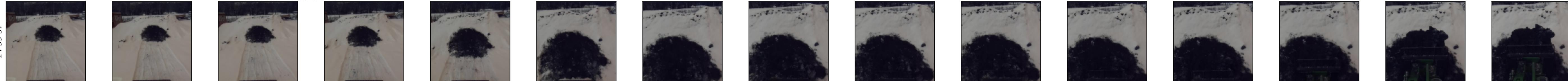
winter - 14-43-49



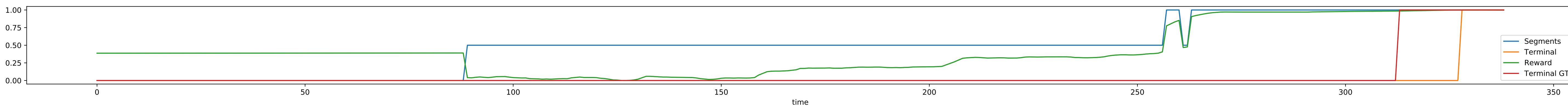
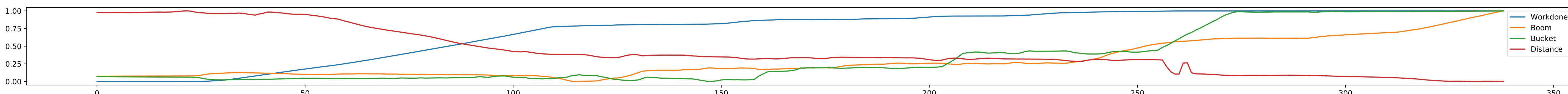
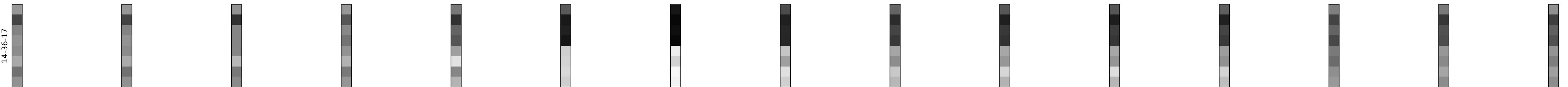
winter - 14-32-16



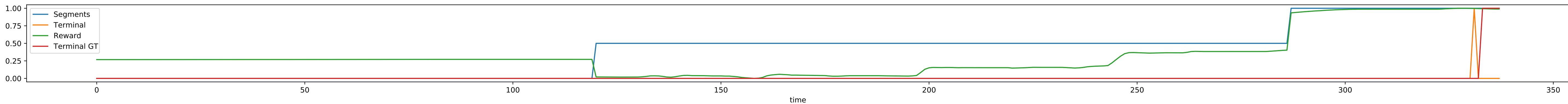
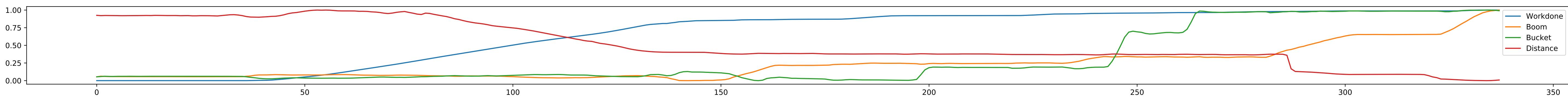
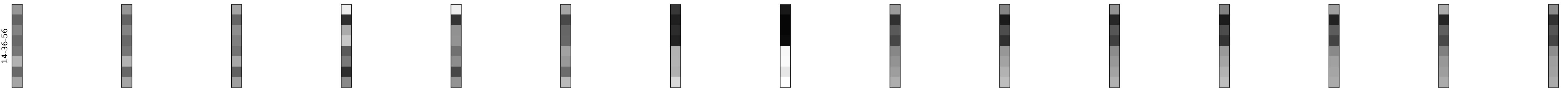
winter - 14-33-37



winter - 14-36-17



winter - 14-36-56

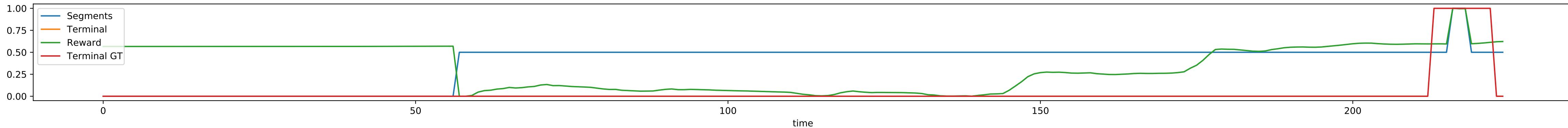
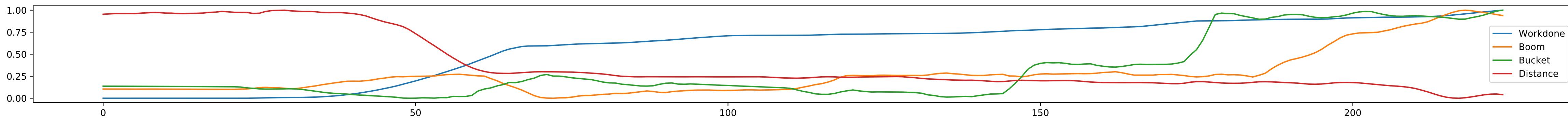


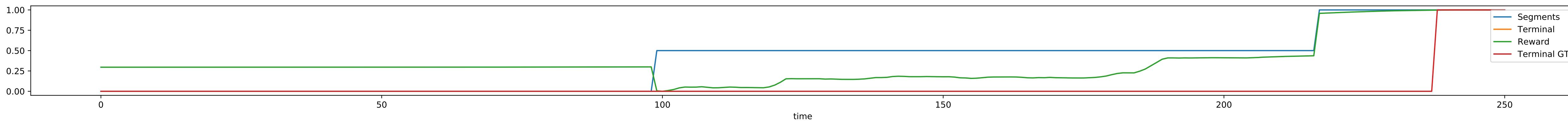
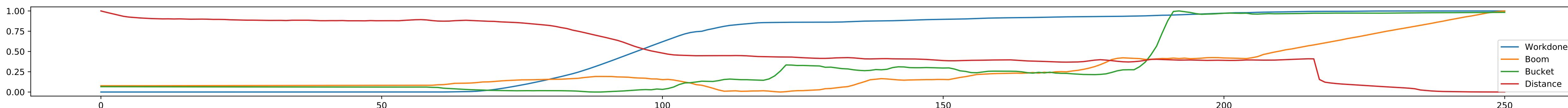
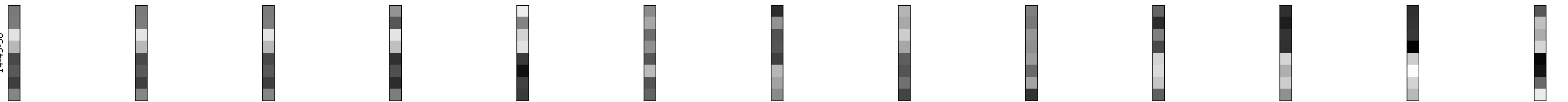
winter - 14-41-22

14-41-22

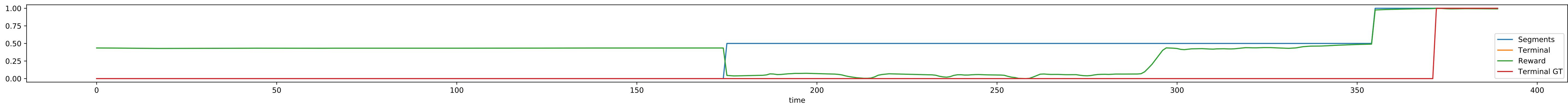
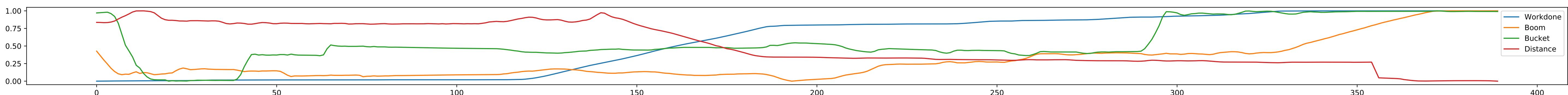
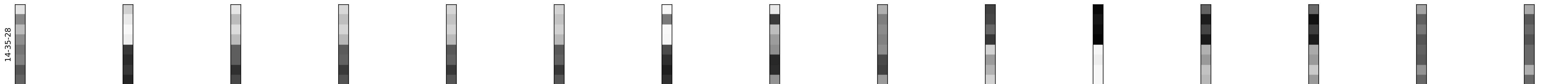


14-41-22

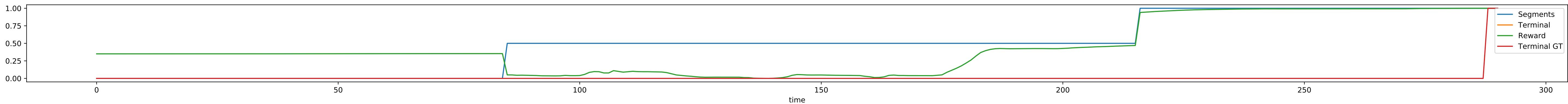
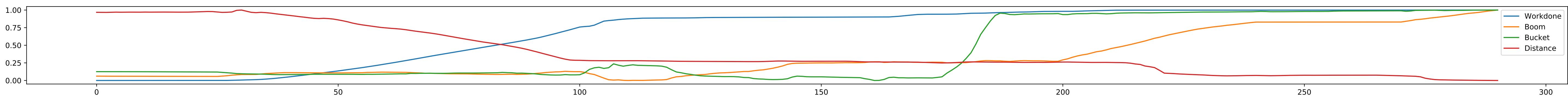
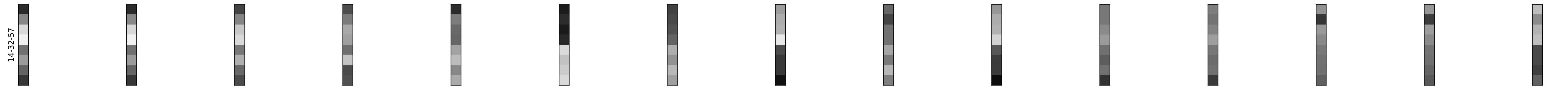




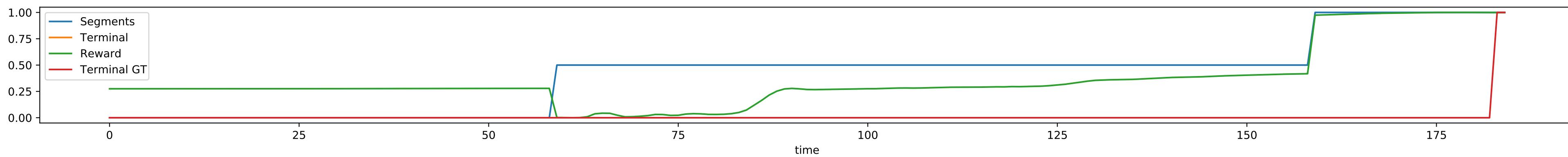
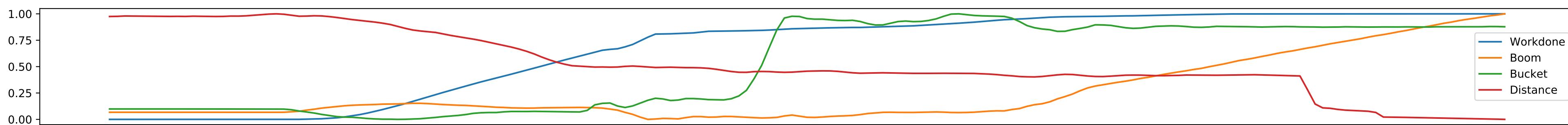
winter - 14-35-28



winter - 14-32-57



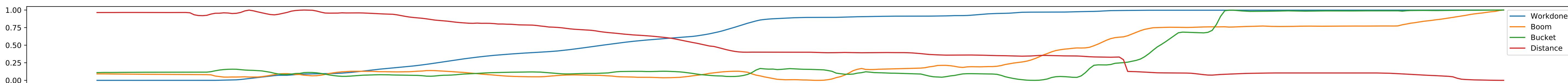
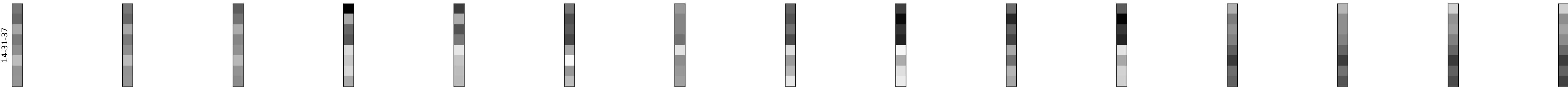
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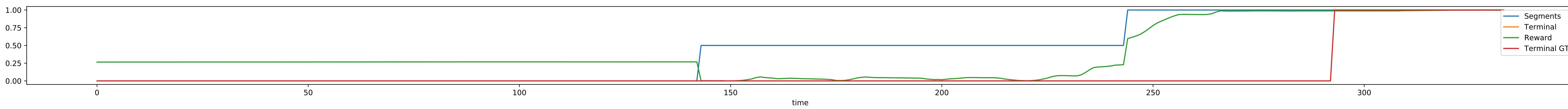
winter - 14-31-37



14-31-37

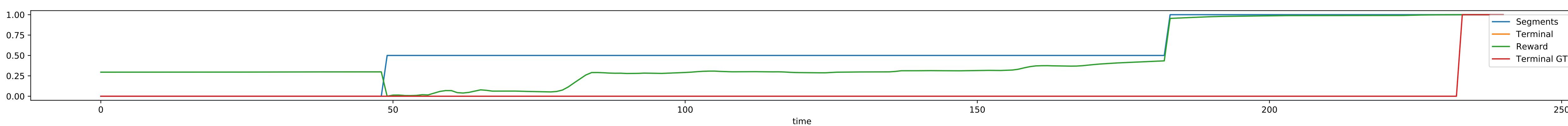
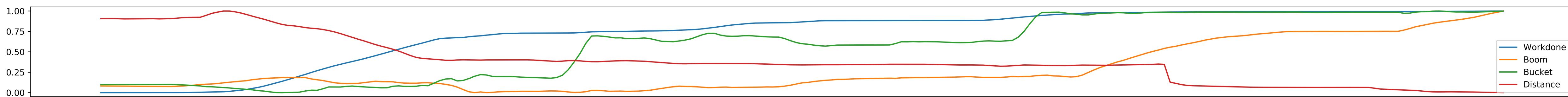
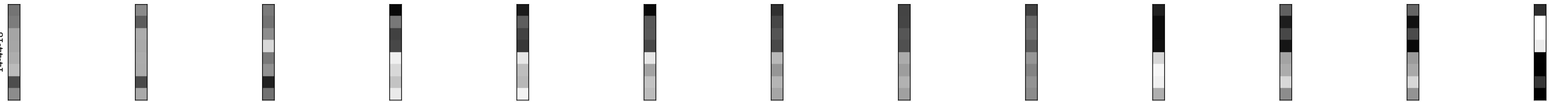


Workdone
Boom
Bucket
Distance



Segments
Terminal
Reward
Terminal GT

time



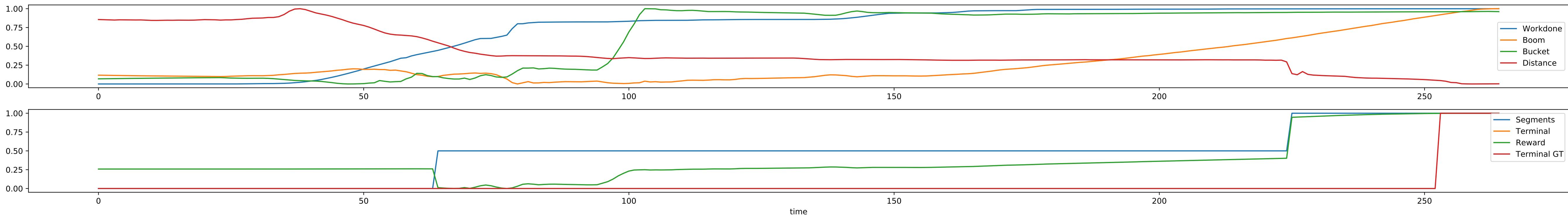
winter - 14-42-43



14-42-43



14-42-43

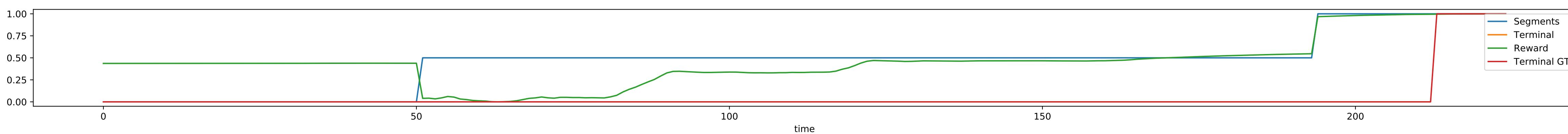
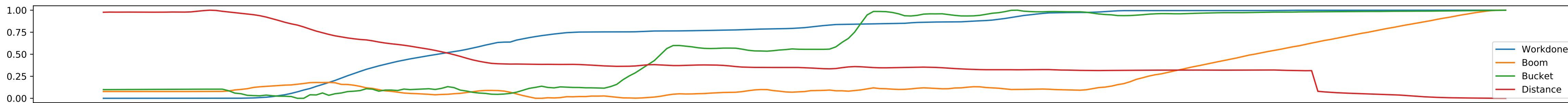
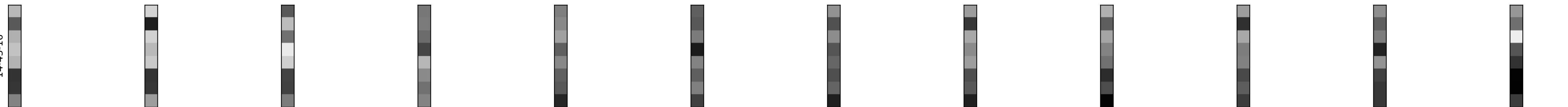


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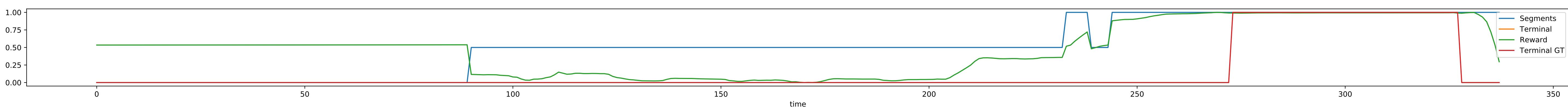
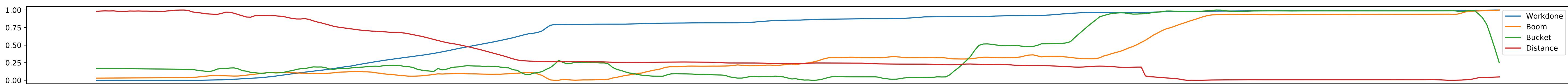
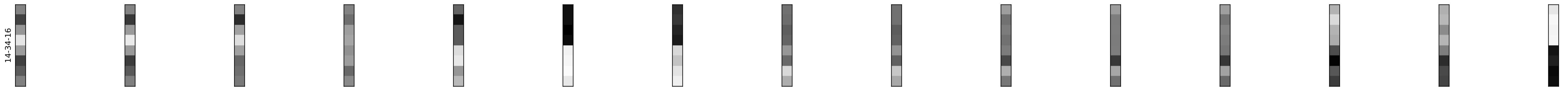
14-43-16



14-43-16



winter - 14-34-16



winter - 14-34-16

