

# Deadline Stress Work Patterns

## Contents

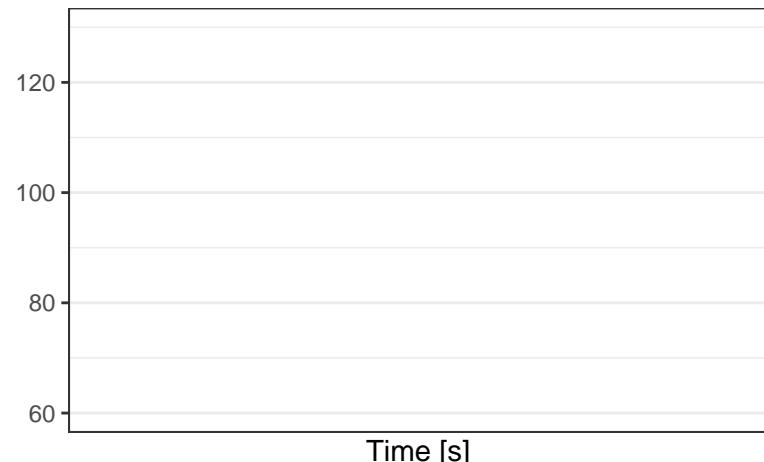
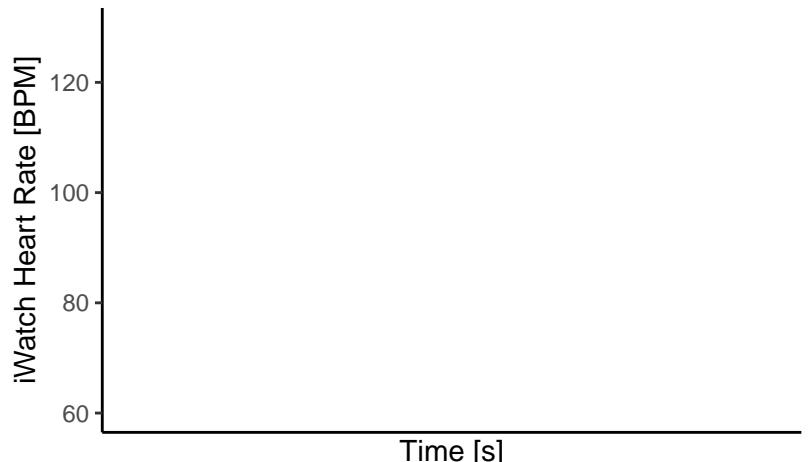
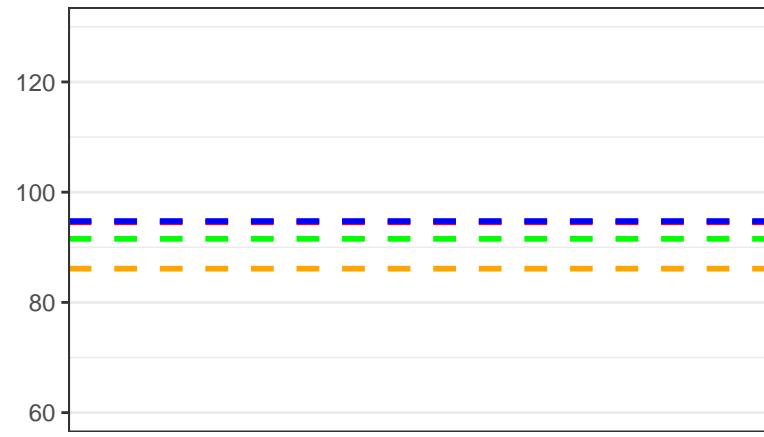
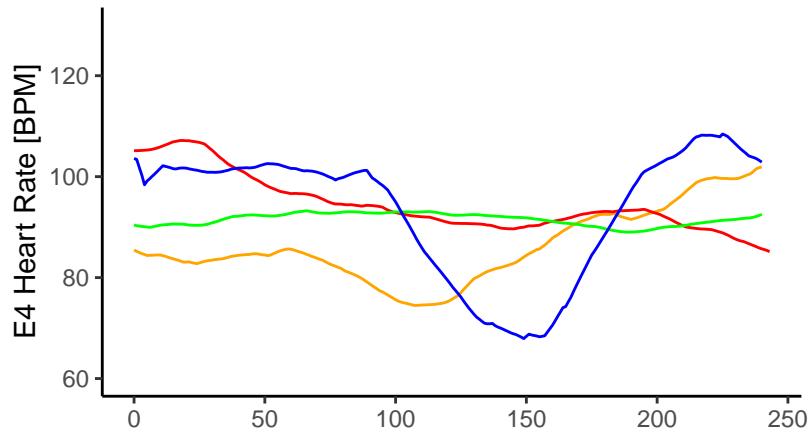
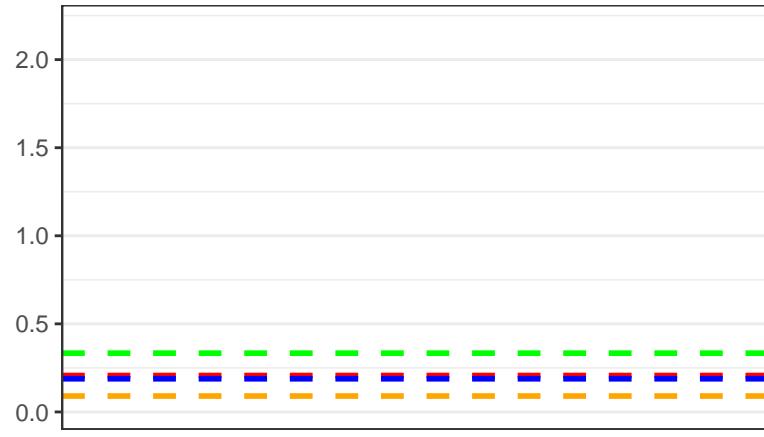
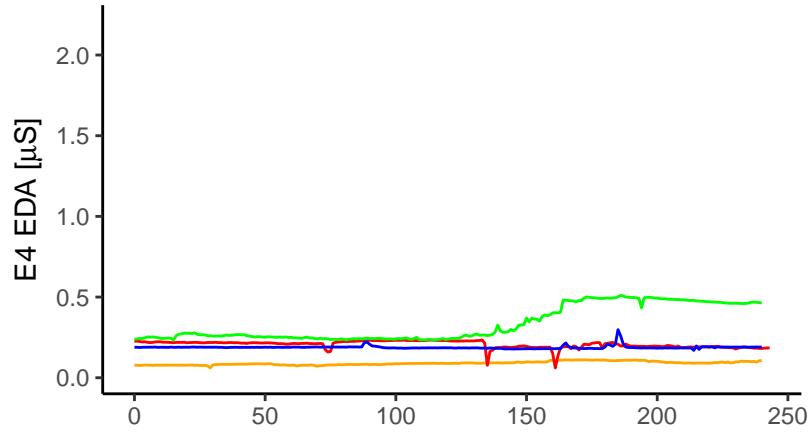
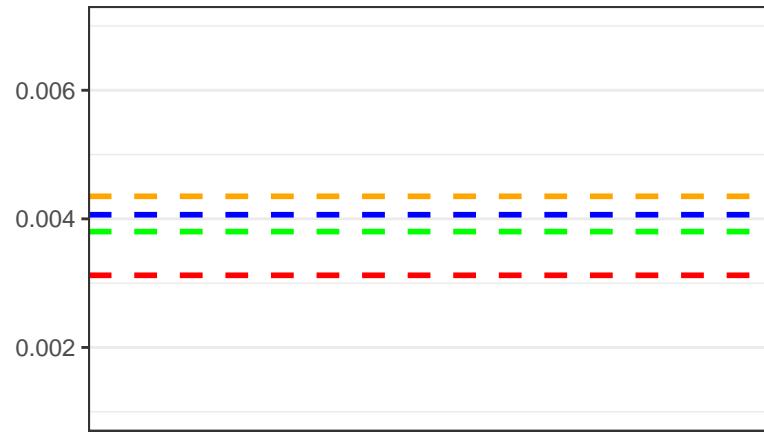
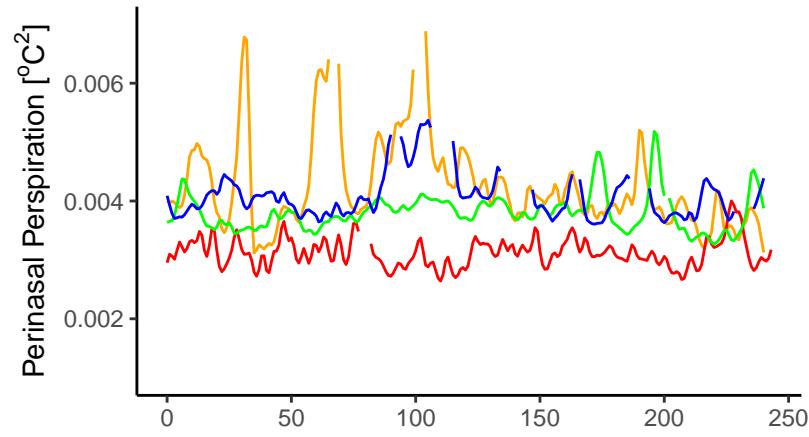
<b>1 Chapter 1</b>	<b>2</b>
1.1 Physiological Data . . . . .	2
<b>2 Chapter 2</b>	<b>21</b>
2.1 Behavioral Data . . . . .	21
2.1.1 Work Activity Profile . . . . .	21
2.1.2 Application Usage Profile . . . . .	31
<b>3 Chapter 3</b>	<b>41</b>
3.1 Psychometric Data . . . . .	41
3.1.1 State . . . . .	41
3.1.1.0.1 State Anxiety . . . . .	41
3.1.1.0.2 NASA TLX . . . . .	43
3.1.2 Trait . . . . .	45
3.1.2.0.1 Trait Anxiety . . . . .	45
3.1.2.0.2 Personality A/B . . . . .	45
3.1.2.0.3 Big Five Inventory . . . . .	47
<b>4 Chapter 4</b>	<b>49</b>
4.1 Ad Hoc Data . . . . .	49

# **1 Chapter 1**

## **1.1 Physiological Data**

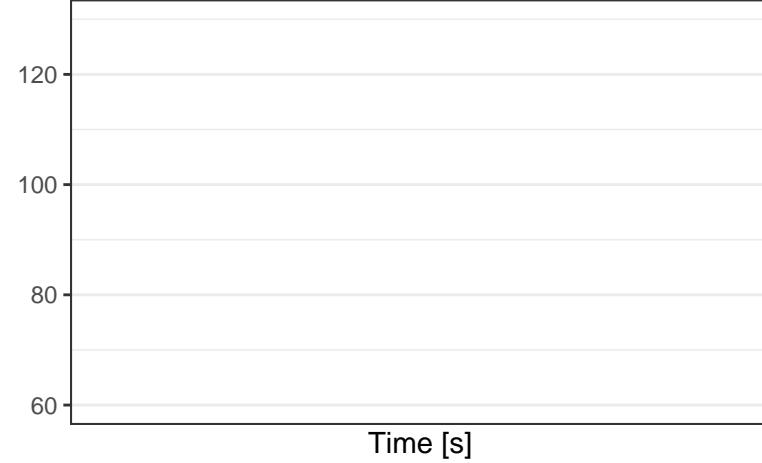
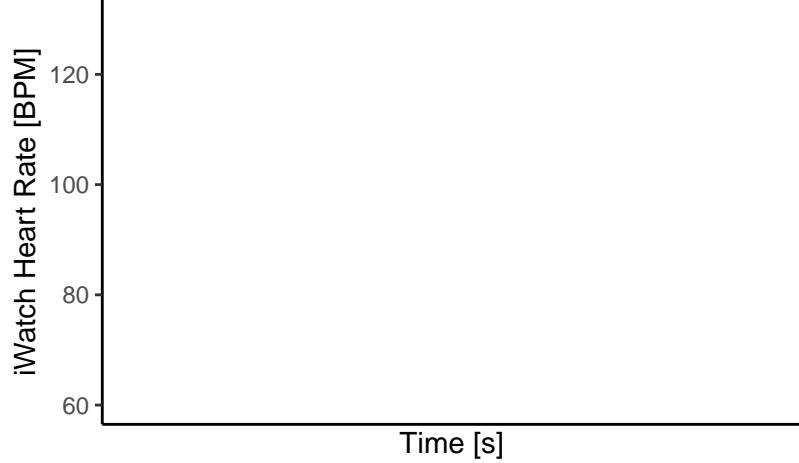
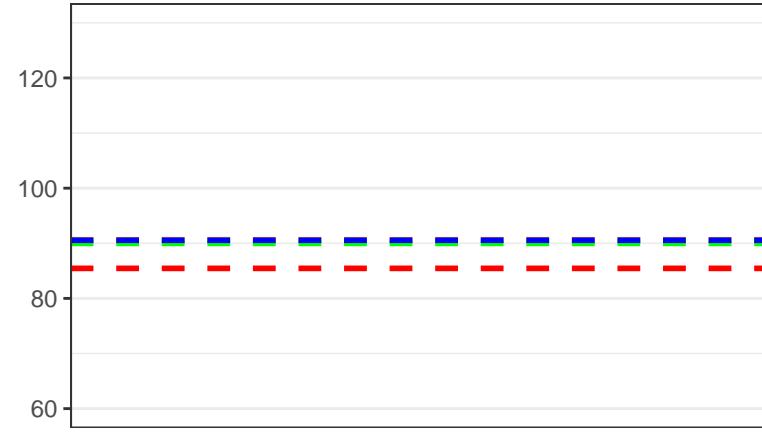
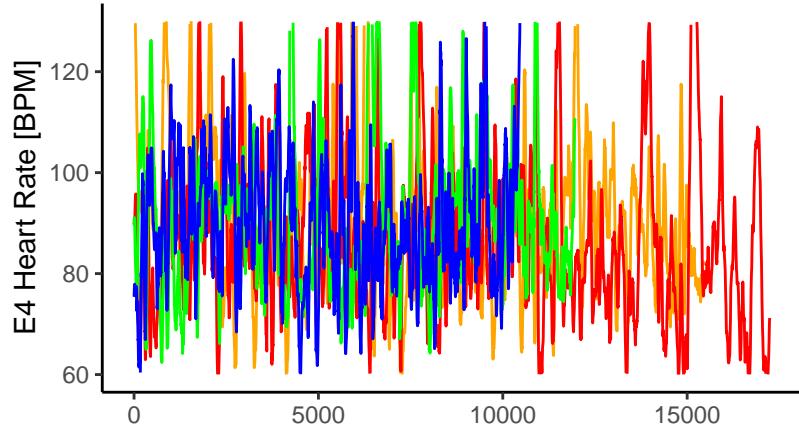
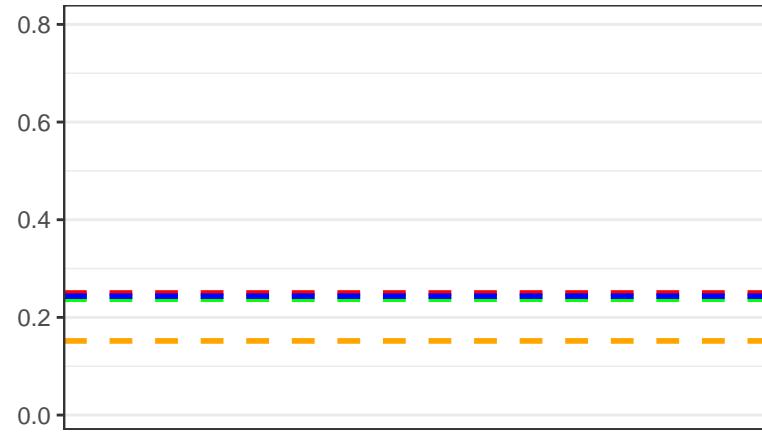
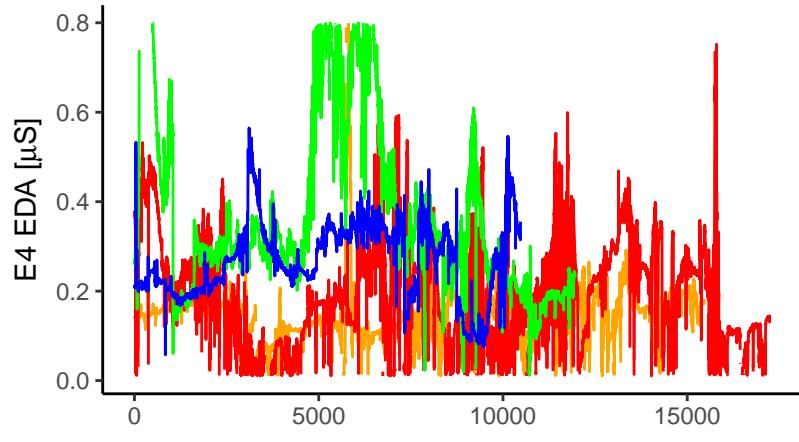
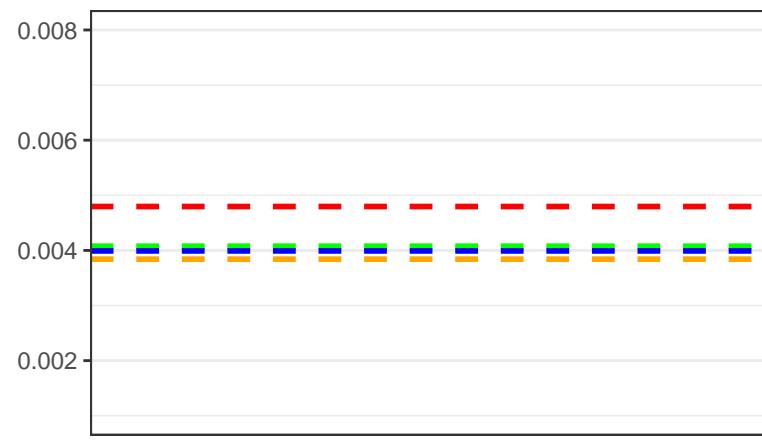
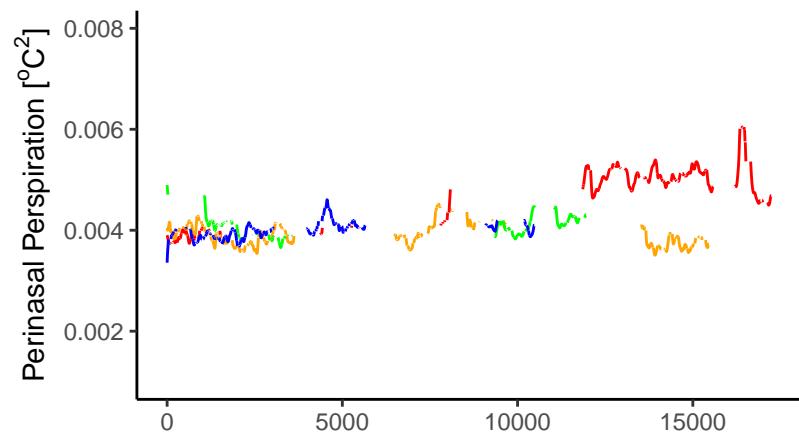
Physiological data includes perinasal perspiration, wrist heart rate and wrist EDA (electrodermal activity). We have used sensor devices like thermal camera, E4 watch and iWatch to collect those data. These physiological data have been plotted for the Baseline and Working session for the four days of the experiment.

# T001 Baseline



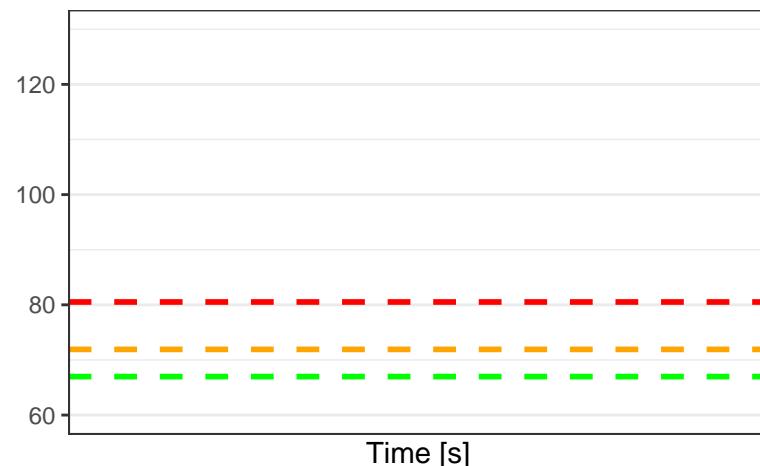
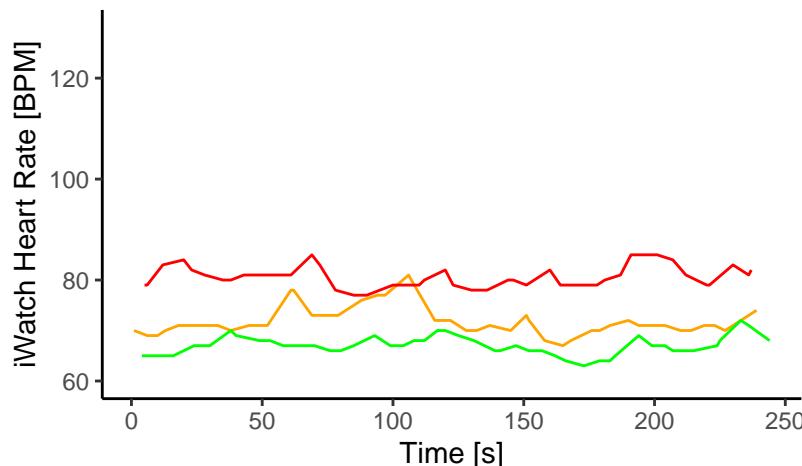
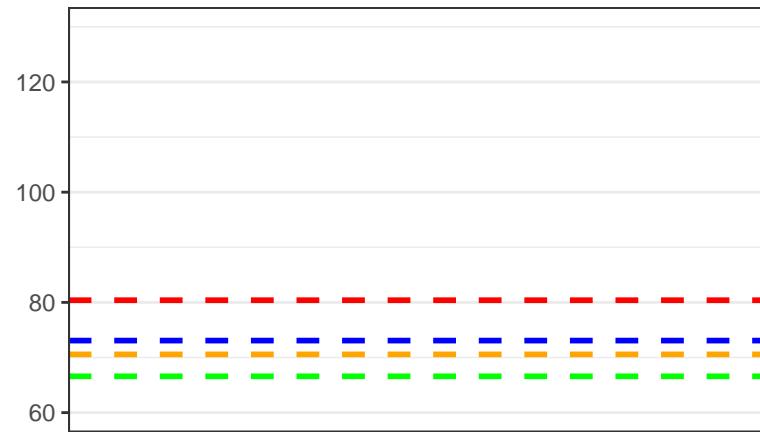
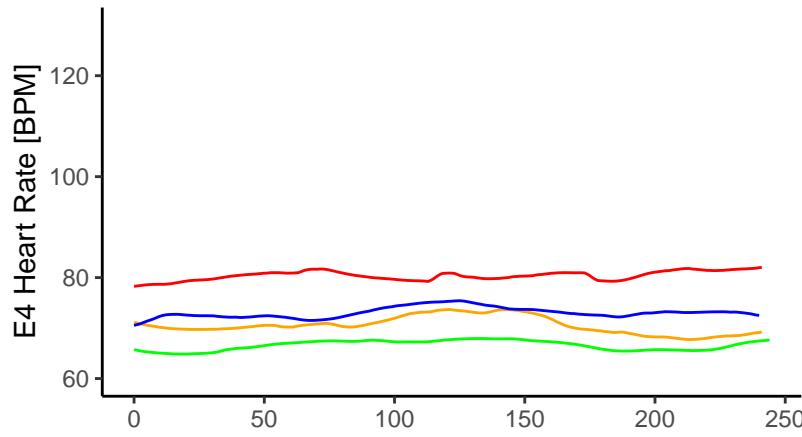
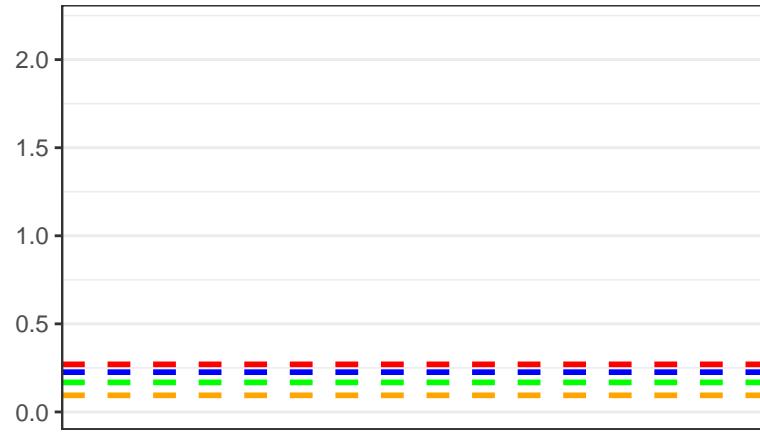
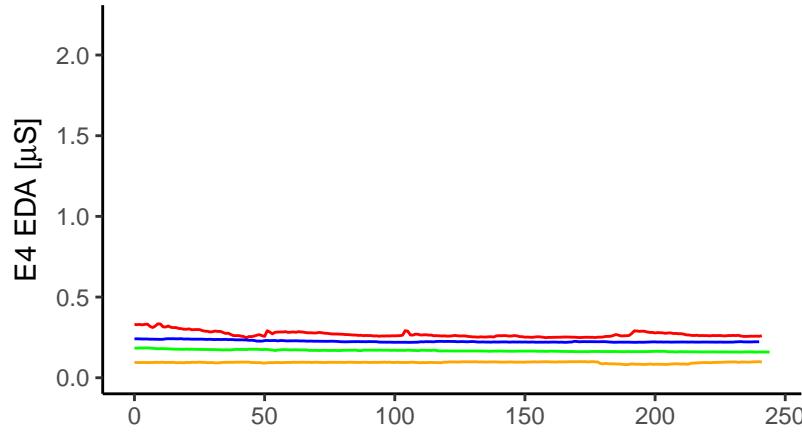
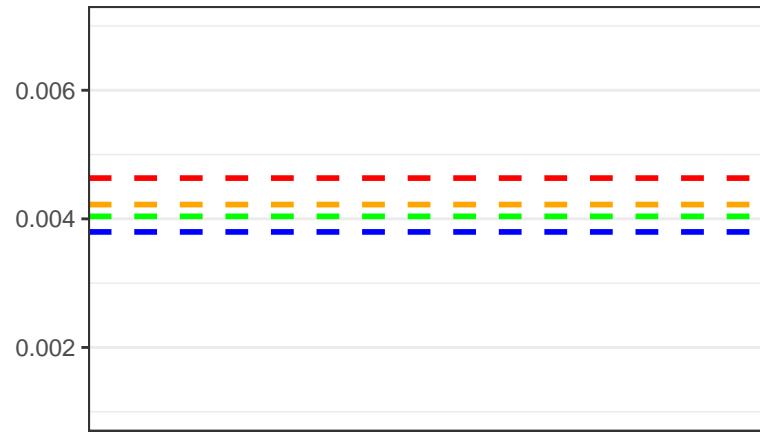
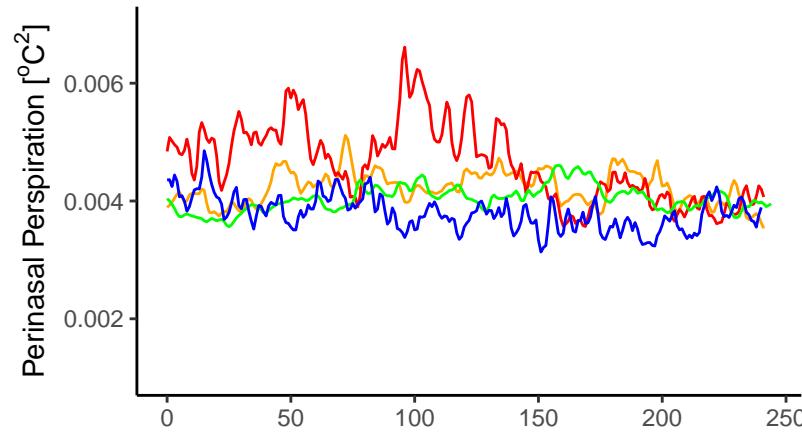
— Day1 — Day2 — Day3 — Day4

# T001 Working Session



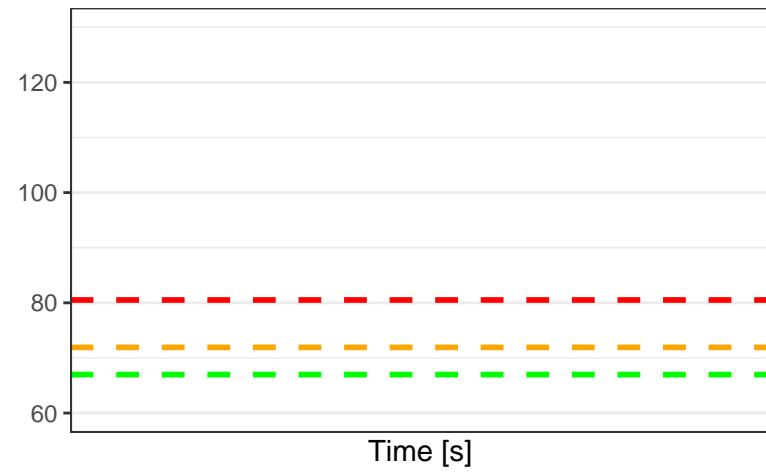
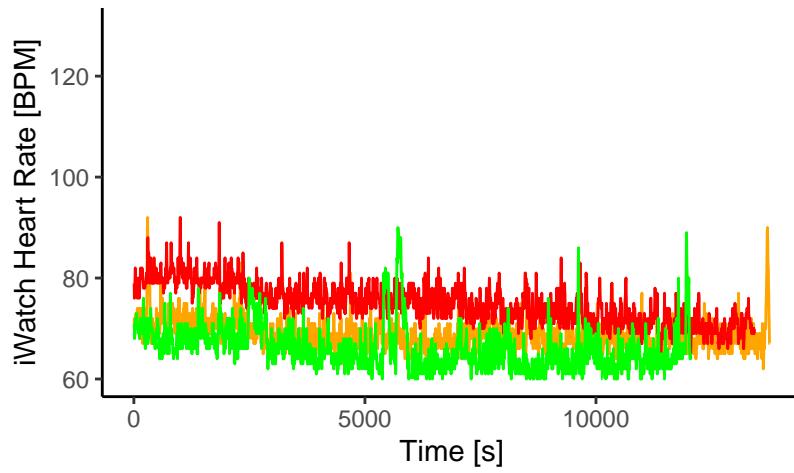
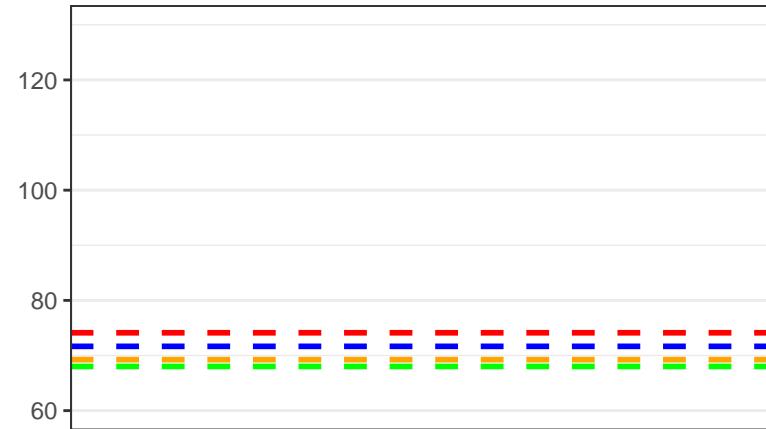
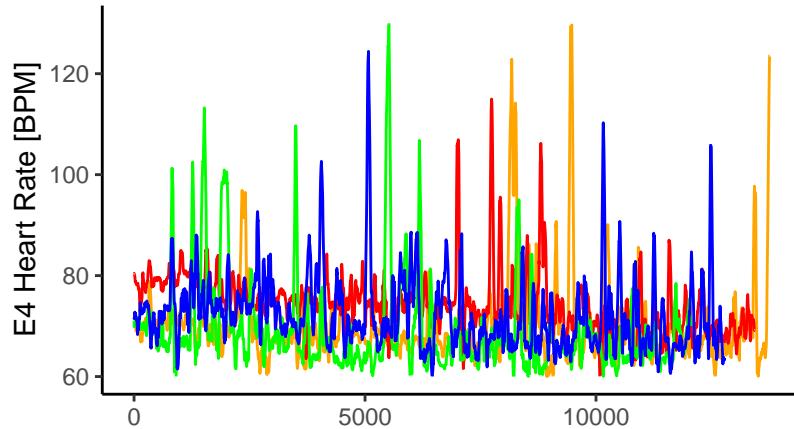
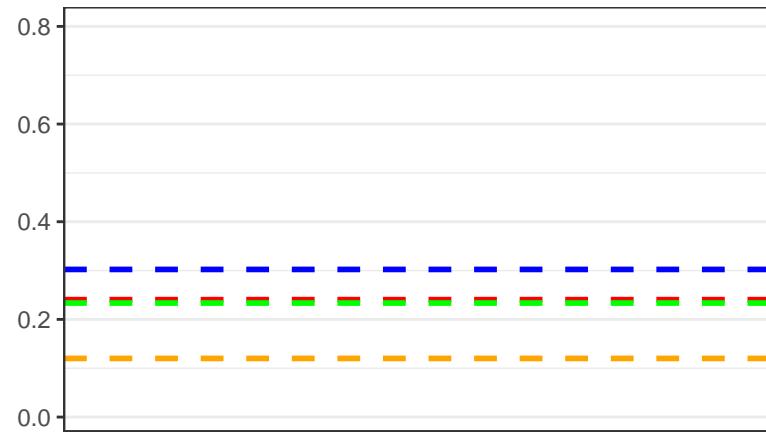
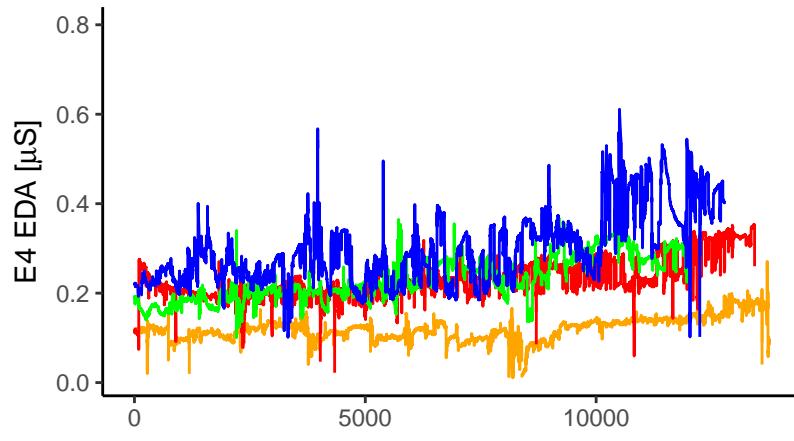
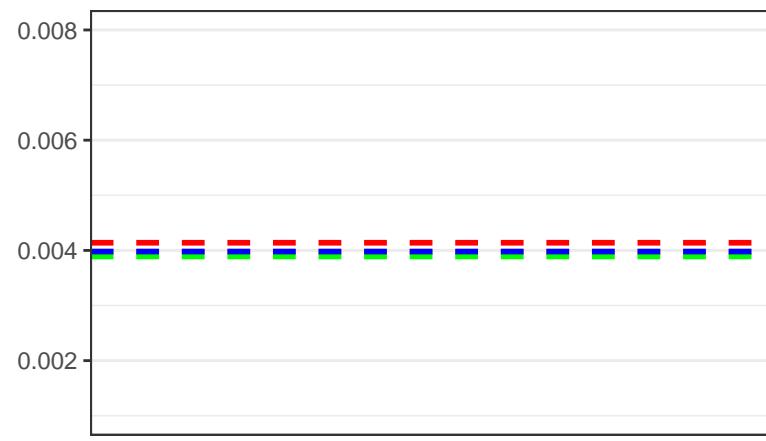
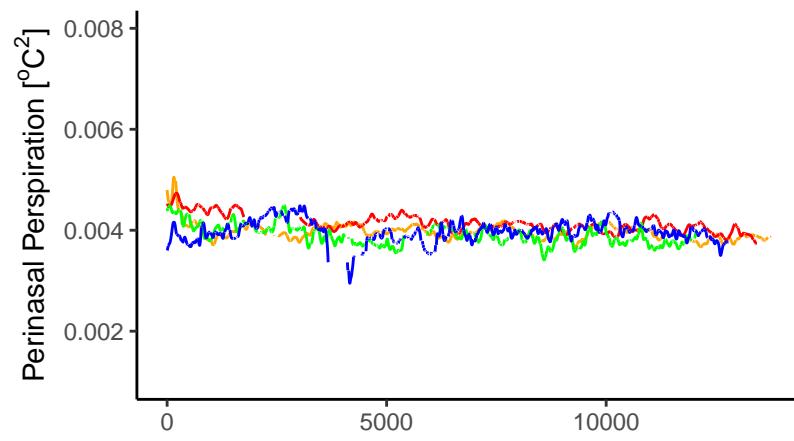
Day1 Day2 Day3 Day4

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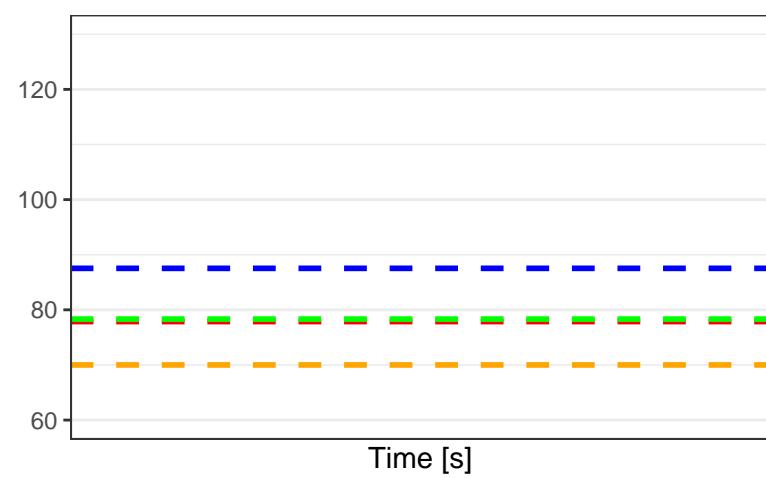
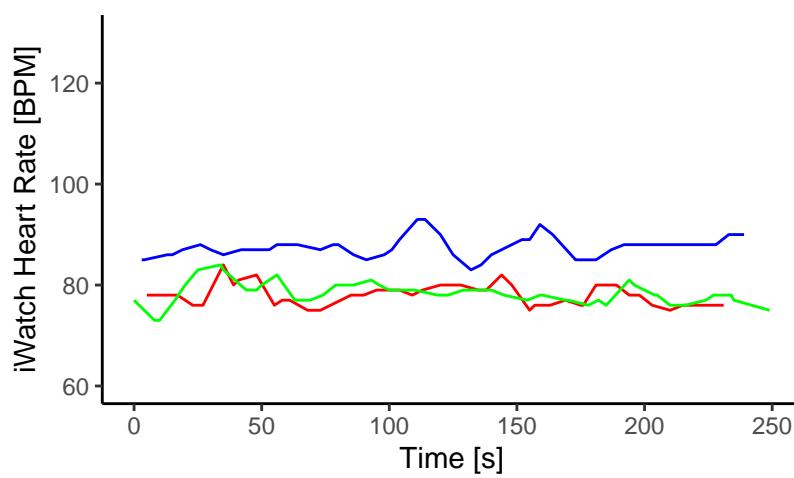
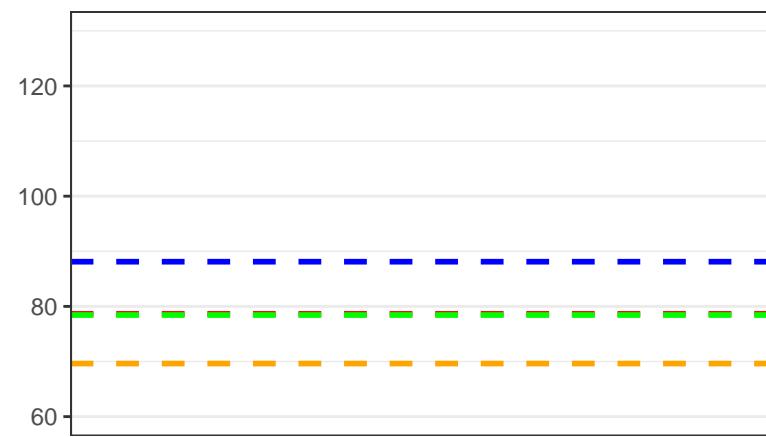
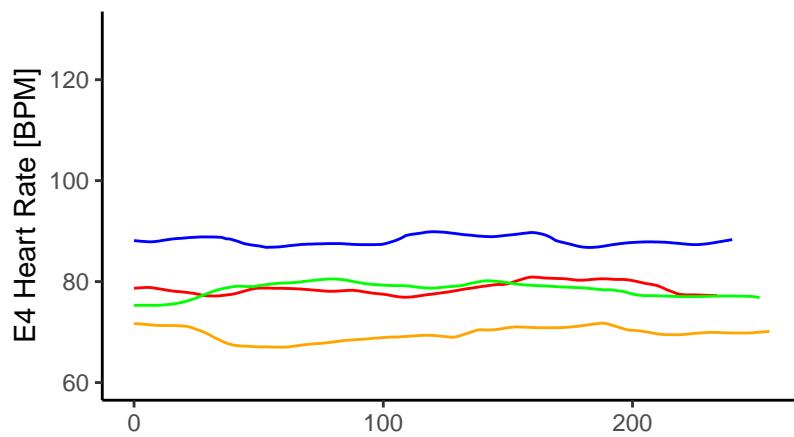
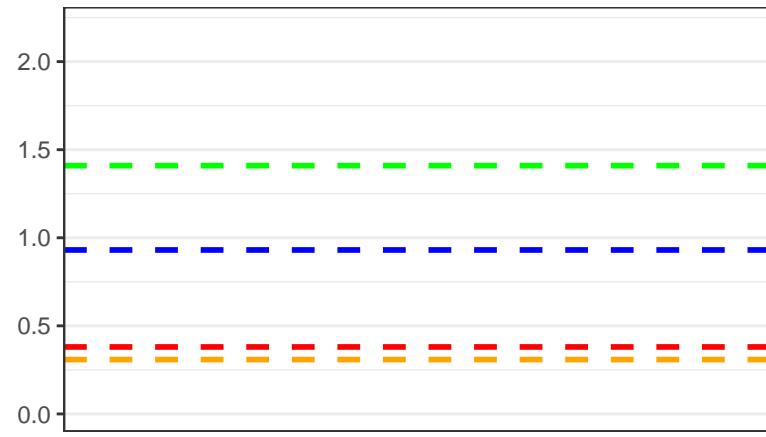
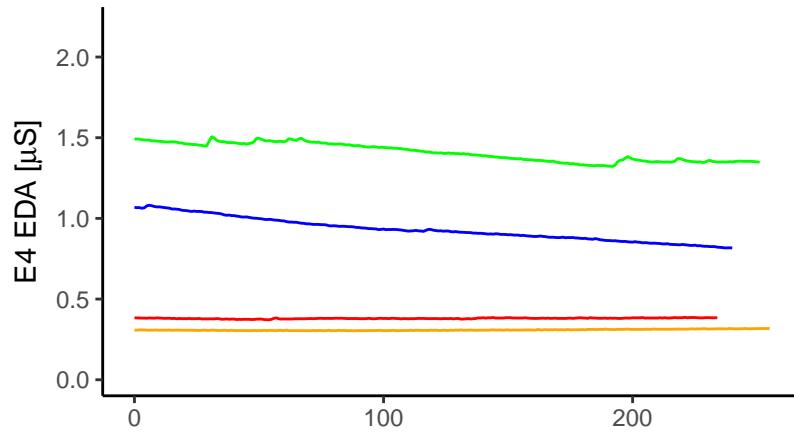
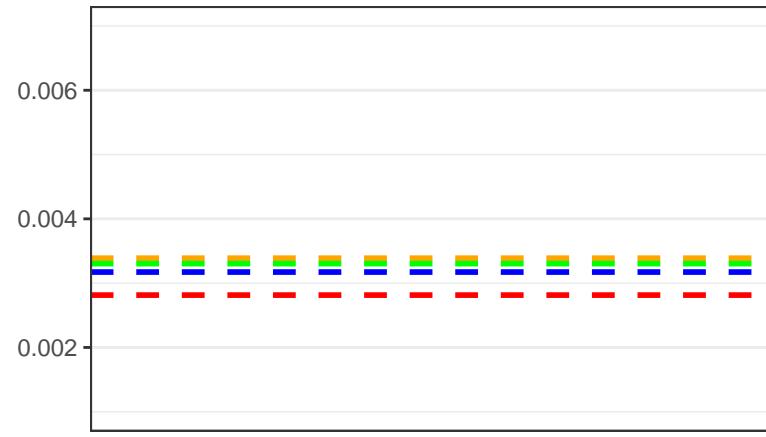
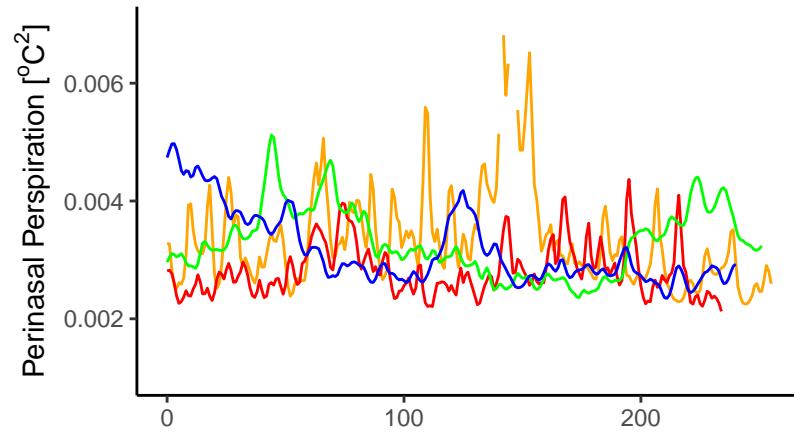
— Day1 — Day2 — Day3 — Day4

# T003 Working Session



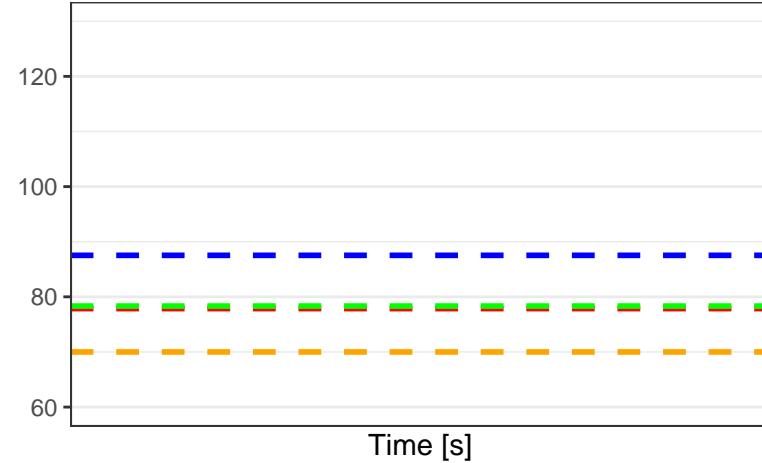
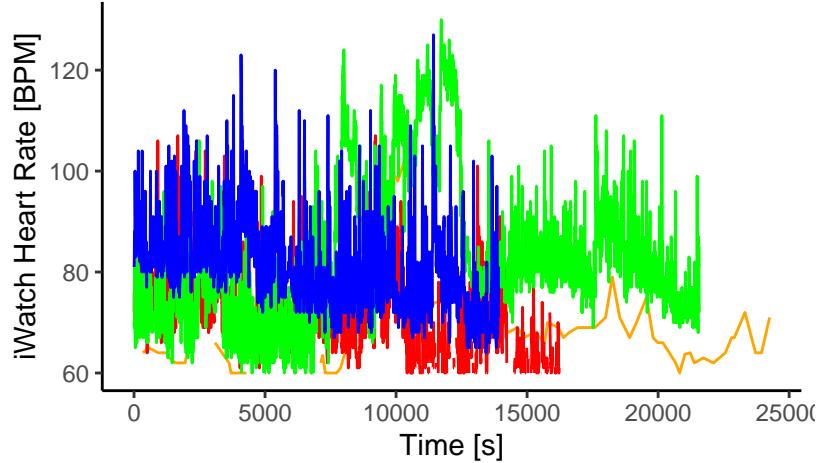
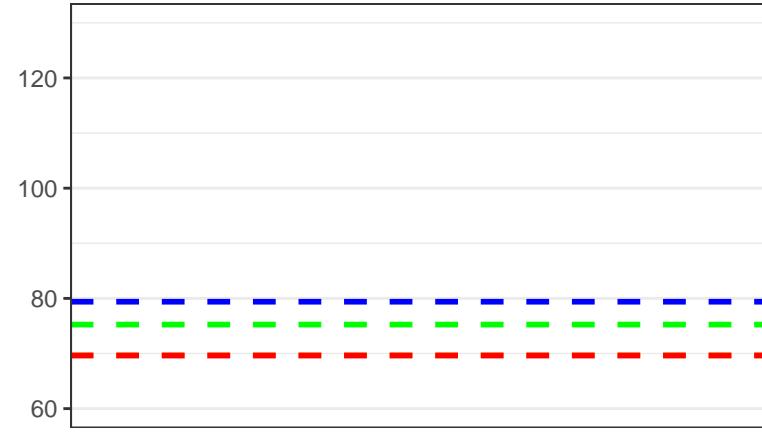
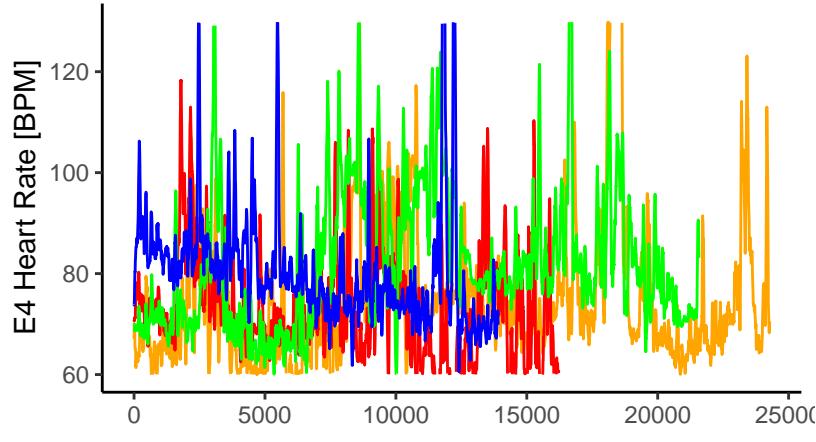
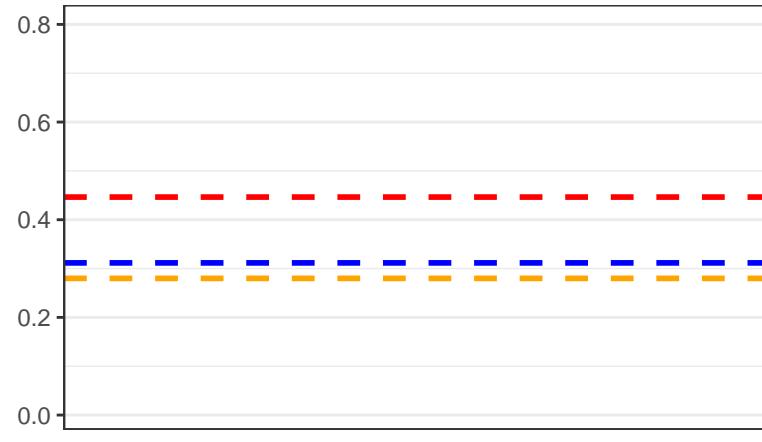
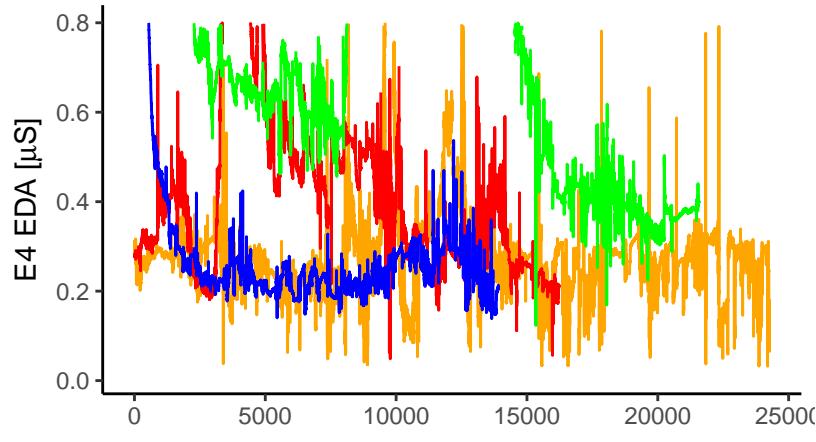
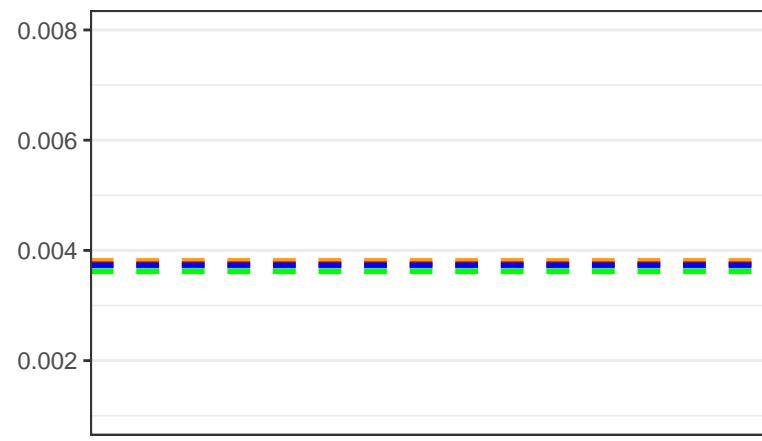
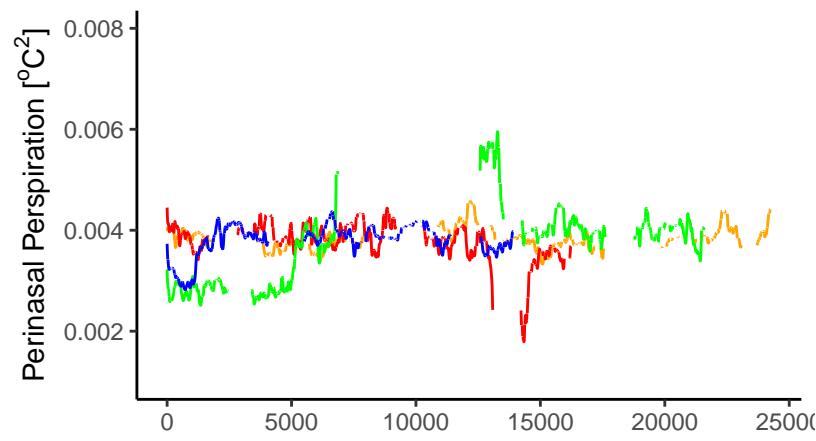
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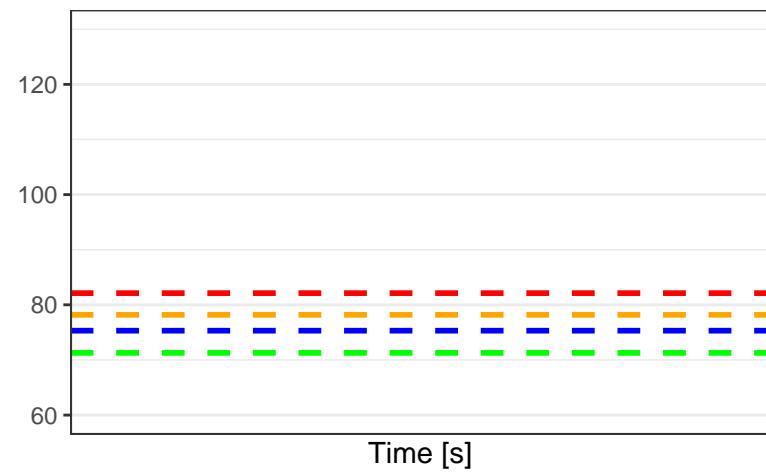
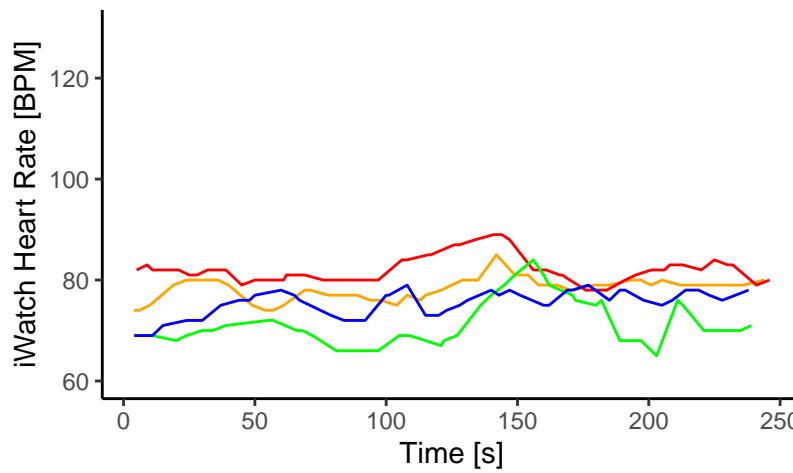
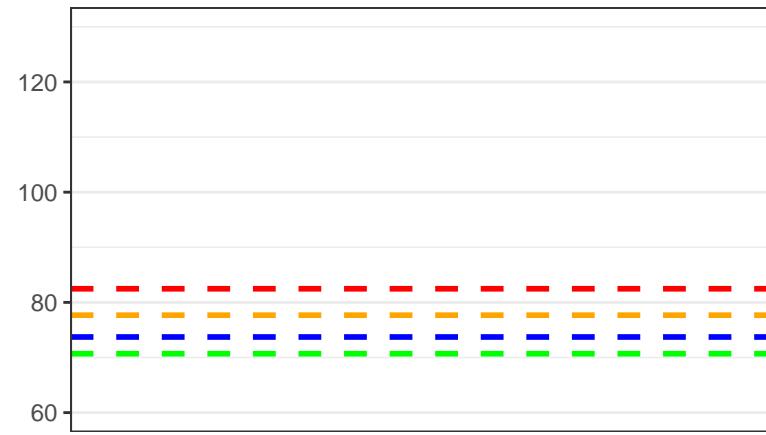
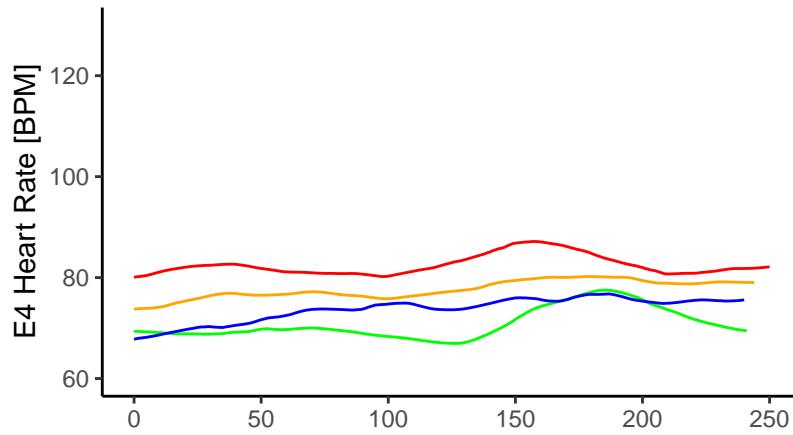
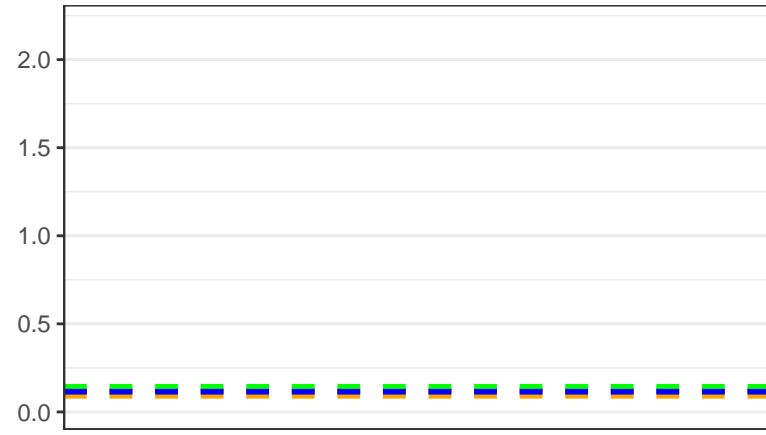
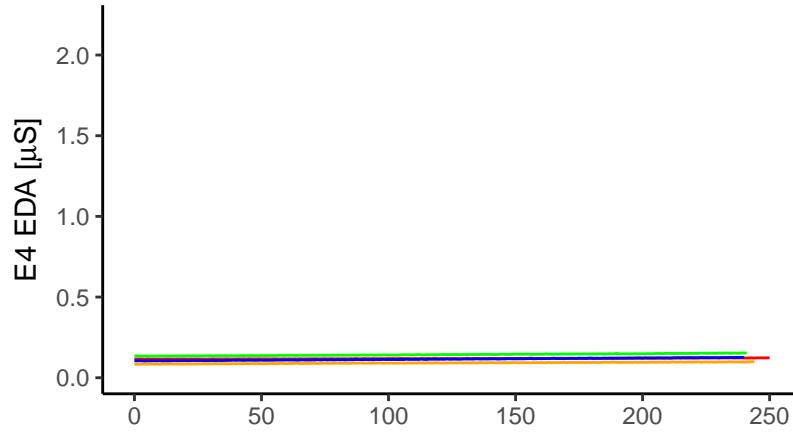
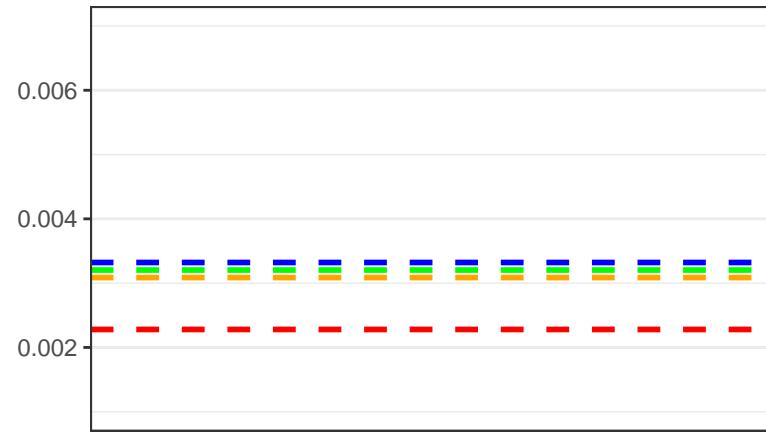
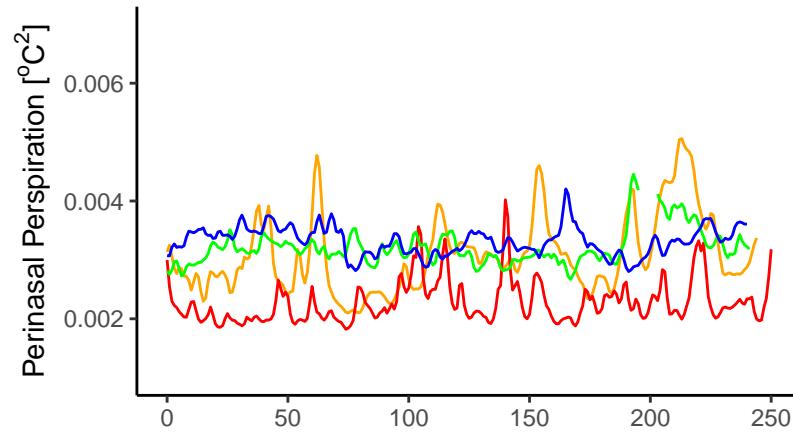
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# T005 Working Session



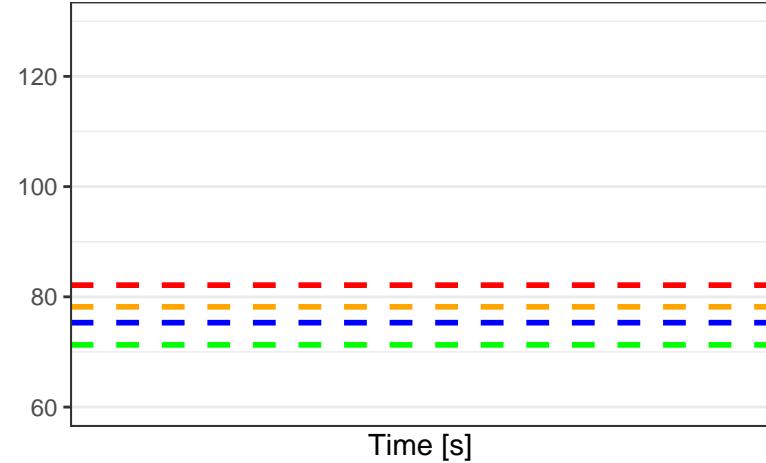
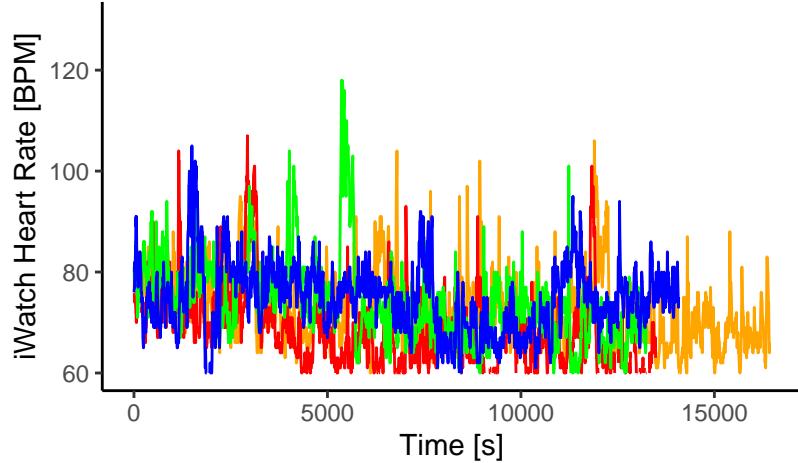
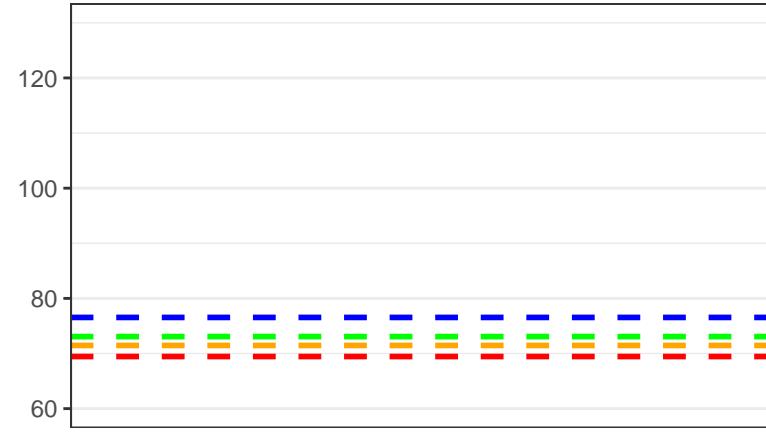
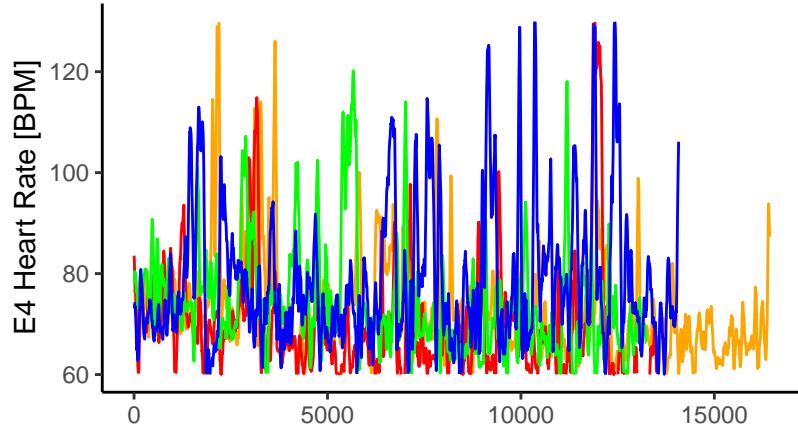
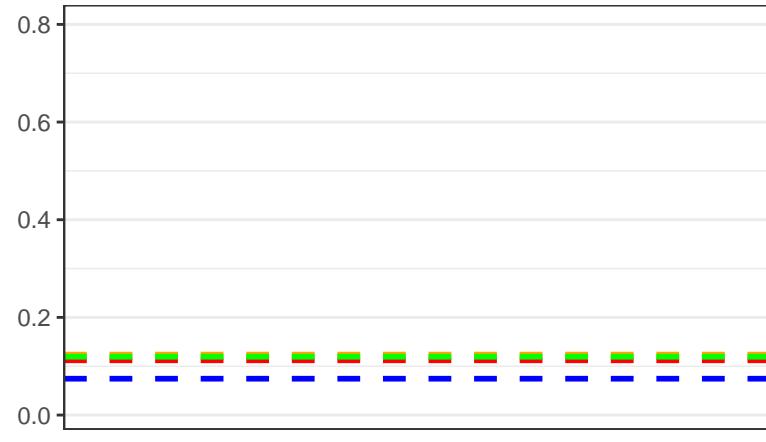
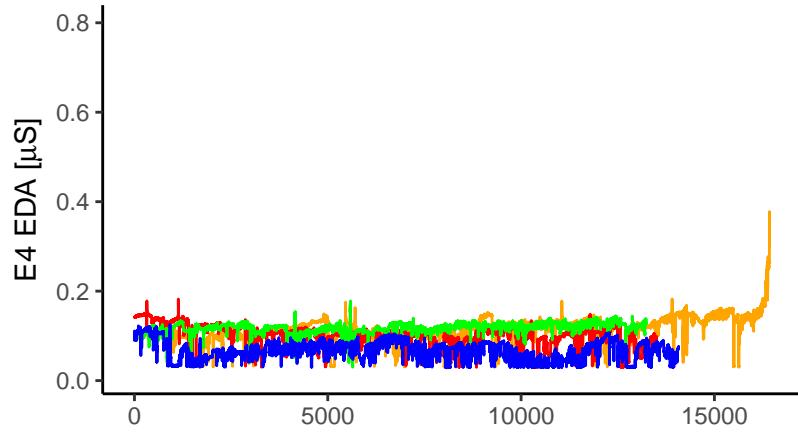
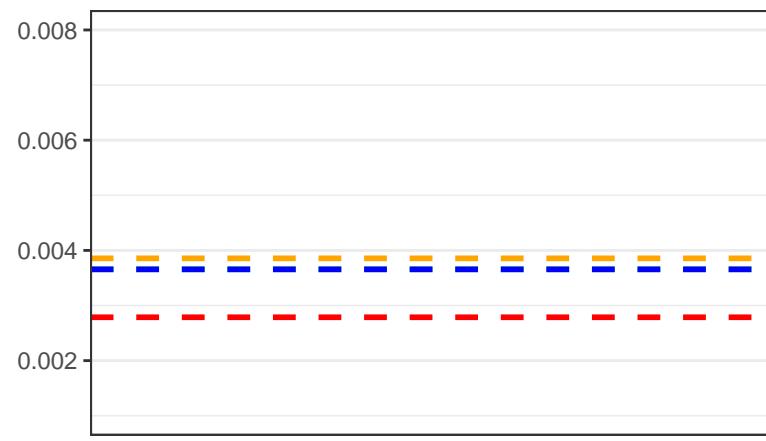
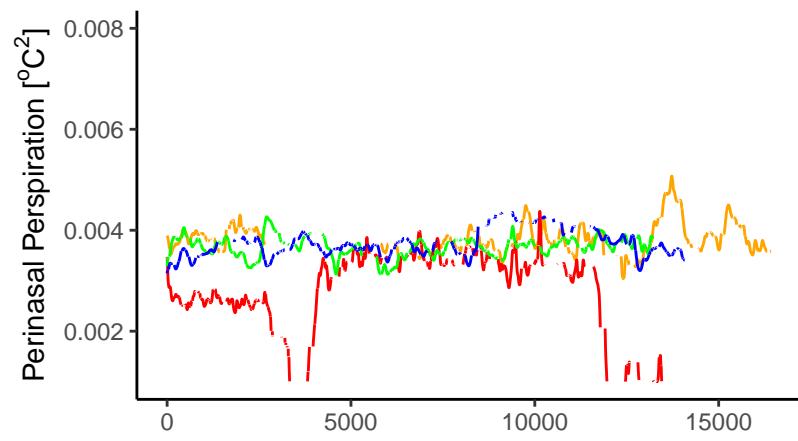
— Day1 — Day2 — Day3 — Day4

# T007 Baseline



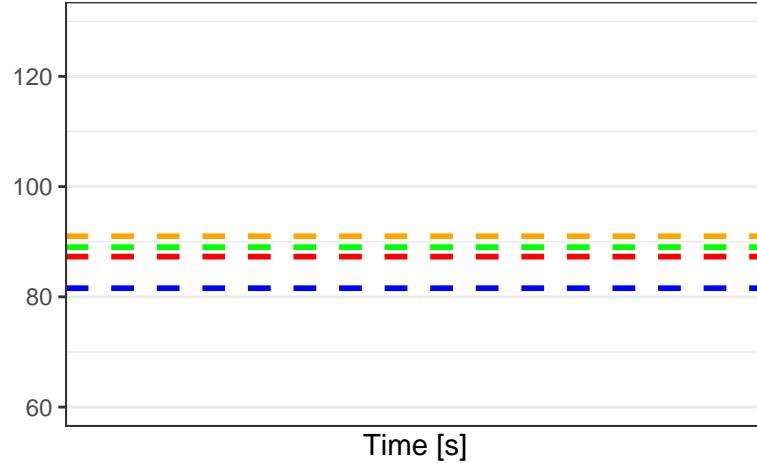
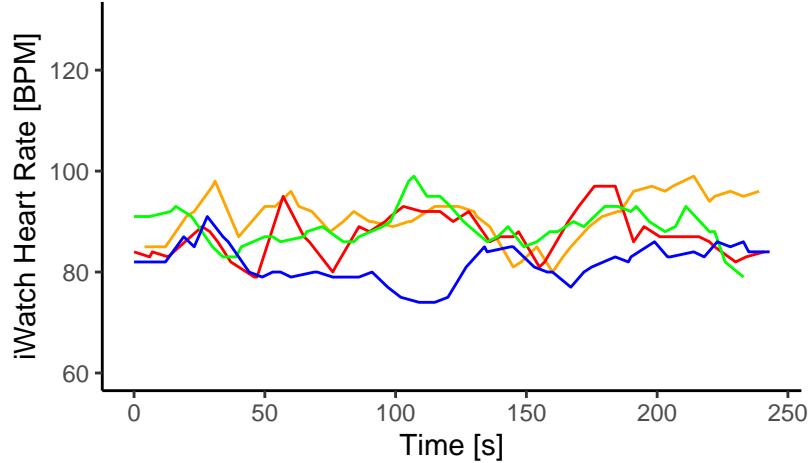
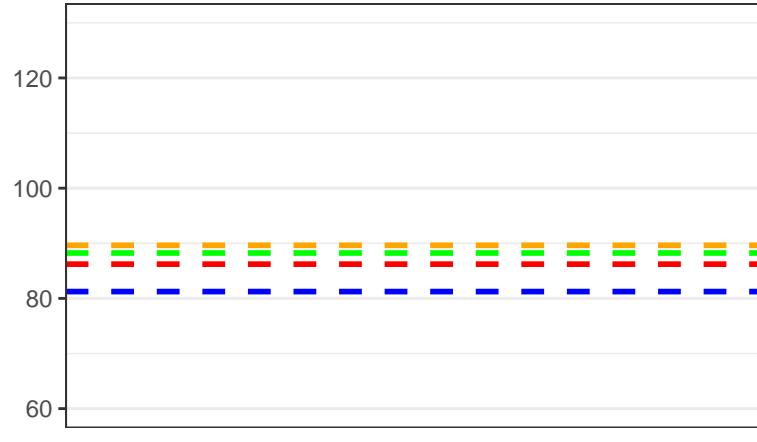
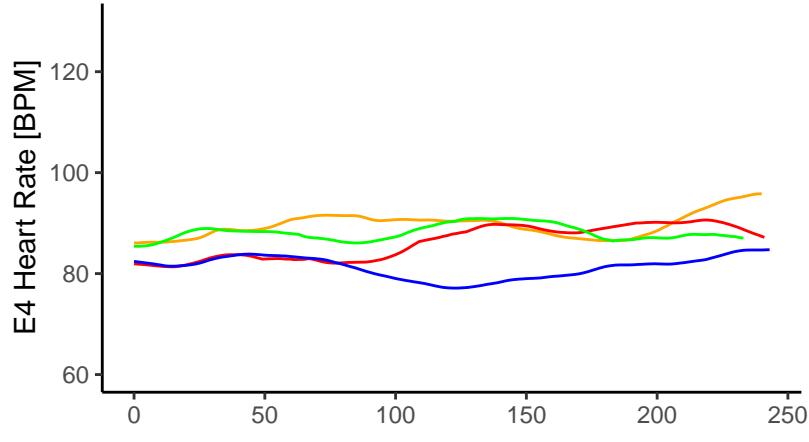
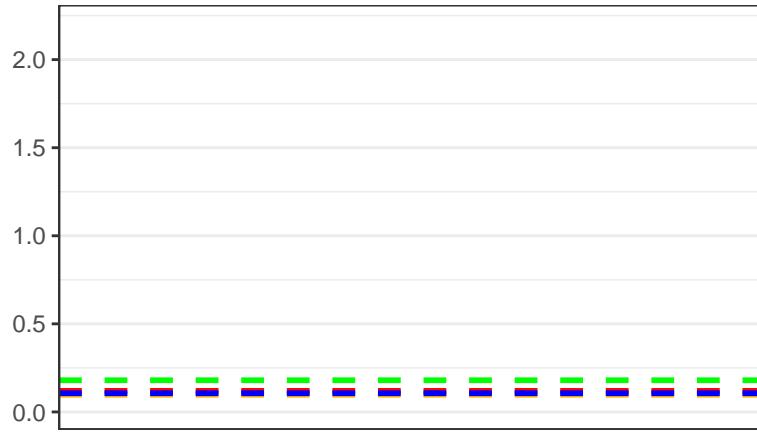
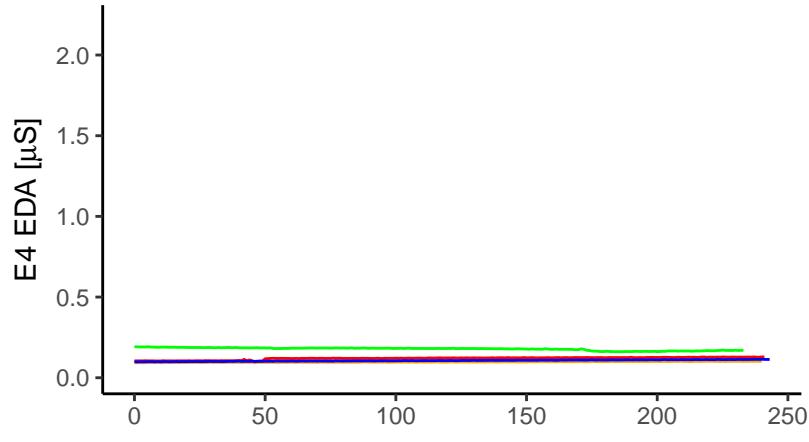
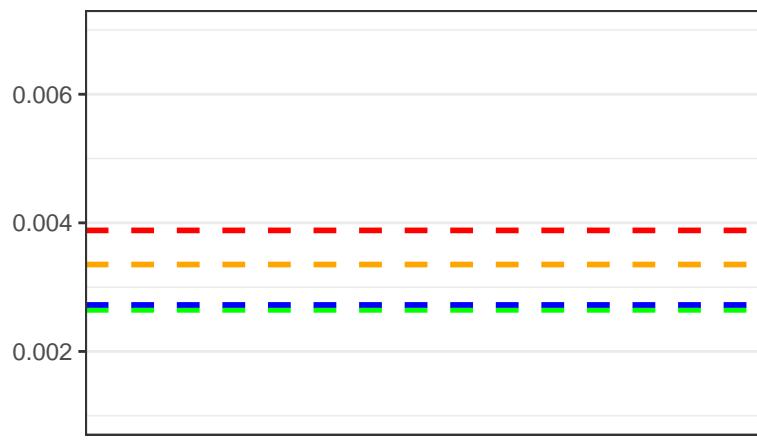
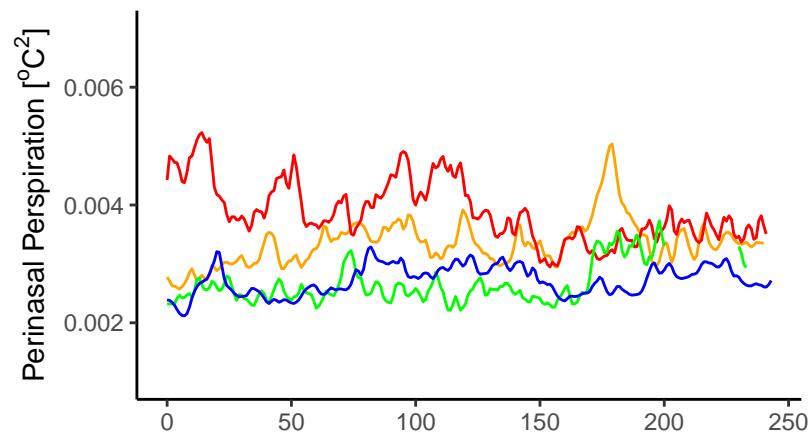
— Day1 — Day2 — Day3 — Day4

# T007 Working Session



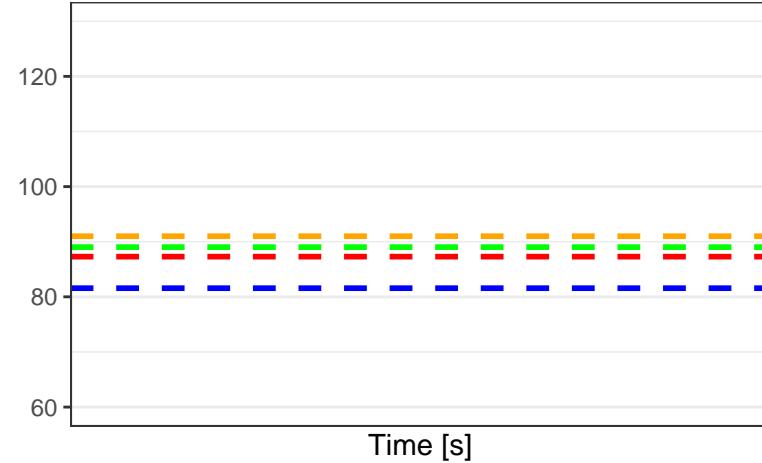
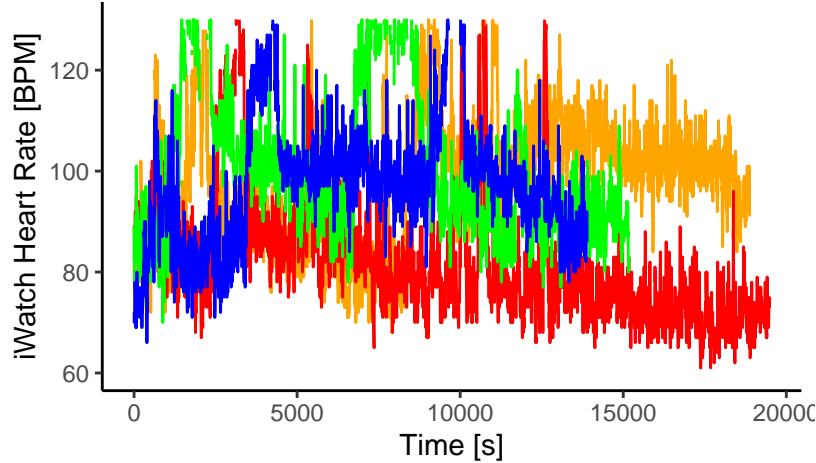
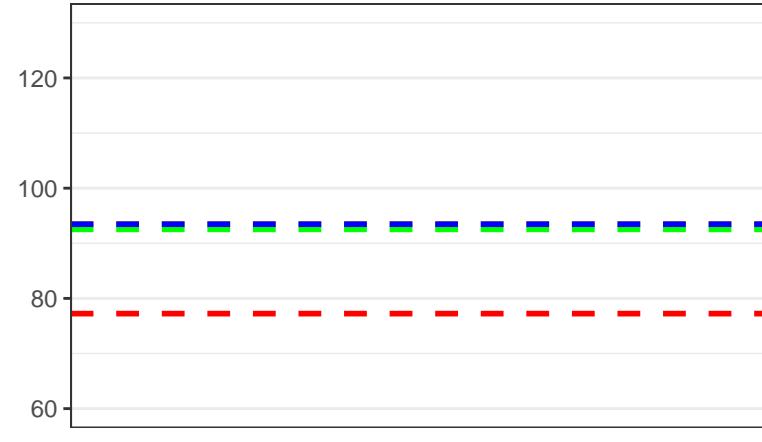
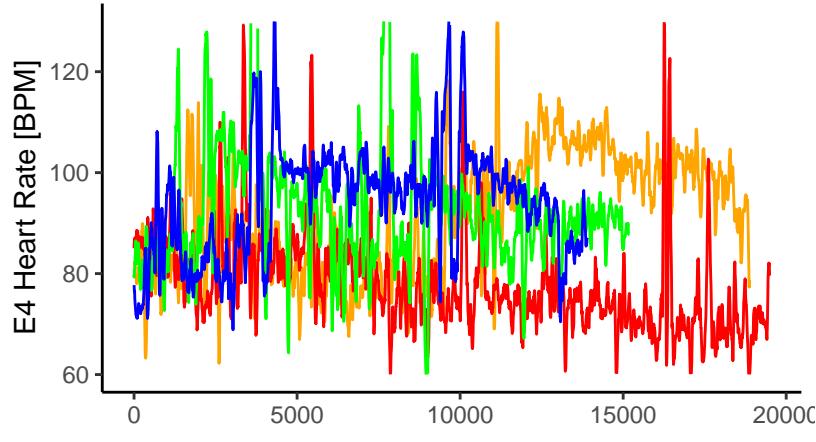
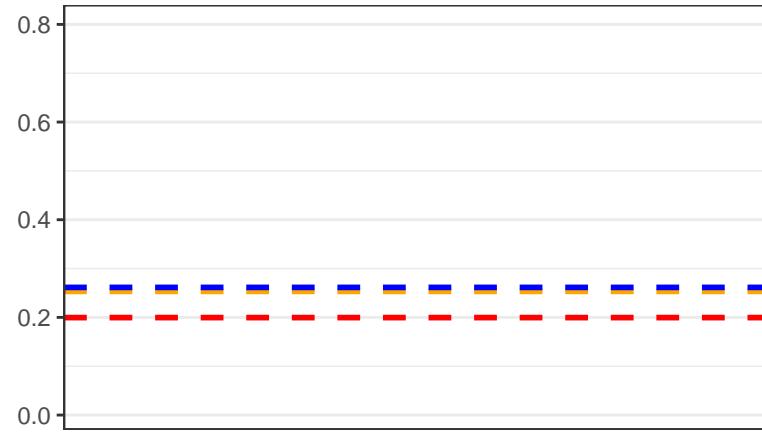
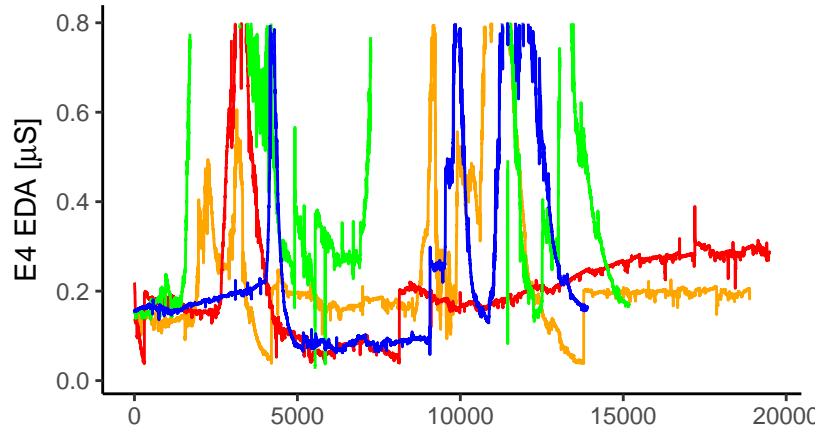
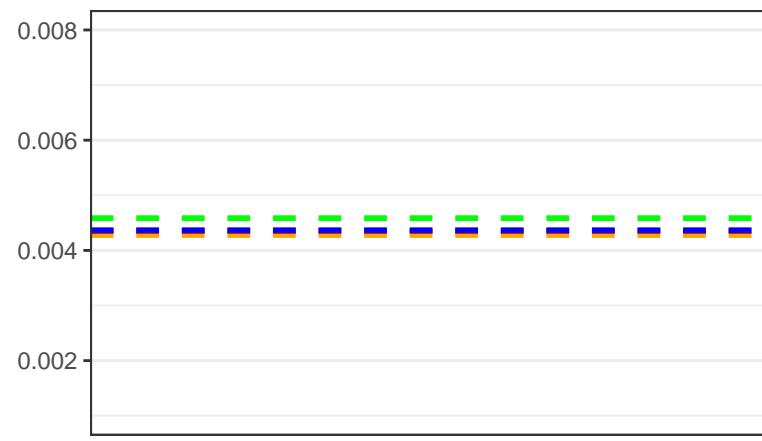
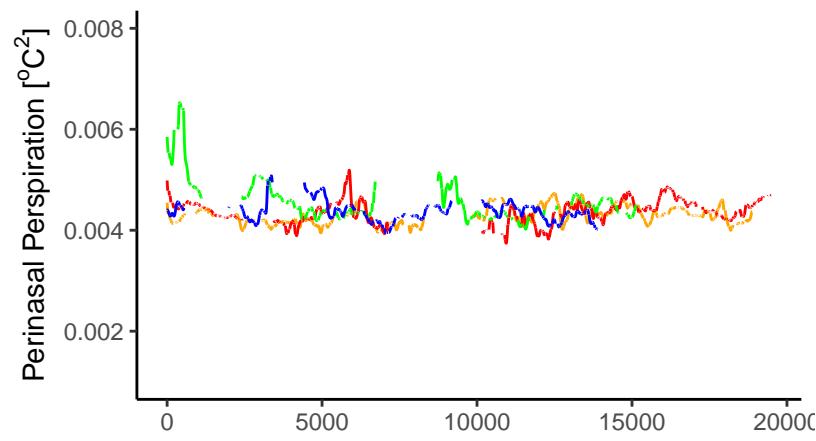
— Day1 — Day2 — Day3 — Day4

# T009 Baseline



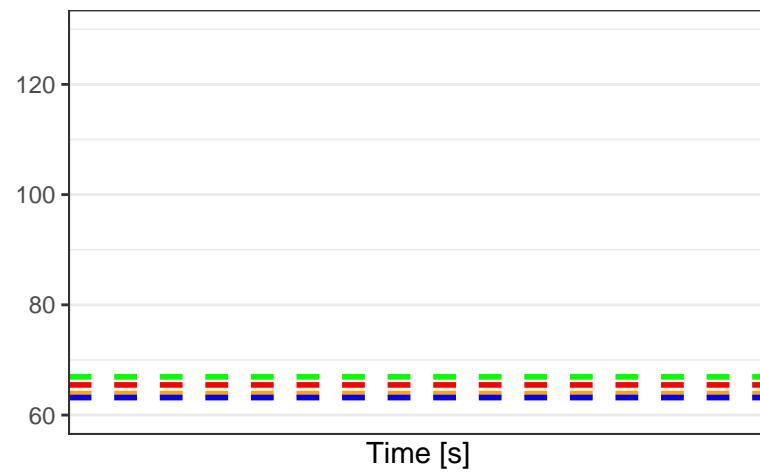
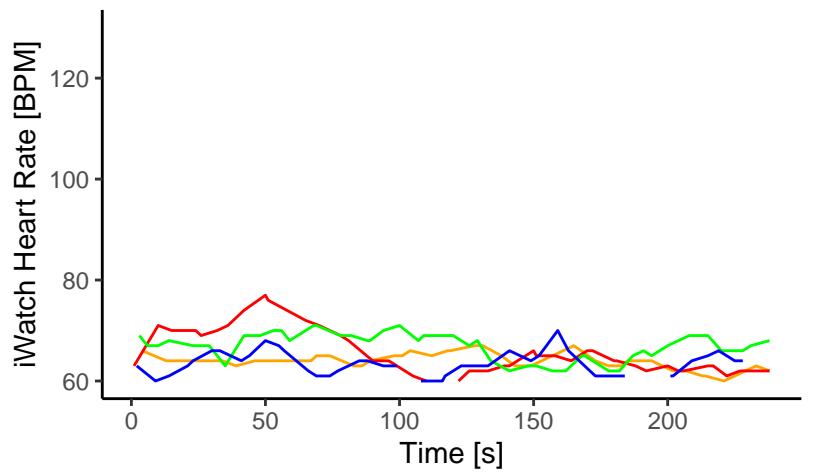
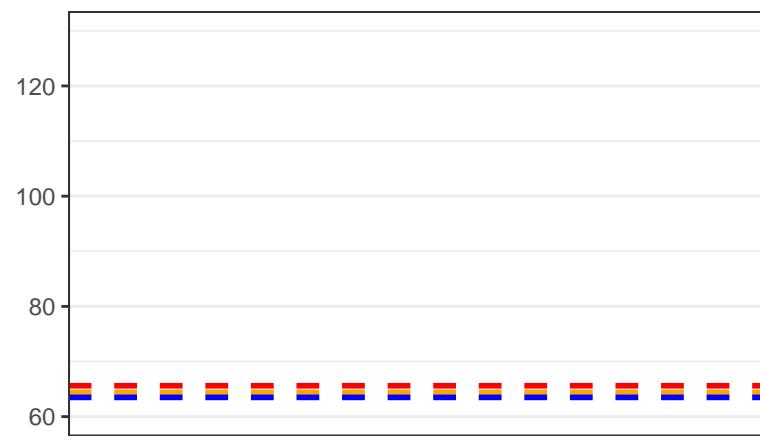
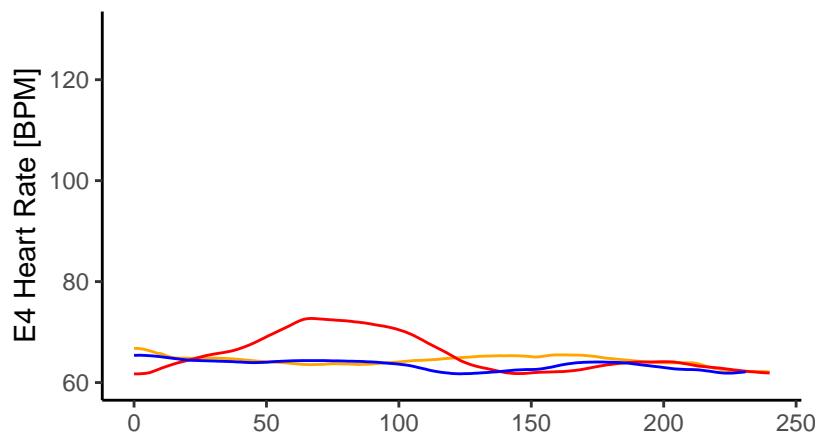
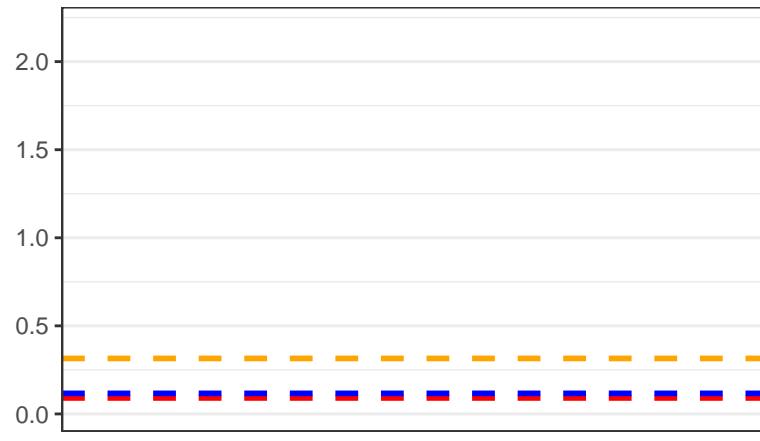
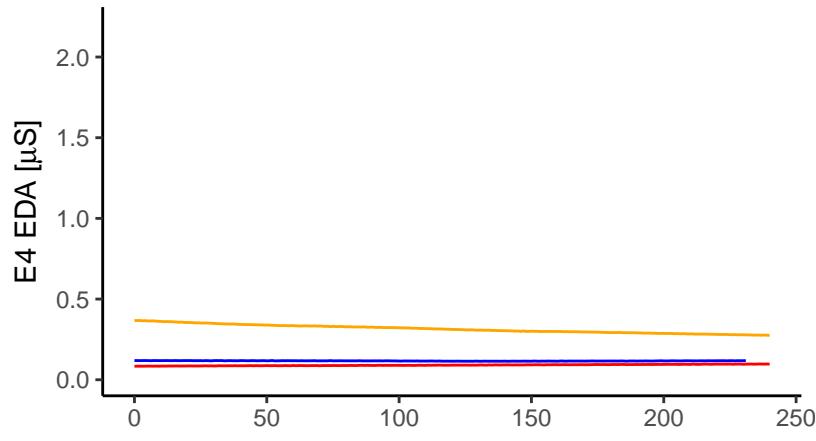
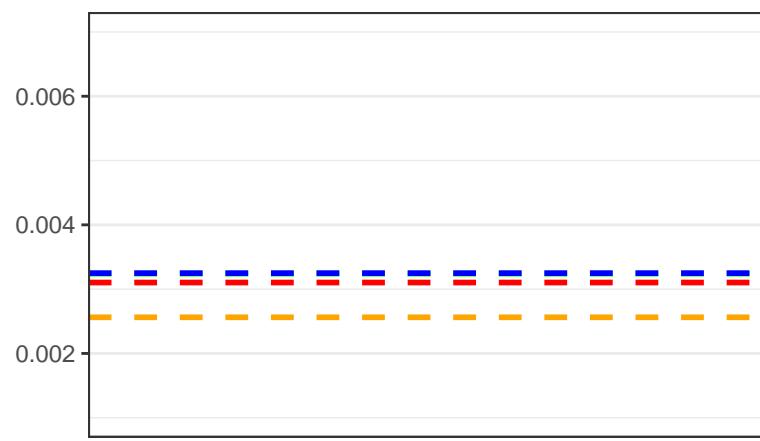
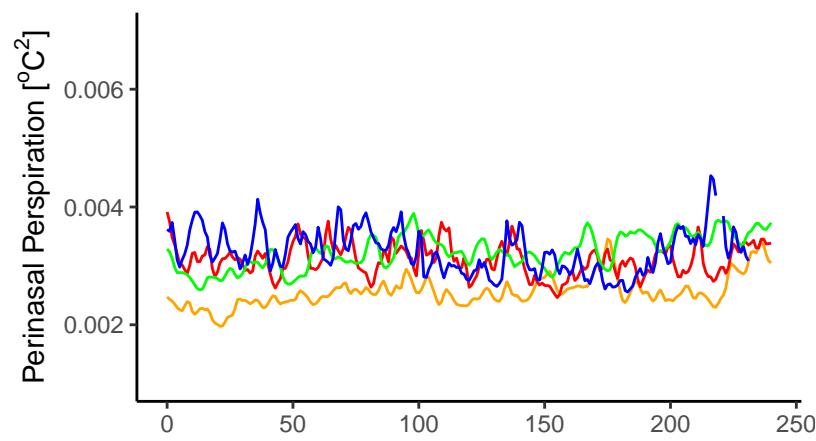
— Day1 — Day2 — Day3 — Day4

# T009 Working Session



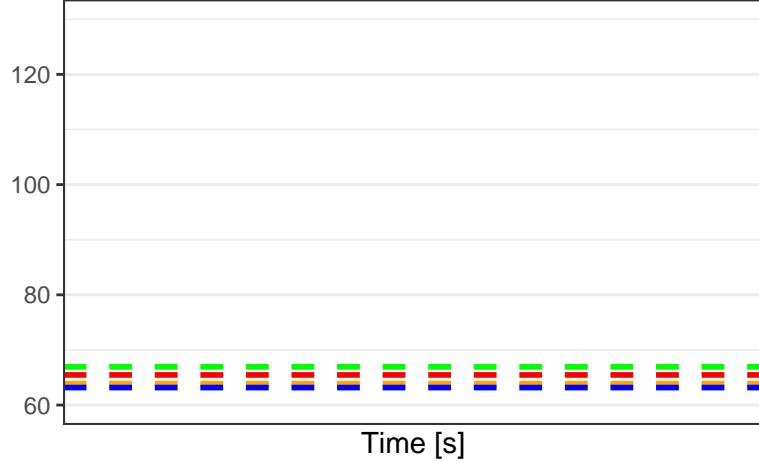
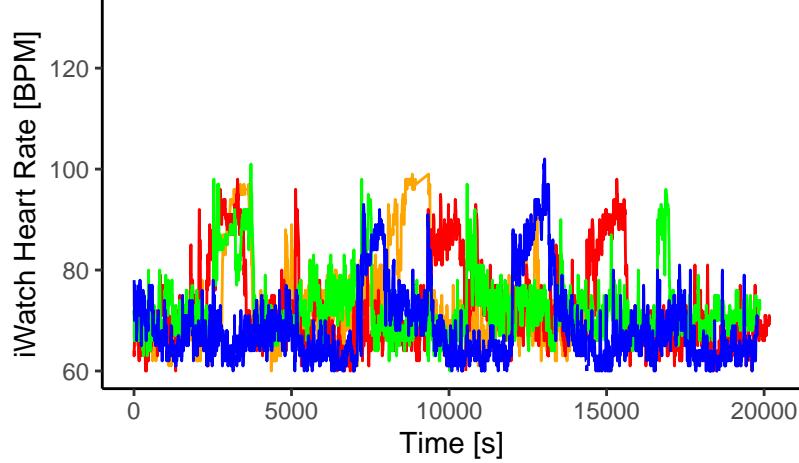
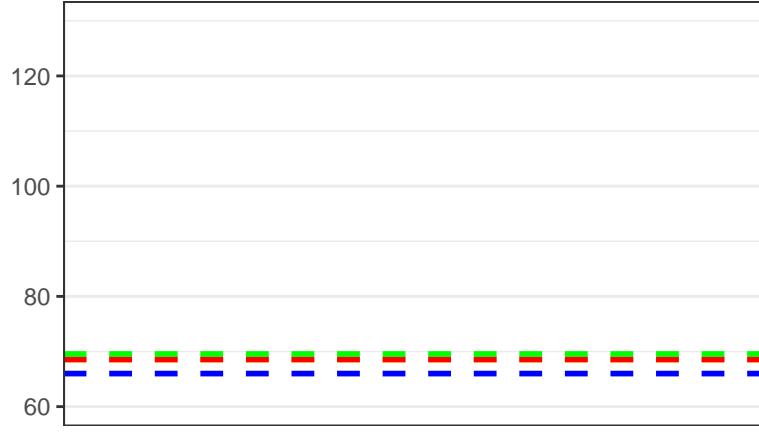
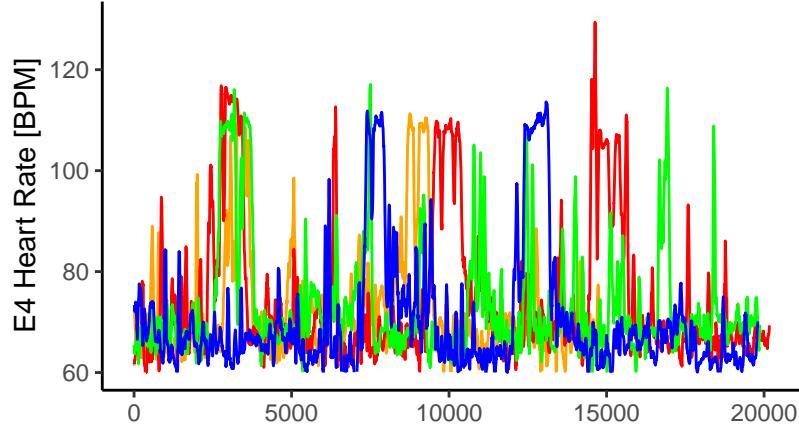
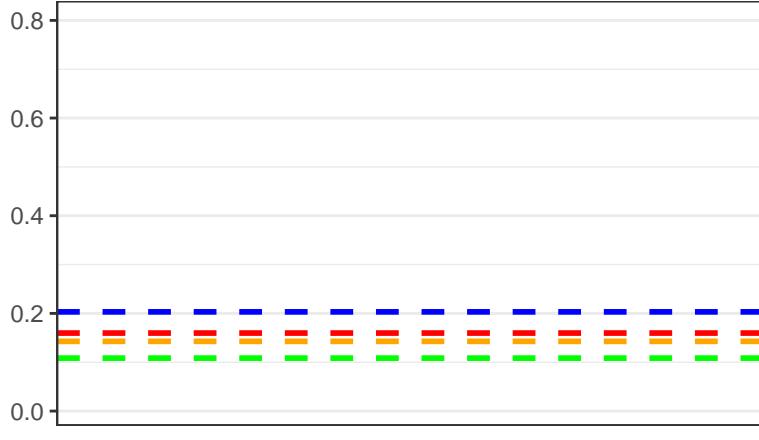
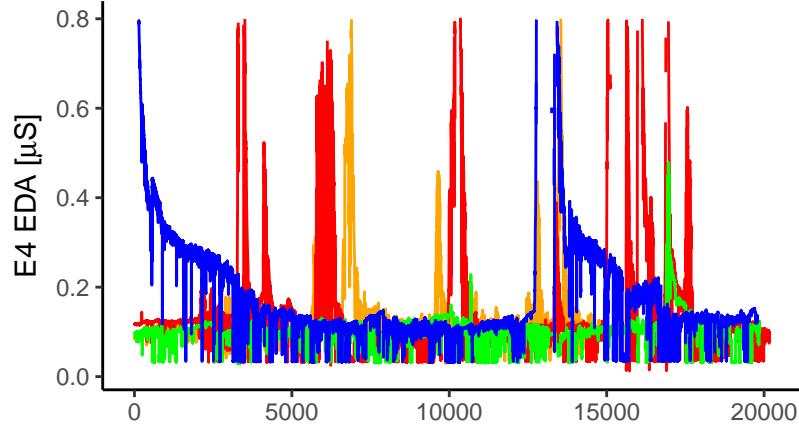
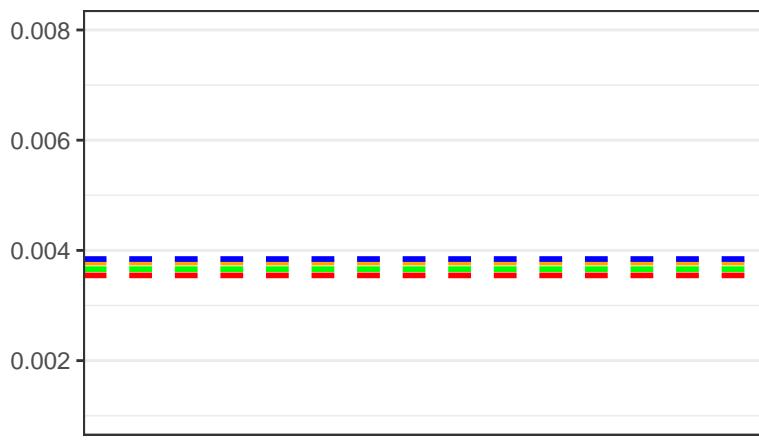
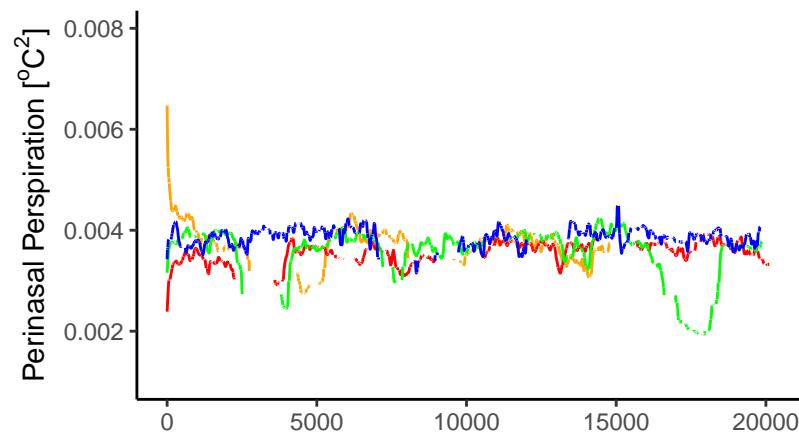
— Day1 — Day2 — Day3 — Day4

# T011 Baseline



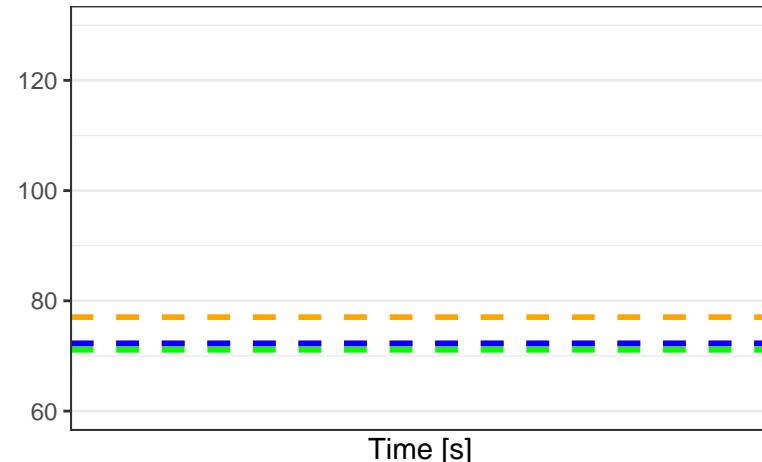
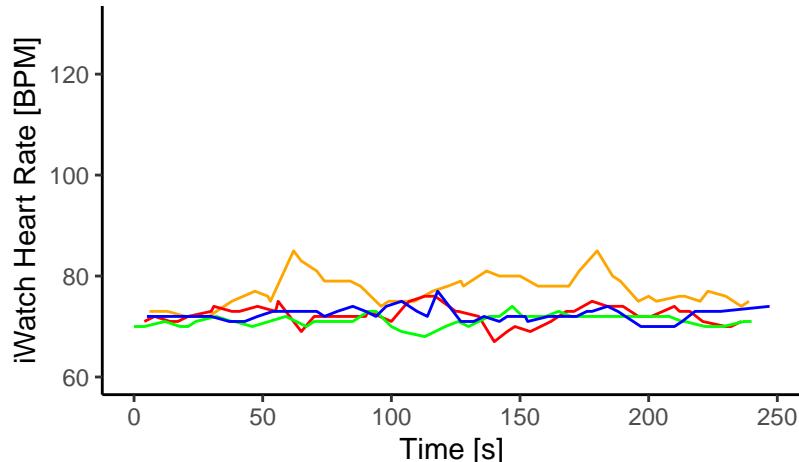
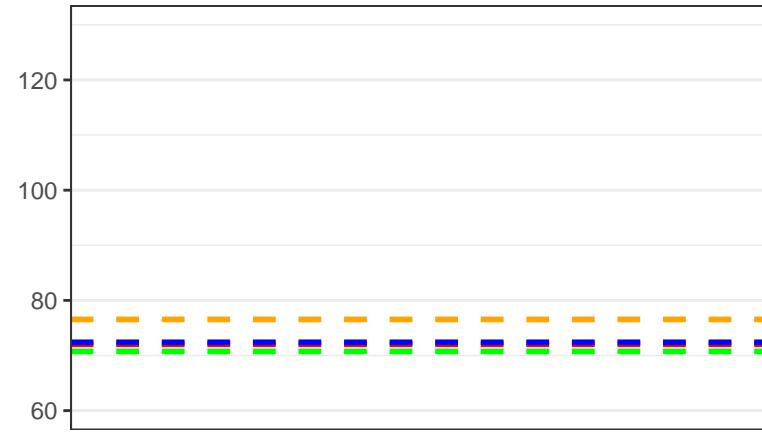
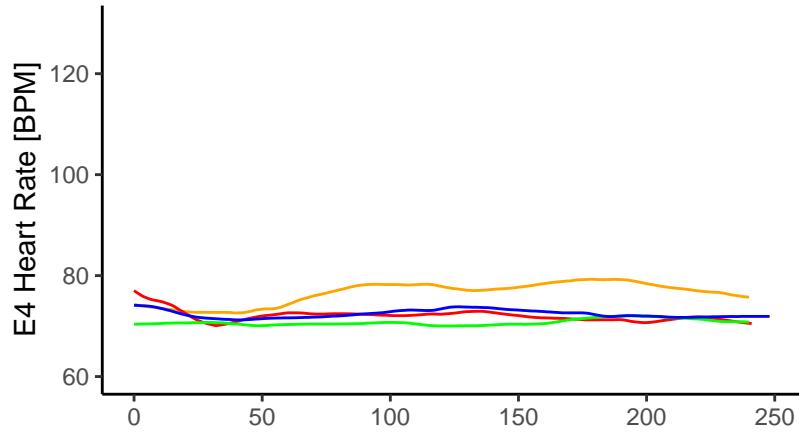
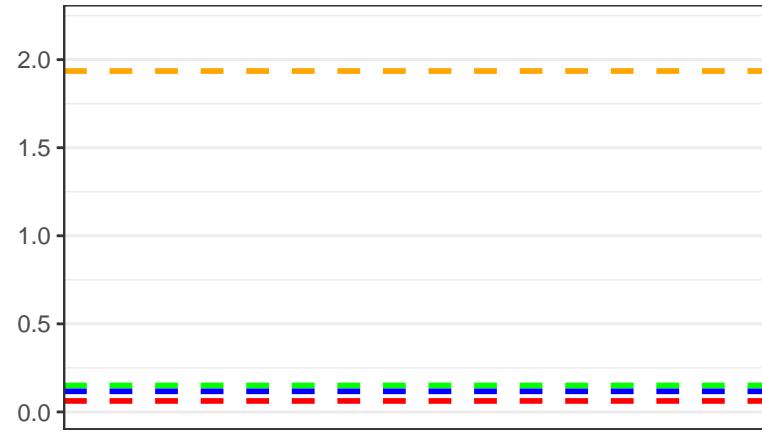
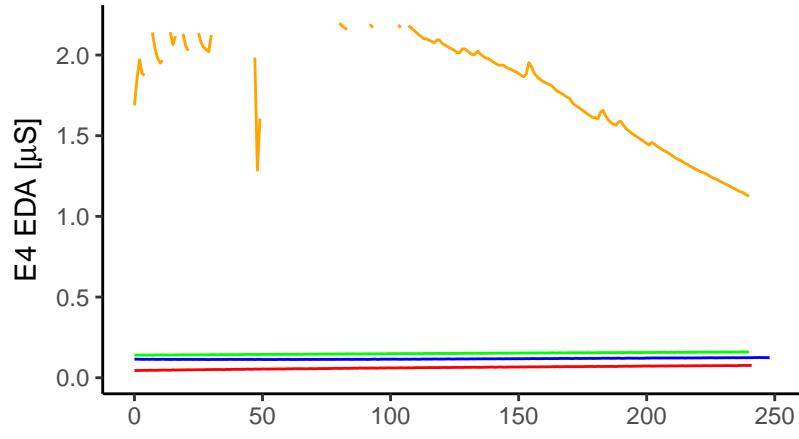
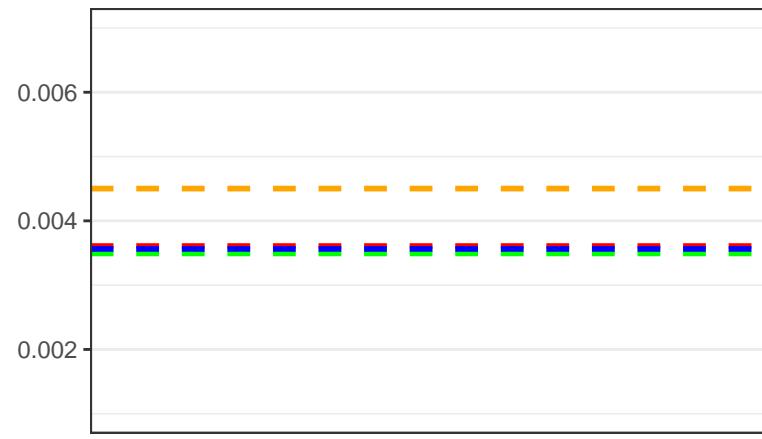
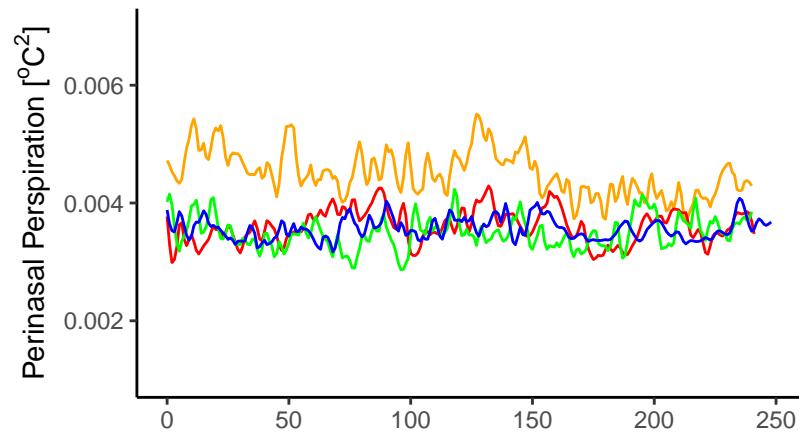
— Day1 — Day2 — Day3 — Day4

# T011 Working Session



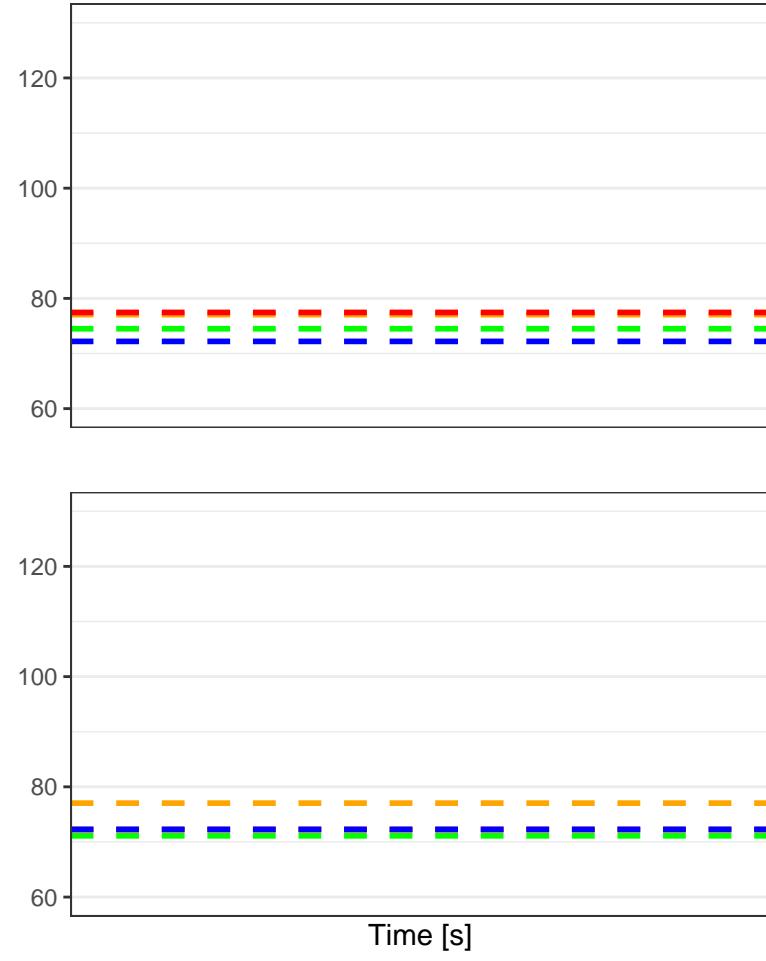
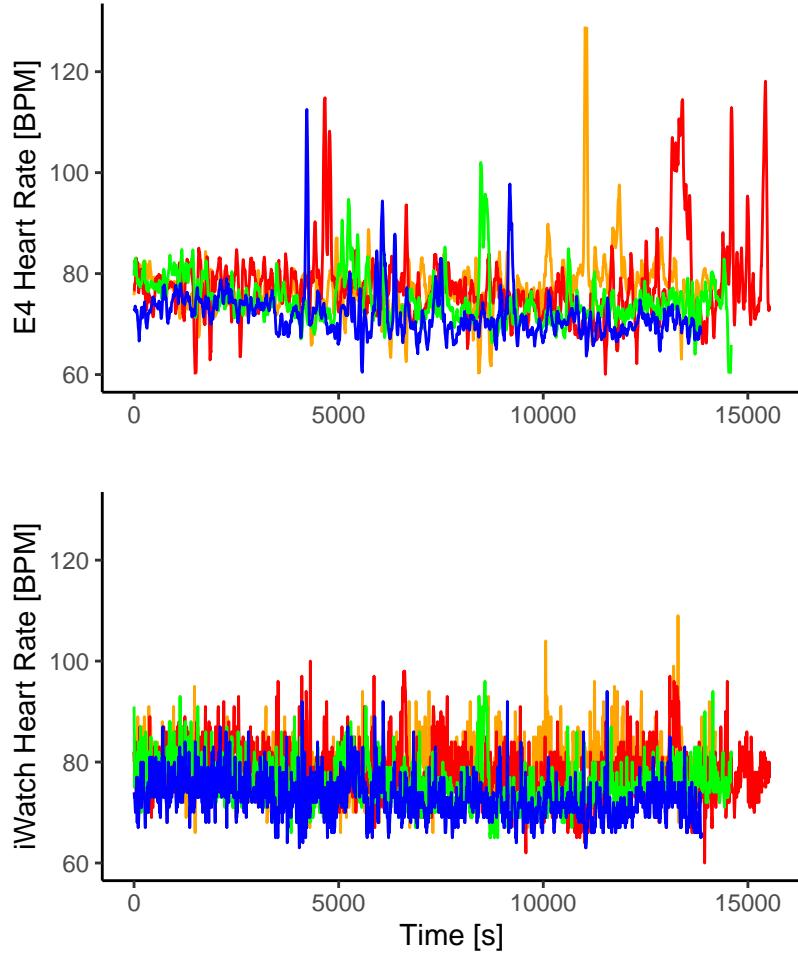
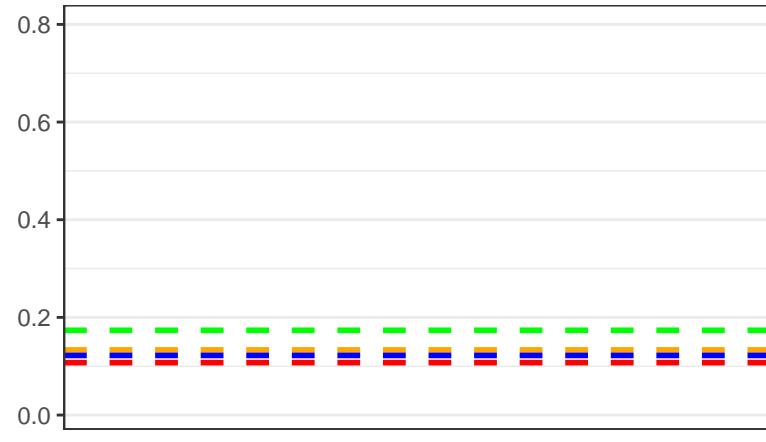
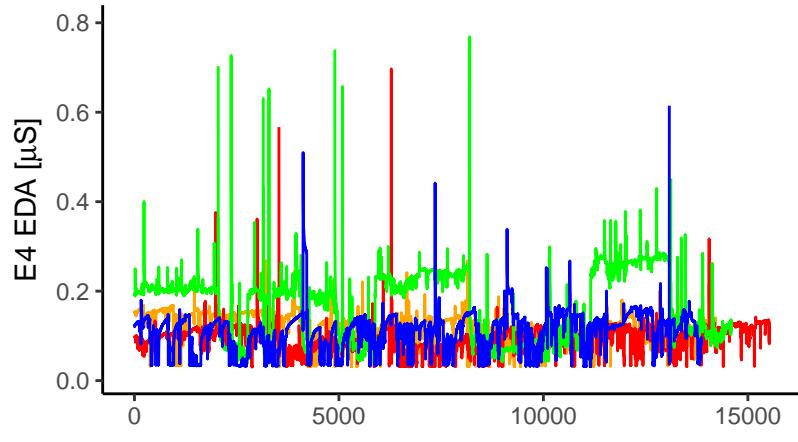
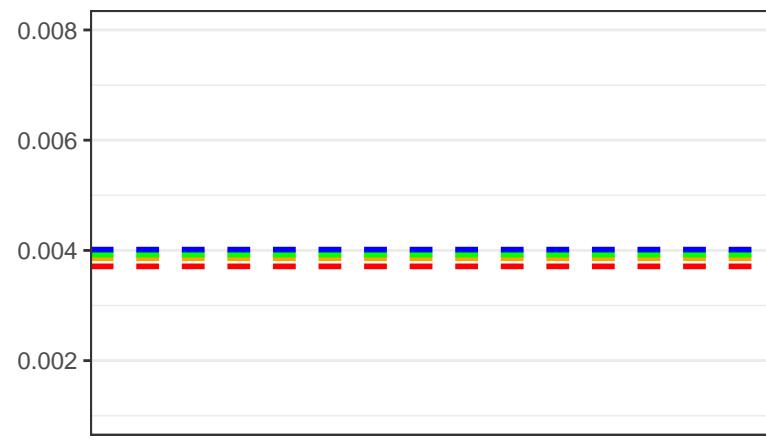
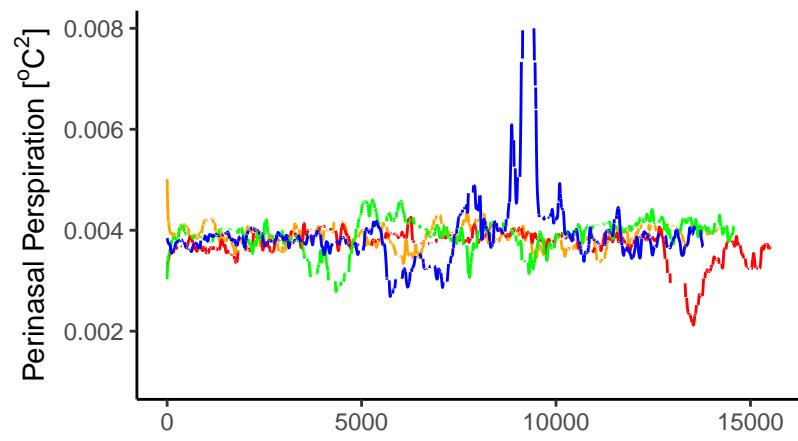
— Day1 — Day2 — Day3 — Day4

# T013 Baseline



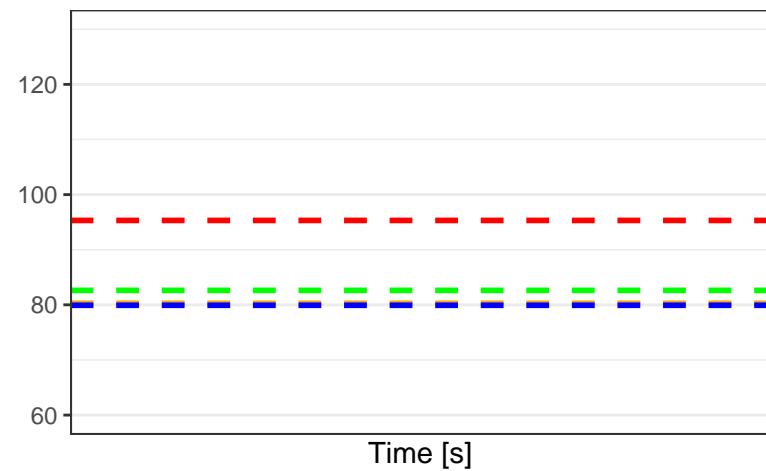
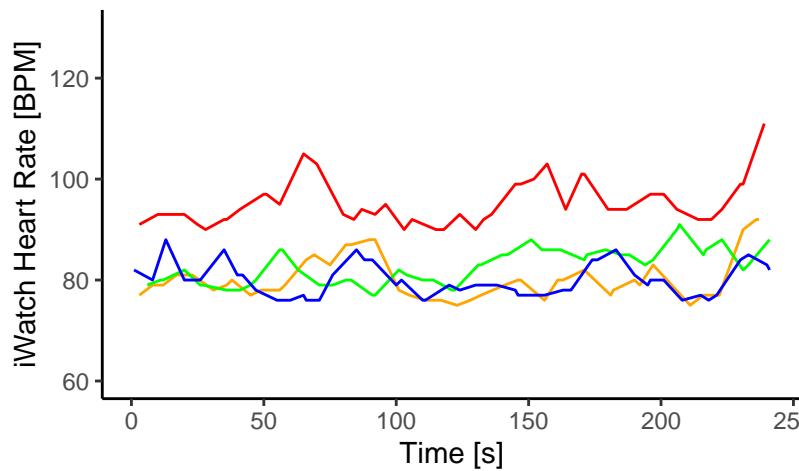
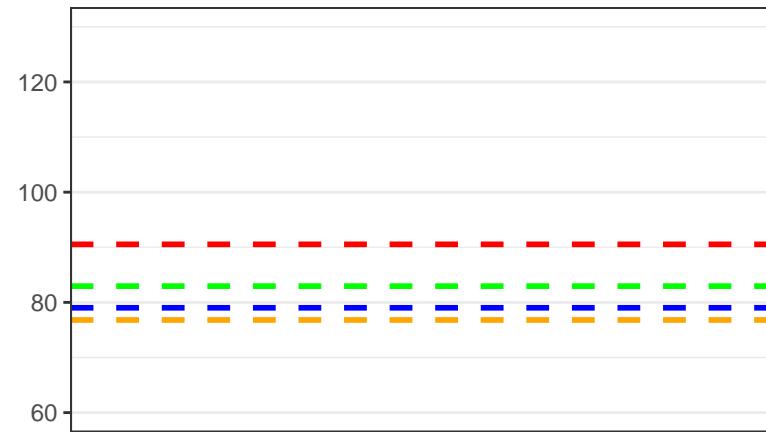
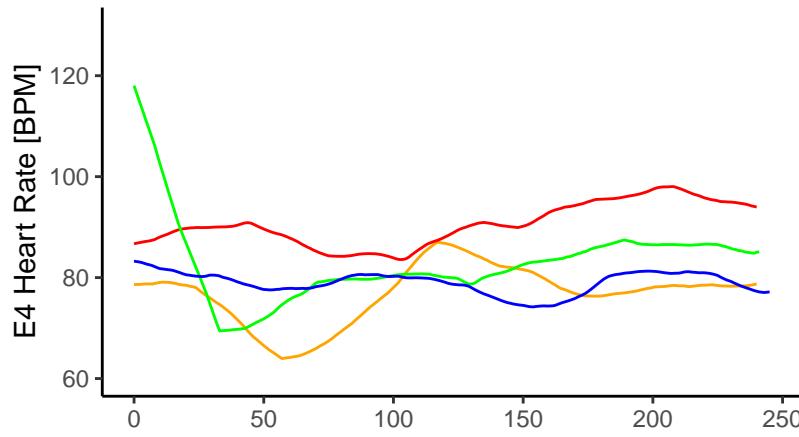
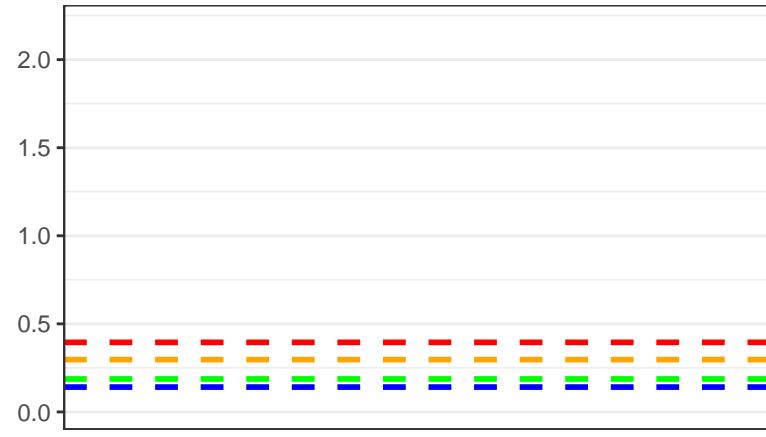
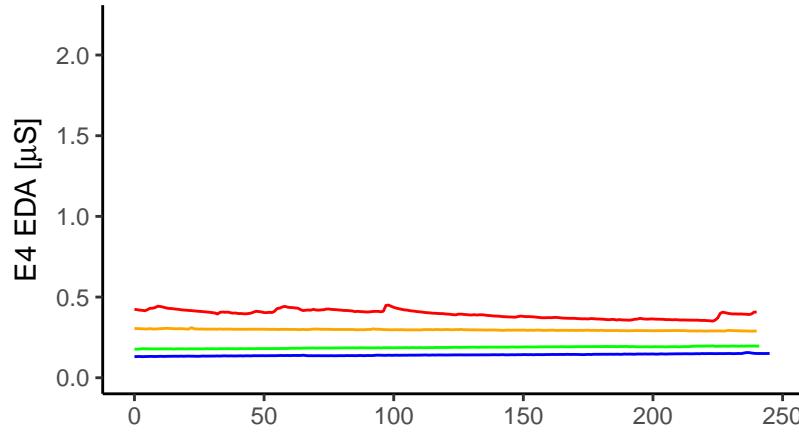
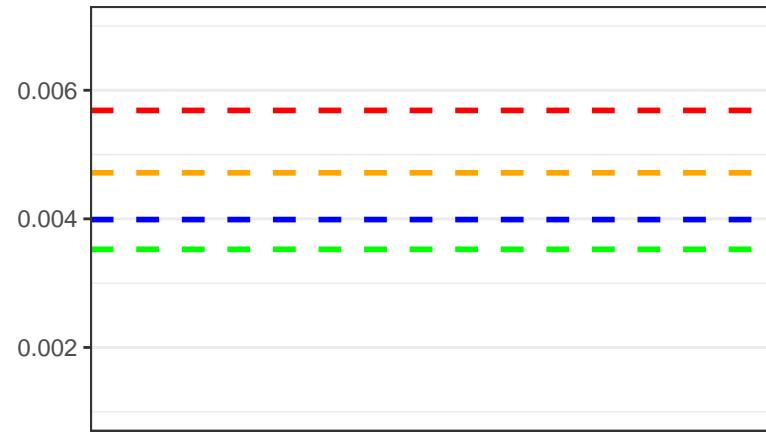
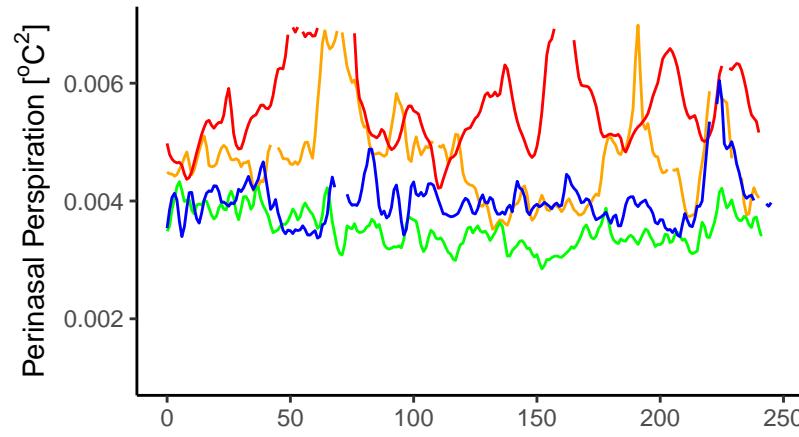
— Day1 — Day2 — Day3 — Day4

# T013 Working Session



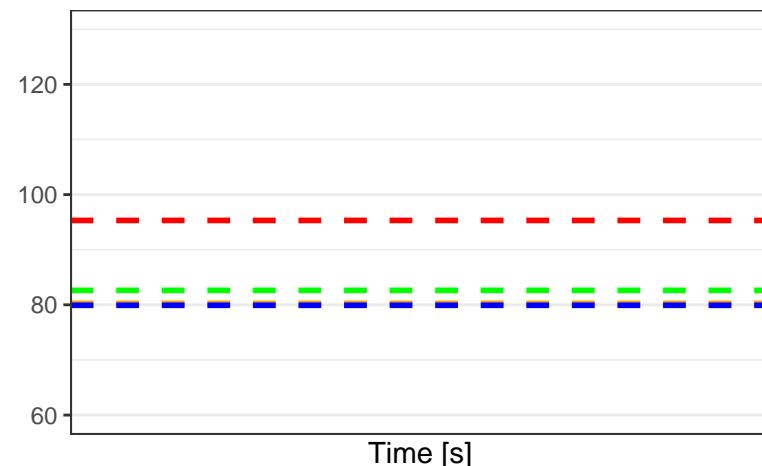
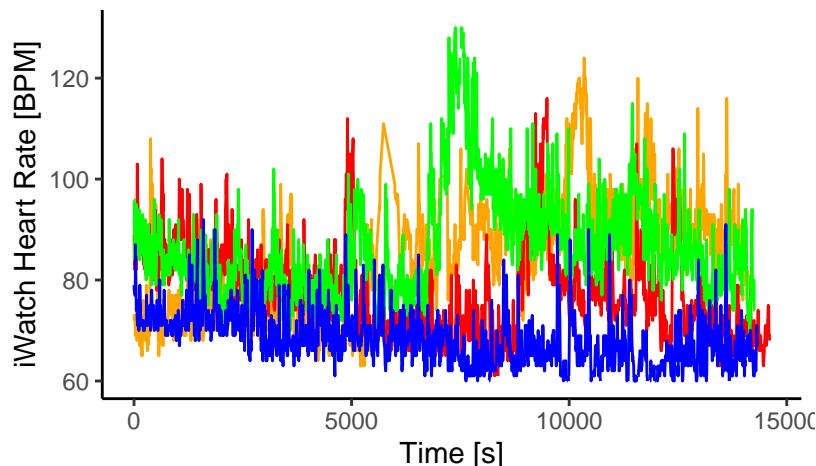
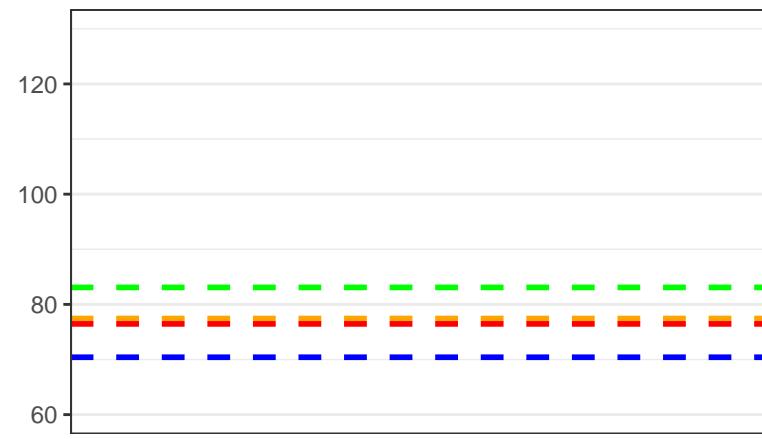
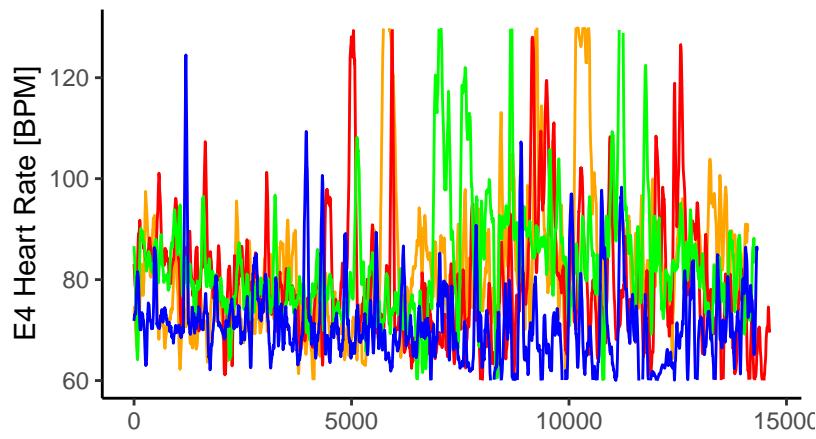
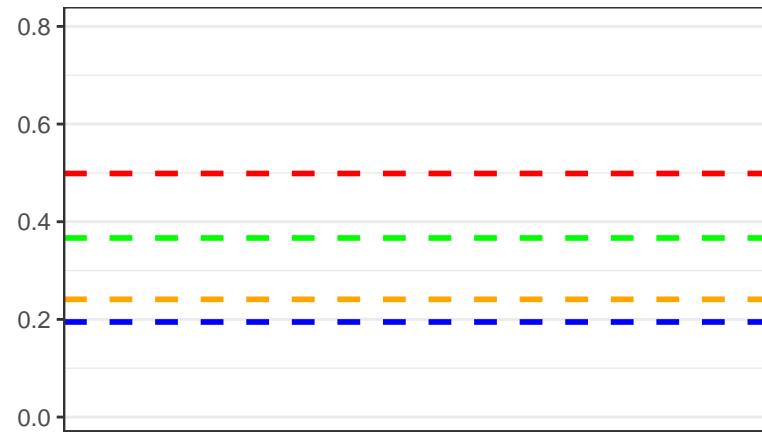
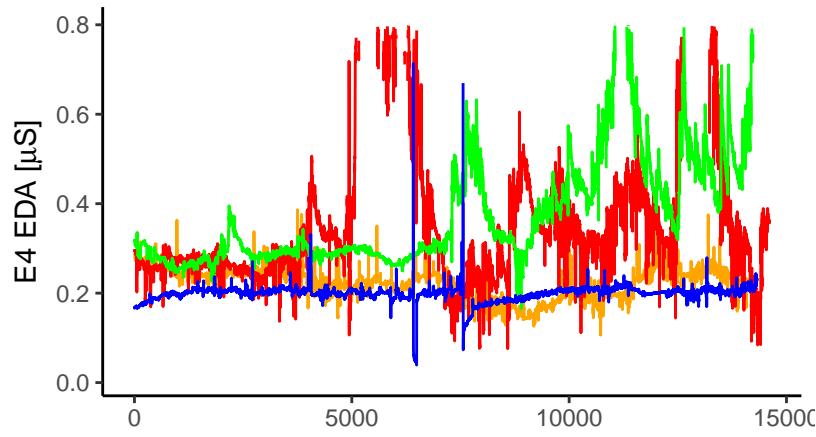
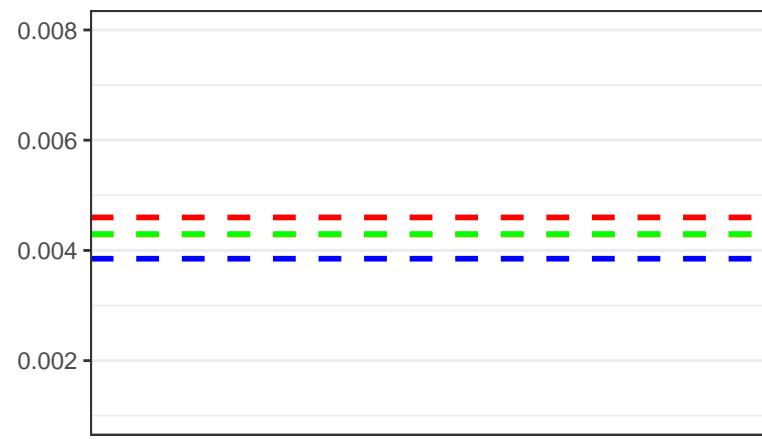
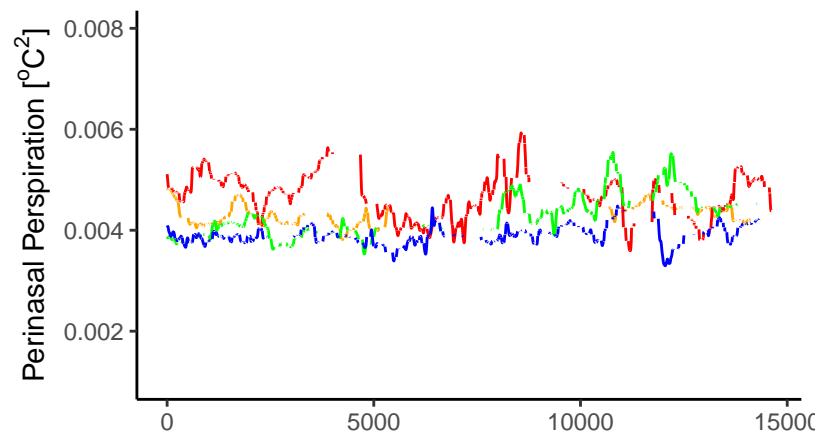
Day1 Day2 Day3 Day4

# T015 Baseline



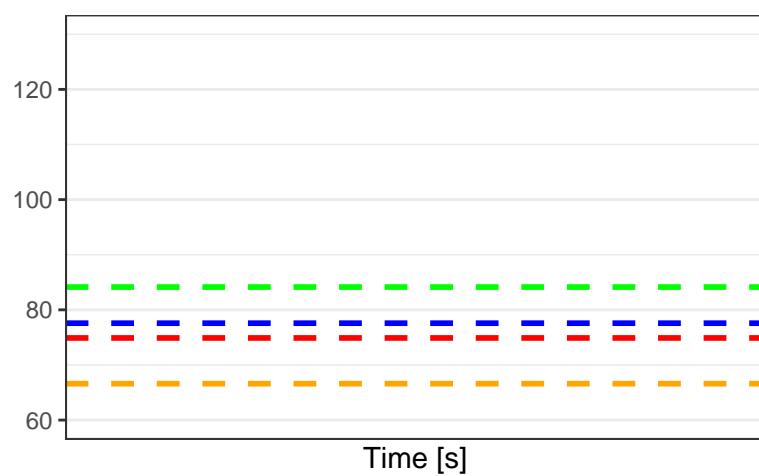
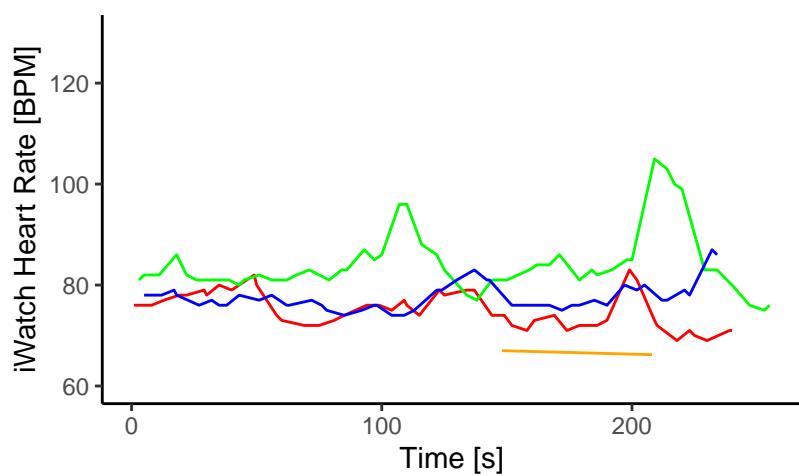
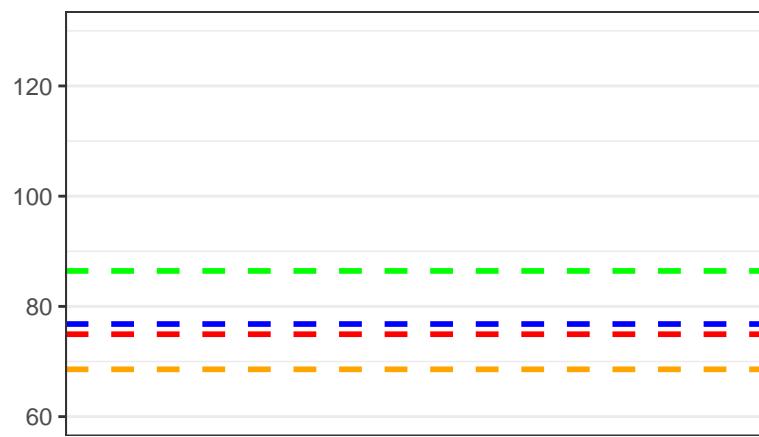
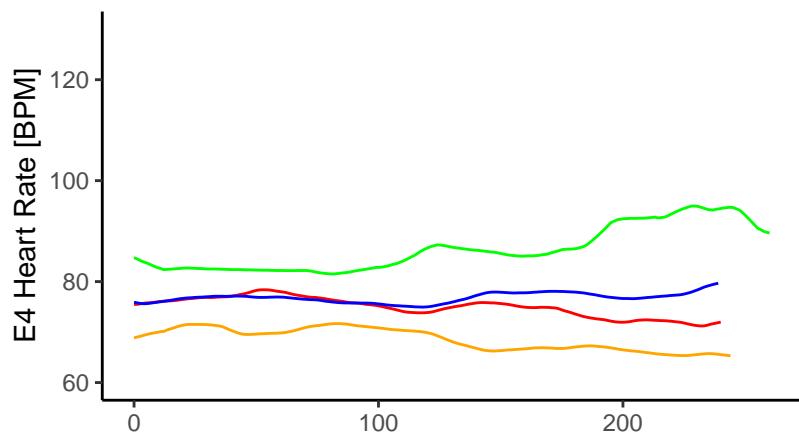
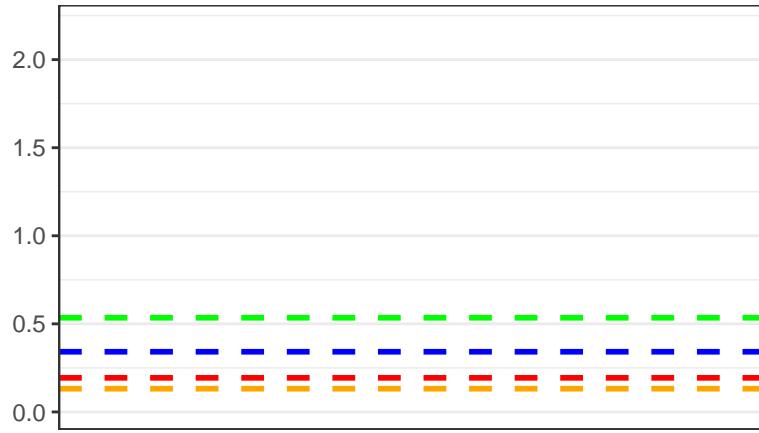
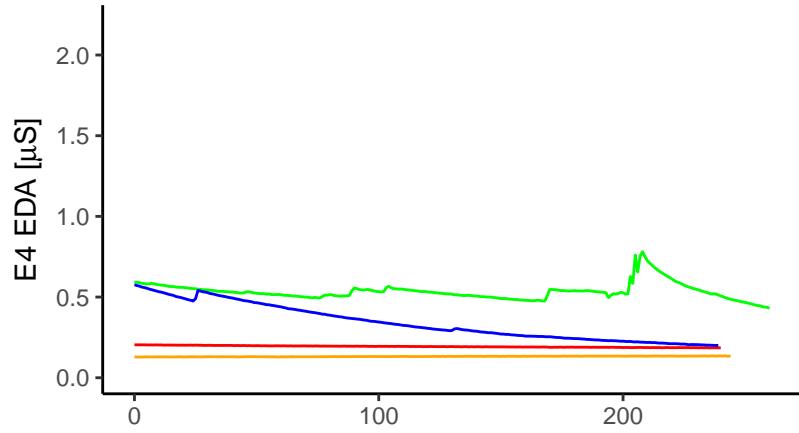
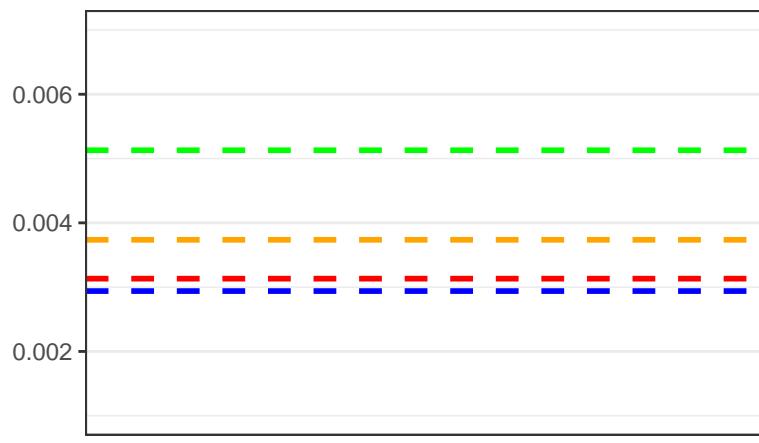
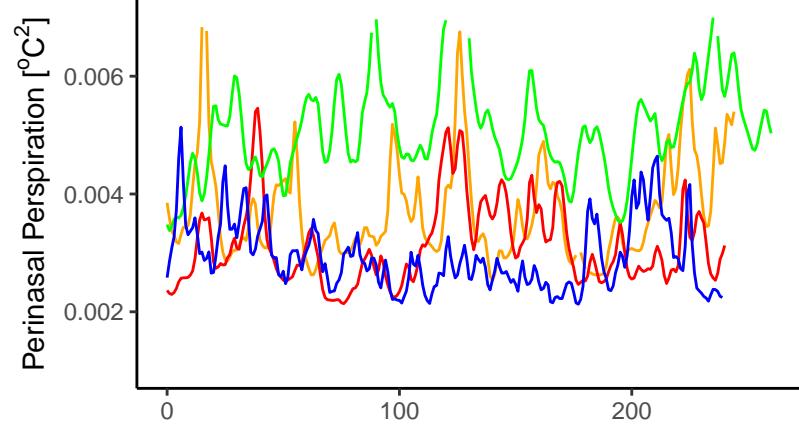
— Day1 — Day2 — Day3 — Day4

# T015 Working Session



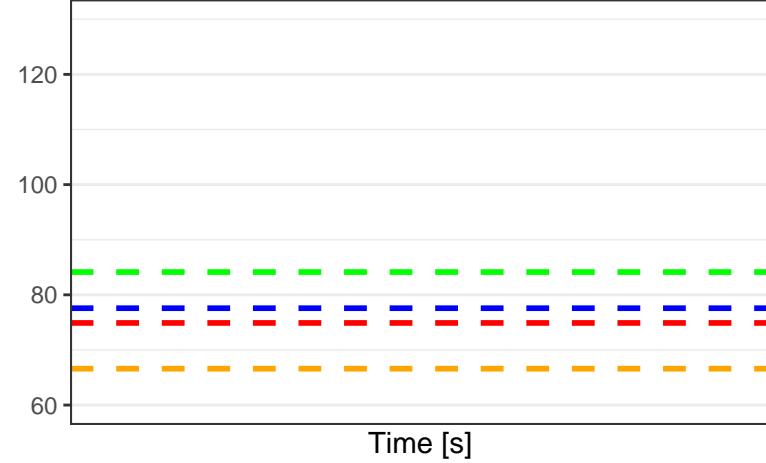
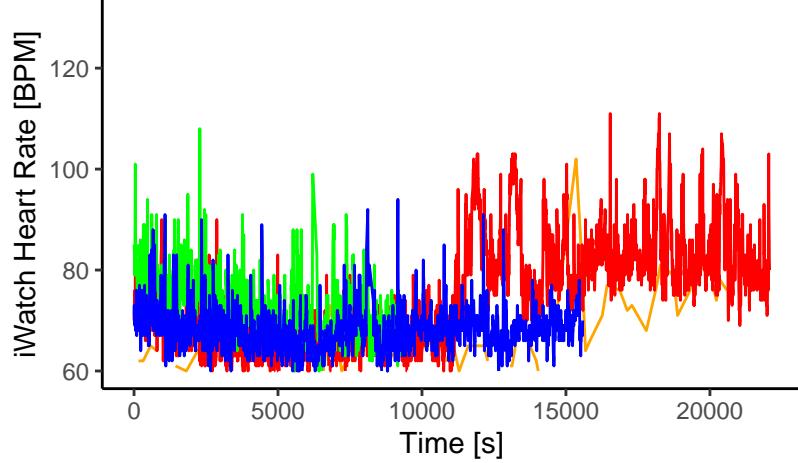
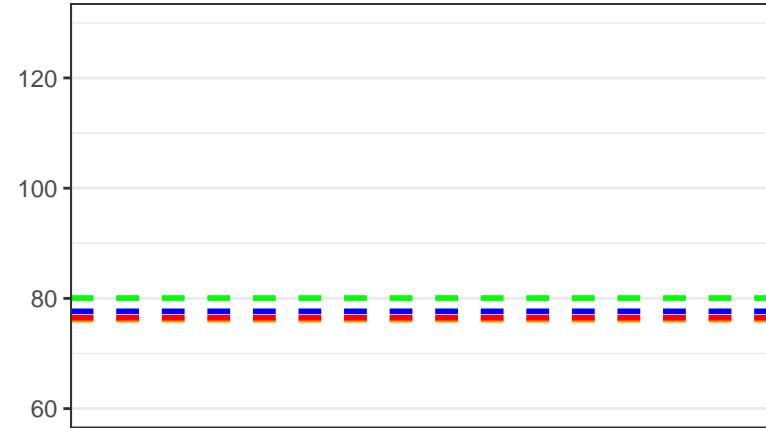
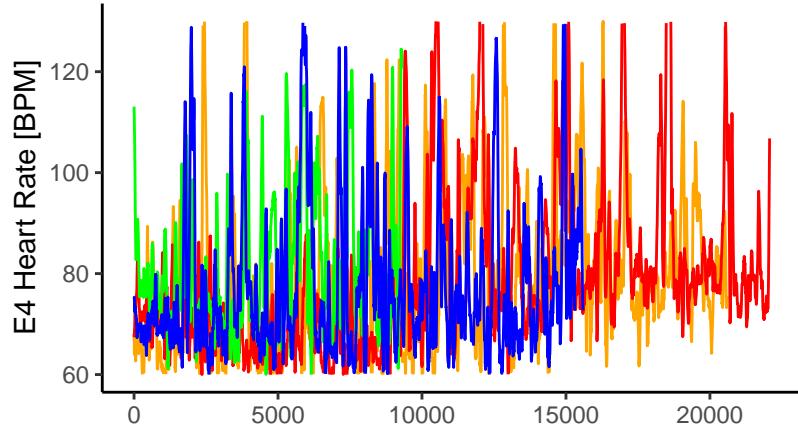
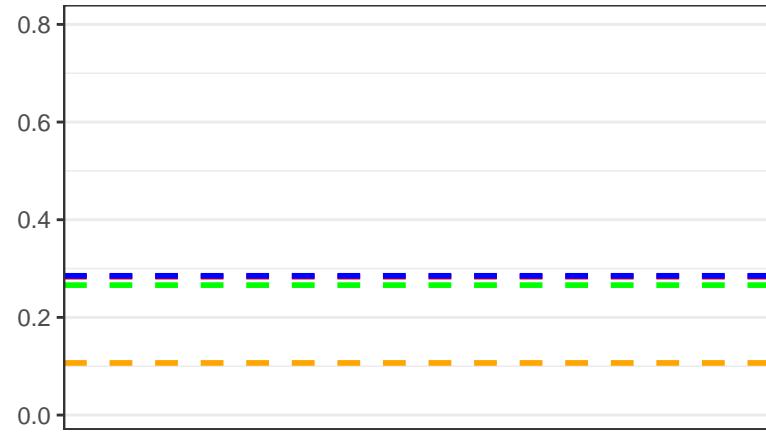
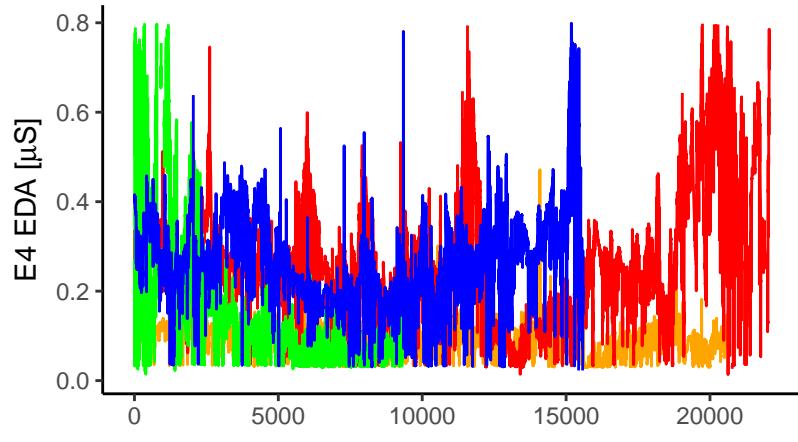
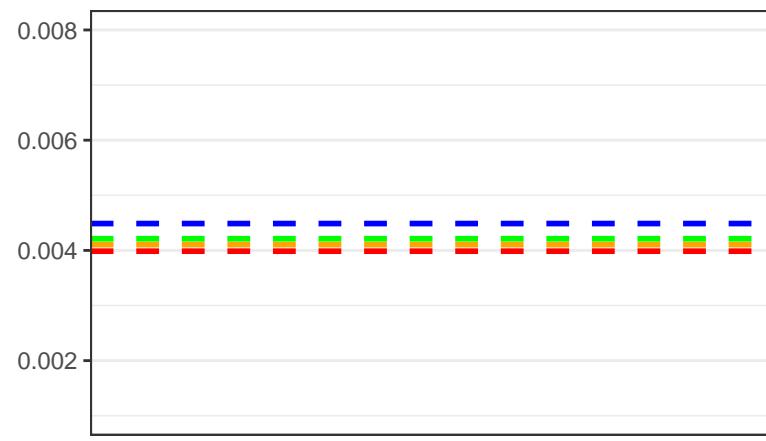
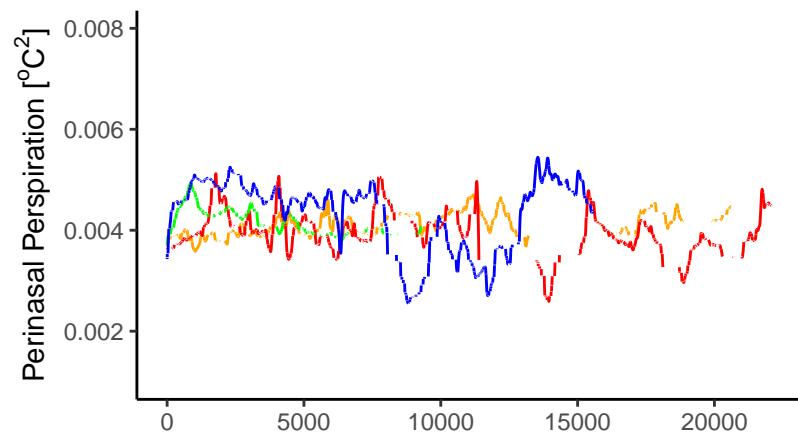
— Day1 — Day2 — Day3 — Day4

# T017 Baseline



— Day1 — Day2 — Day3 — Day4

# T017 Working Session



— Day1 — Day2 — Day3 — Day4

## **2 Chapter 2**

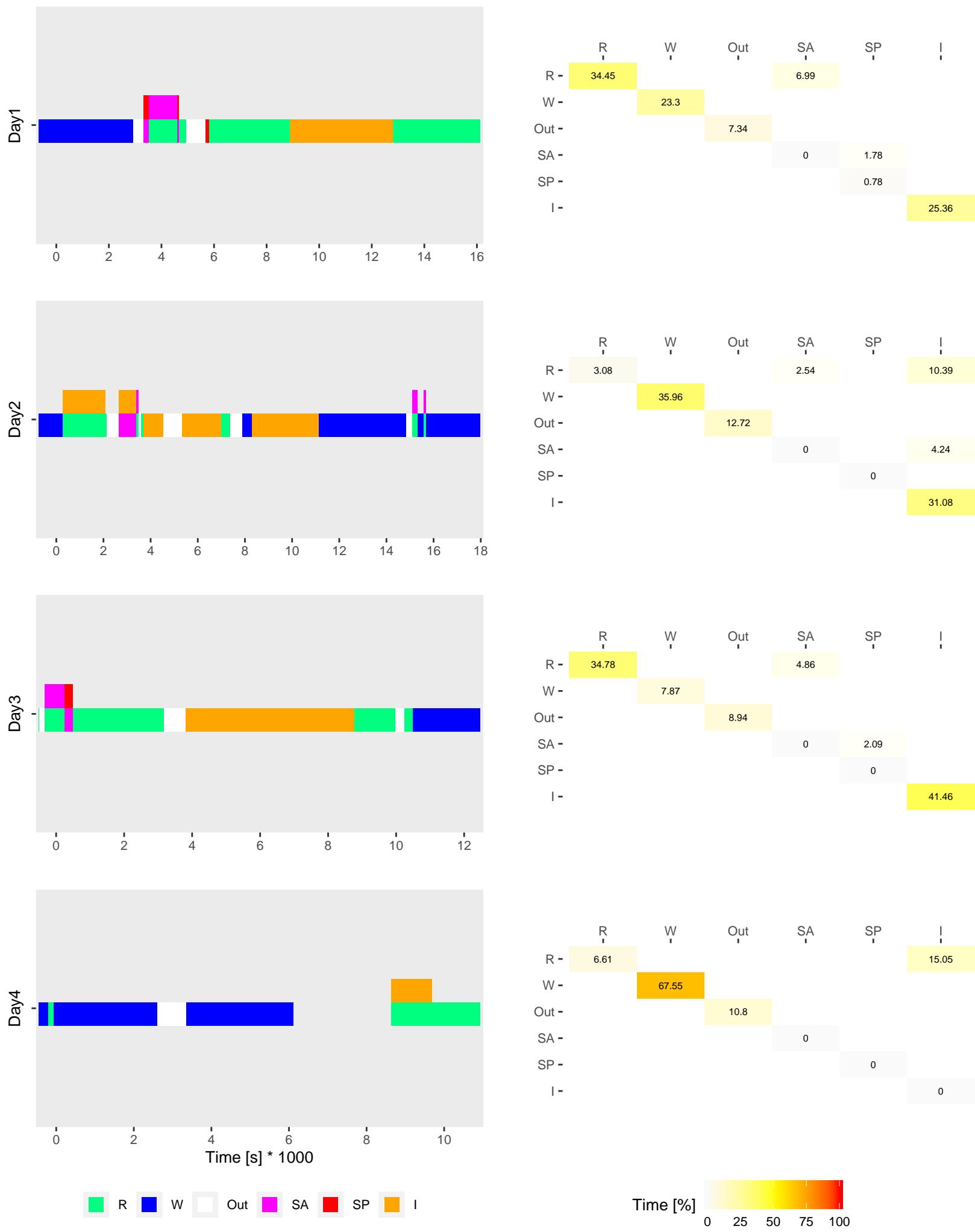
### **2.1 Behavioral Data**

Behavioral data represents the participants working patterns as well as the applications used by the participants during the experiment.

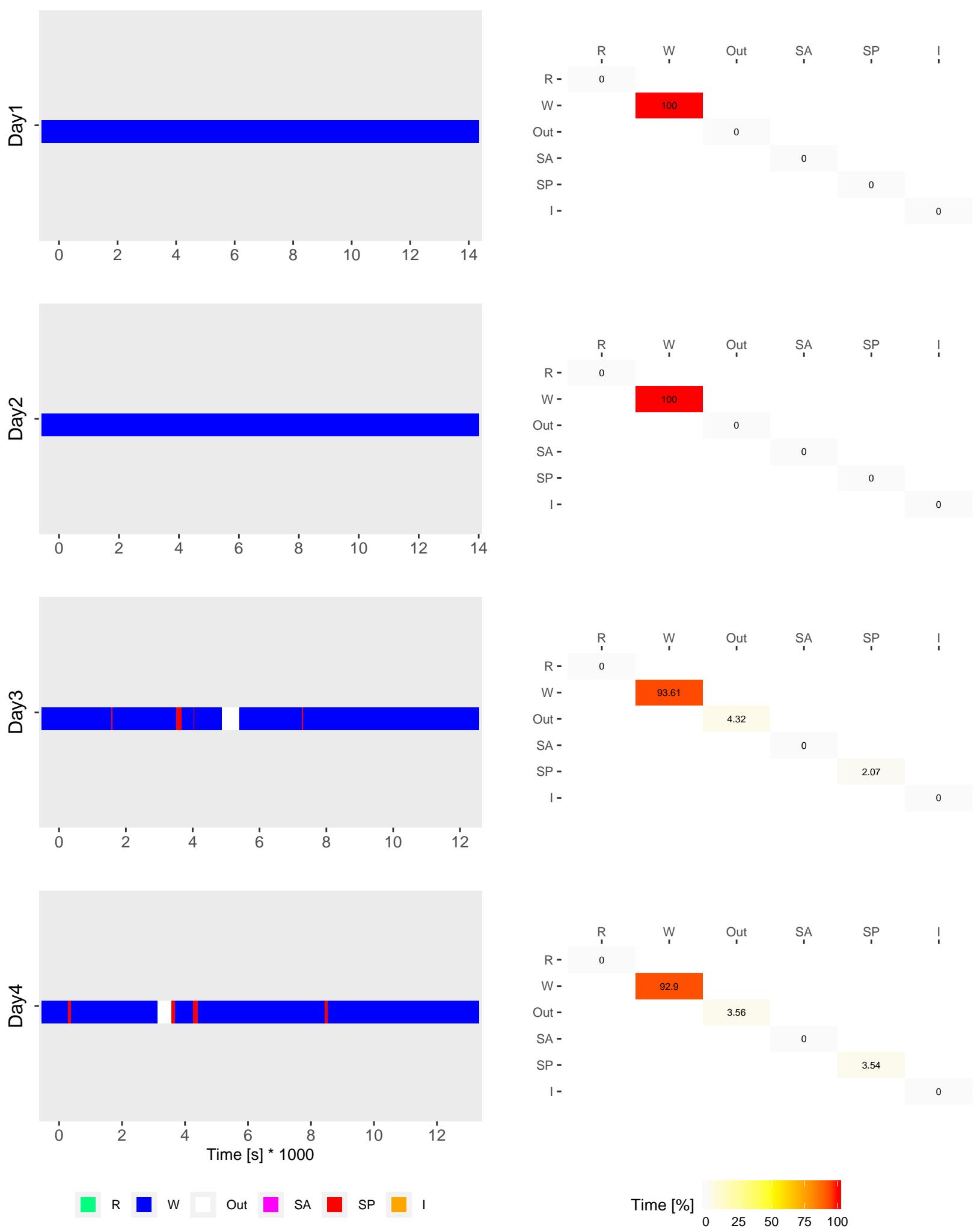
#### **2.1.1 Work Activity Profile**

Work Activity Profile depicts the different activities that the participant performed during the experiment. We have categorized activities as Reading (R), Writing(W), Out, Secondary activity(SA), SmartPhone(SP) and Interaction (I).The activities are plotted as a timeline as well as an occurrence matrix.

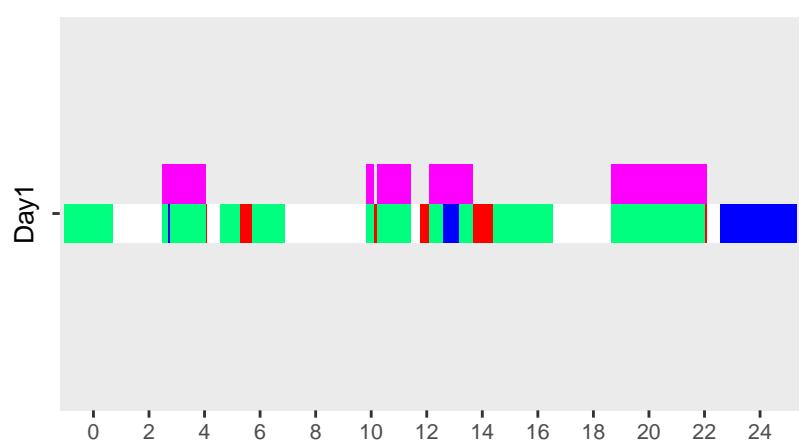
# T001



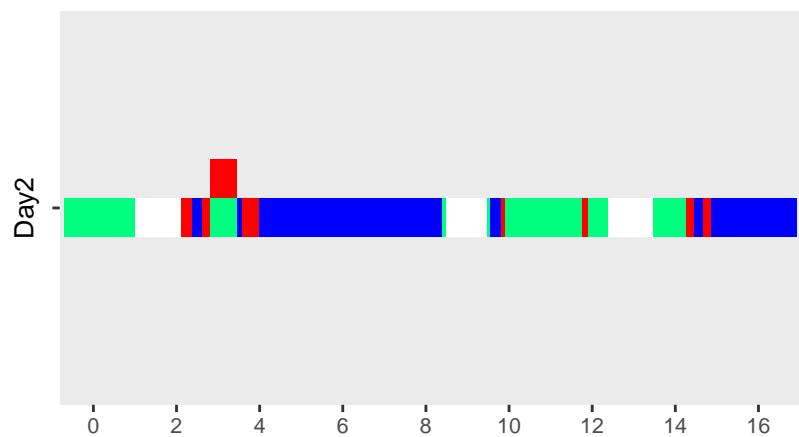
## T003



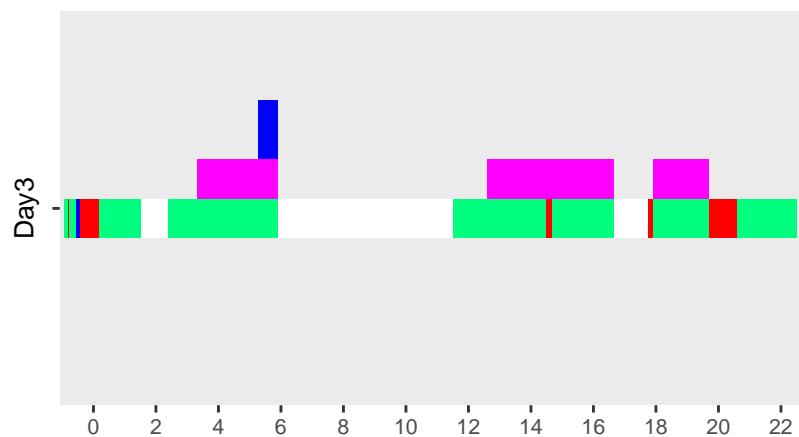
# T005



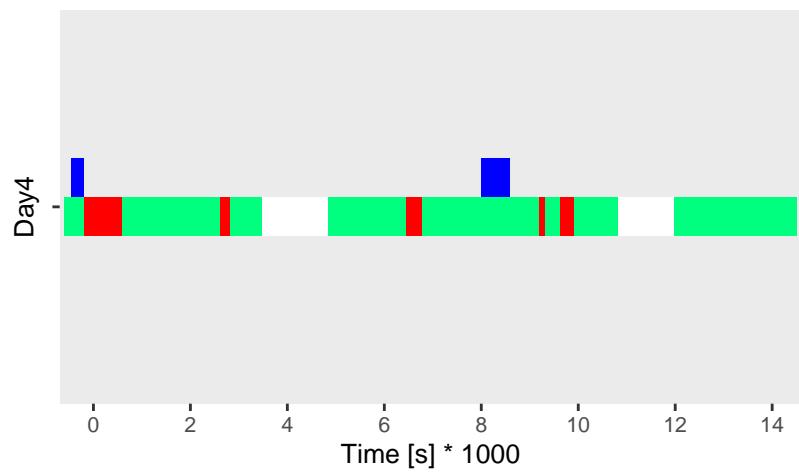
	R	W	Out	SA	SP	I
R -	24.28				30.95	
W -		2.69			1.43	
Out -				33.64		
SA -				0	0.31	
SP -					6.69	
I -						0



	R	W	Out	SA	SP	I
R -	30.85				4.08	
W -		36.06				
Out -				19.67		
SA -				0		
SP -					9.34	
I -						0



	R	W	Out	SA	SP	I
R -	17.41			38.38		
W -		0.57				
Out -				34.85		
SA -				0	0.88	
SP -					7.91	
I -						0

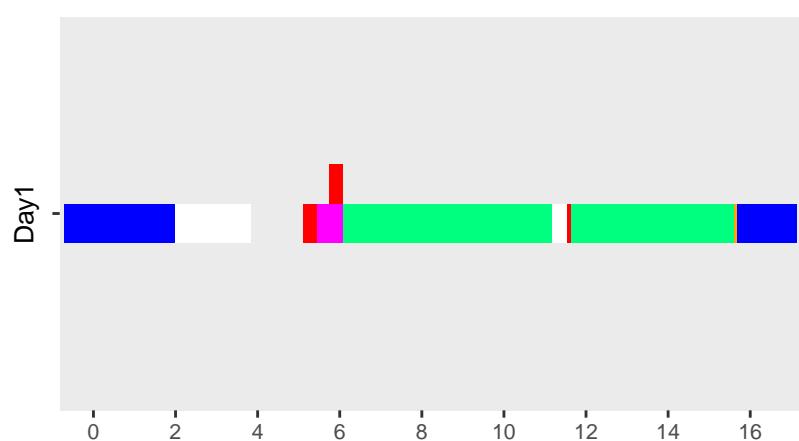


	R	W	Out	SA	SP	I
R -	63.03	6.3				
W -		0				
Out -				18.2		
SA -				0		
SP -					12.47	
I -						0

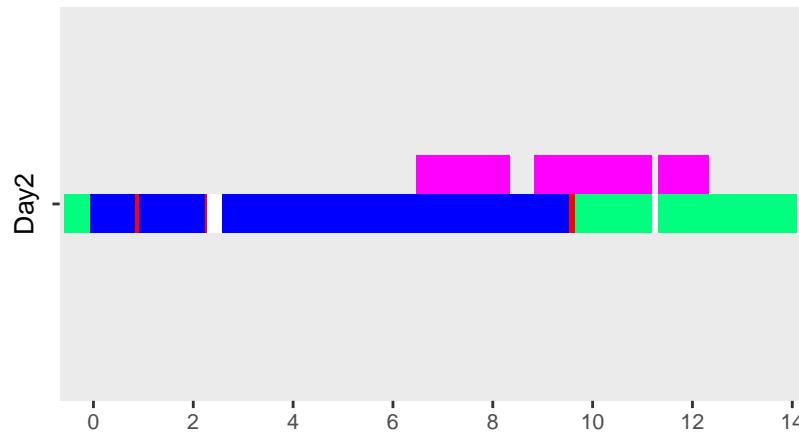
Legend: R (Green), W (Blue), Out (White), SA (Magenta), SP (Red), I (Orange)

Time [%]

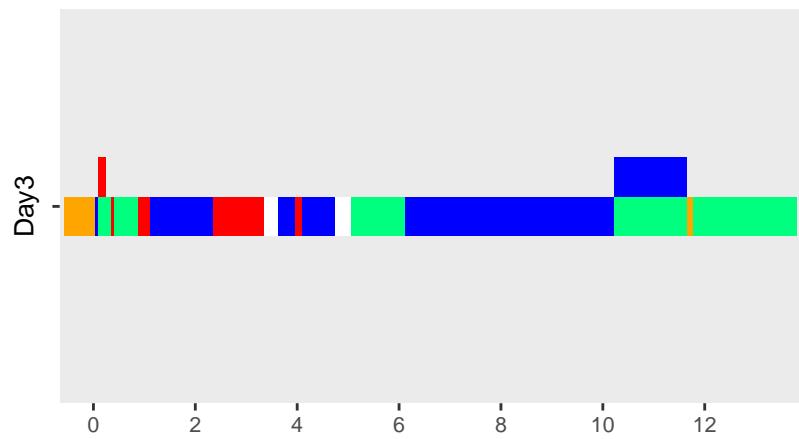
# T007



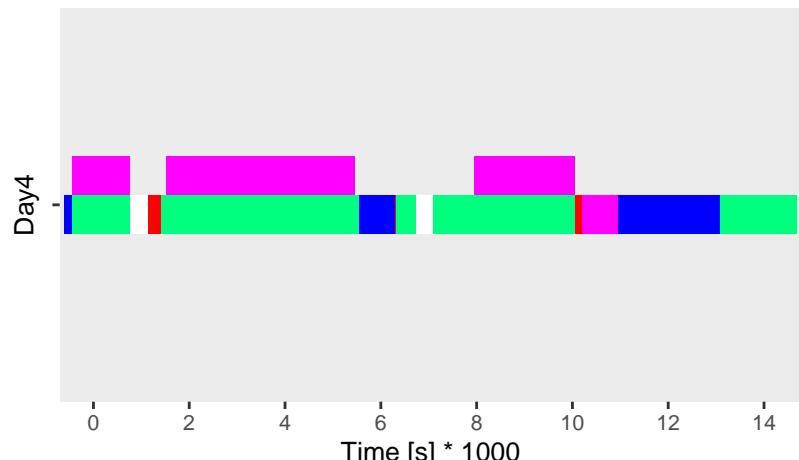
	R	W	Out	SA	SP	I
R -	65.96					
W -		19.86				
Out -			5.8			
SA -				2.15	2.51	
SP -					3.18	
I -						0.55



	R	W	Out	SA	SP	I
R -	8.24			19.18		
W -		49.2		18.44		
Out -			3.16			
SA -				0	0.89	
SP -					0.89	
I -						0



	R	W	Out	SA	SP	I
R -	18.98		10.74			1.25
W -		48.2				
Out -			4.58			
SA -				0		
SP -					10.75	
I -						5.5

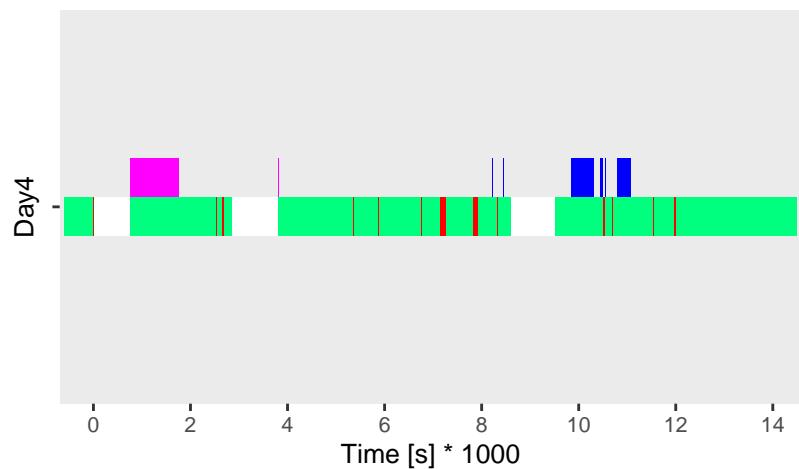
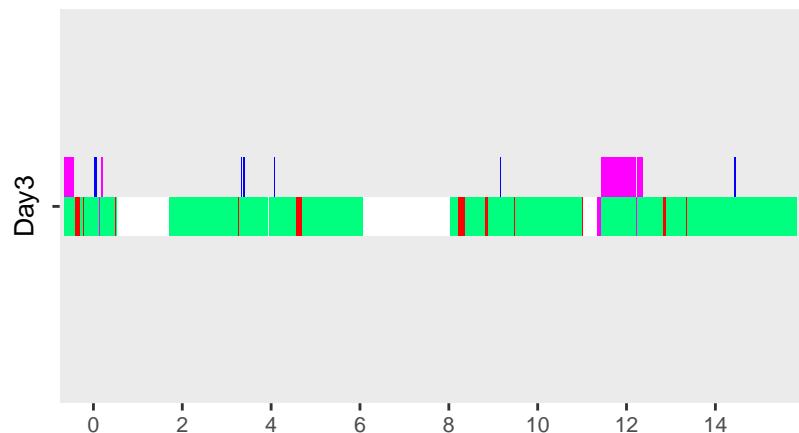
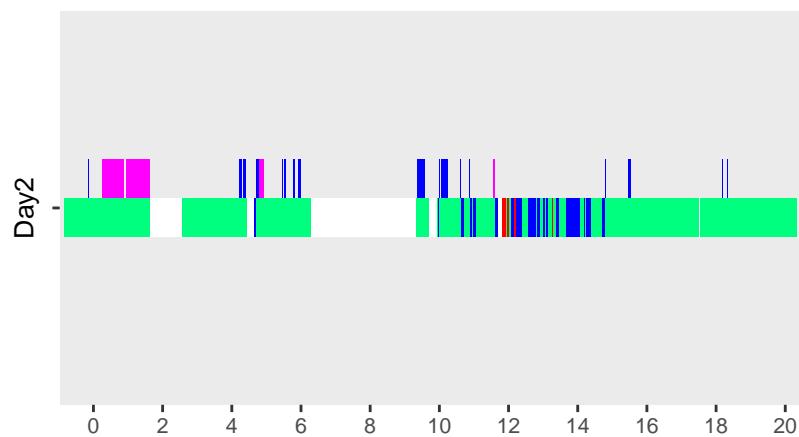
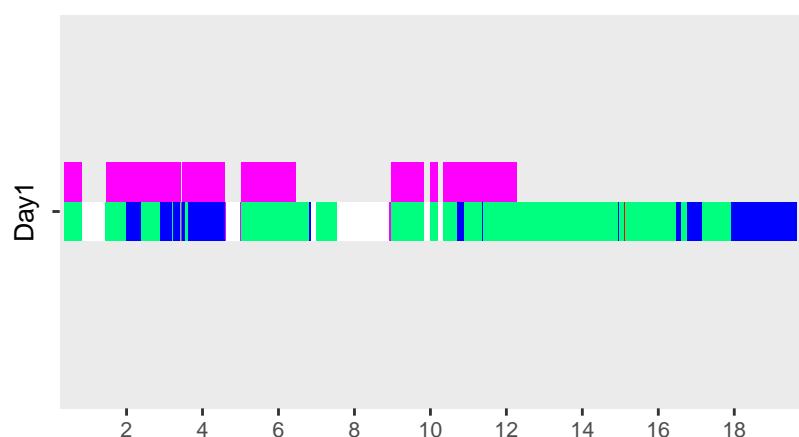


	R	W	Out	SA	SP	I
R -	13.31			51.5		
W -		21.67				
Out -			5.12			
SA -				5.33		
SP -					3.08	
I -						0

Legend: R (Green), W (Blue), Out (Grey), SA (Magenta), SP (Red), I (Orange)

Time [%]

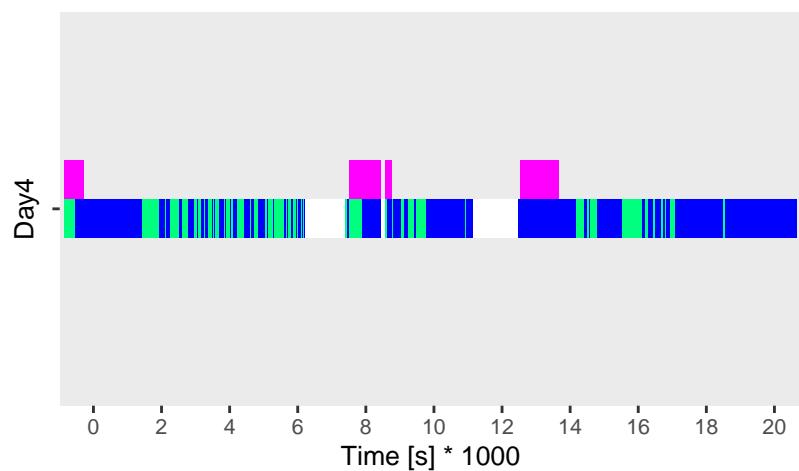
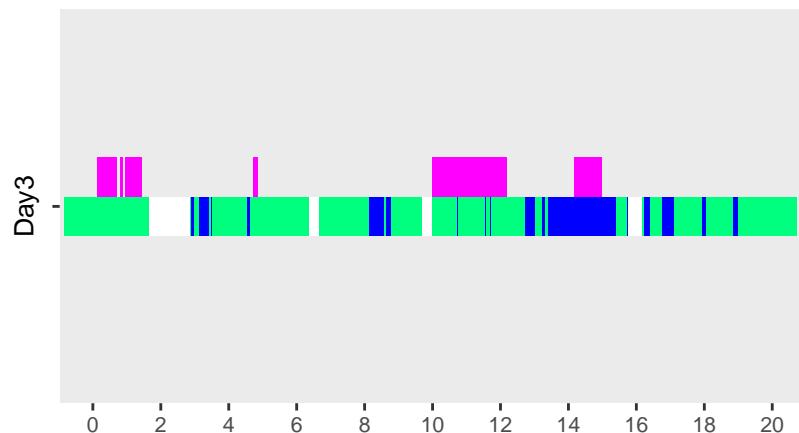
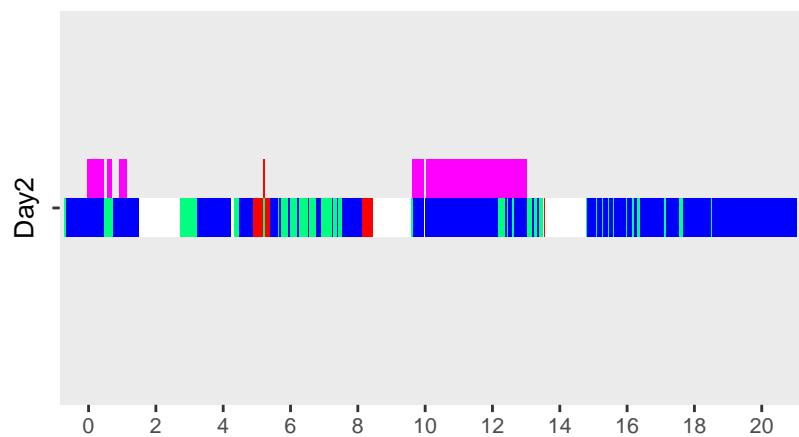
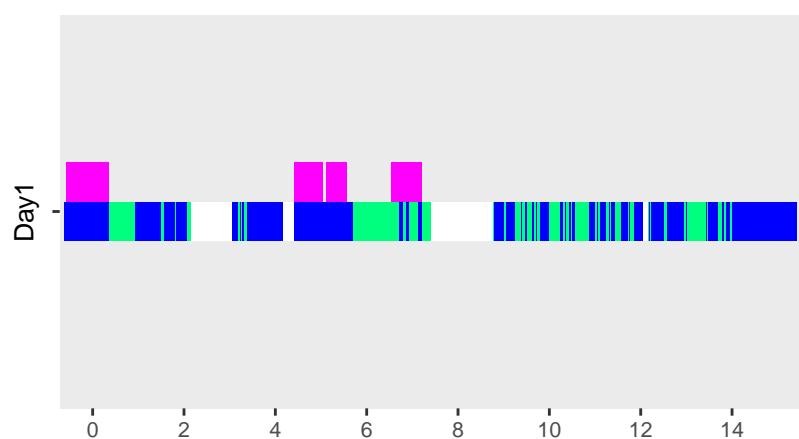
# T009



■ R ■ W ■ Out ■ SA ■ SP ■ I

Time [%]

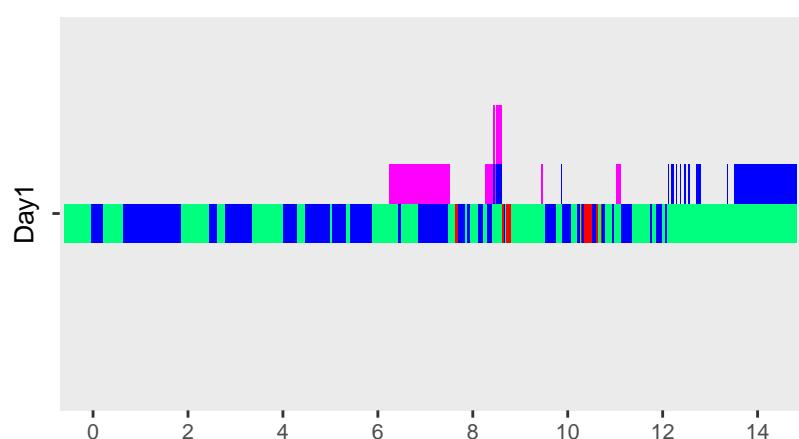
# T011



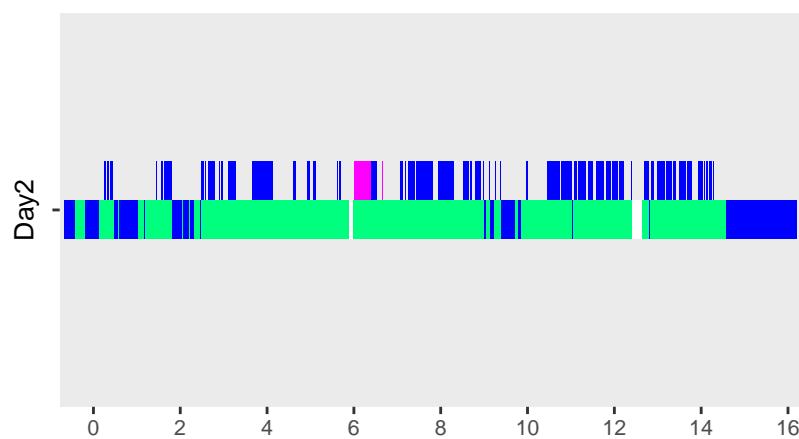
[■] R [■] W [■] Out [■] SA [■] SP [■] I

Time [%]

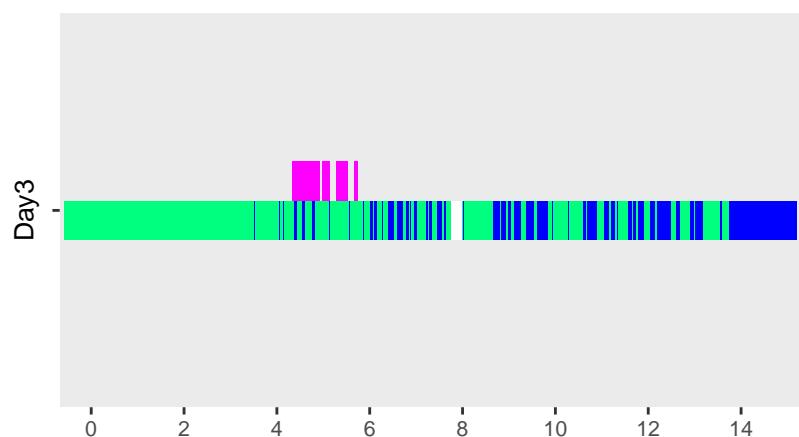
# T013



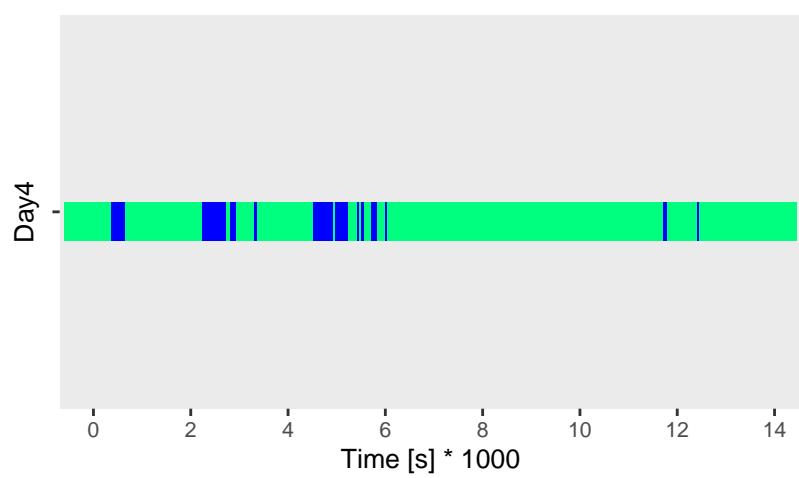
	R	W	Out	SA	SP	I
R -	44.04	4.44		5.94		
W -		37		5.65		
Out -			0			
SA -				0		
SP -					2.92	
I -						0



	R	W	Out	SA	SP	I
R -	40.9	38.18		2.46		
W -		16.52				
Out -			1.94			
SA -				0		
SP -					0	
I -						0



	R	W	Out	SA	SP	I
R -	66.46			6.38		
W -		23.96		1.48		
Out -			1.72			
SA -				0		
SP -					0	
I -						0

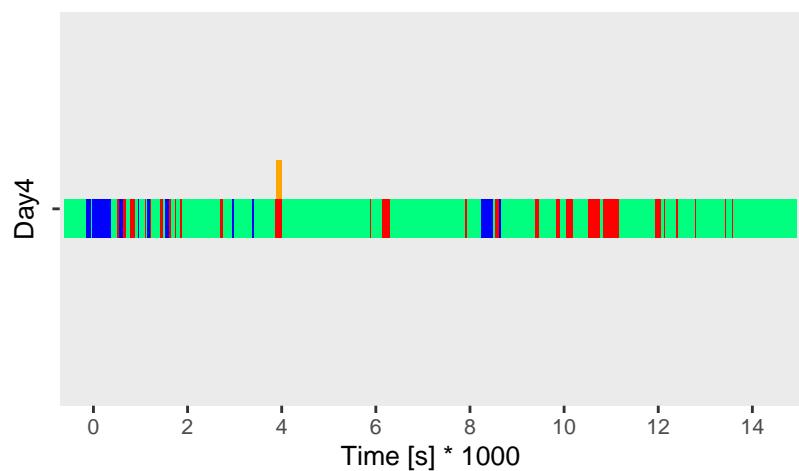
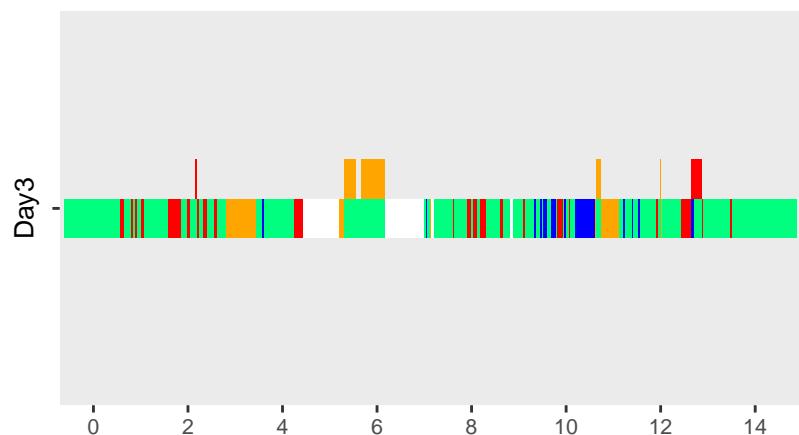
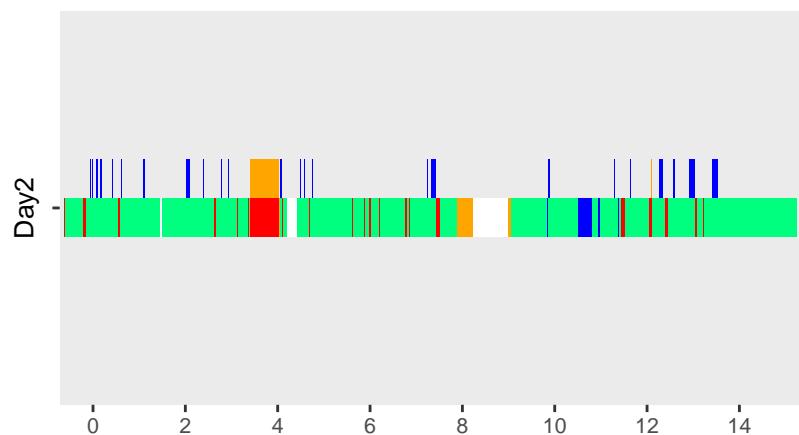
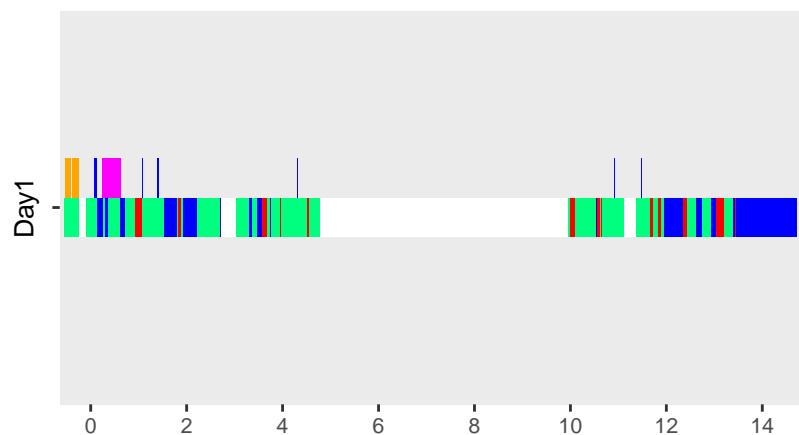


	R	W	Out	SA	SP	I
R -	86.49					
W -		13.51				
Out -			0			
SA -				0		
SP -					0	
I -						0

Legend: R (Green), W (Blue), Out (Grey), SA (Magenta), SP (Red), I (Orange)

Time [%]

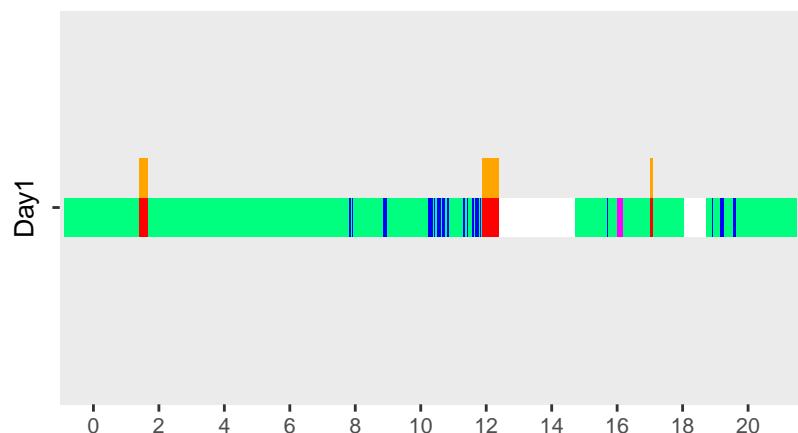
# T015



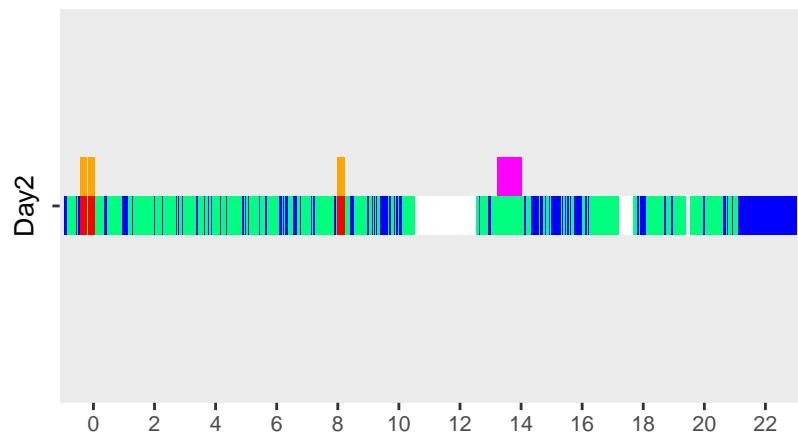
[■ R ■ W ■ Out ■ SA ■ SP ■ I]

Time [%]

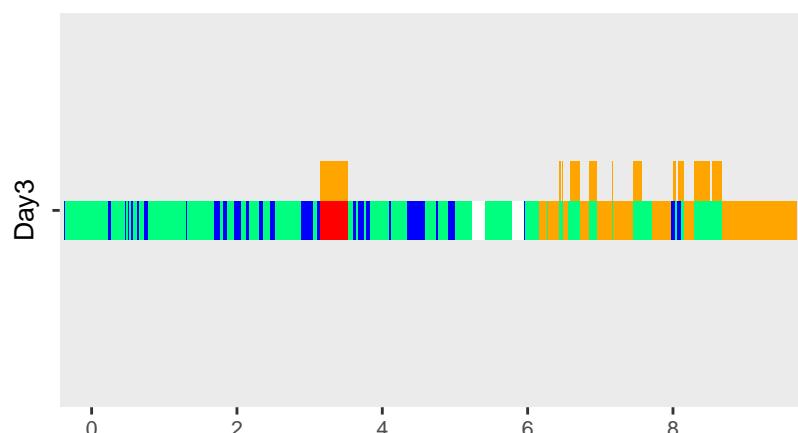
# T017



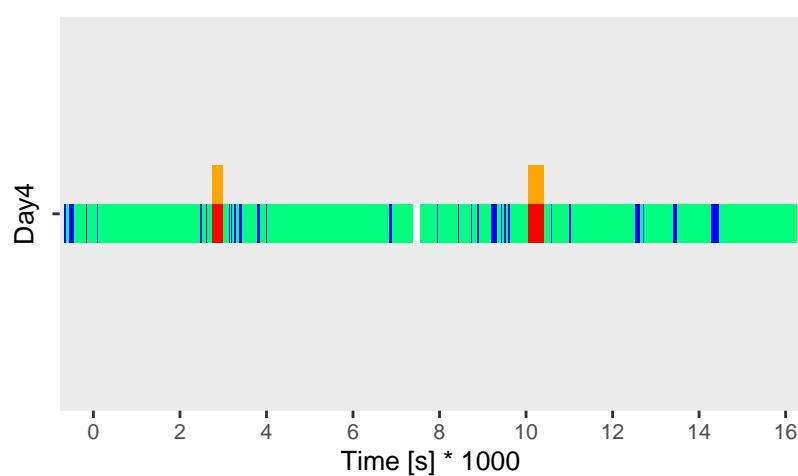
	R	W	Out	SA	SP	I
R -	74.83					
W -		5.09				
Out -			15.07			
SA -				0.92		
SP -					0	4.09
I -						0



	R	W	Out	SA	SP	I
R -	60.31					
W -		20.95				
Out -			11.71			
SA -				0		
SP -					0	3.13
I -						0



	R	W	Out	SA	SP	I
R -	52.18					9.69
W -		16.95				0.78
Out -			3.56			
SA -				0		
SP -					0	4.61
I -						12.24



	R	W	Out	SA	SP	I
R -	85.9					
W -		9.26				
Out -			1.03			
SA -				0		
SP -					0	3.81
I -						0

[■ R ■ W ■ Out ■ SA ■ SP ■ I]

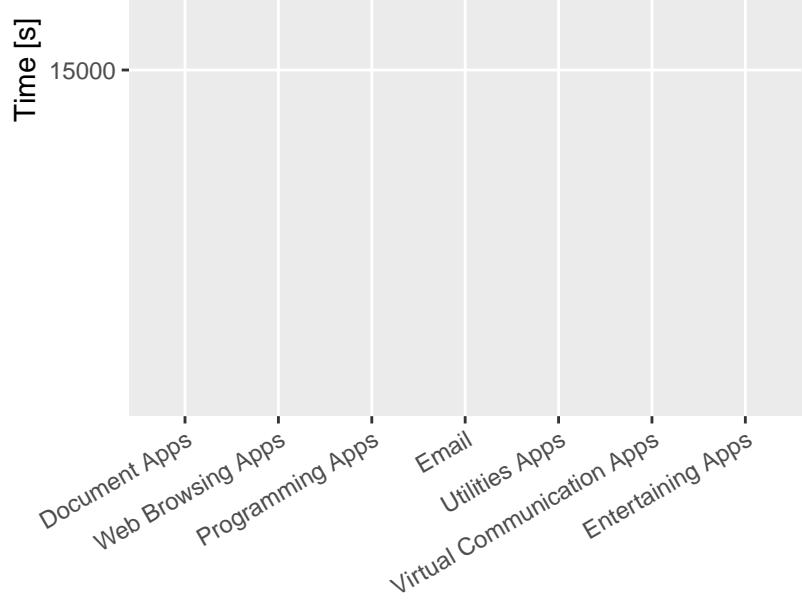
Time [%]

### **2.1.2 Application Usage Profile**

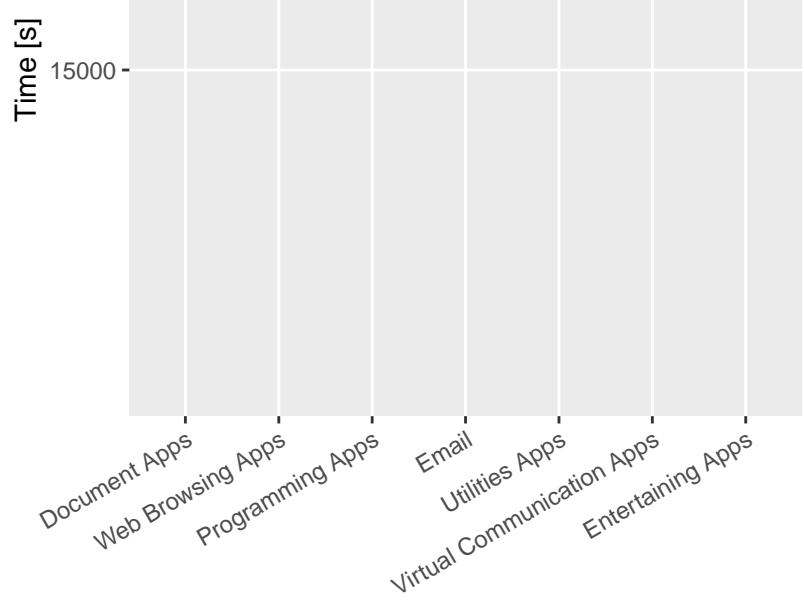
Application Usage Profile imprints the applications used by the participants during the experiment. We have classified the applications as Document Apps, Web Browsing Apps, Programming Apps, Email, Utilities Apps, Virtual Communication Apps, and Entertaining Apps. The application usage data are plotted as a combination of reading and writing.

**T001**

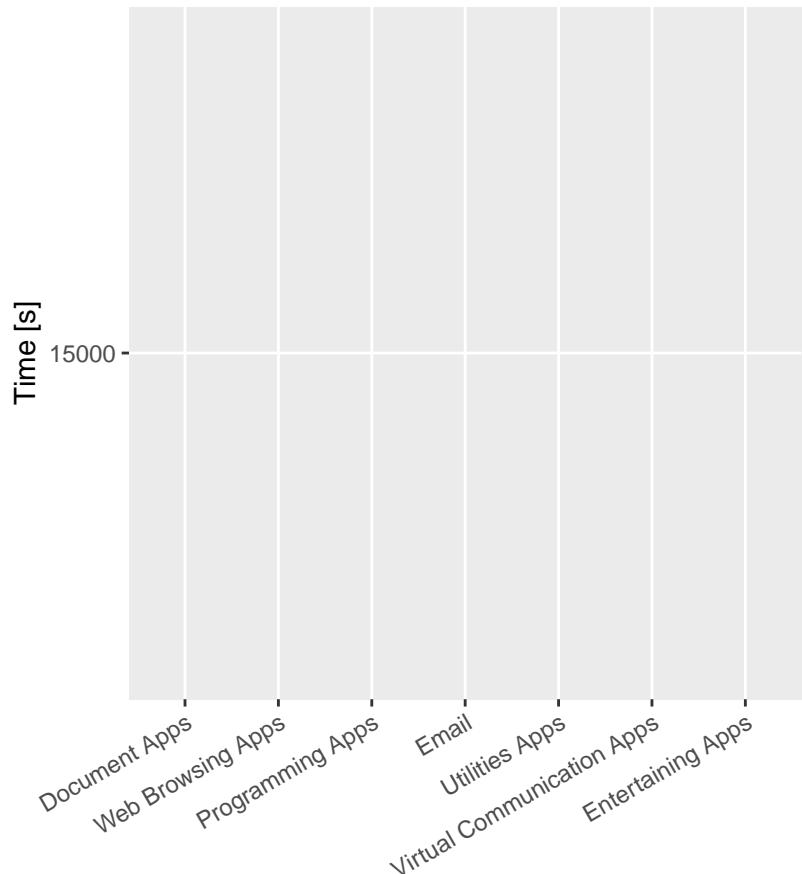
Day1



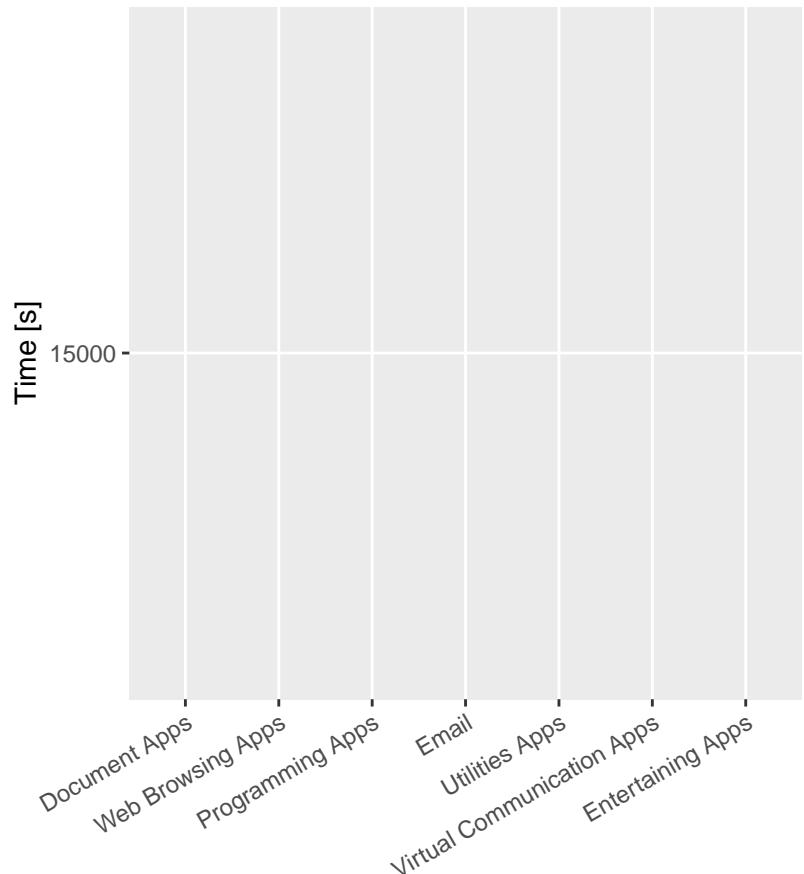
Day2



Day3

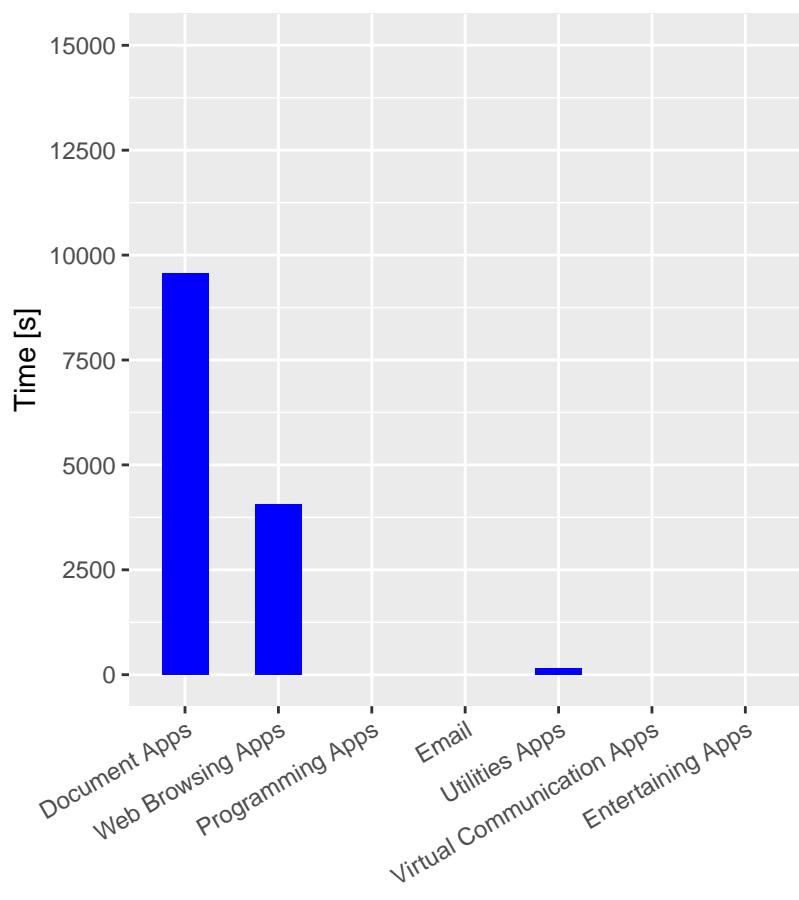


Day4

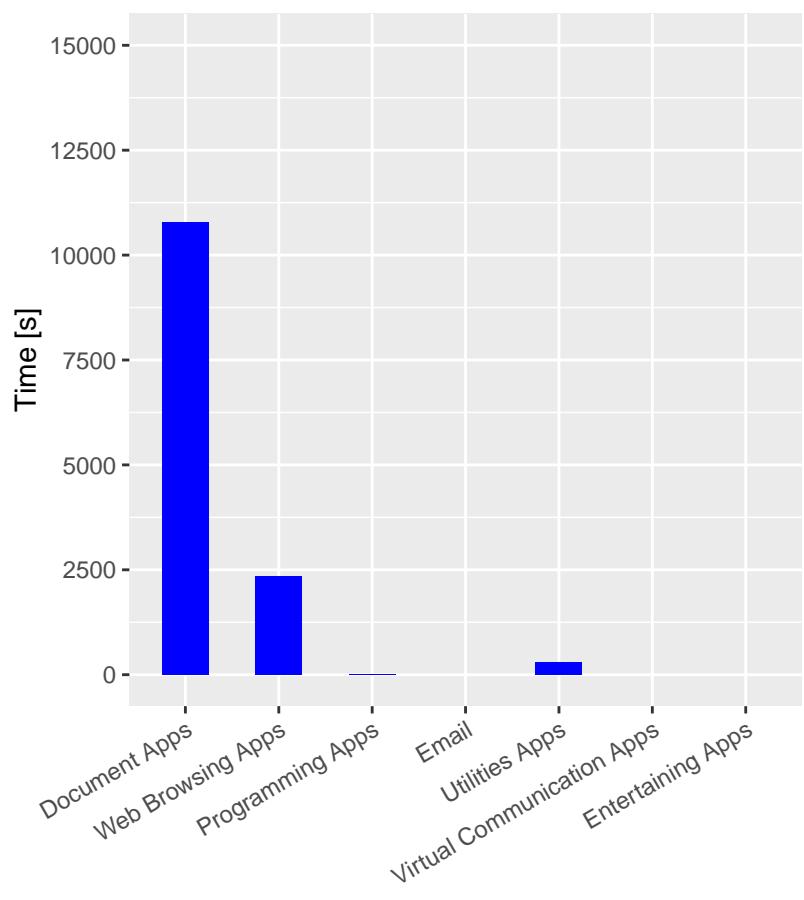


**T003**

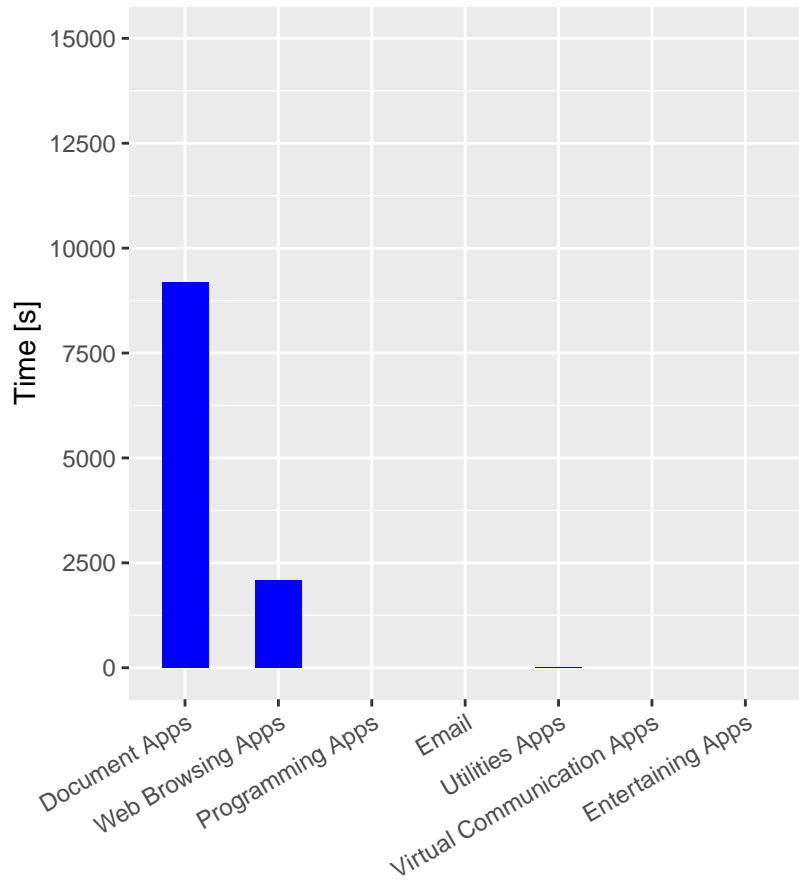
**Day1**



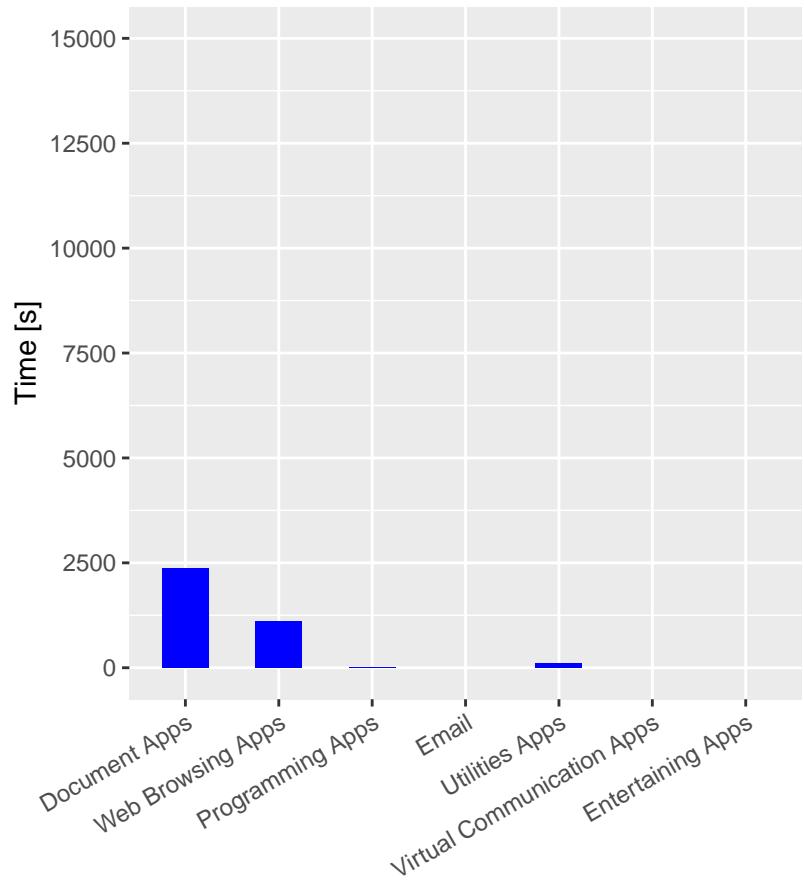
**Day2**



**Day3**

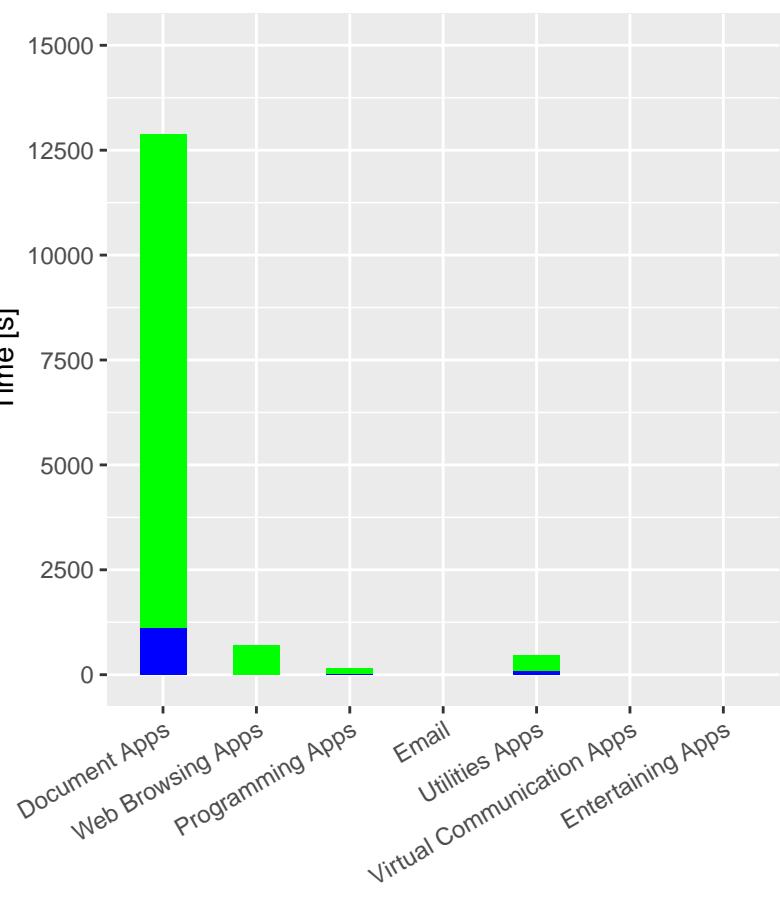


**Day4**

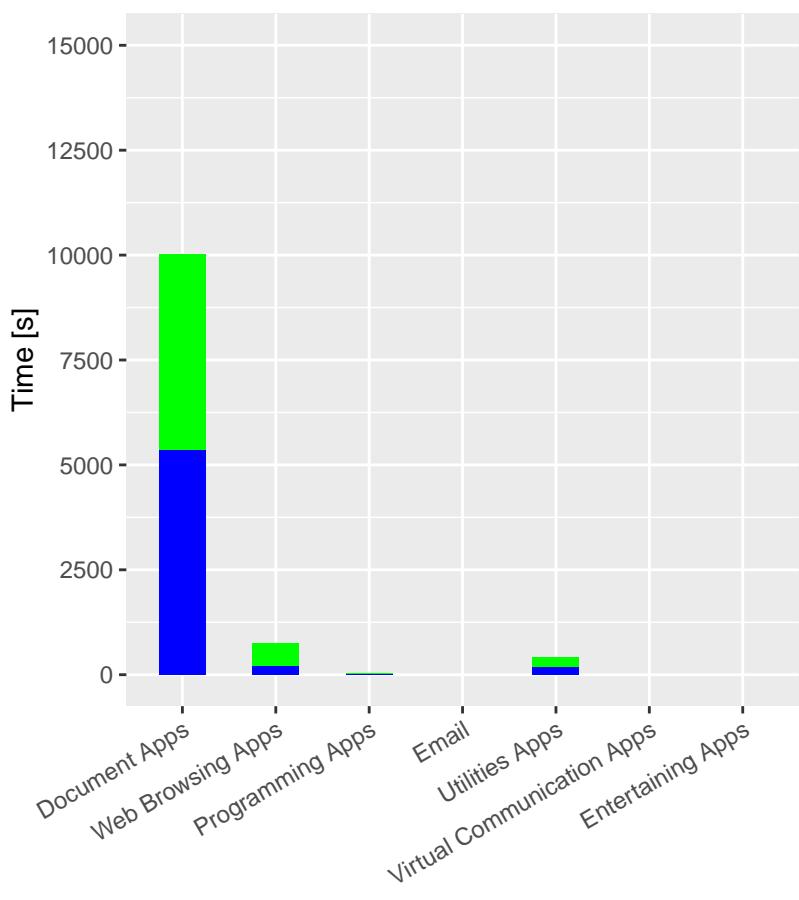


**T005**

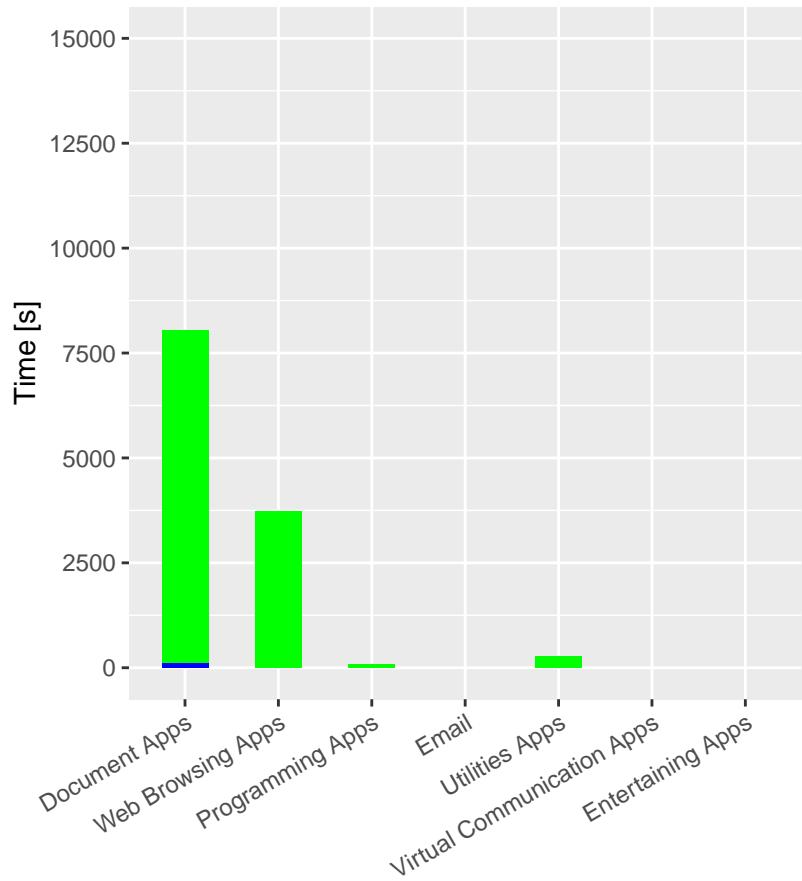
**Day1**



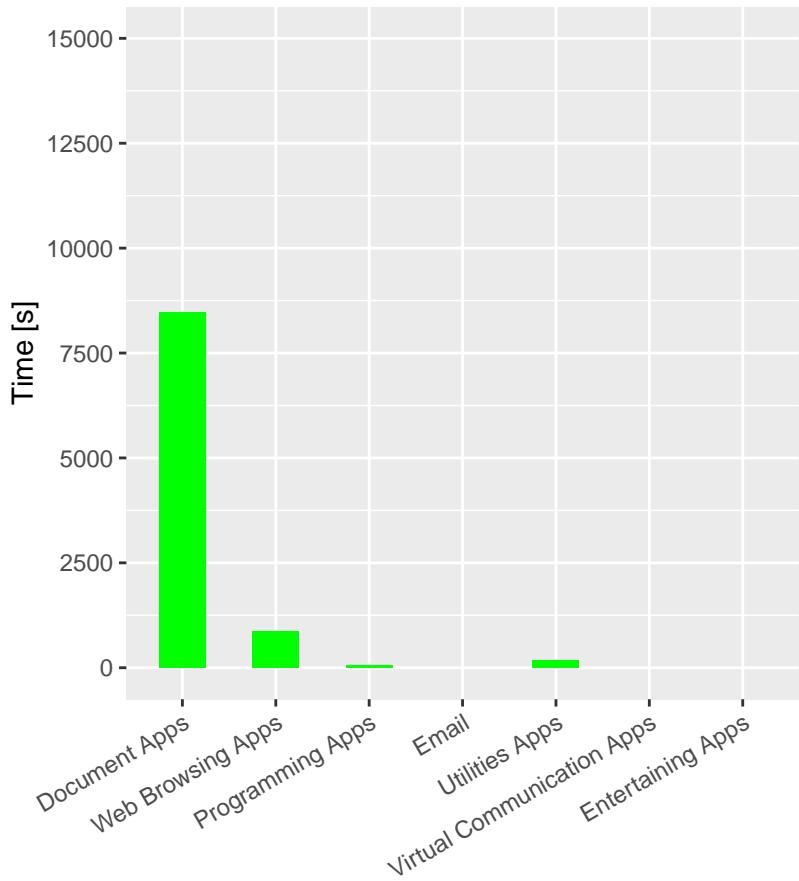
**Day2**



**Day3**



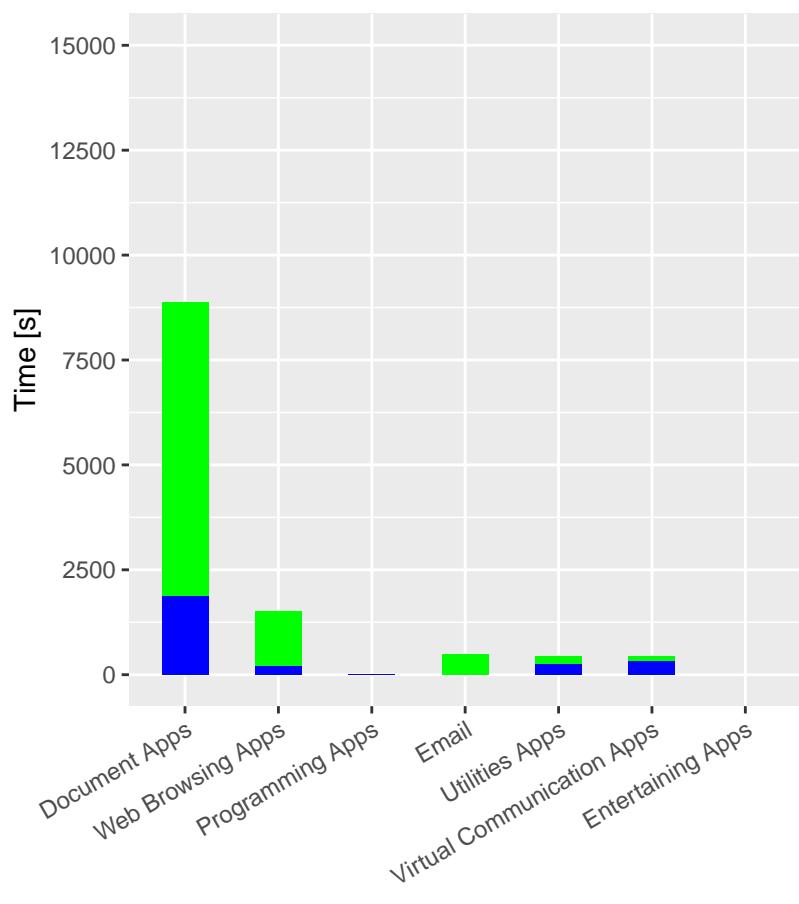
**Day4**



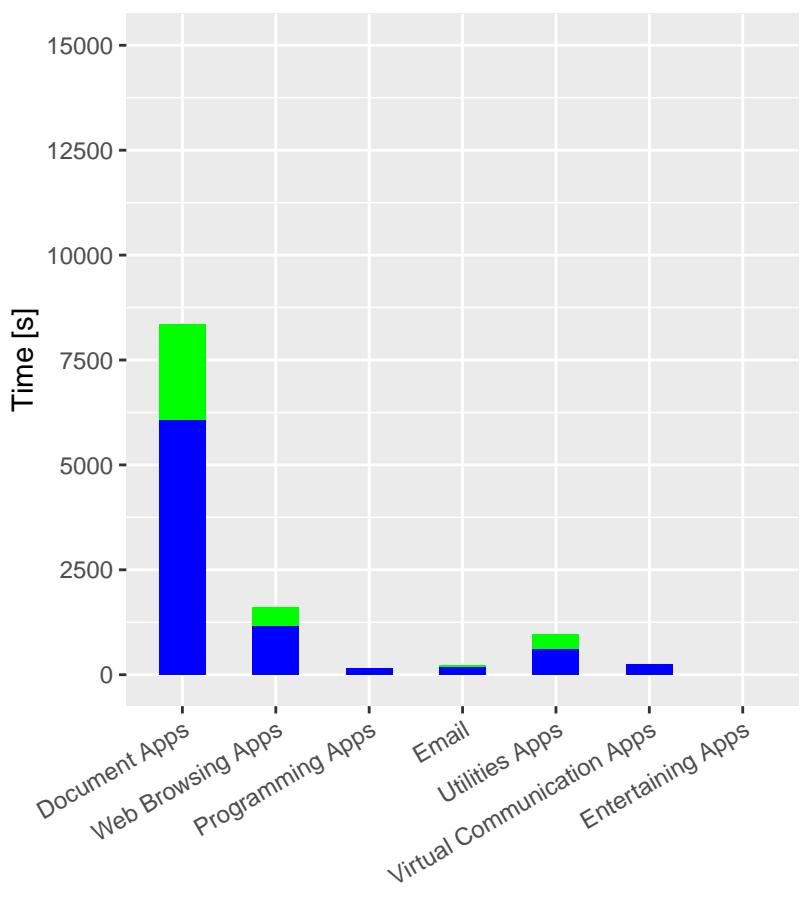
R   W

**T007**

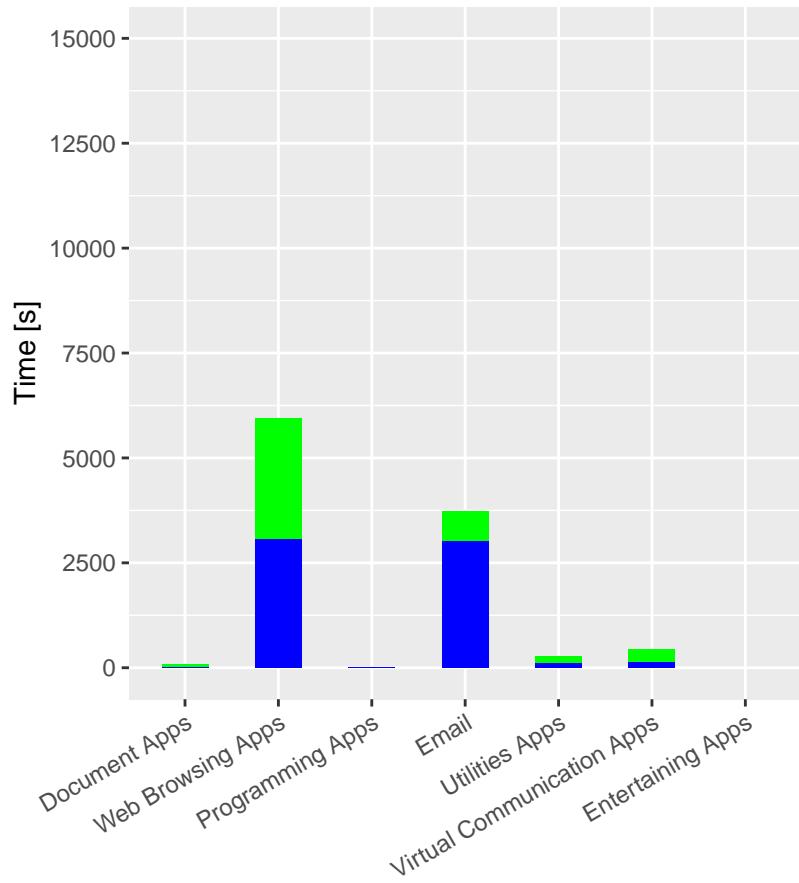
**Day1**



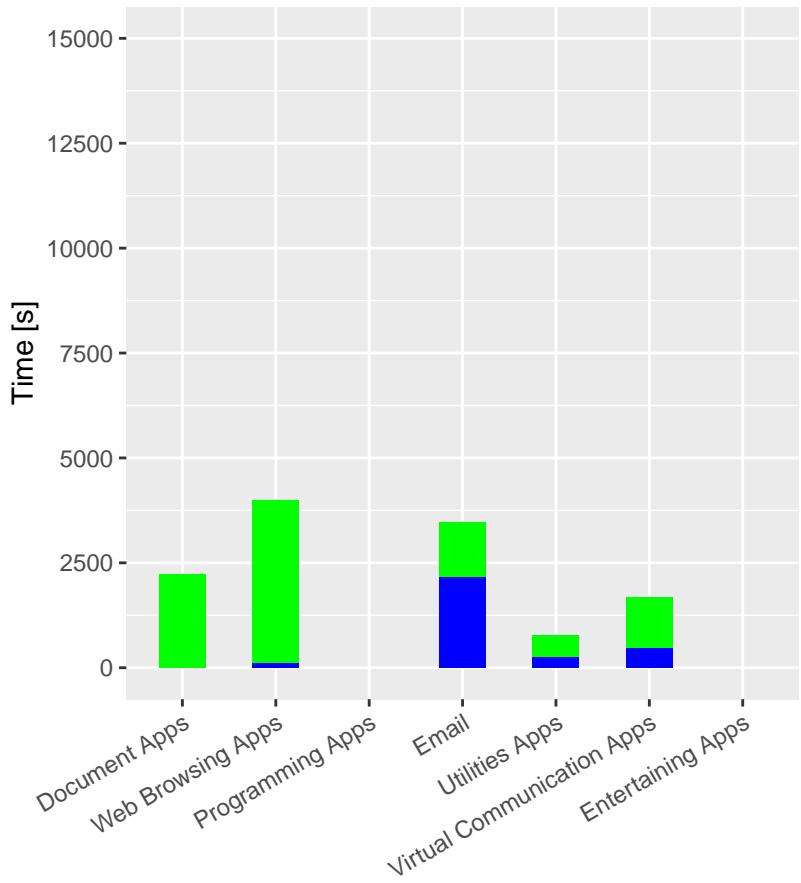
**Day2**



**Day3**



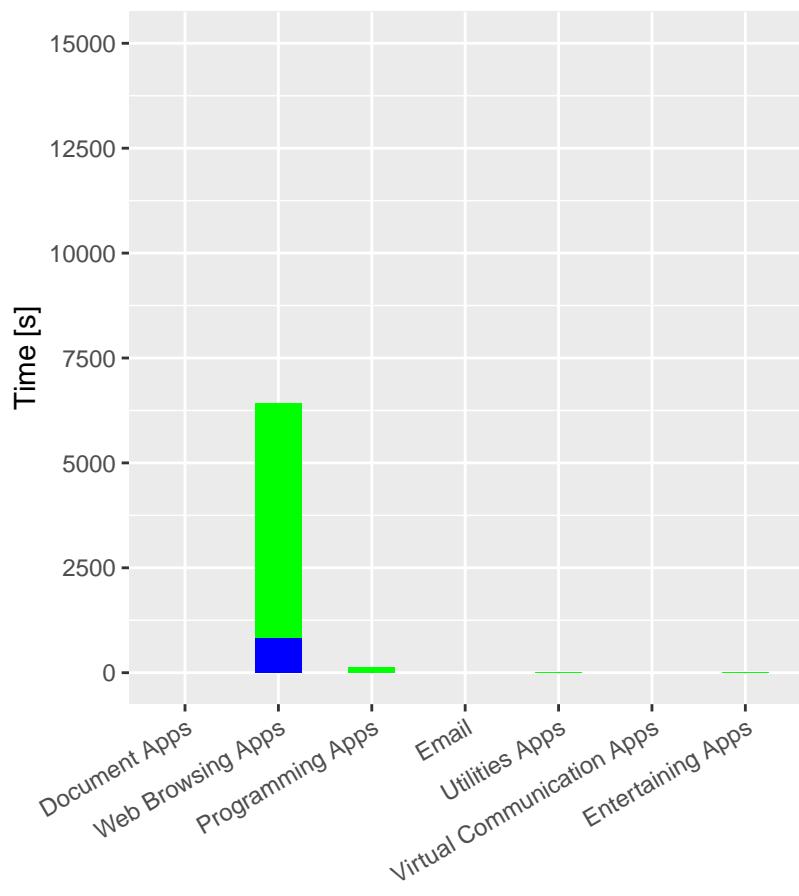
**Day4**



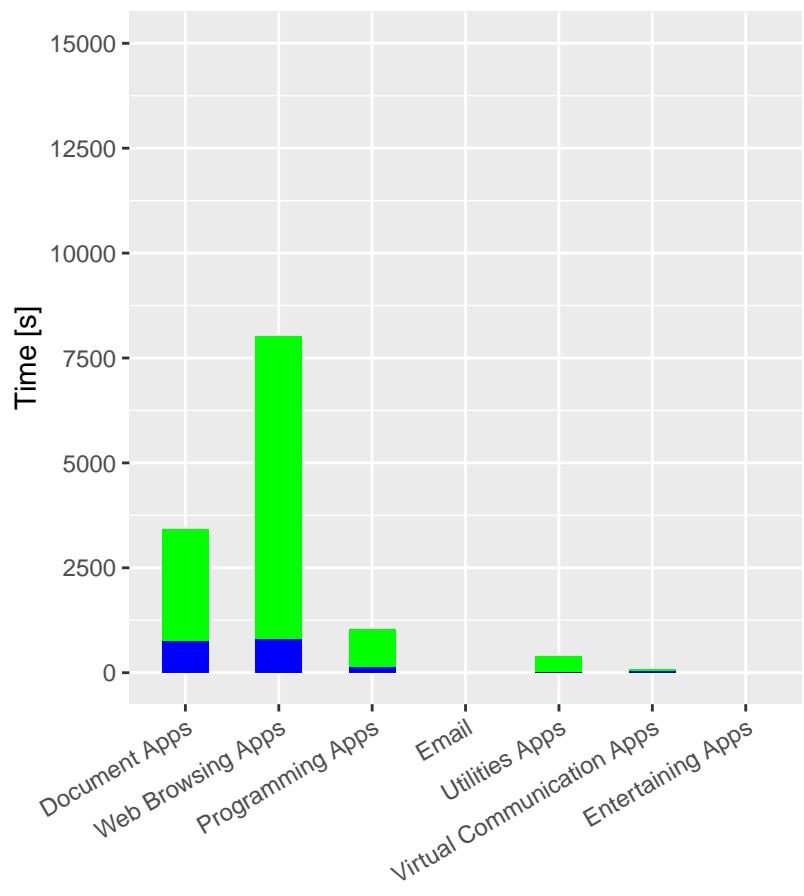
R   W

**T009**

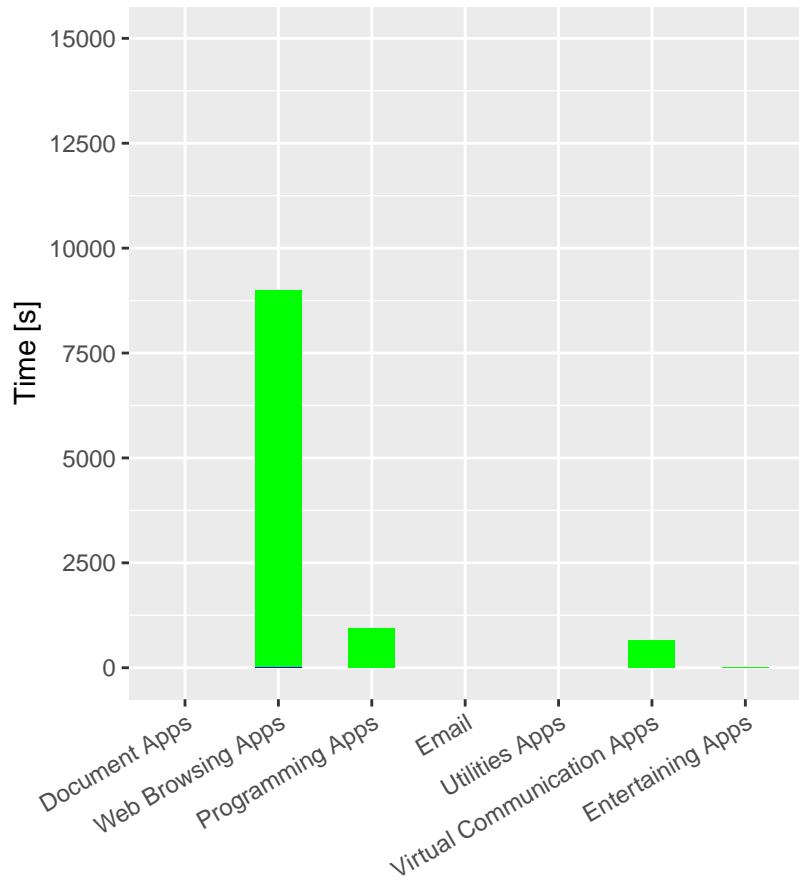
**Day1**



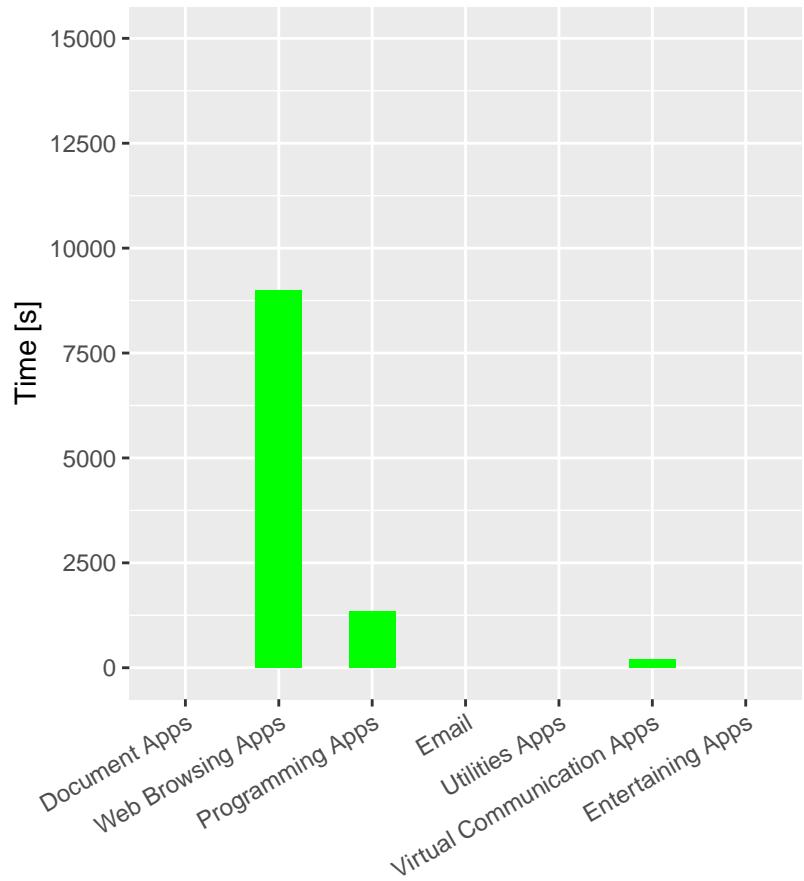
**Day2**



**Day3**



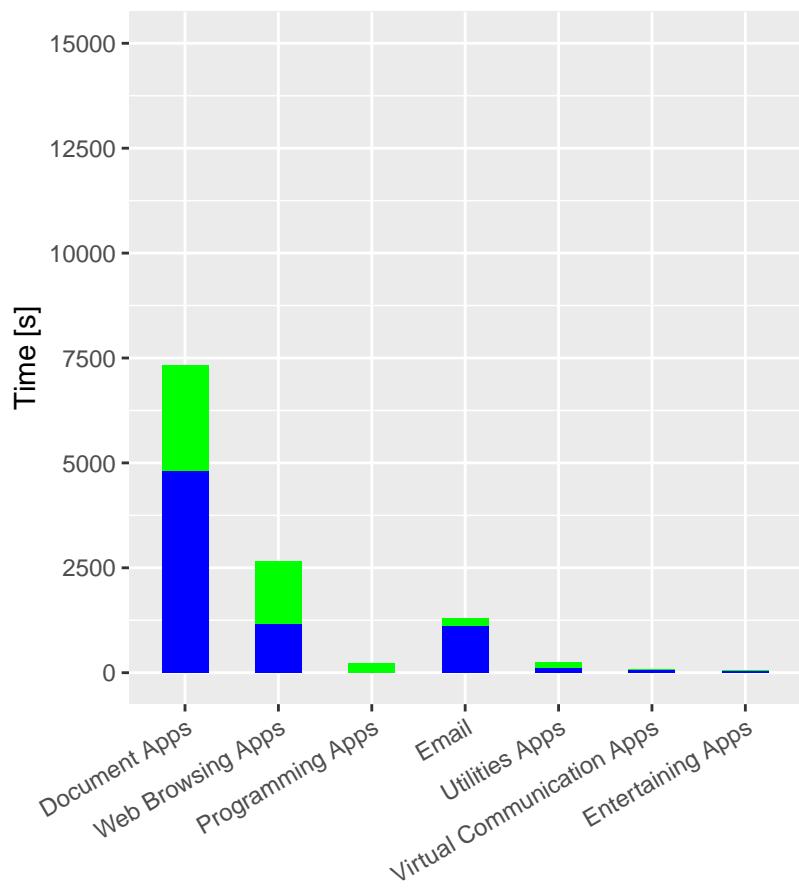
**Day4**



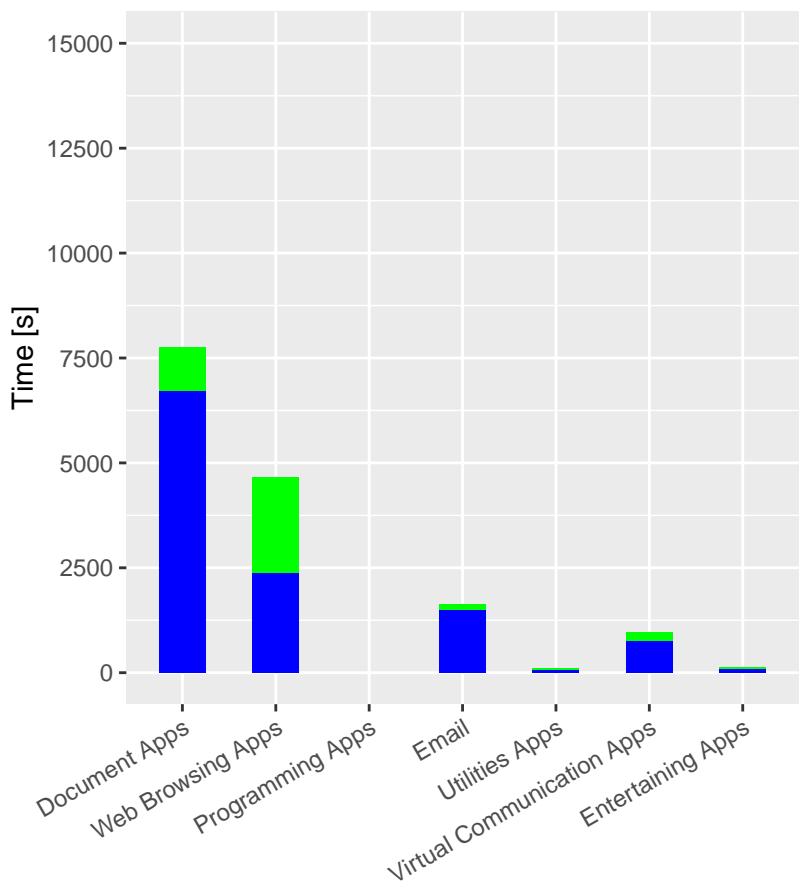
R   W

**T011**

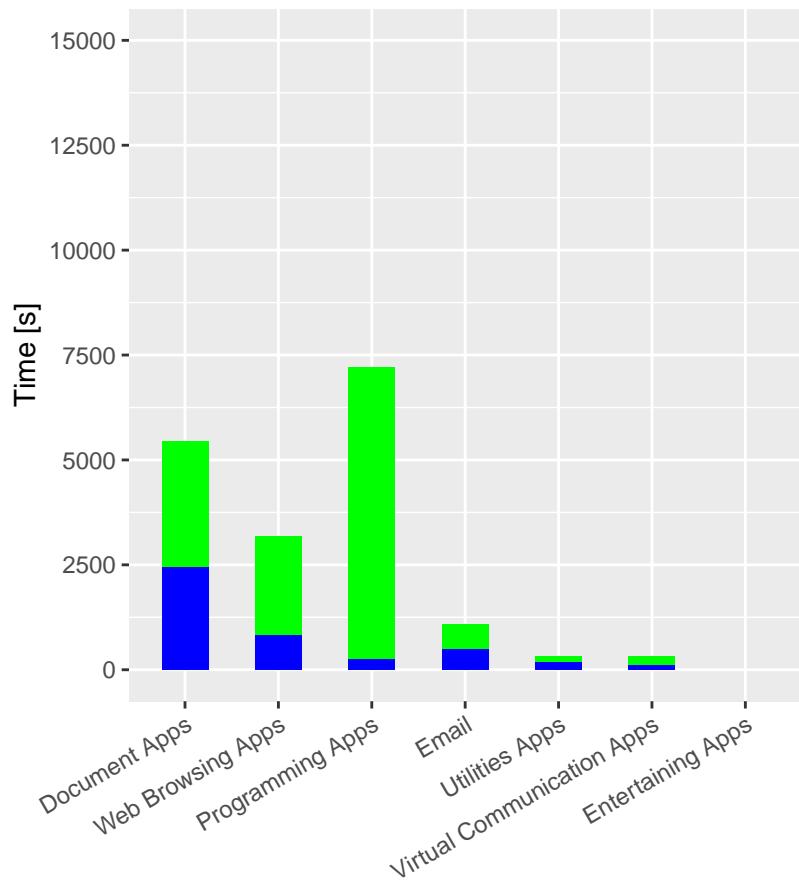
**Day1**



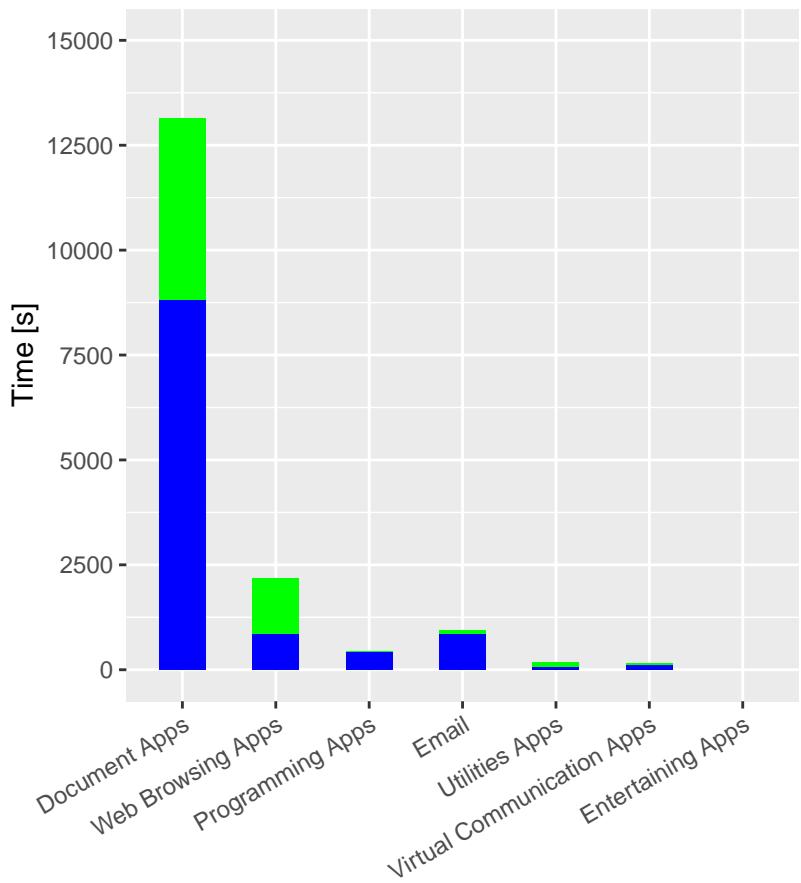
**Day2**



**Day3**



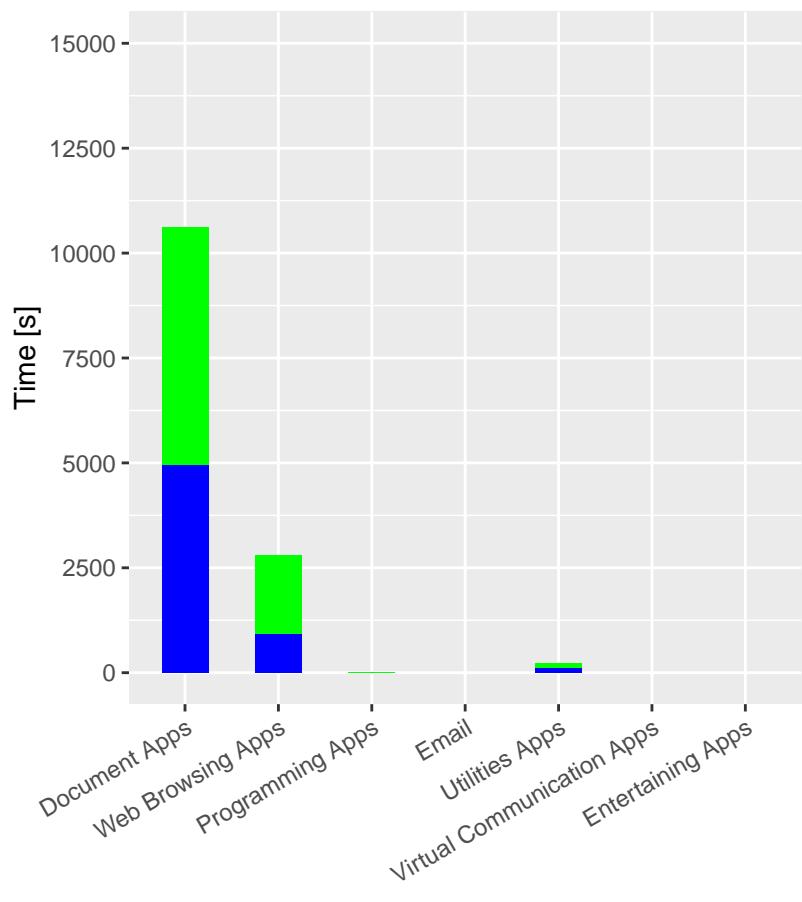
**Day4**



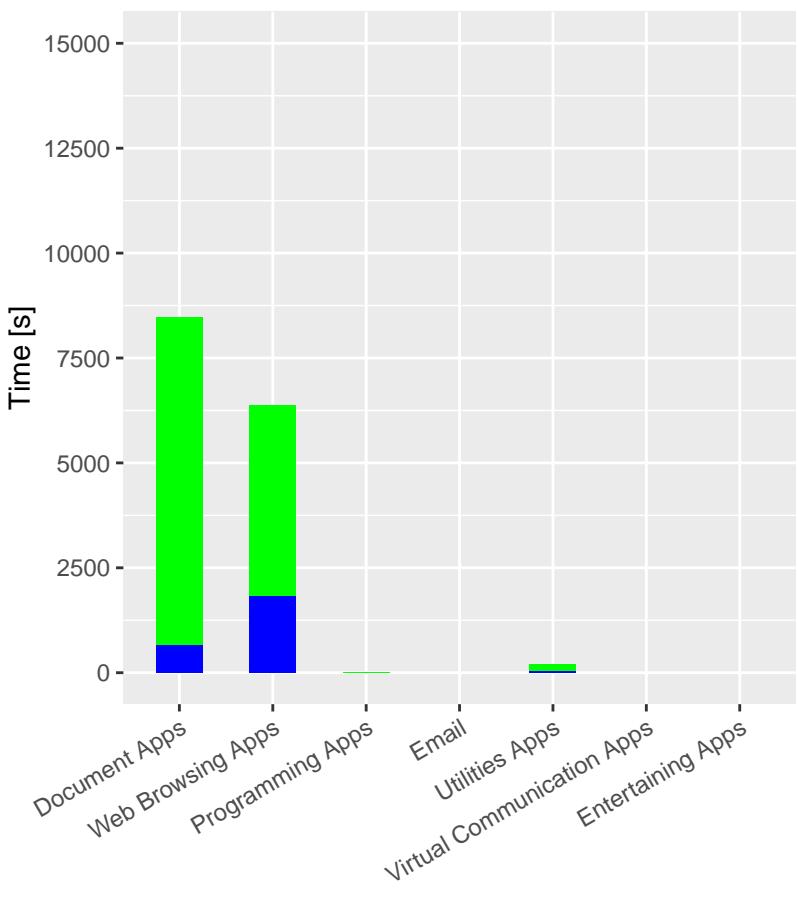
R   W

**T013**

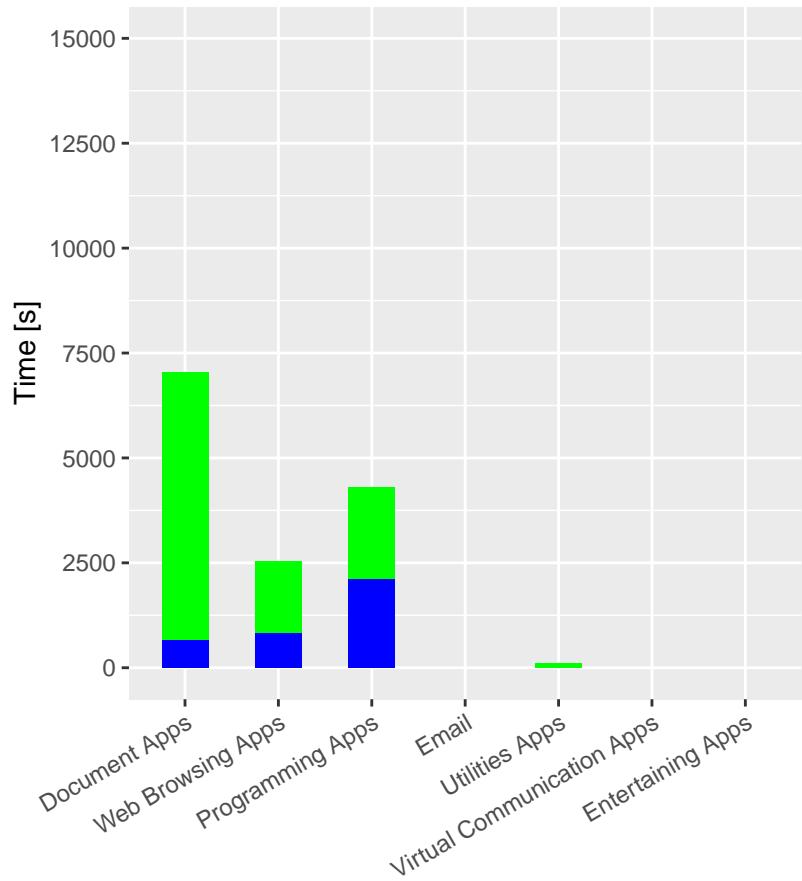
**Day1**



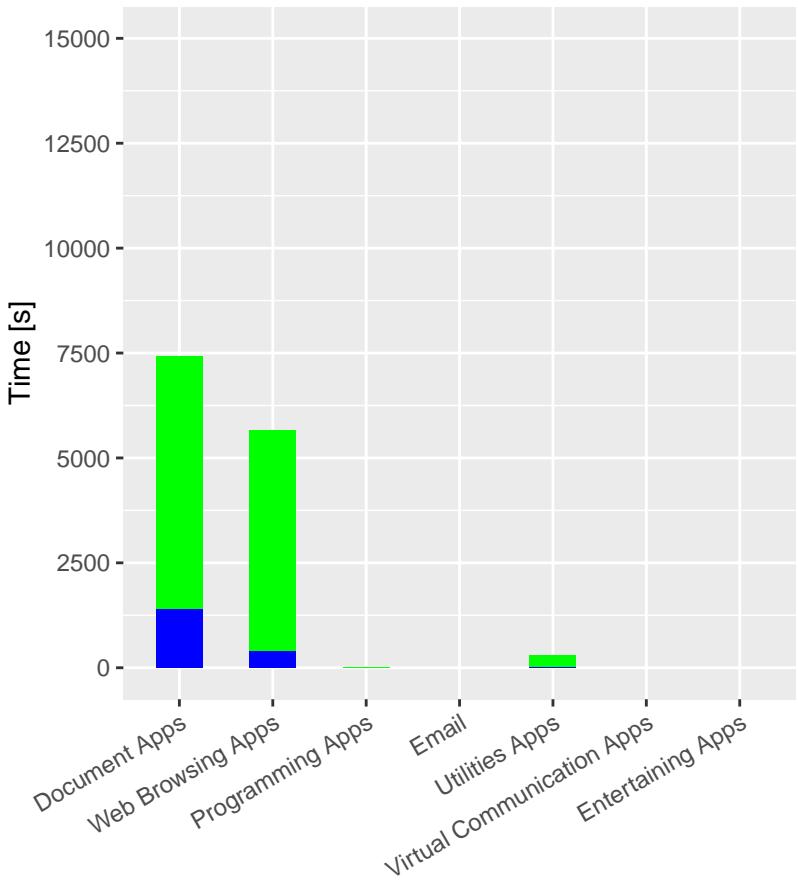
**Day2**



**Day3**



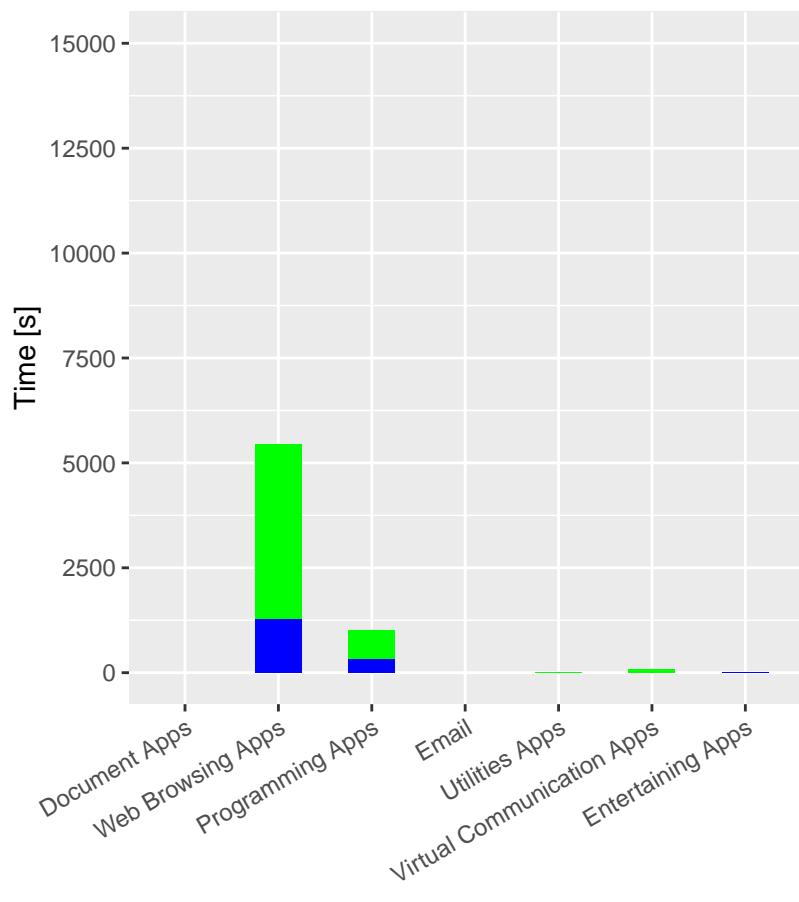
**Day4**



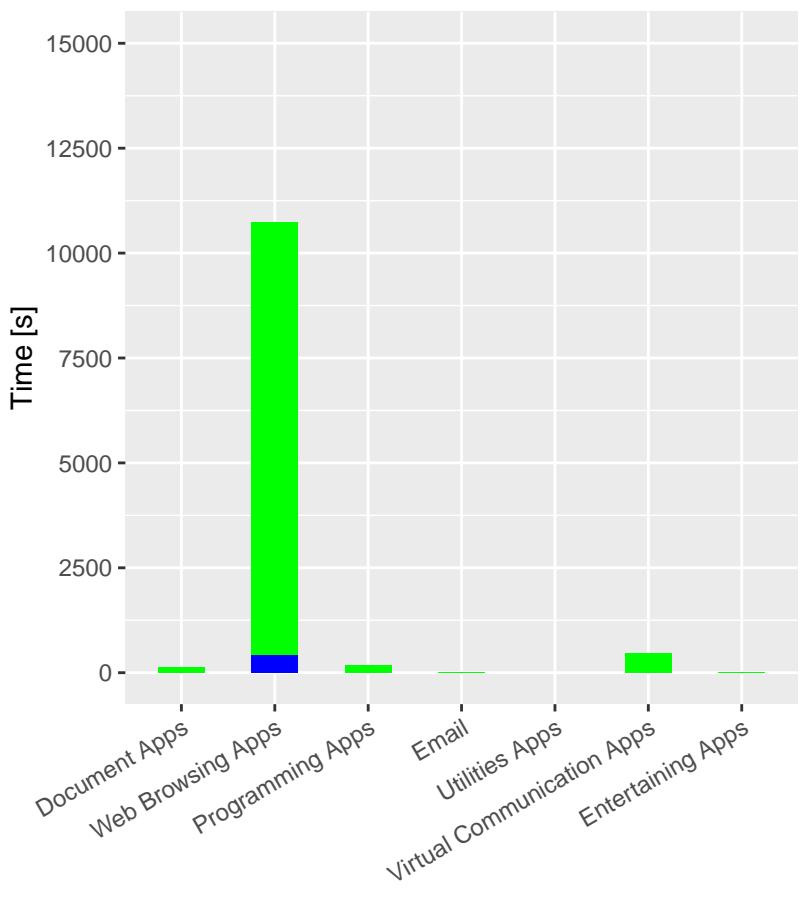
R   W

**T015**

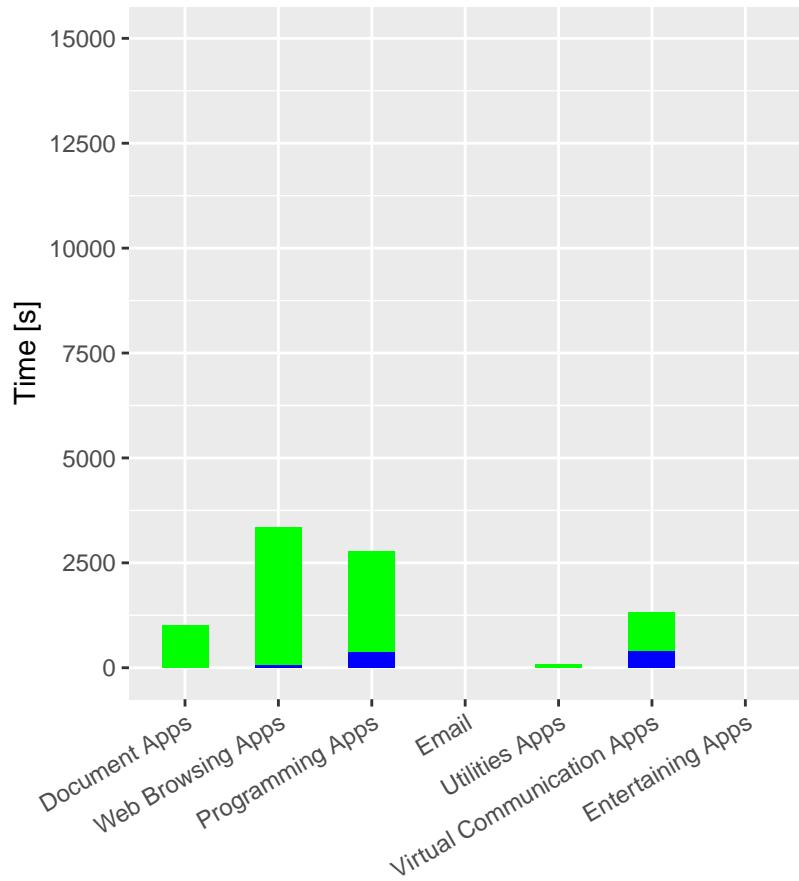
**Day1**



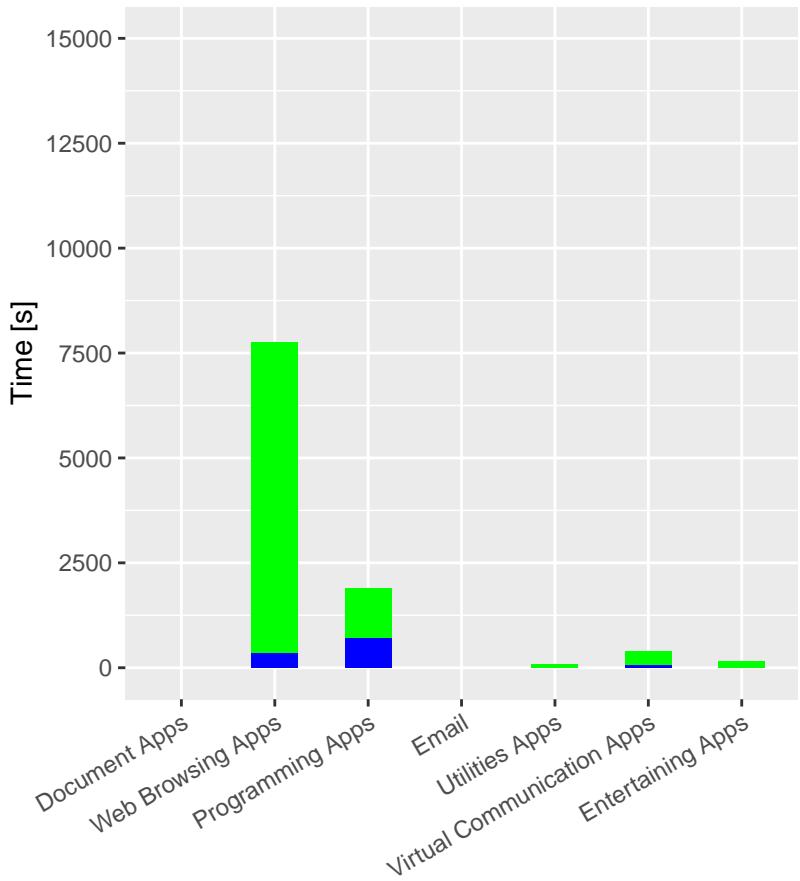
**Day2**



**Day3**



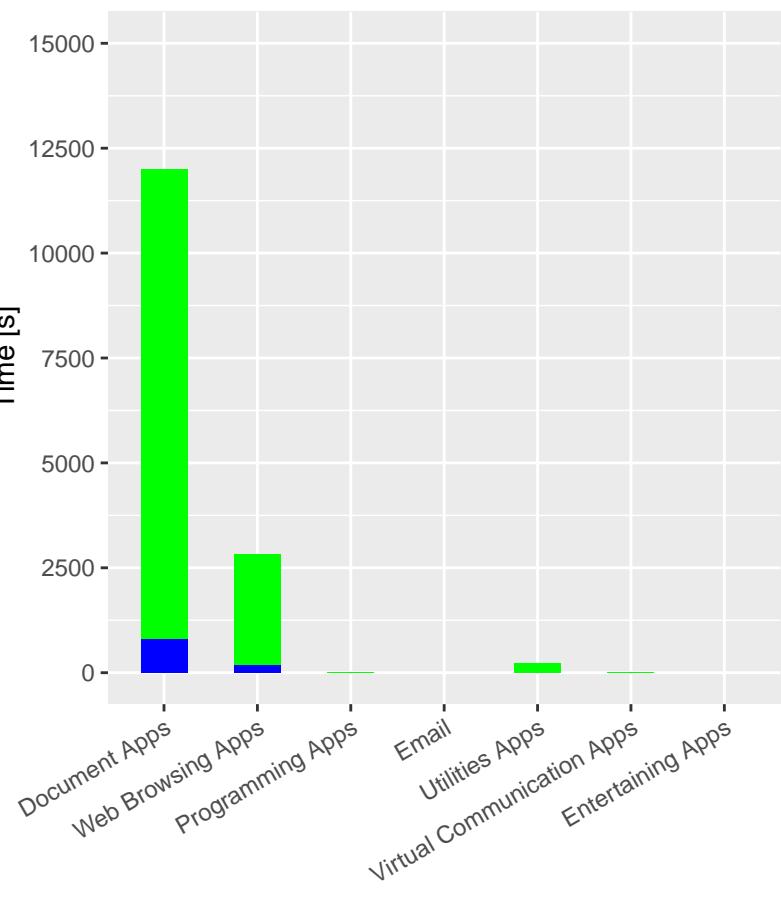
**Day4**



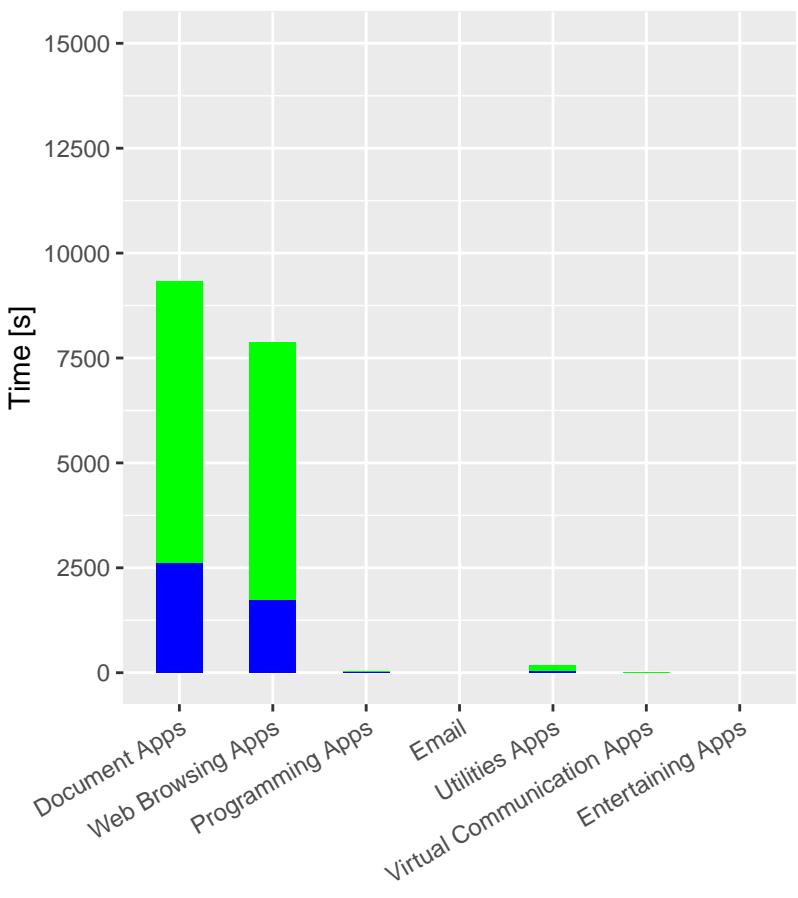
R   W

**T017**

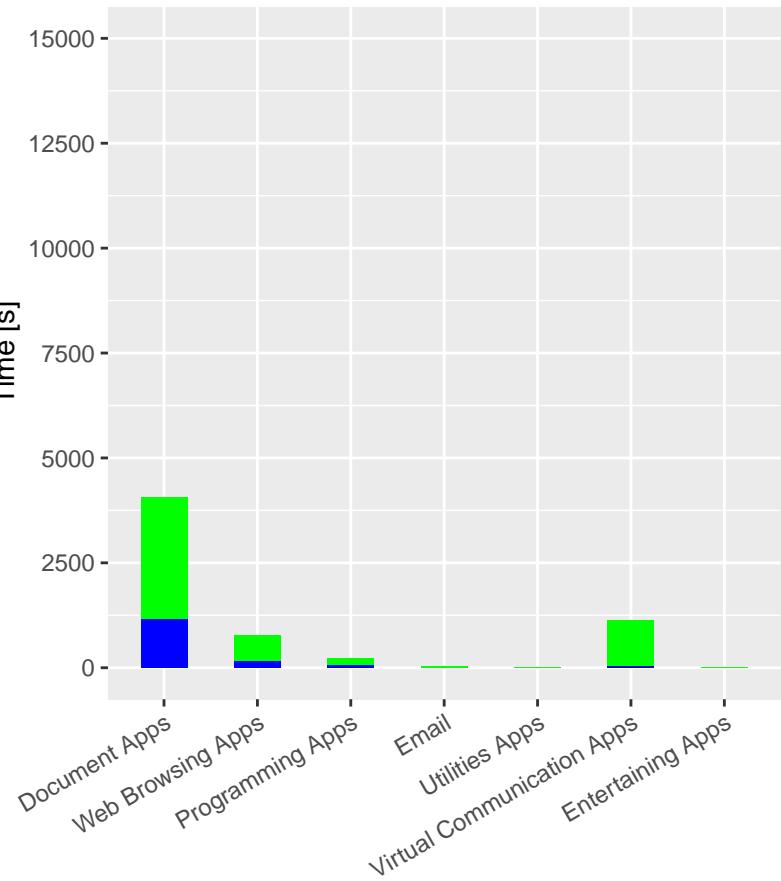
**Day1**



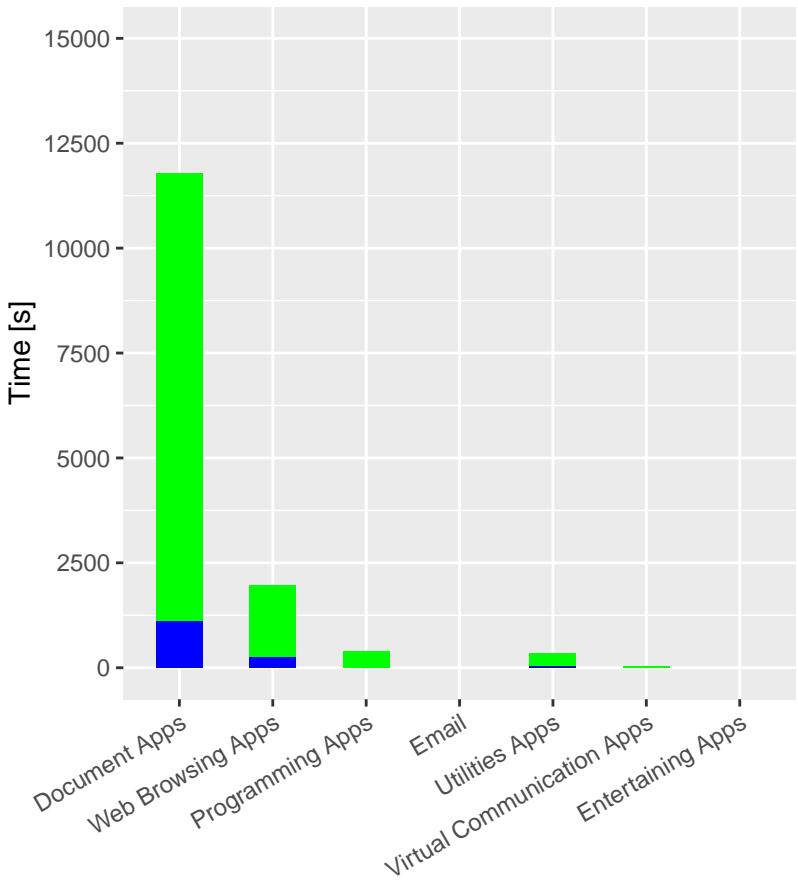
**Day2**



**Day3**



**Day4**



R   W

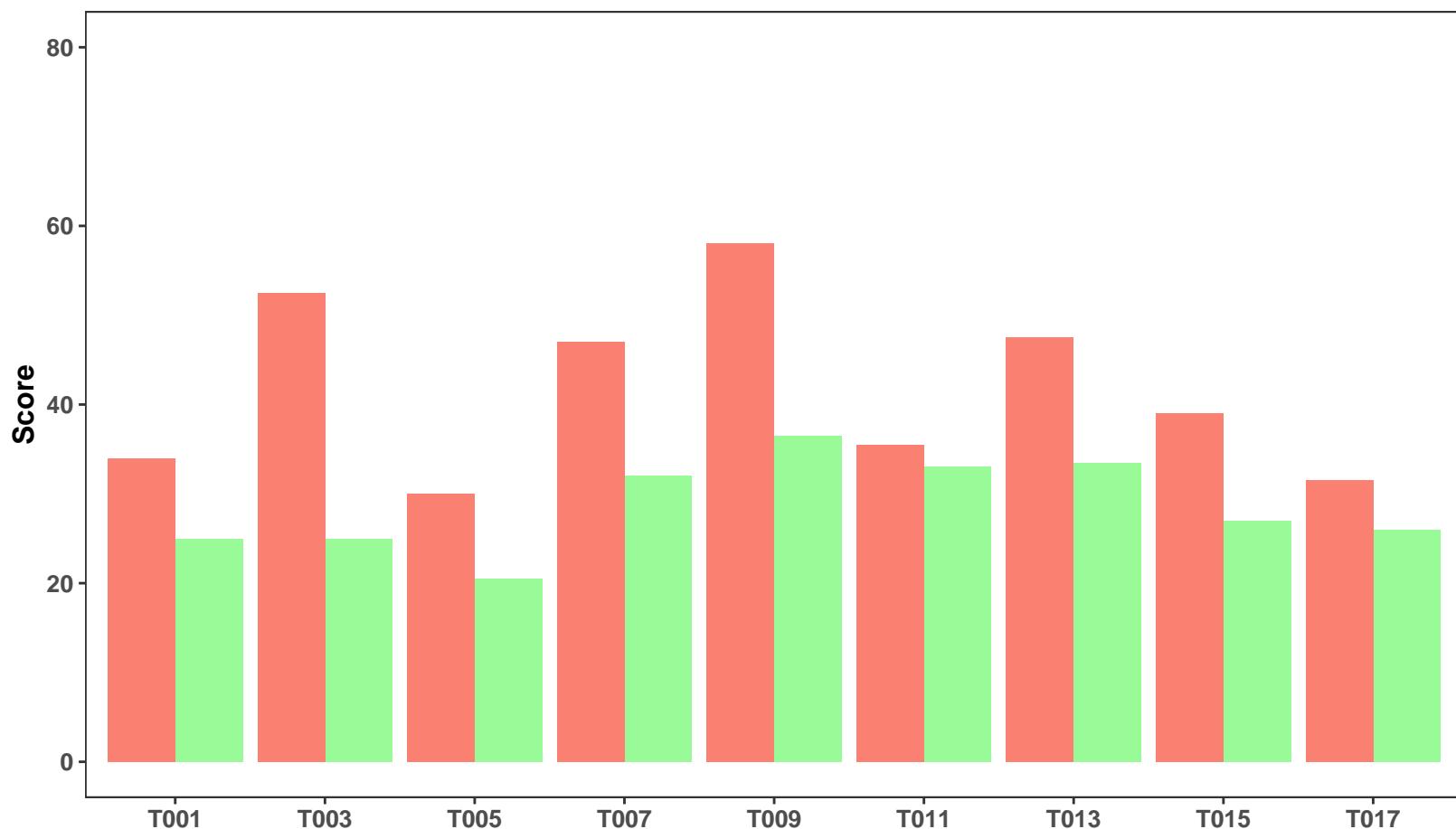
### **3 Chapter 3**

#### **3.1 Psychometric Data**

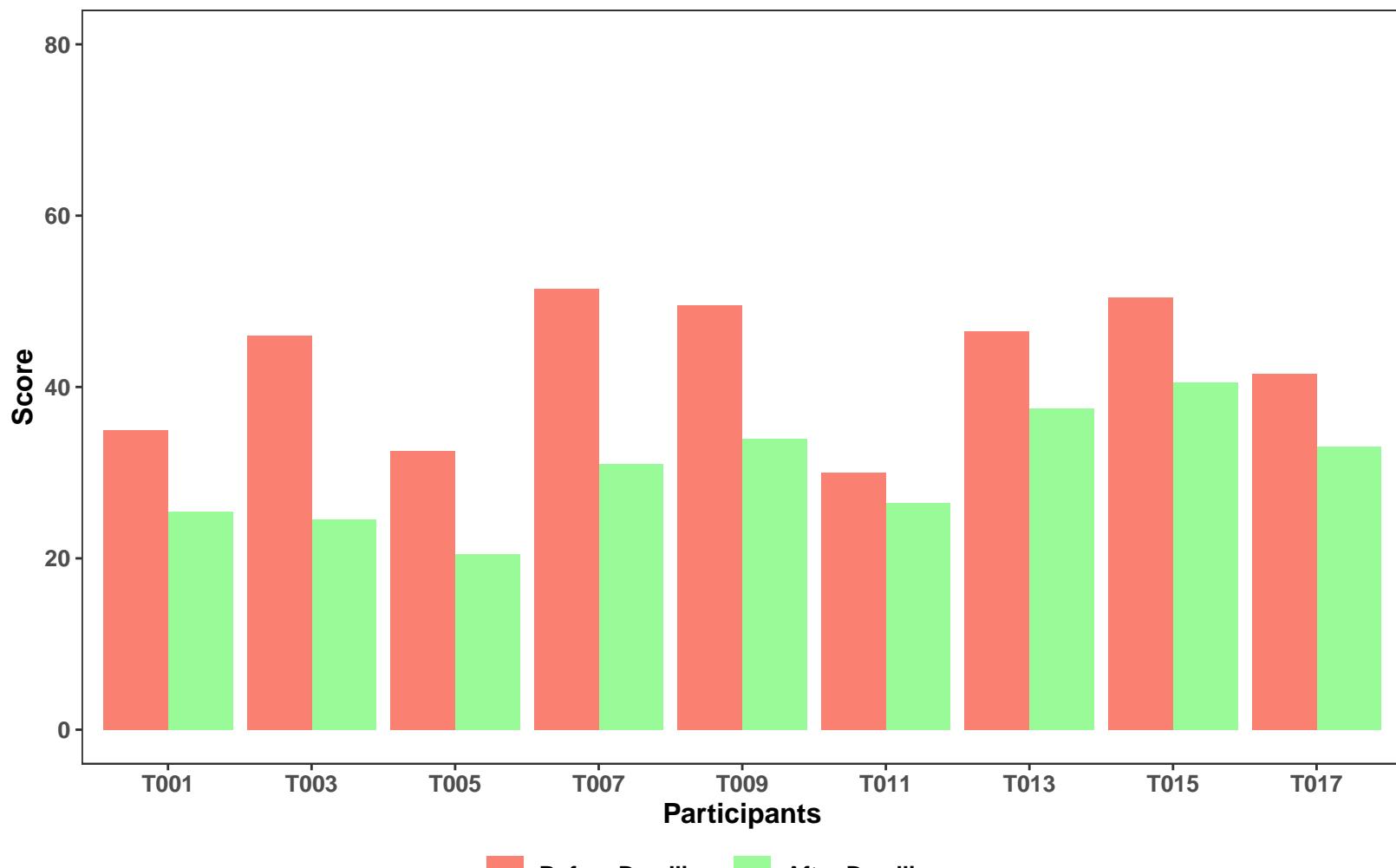
##### **3.1.1 State**

###### **3.1.1.0.1 State Anxiety**

### State Anxiety: Start of the Day



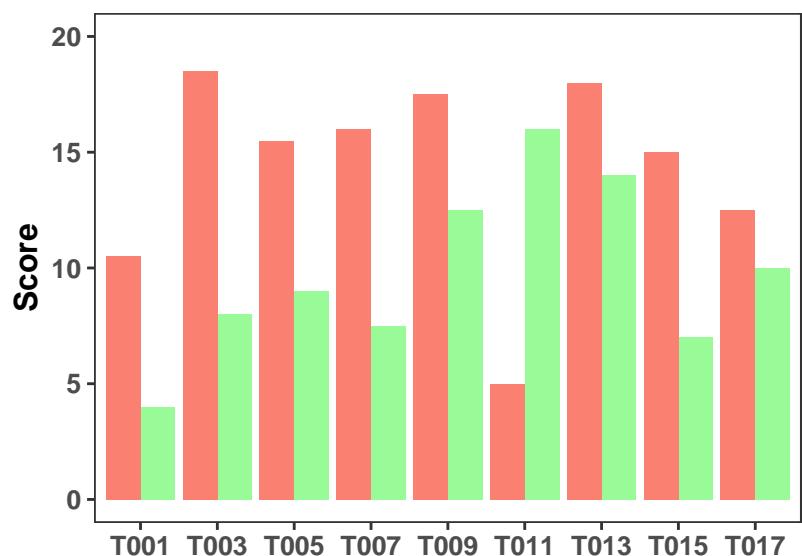
### State Anxiety: End of the Day



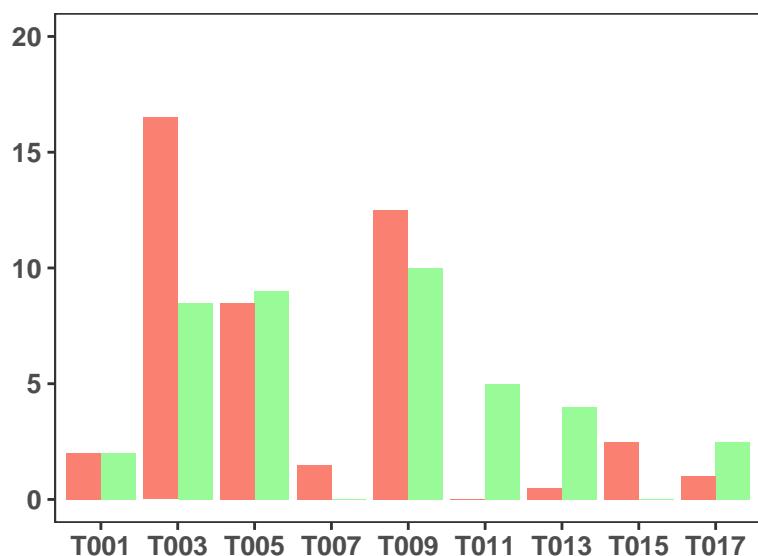
### **3.1.1.0.2 NASA TLX**

# NASA TLX

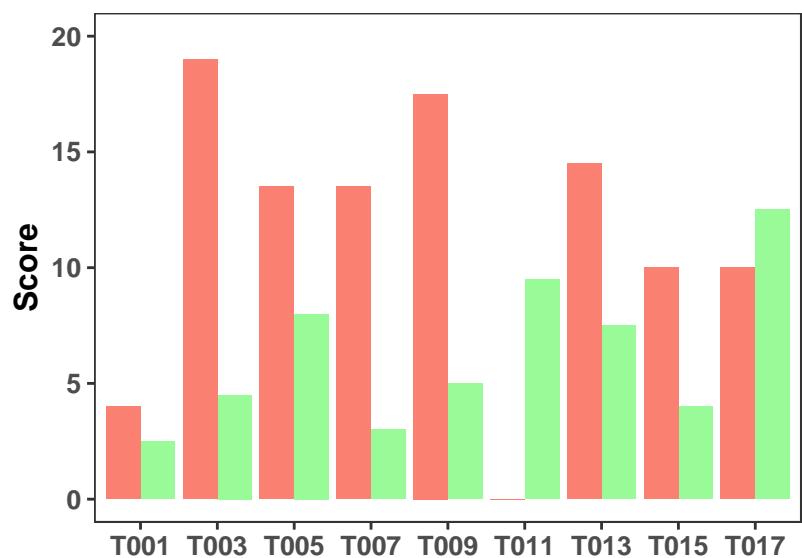
## Mental Demand



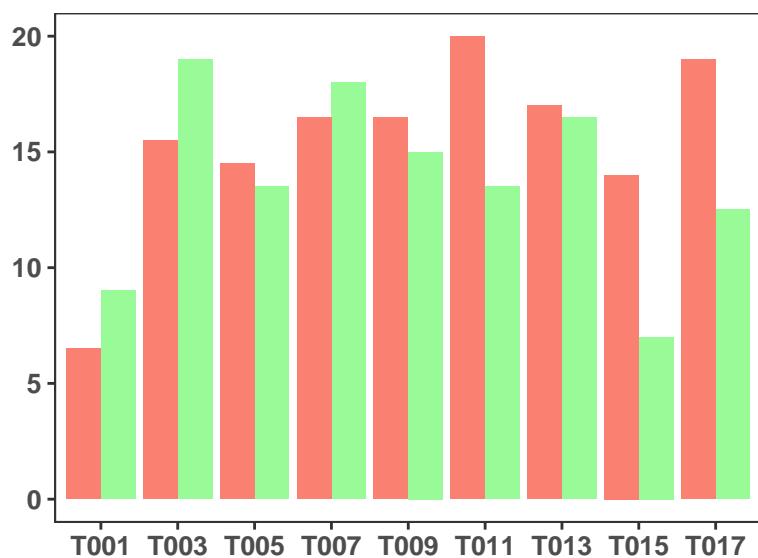
## Physical Demand



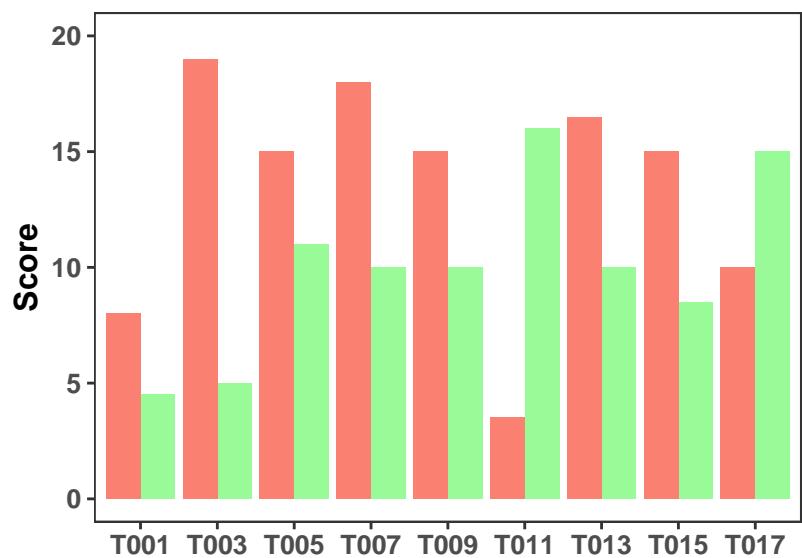
## Temporal Demand



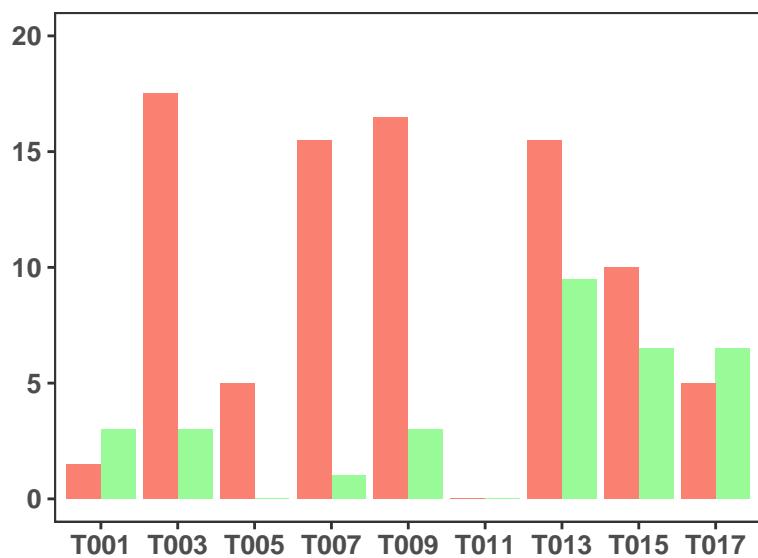
## Performance



## Effort



## Frustration



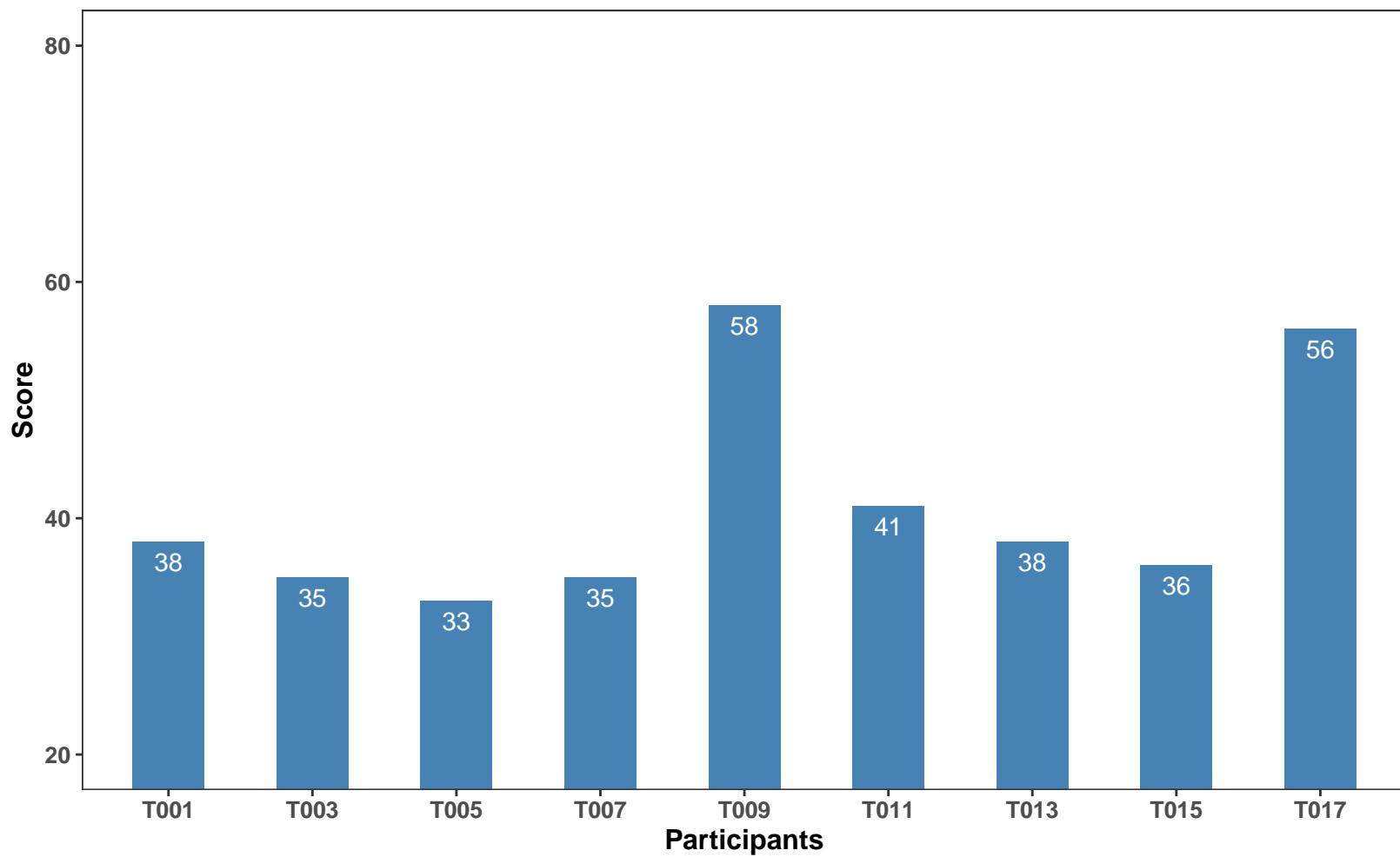
■ Before Deadline   ■ After Deadline

### **3.1.2 Trait**

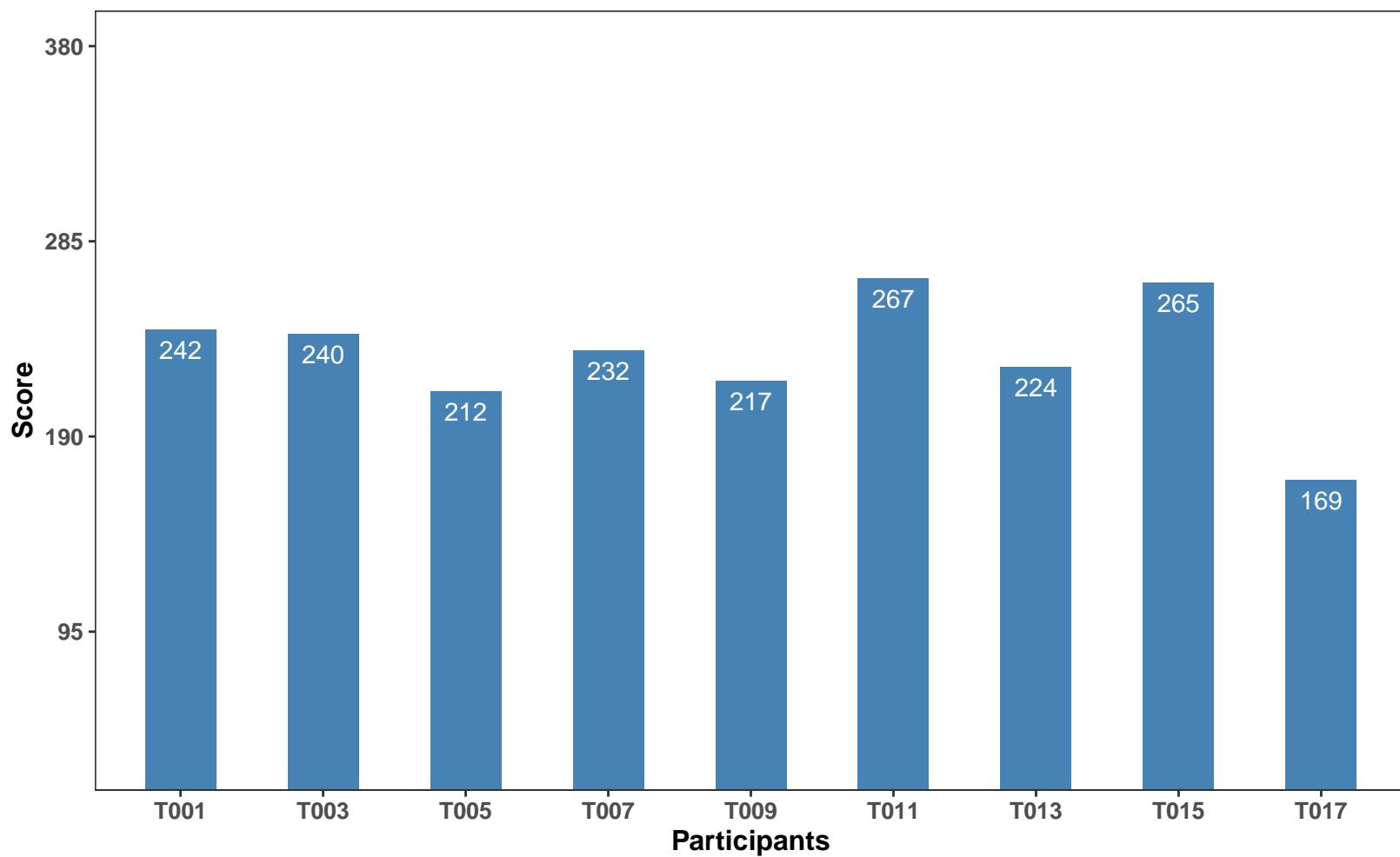
**3.1.2.0.1 Trait Anxiety**

**3.1.2.0.2 Personality A/B**

## Trait Anxiety



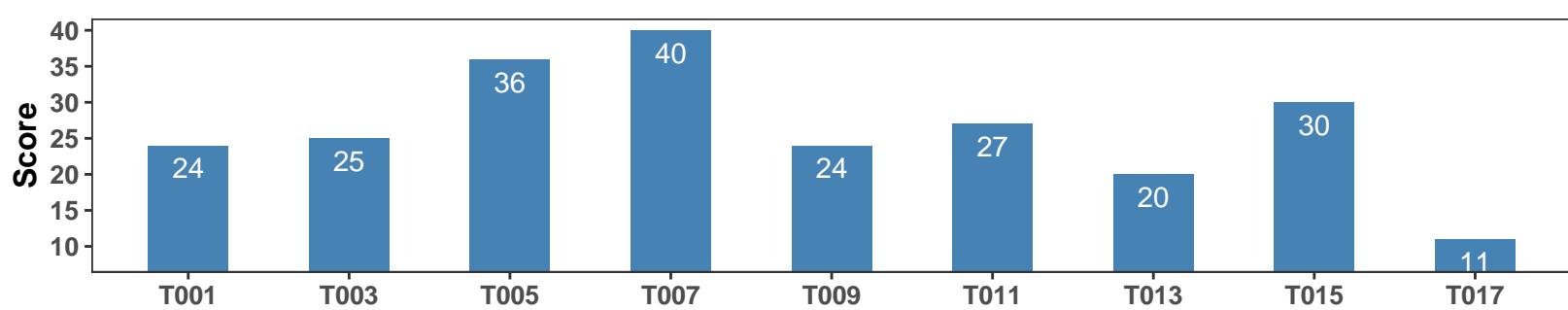
## Personality Type A/B



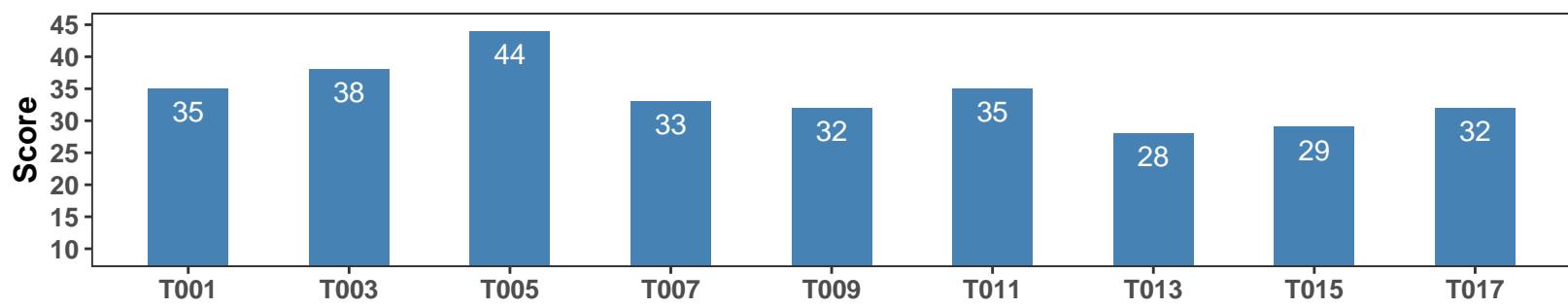
### **3.1.2.0.3 Big Five Inventory**

# Big Five Inventory

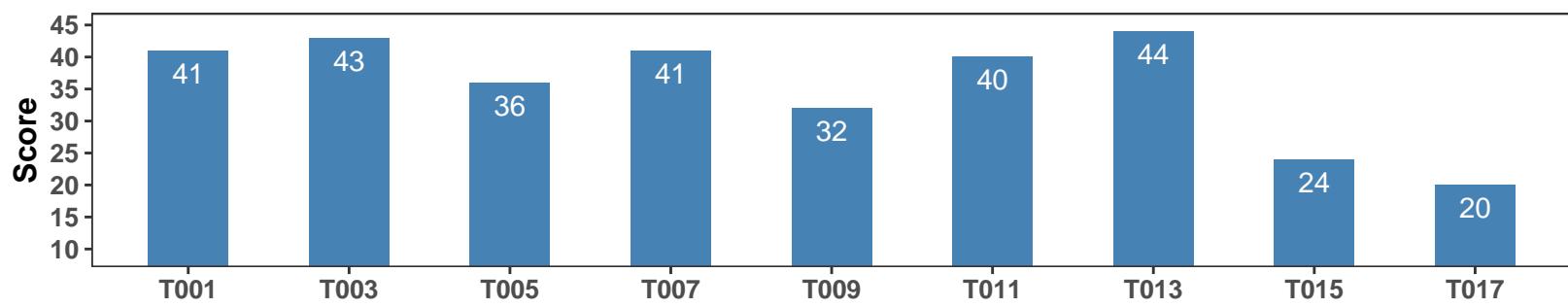
## Extraversion



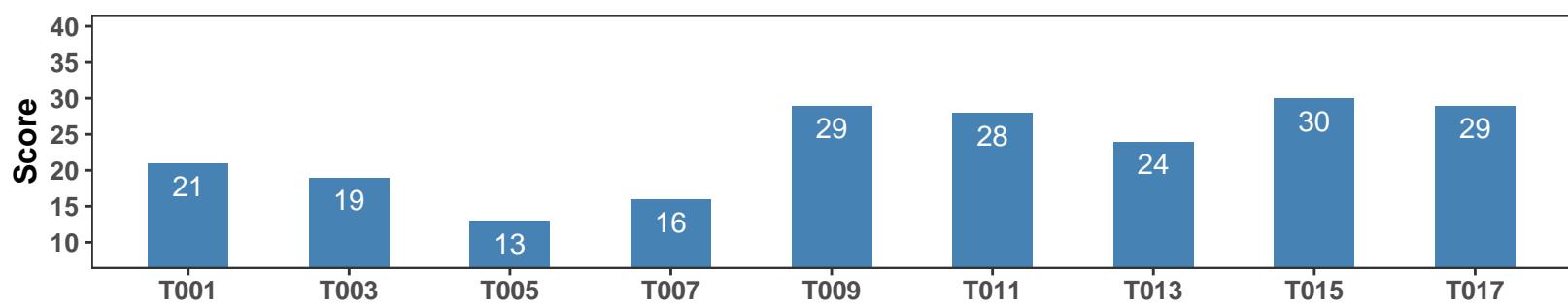
## Agreeableness



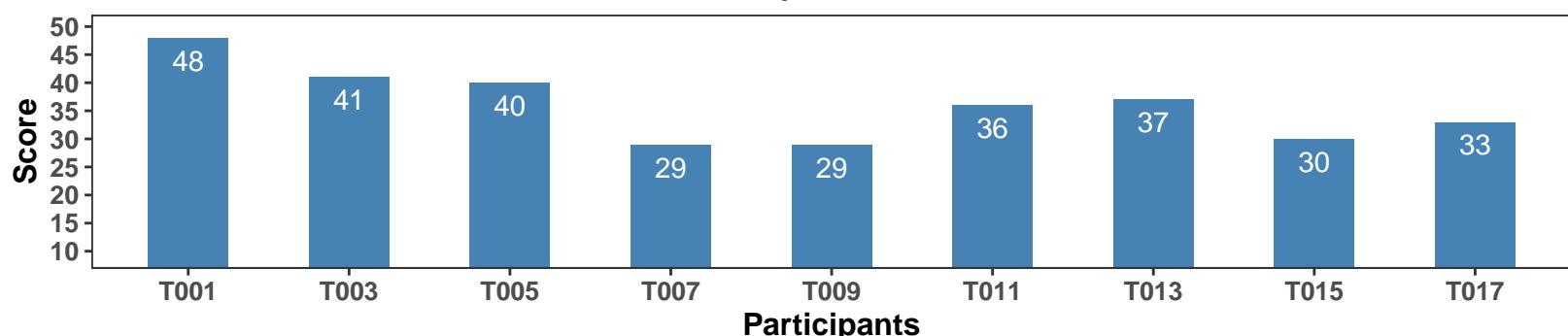
## Conscientiousness



## Neuroticism



## Openness



Participants

## **4 Chapter 4**

### **4.1 Ad Hoc Data**

Work-Life Balance and Professional Satisfaction Survey																	
Participant_ID	Position	h_index	Submitting	Authorship	Submission_Venue	Acceptance_Rate	Spent_Time(Month)	Estimated_Time(Month)	Works_At_Office	WorkingHours_TypicalWorkday	WorkingHours_BeforeDeadline	Break_Frequency_InHour	Break_Activities	Personal Information			
															Age	Gender	Marital_Status
T001	Professor	30	Paper	Senior Author	ACM Symposium on Principles of Distributed Computing (PODC), 2019	Highly Competitive	12	12	Yes	08:00	10:00	01:00	Coffee, walks.				
T003	Post Doc	3	Paper	First Author	Food research International	Highly Competitive	3	15	Yes	05:00	08:00	02:00	Taking coffee, eating, resting.				
T005	Post Doc	4	Paper	Senior Author	ACS catalysis	Highly Competitive	11	15	Yes	08:00	14:00	01:30	Hear to music, drink tea, walk.				
T007	PhD Student	2	Paper	First Author	British Journal of Developmental Psychology	Moderately Competitive	6	12	Yes	08:00	11:00	02:00	Have snacks, check social media.				
T009	PhD Student	1	Paper	First Author	Winter Conference on Applications of Computer Vision	Moderately Competitive	3	6	Yes	10:00	10:00	01:00	Go around and stretch; my back is hurt.				
T011	Assistant Professor	9	Paper	Other Author	ASEE	Slightly Competitive	3	6	Yes	08:00	08:00	00:45	Walk.				
T013	PhD Student	0	Proposal	PI	National Science Foundation	Highly Competitive	2	12	Yes	06:00	10:00	02:00	Read something other than science, get some tea, or talk to someone.				
T015	PhD Student	0	Paper	First Author	AAAI AICS 2020	Moderately Competitive	8	5	Yes	06:00	08:00	01:30	Coffee, Food, Socializing.				
T017	Assistant Professor	16	Proposal	PI	Department of Energy	Highly Competitive	1	6	Yes	08:00	10:00	03:00	Eat, answer emails, non-academic work.				