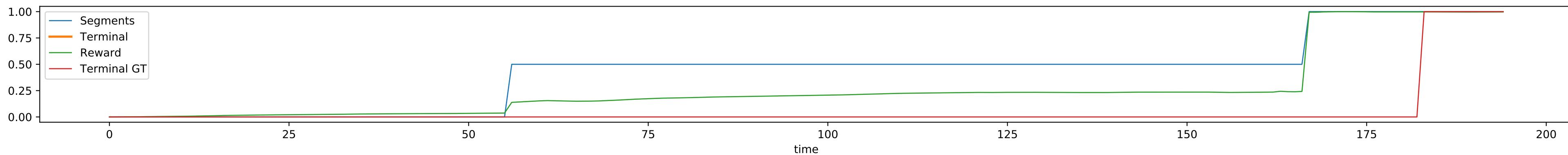
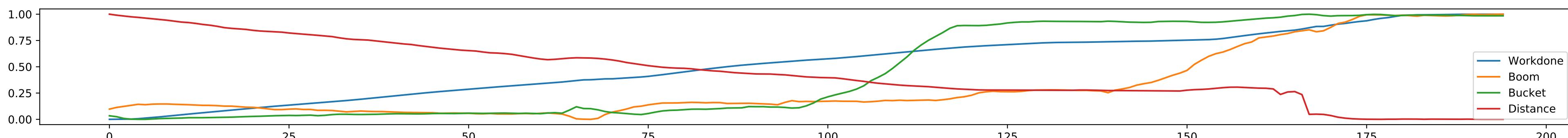
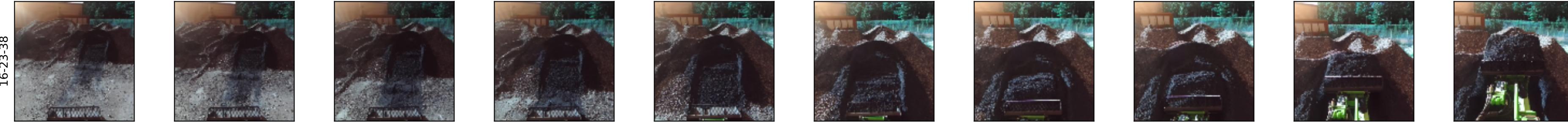


Learning Reward from Demonstrations \w sensors+vision (R_{max}=1600)

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

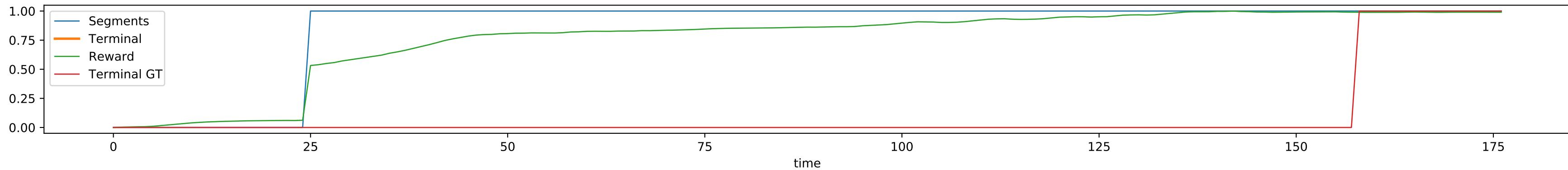
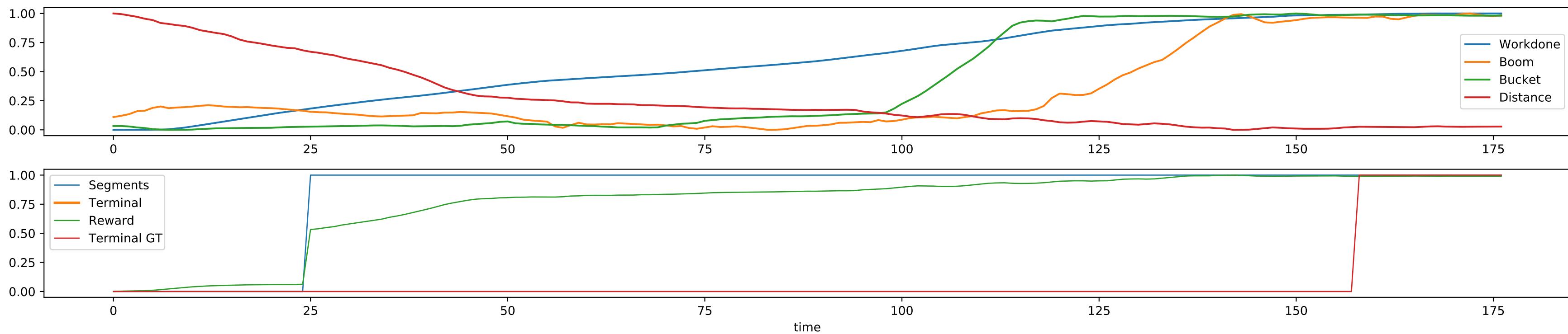
autumn - 16-23-38



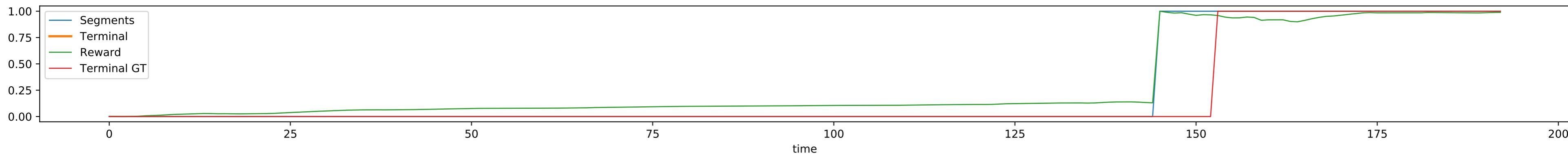
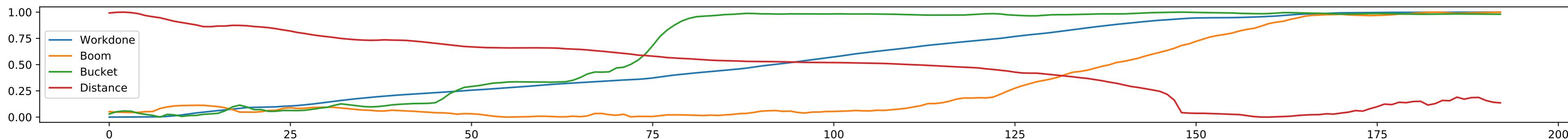
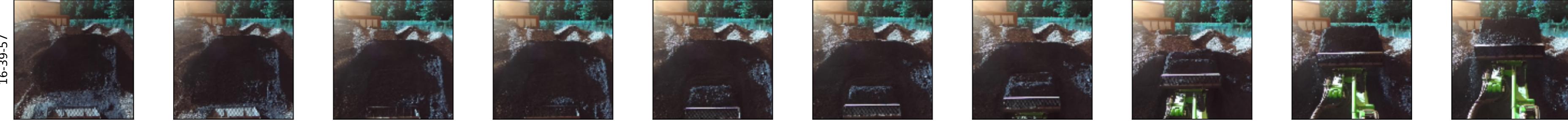
autumn - 19-01-52



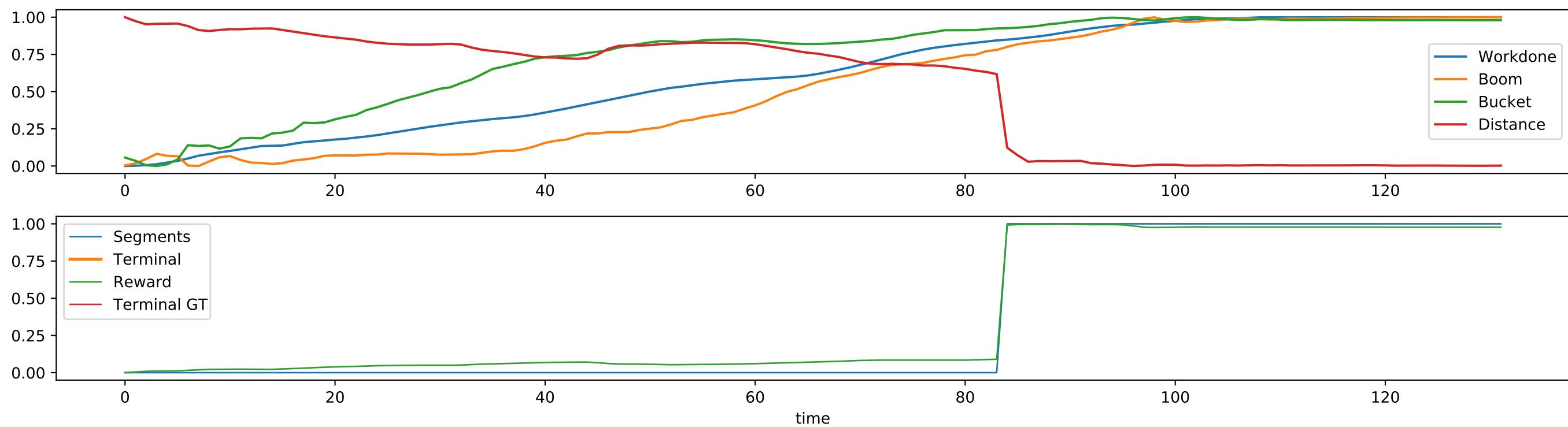
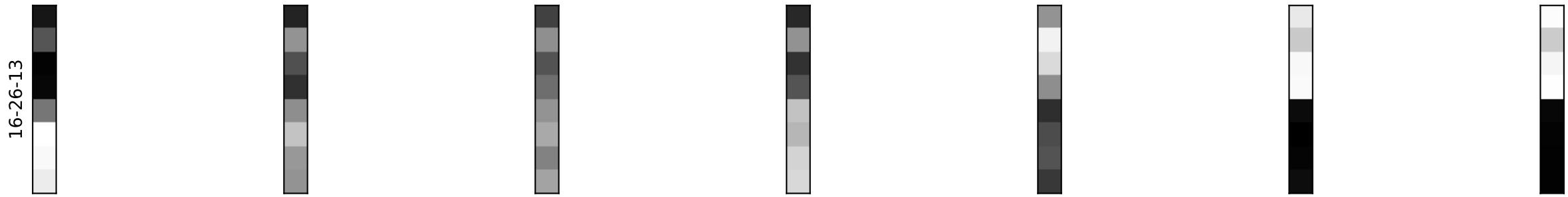
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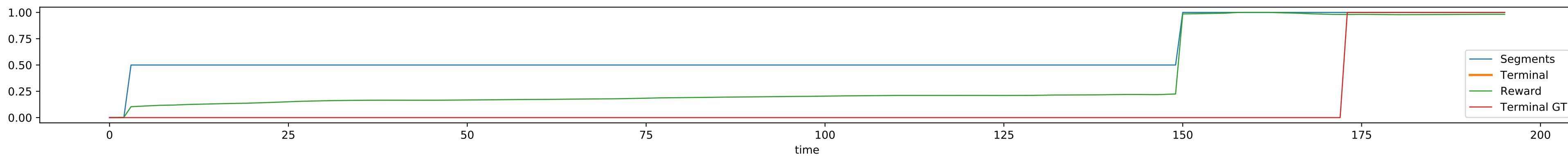
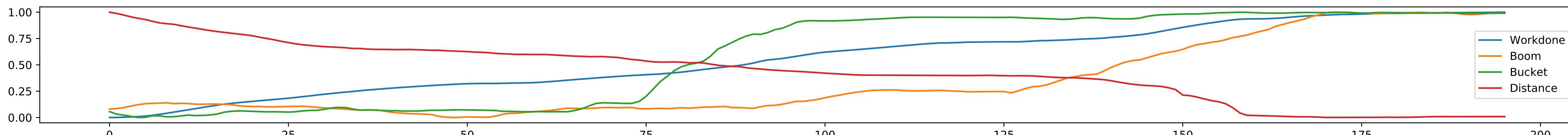
autumn - 16-39-57



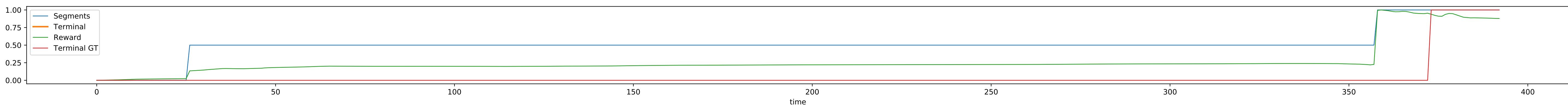
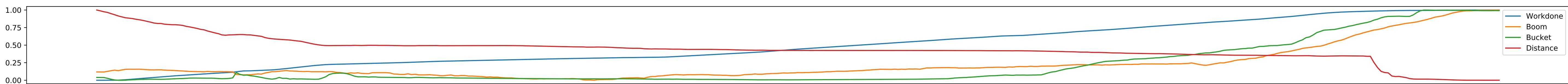
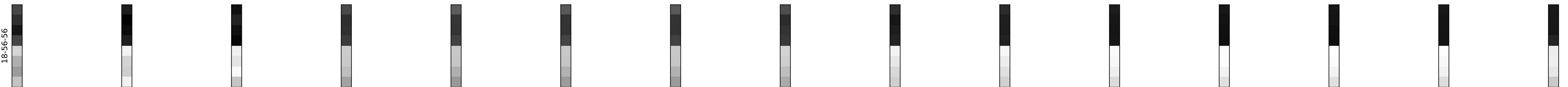
autumn - 16-26-13



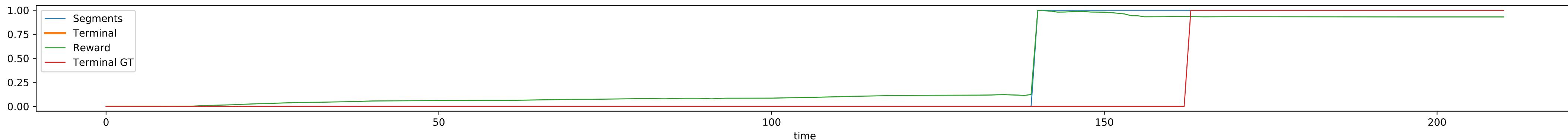
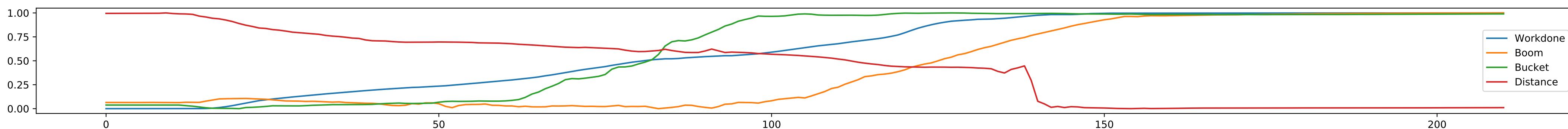
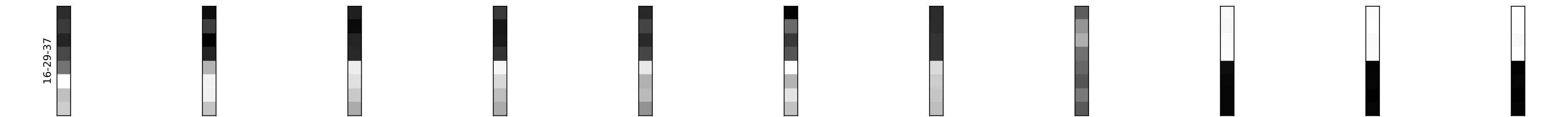
autumn - 16-31-52



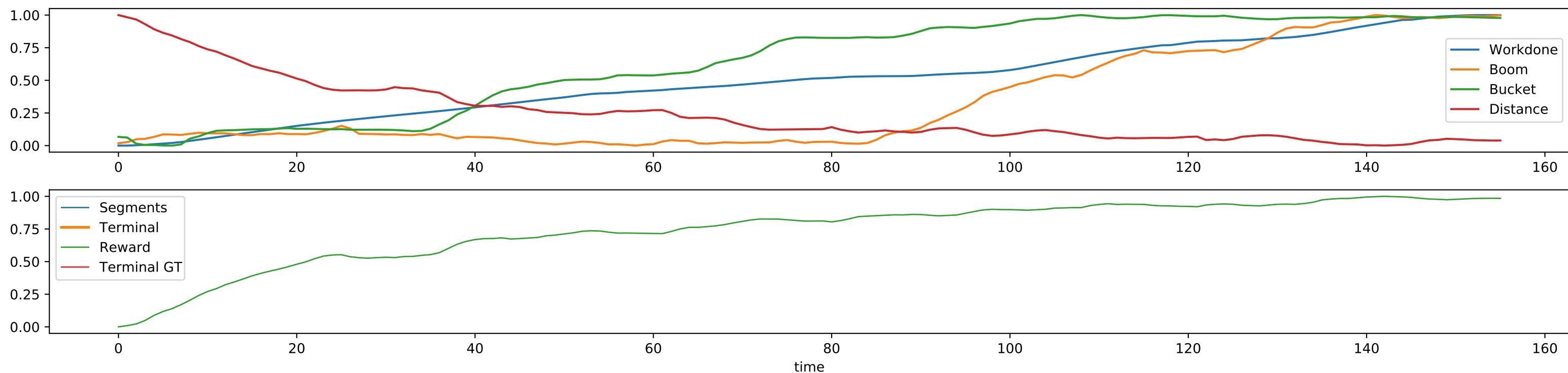
autumn - 18-56-56



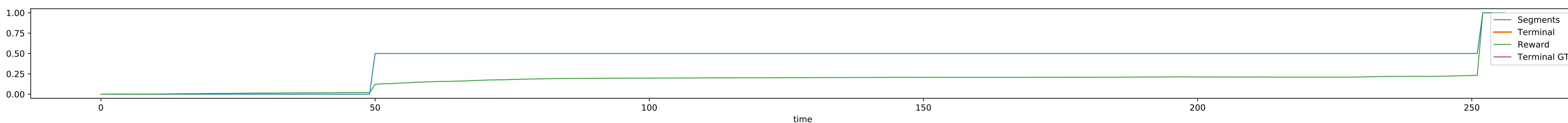
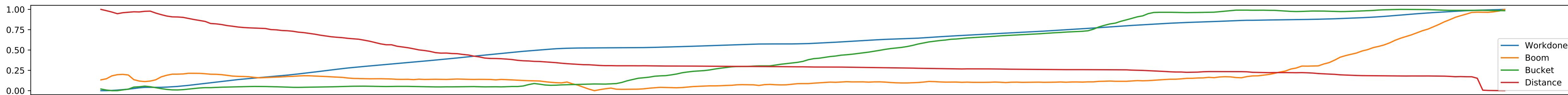
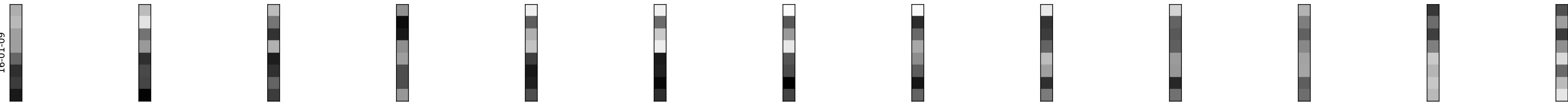
autumn - 16-29-37



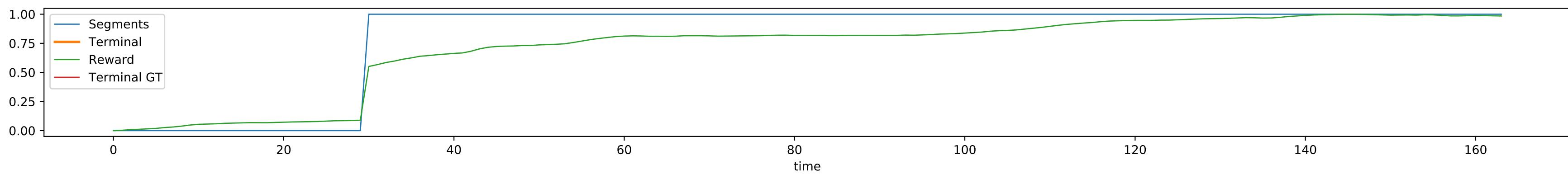
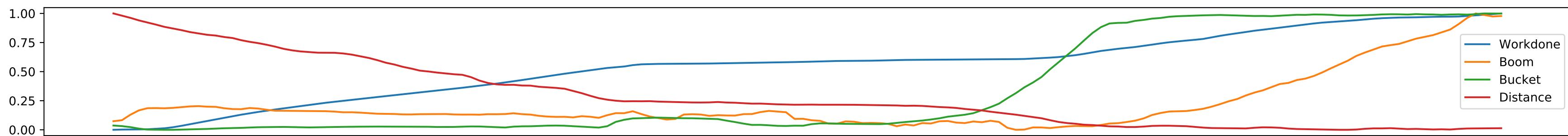
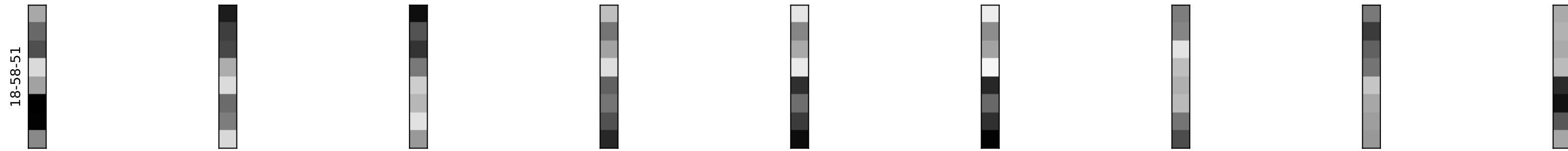
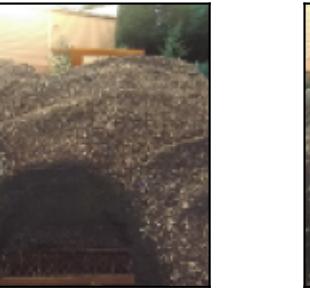
autumn - 16-27-12



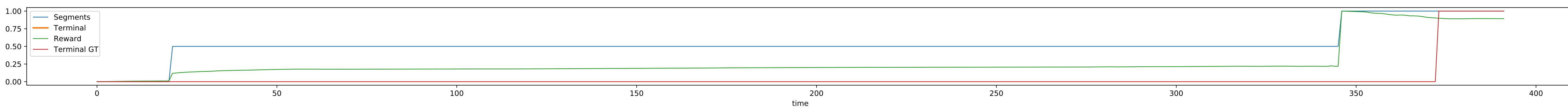
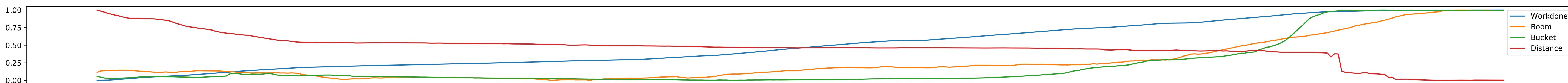
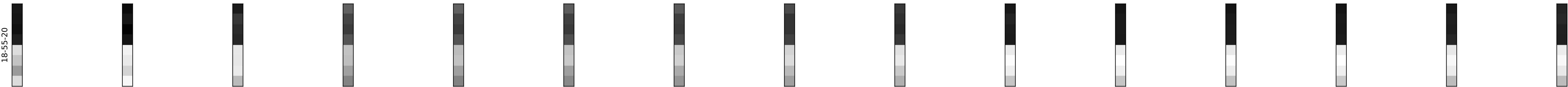
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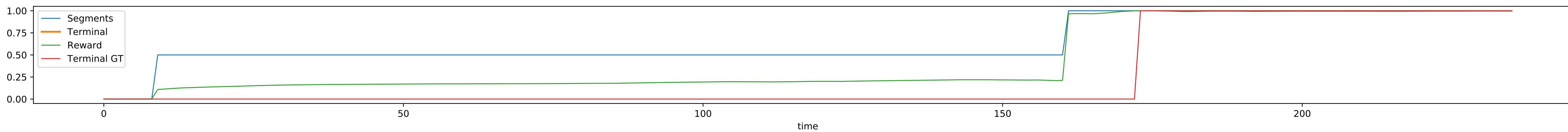
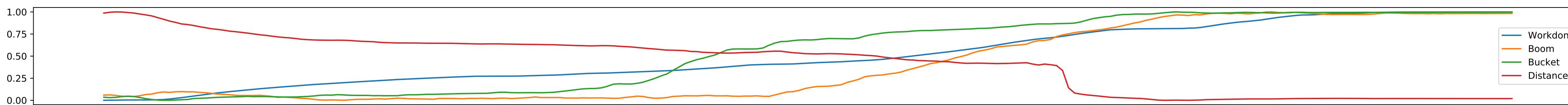
autumn - 18-58-51



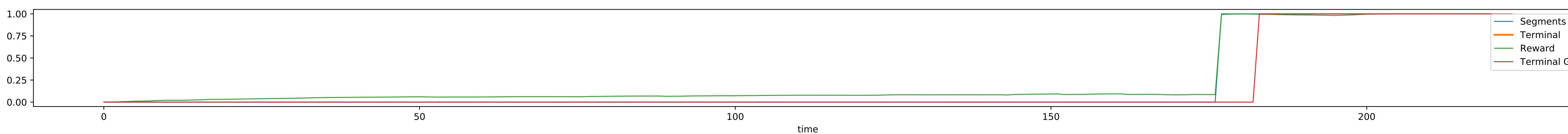
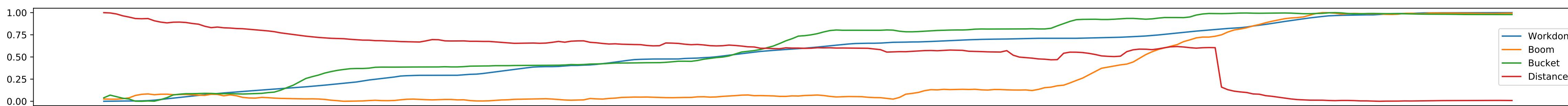
autumn - 18-55-20

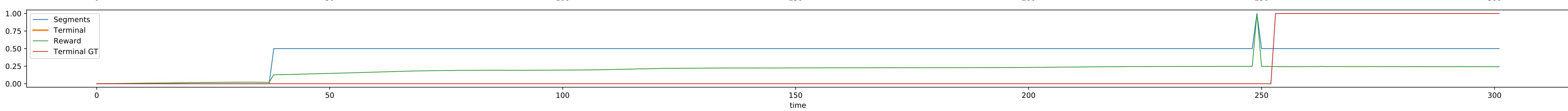
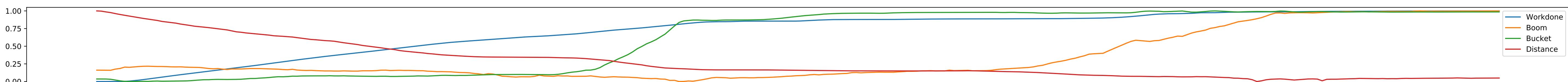
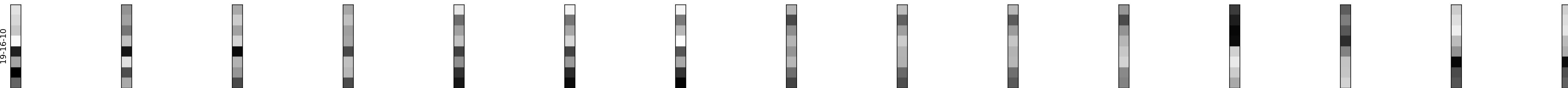


autumn - 16-17-19



autumn - 16-27-52



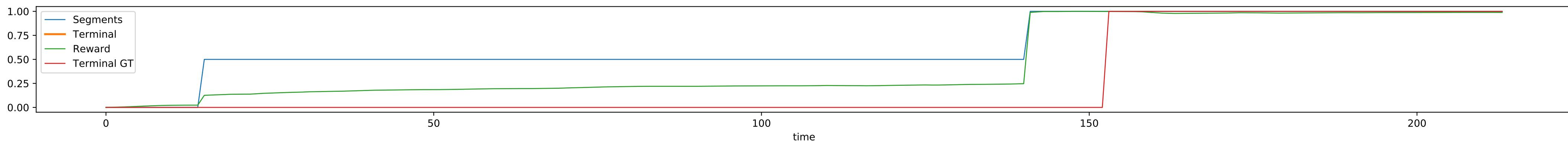
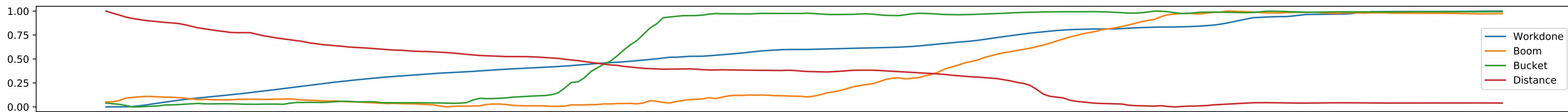
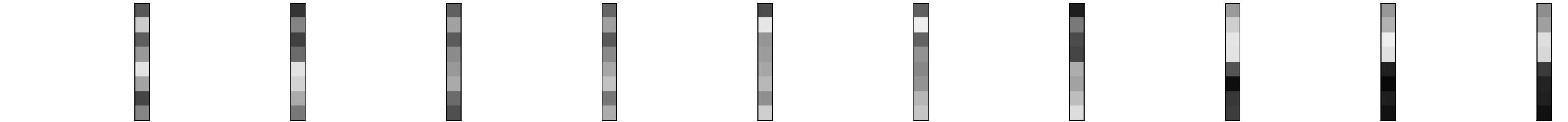


autumn - 16-34-22

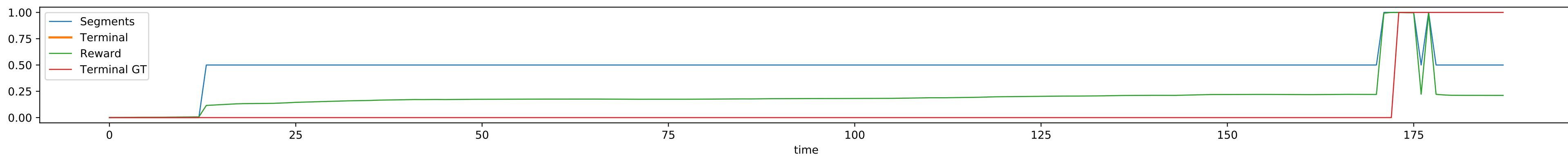
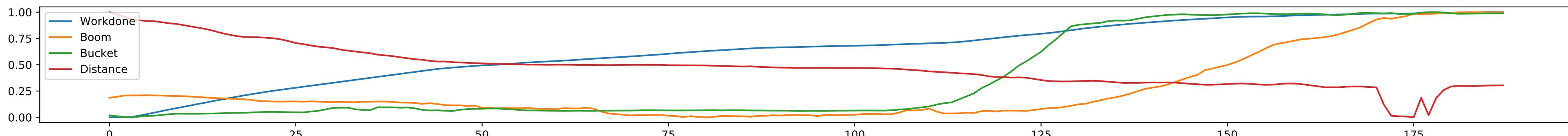
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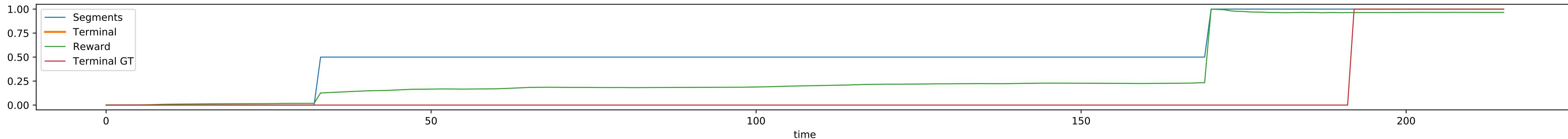
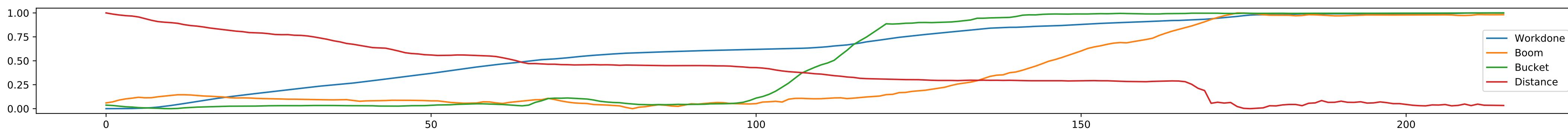
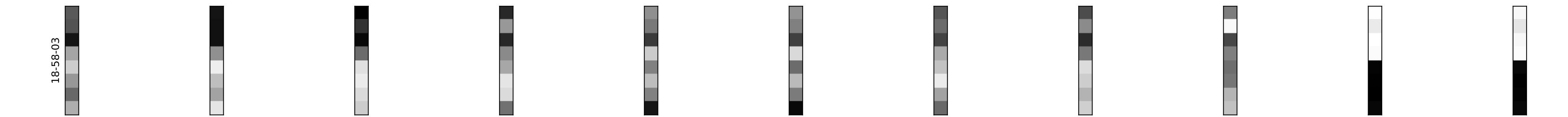
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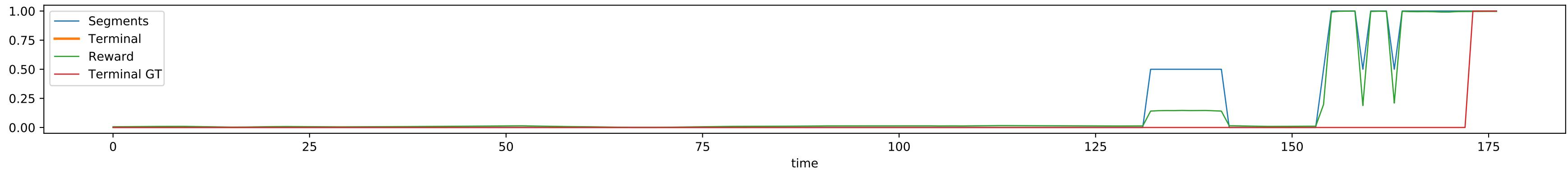
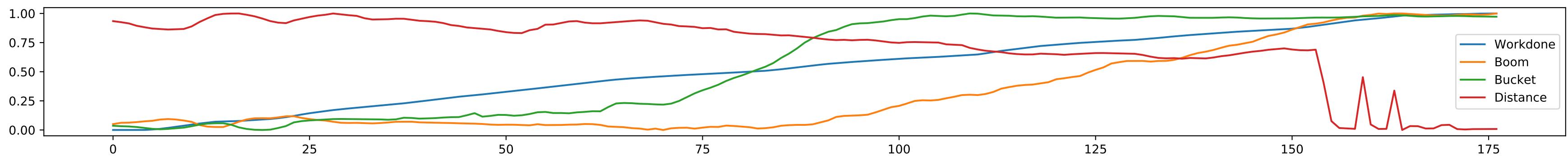
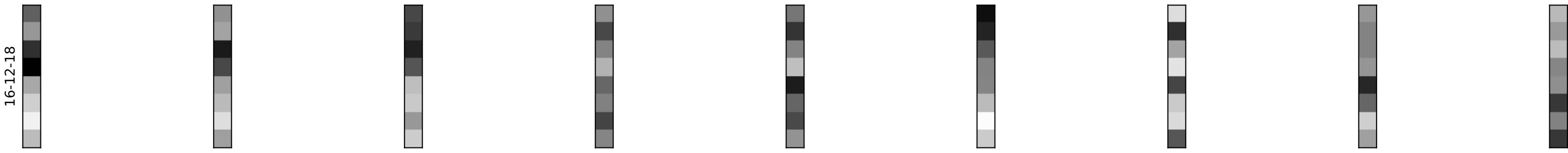
autumn - 18-54-34



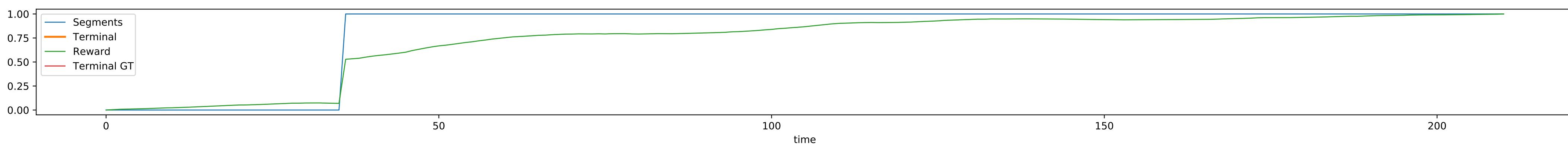
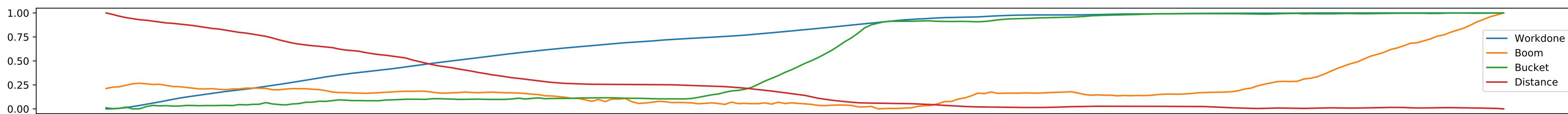
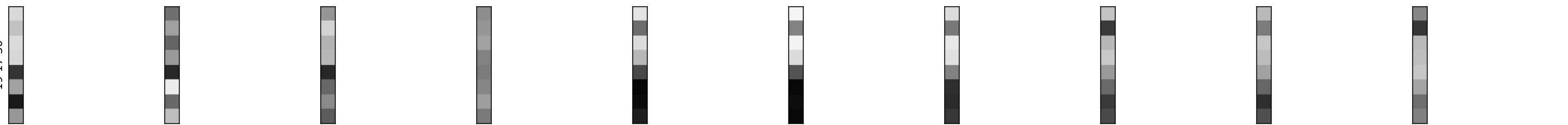
autumn - 18-58-03



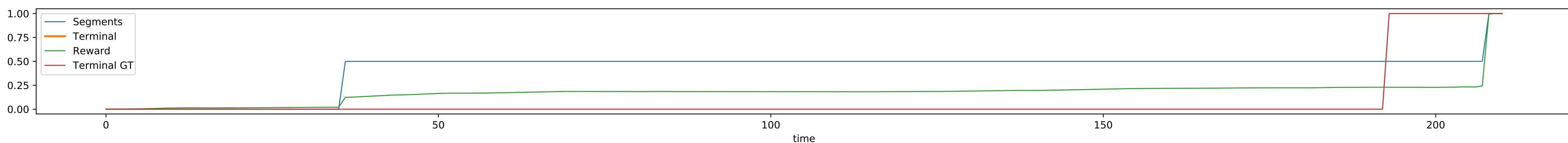
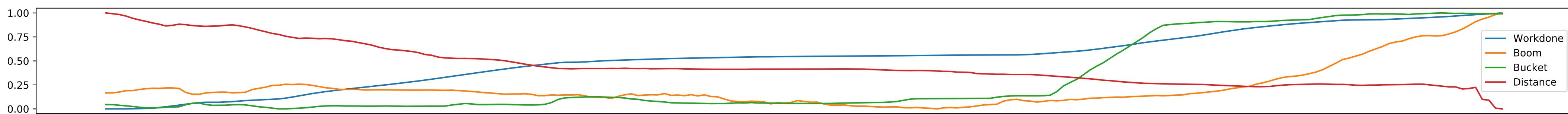
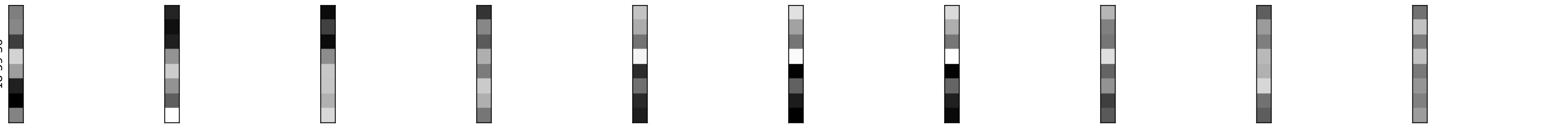
autumn - 16-12-18



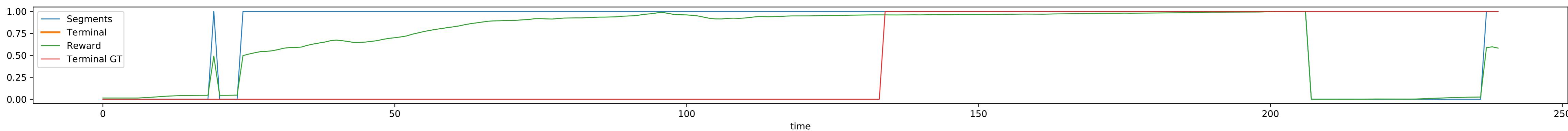
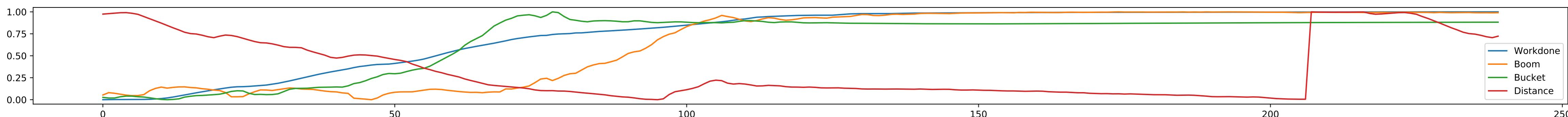
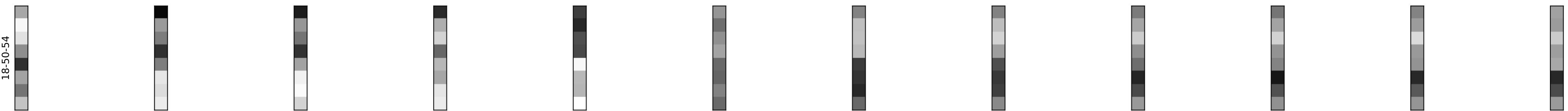
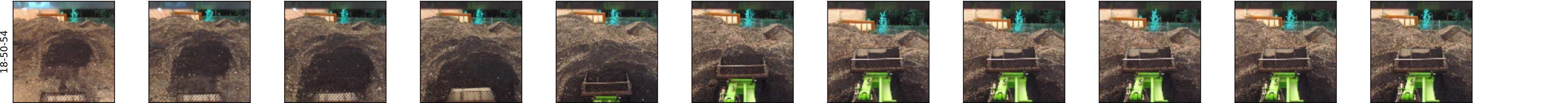
autumn - 19-17-30

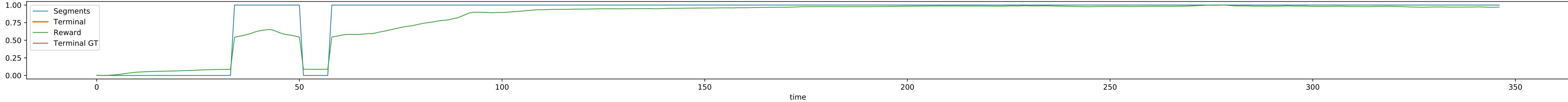
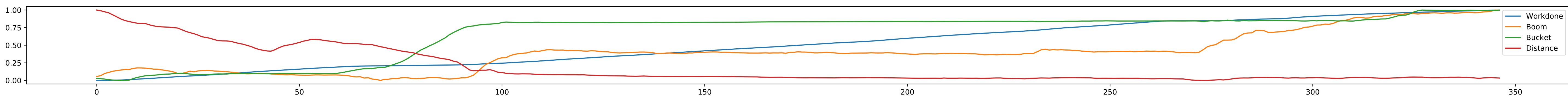
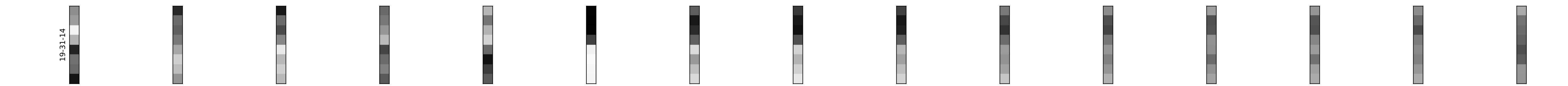


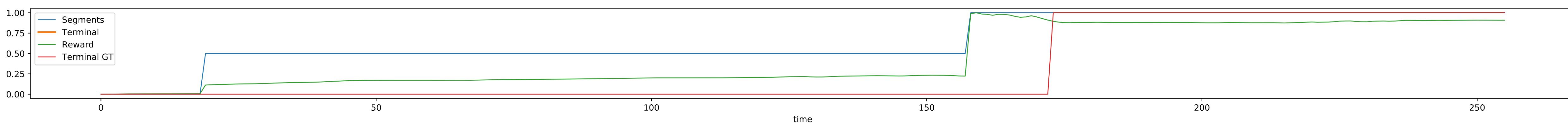
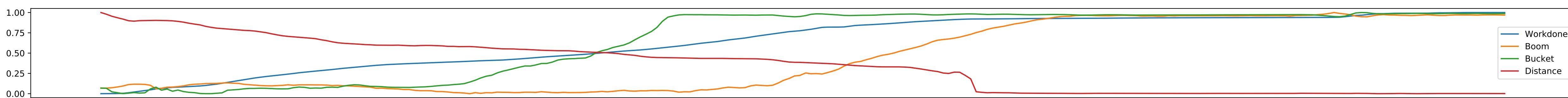
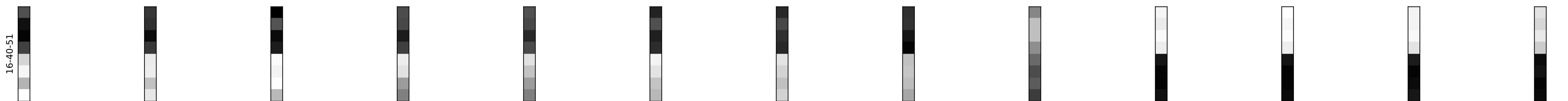
autumn - 18-59-36



autumn - 18-50-54





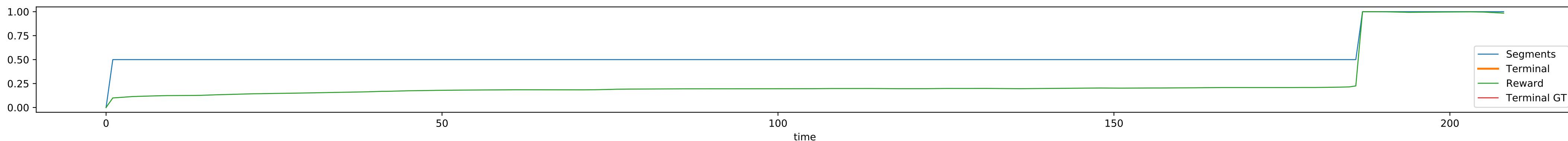
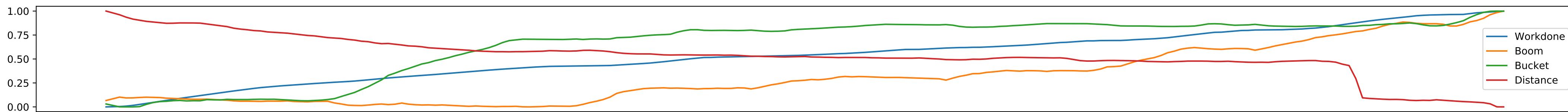
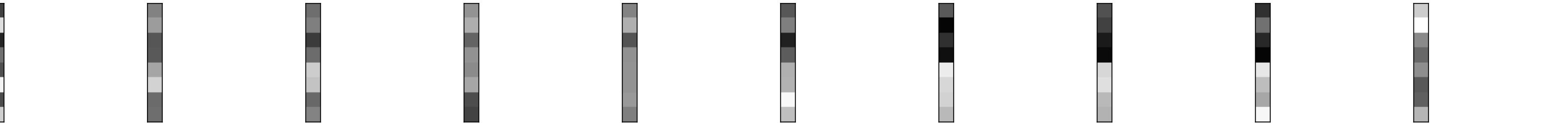


autumn - 16-19-28

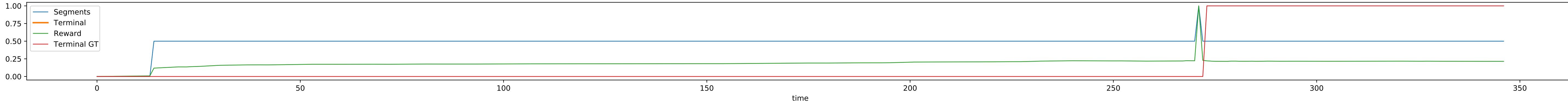
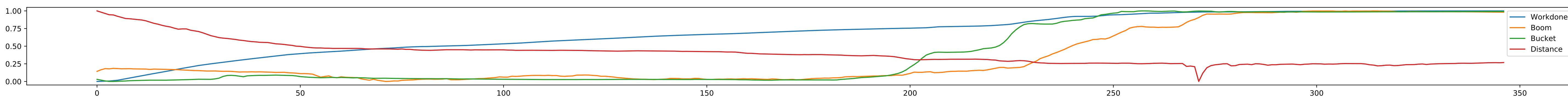
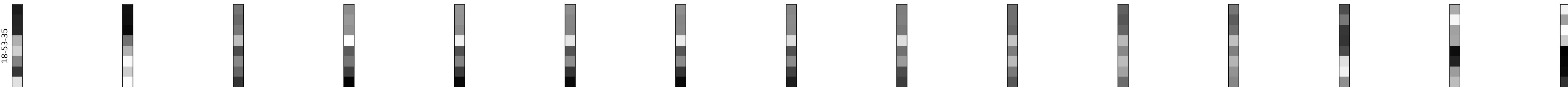
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16-19-28

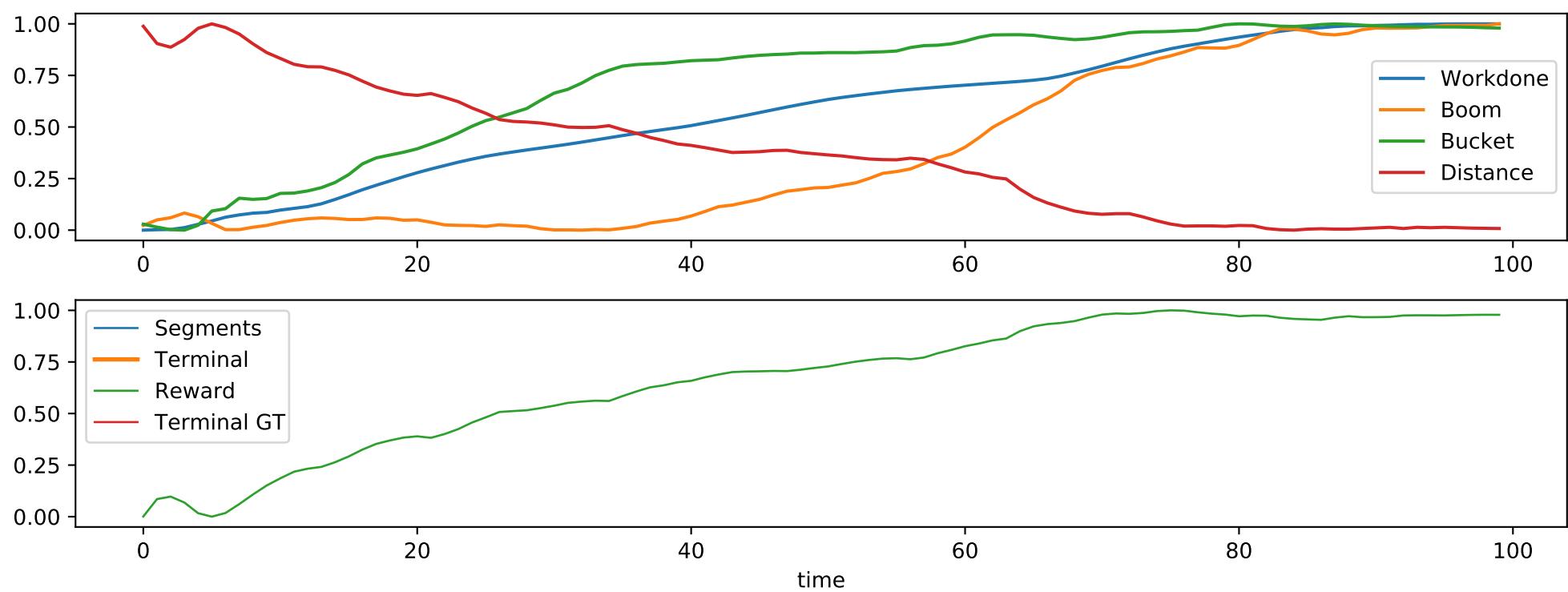
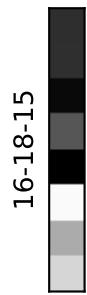


autumn - 18-53-35



autumn - 16-18-15

16-18-15



autumn - 16-18-15

16-18-15

