

## Overview of the results of the household CHR32 Couple under 30 years without work 0

Calculation Time

Freitag, 1. Januar 2016 - Sonntag, 1. Januar 2017

Energy Intensity: Random

Seed 5667

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date:16.12.2016 09:20:17

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## Totals

### Totals for each Loadtype

Load Type	Value	Unit
Cold Water	22164.89	L
Electricity	2448.96	kWh
Warm Water	96865.00	L

### Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	60.56	L
Electricity	6.69	kWh
Warm Water	264.66	L

### Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	17.03	L/Min
Electricity	0.16	6370.82	Watt
Warm Water	0.00	22.50	L/Min

### Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	11082.45	L
Electricity	1224.48	kWh

Warm Water	48432.50	L
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### Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	30.28	L
Electricity	3.35	kWh
Warm Water	132.33	L

## Persons

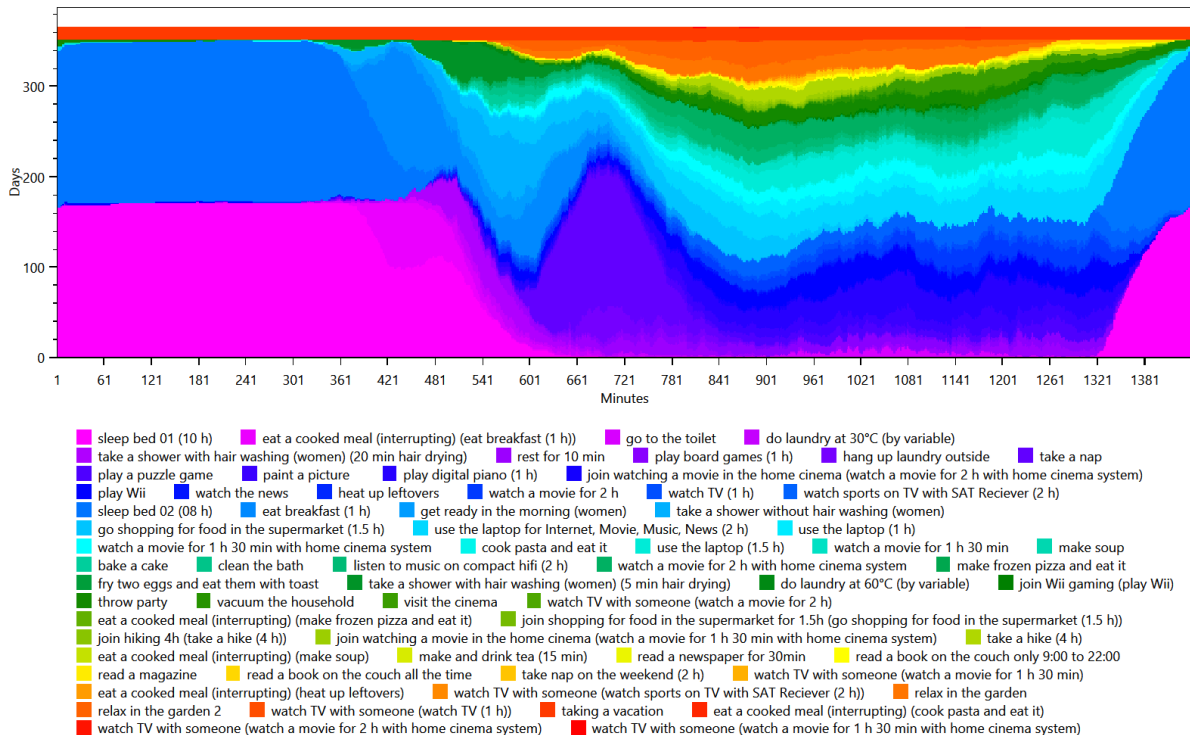
- HH0
  - CHR32 Christin (23/Female)(23/Female)
  - CHR32 Jona (25/Male)(25/Male)

# Activity Frequency Charts

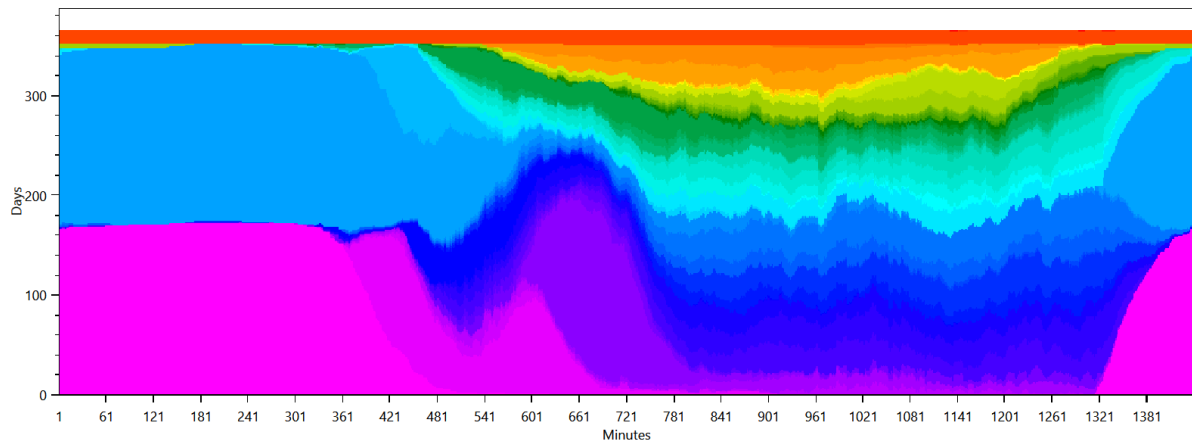
This is made from the files starting with: ActivityFrequenciesPerMinute

These charts show an ordered distribution of times of the activities of each person. This helps with judging quickly if a person is sleeping correctly and if they are going to work regularly.

HH0 - CHR32 Christin (23 Female)



## HH0 - CHR32 Jona (25 Male)



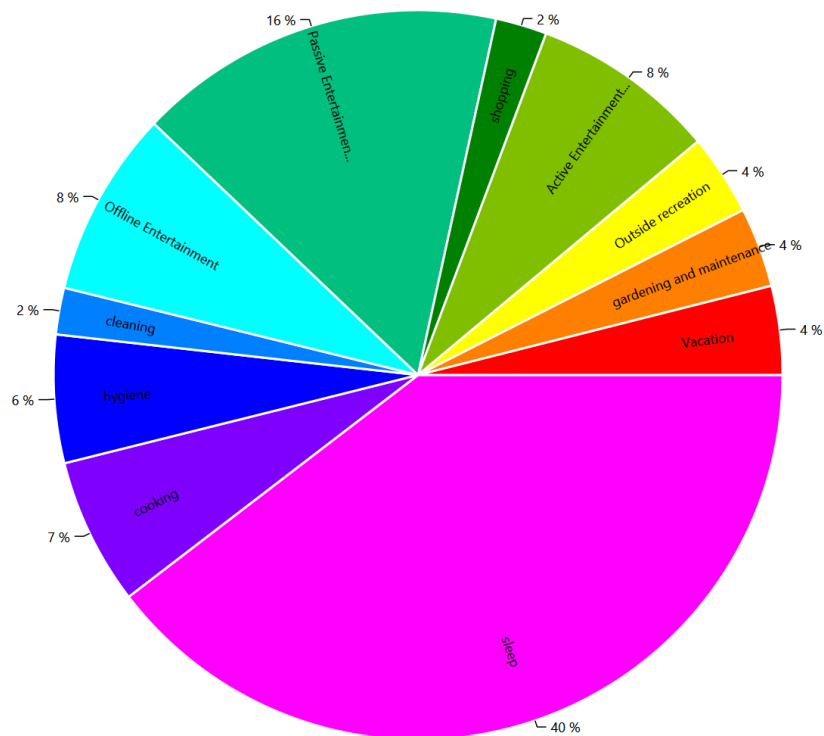
- sleep bed 02 (08 h) ■ eat breakfast (1 h) ■ get ready in the morning (men) ■ go to the toilet ■ play board games (1 h) ■ take a nap ■ rest for 10 min
- bake a cake ■ play Wii ■ play digital piano (1 h) ■ watch a movie for 2 h with home cinema system ■ take a shower (men) ■ paint a picture
- use the laptop (1.5 h) ■ make soup ■ use the laptop (1 h) ■ use the laptop for Internet, Movie, Music, News (2 h) ■ listen to music on compact hifi (2 h)
- sleep bed 01 (10 h) ■ eat a cooked meal (interrupting) (eat breakfast (1 h))
- join shopping for food in the supermarket for 1.5h (go shopping for food in the supermarket (1.5 h)) ■ watch a movie for 2 h ■ make frozen pizza and eat it
- watch a movie for 1 h 30 min with home cinema system ■ watch sports on TV with SAT Reciever (2 h) ■ watch a movie for 1 h 30 min
- fry two eggs and eat them with toast ■ join watching a movie in the home cinema (watch a movie for 1 h 30 min with home cinema system) ■ play a puzzle game
- watch TV (1 h) ■ go shopping for food in the supermarket (1.5 h) ■ heat up leftovers ■ watch the news ■ cook pasta and eat it
- make and drink tea (15 min) ■ read a newspaper for 30min ■ read a book on the couch only 9:00 to 22:00
- join watching a movie in the home cinema (watch a movie for 2 h with home cinema system) ■ read a book on the couch all the time ■ read a magazine
- throw party ■ visit the cinema ■ take a hike (4 h) ■ watch TV with someone (watch a movie for 2 h)
- watch TV with someone (watch sports on TV with SAT Reciever (2 h)) ■ join Wii gaming (play Wii) ■ join hiking 4h (take a hike (4 h))
- eat a cooked meal (interrupting) (heat up leftovers) ■ relax in the garden 2 ■ relax in the garden ■ take nap on the weekend (2 h)
- eat a cooked meal (interrupting) (make soup) ■ taking a vacation ■ eat a cooked meal (interrupting) (make frozen pizza and eat it)
- watch TV with someone (watch a movie for 1 h 30 min) ■ eat a cooked meal (interrupting) (cook pasta and eat it)

# Activity Distribution per Person

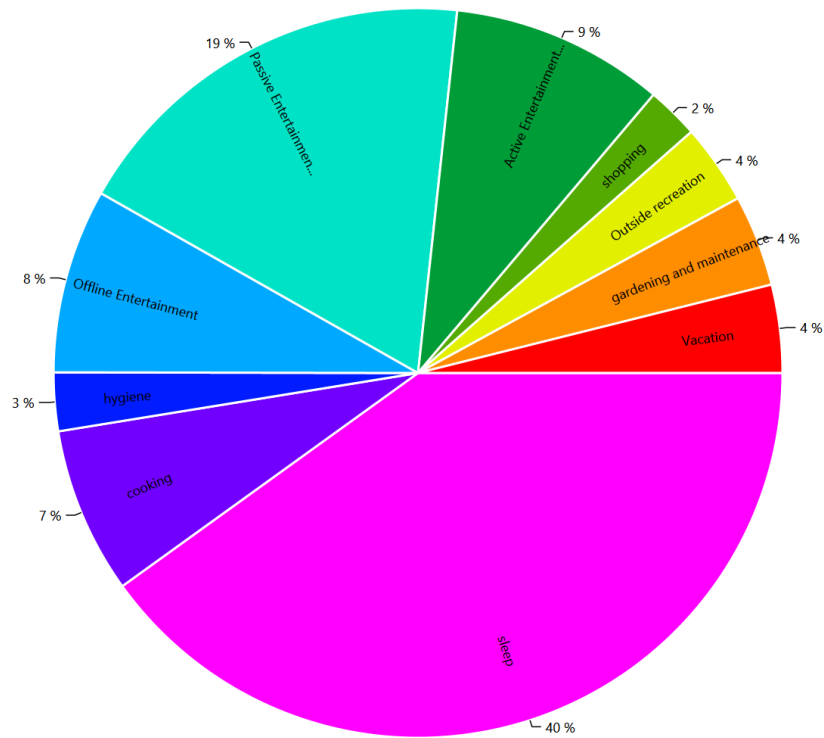
This is made from the files starting with: ActivityPercentage

This shows the distribution of the activities, grouped by the affordance AffordanceToCategories.

HH0 - CHR32 Christin (23 Female)



## HH0 - CHR32 Jona (25 Male)

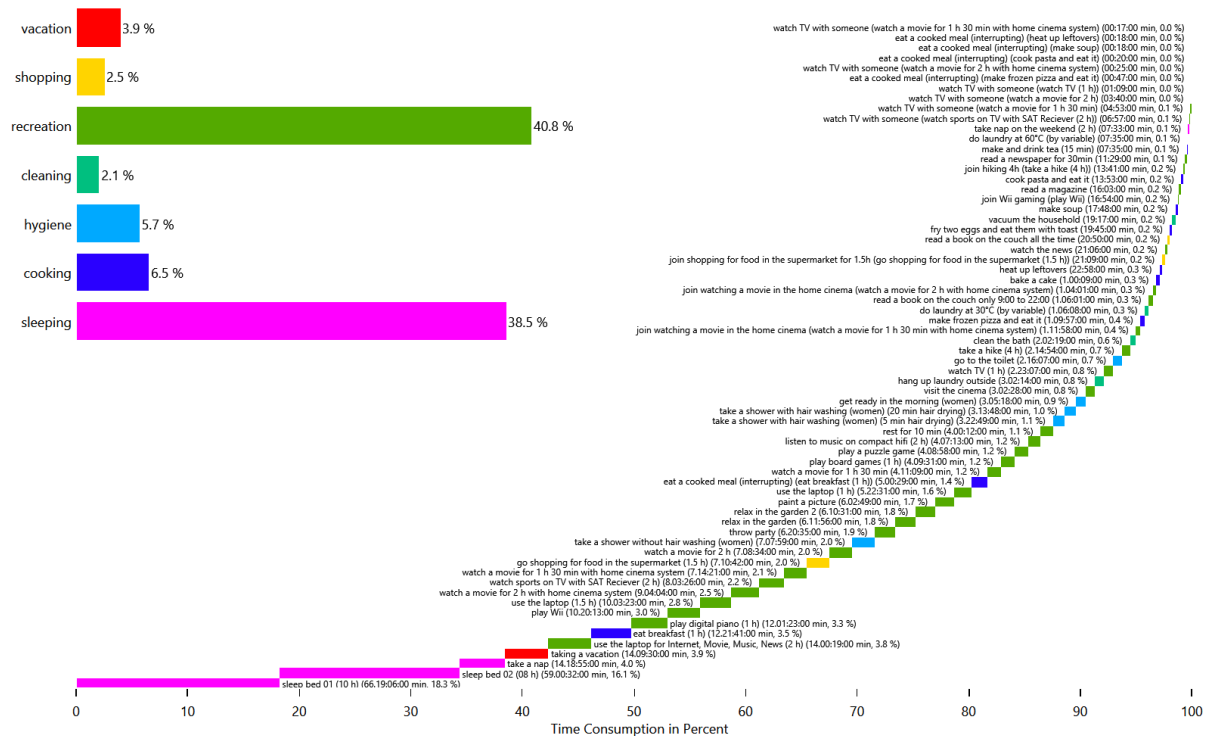


# Time Use per Person per Affordance Per Person

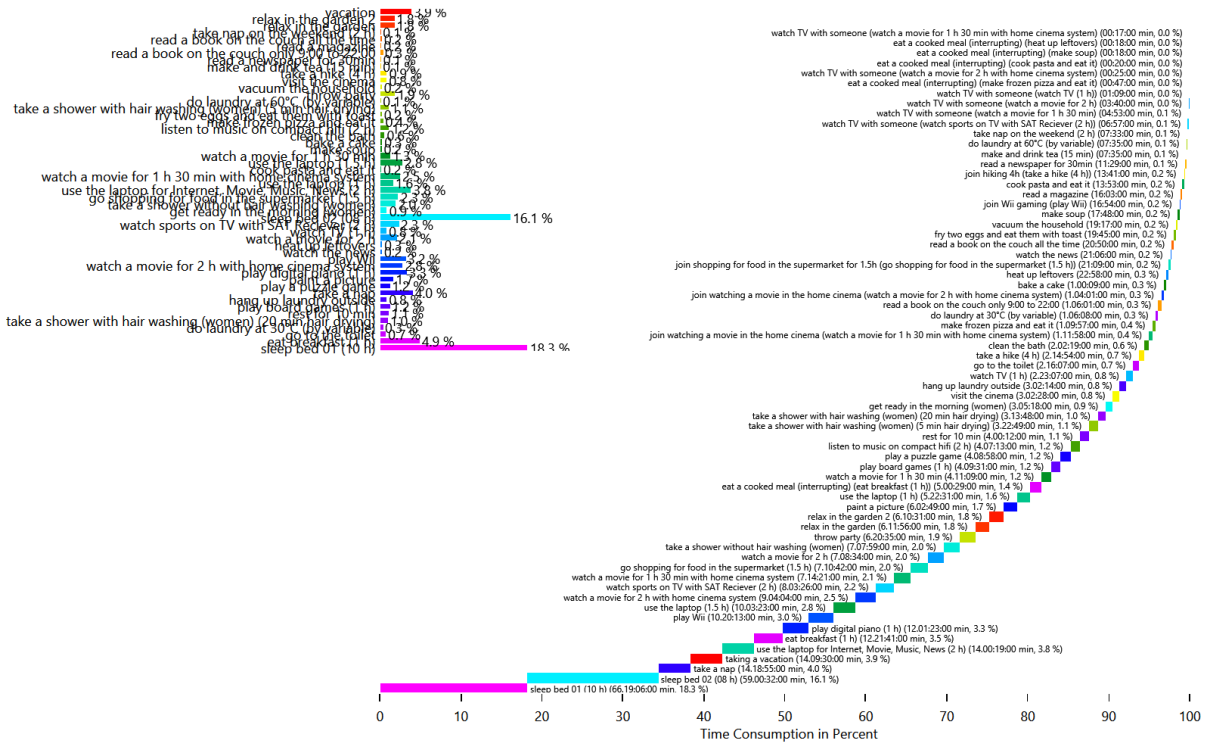
This is made from the files starting with: AffordanceTimeUse

These charts show how the people in the household use their time. This shows the individual affordances to help find problems in the household definition.

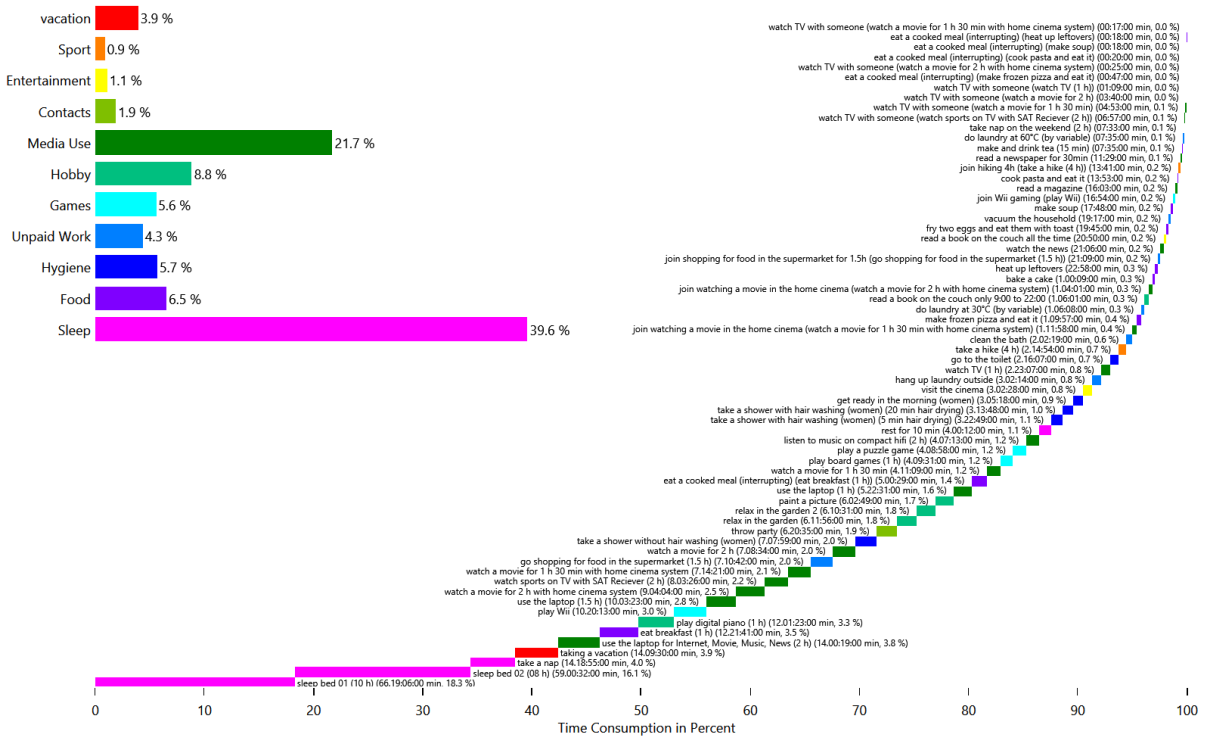
## HH0 - CHR32 Christin (23 Female)



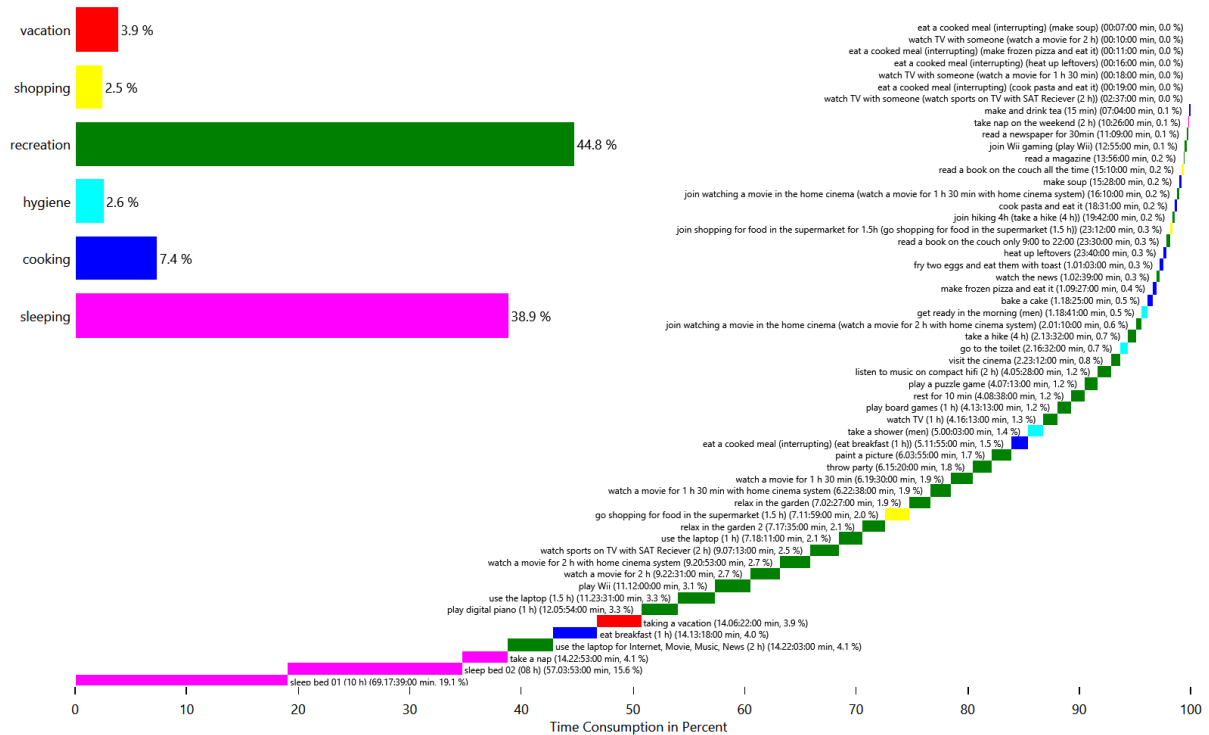
## HH0 - CHR32 Christin (23 Female)



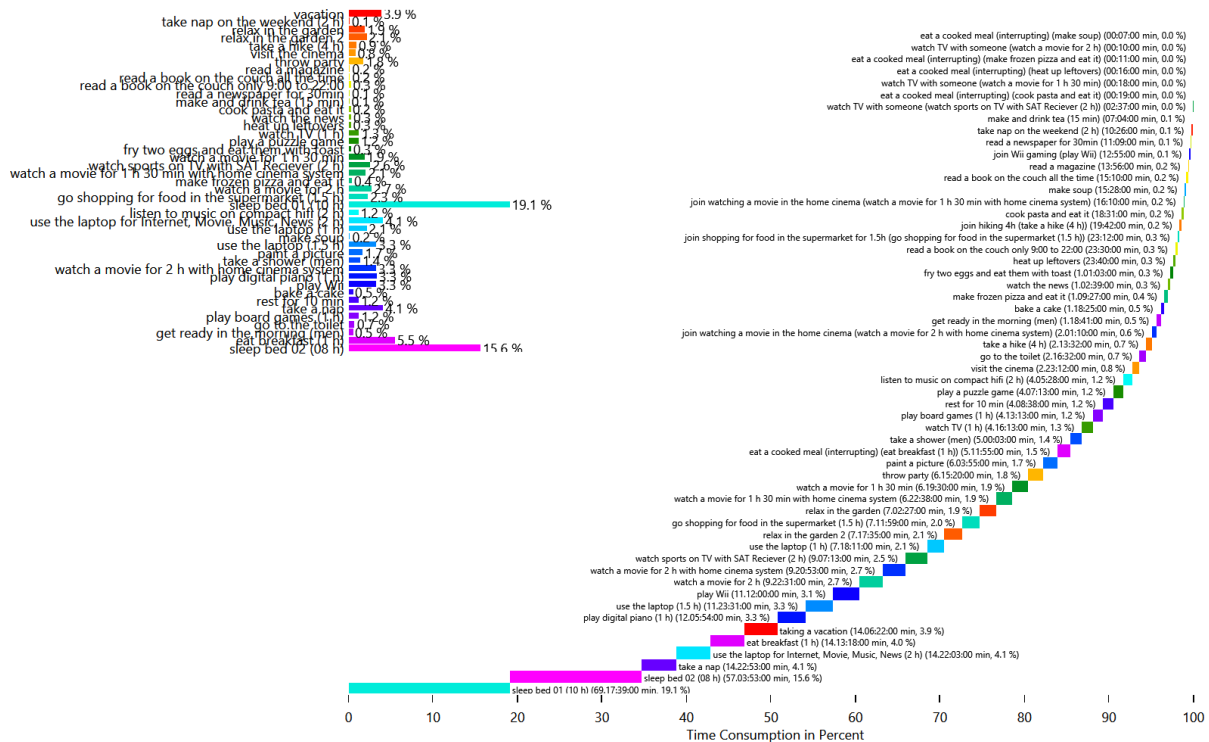
## HH0 - CHR32 Christin (23 Female)



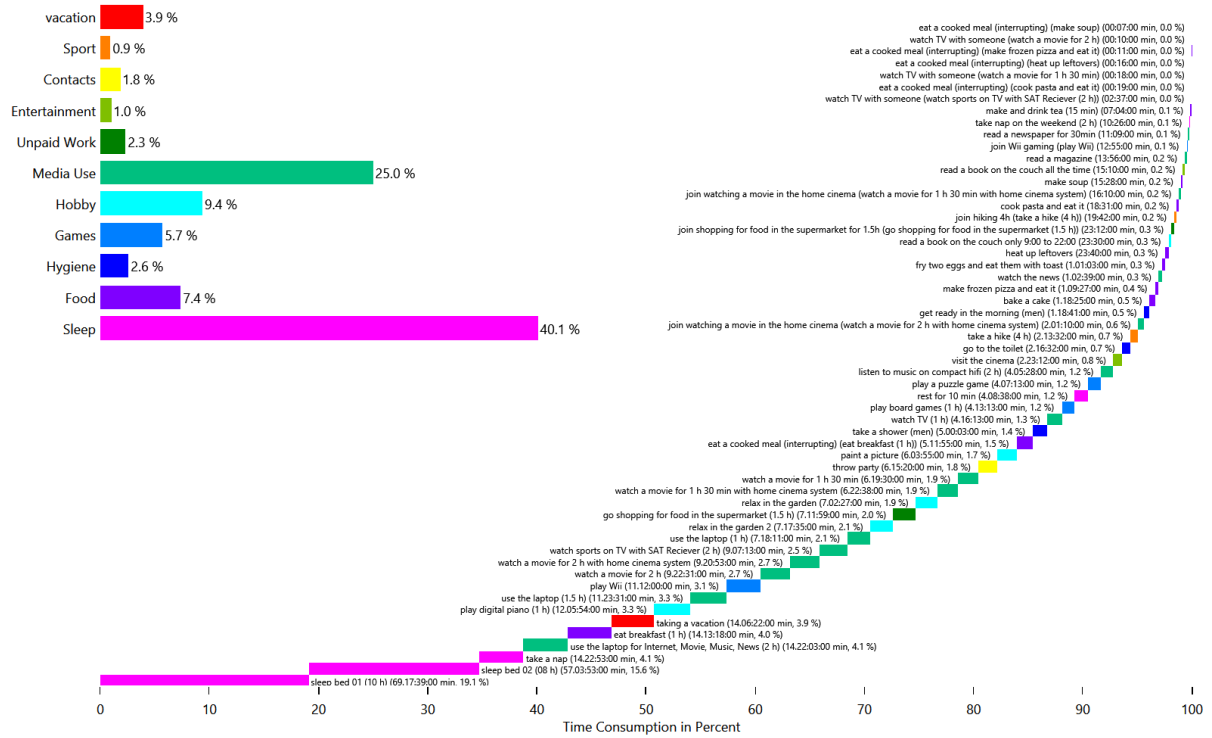
## HH0 - CHR32 Jona (25 Male)



## HH0 - CHR32 Jona (25 Male)



## HH0 - CHR32 Jona (25 Male)

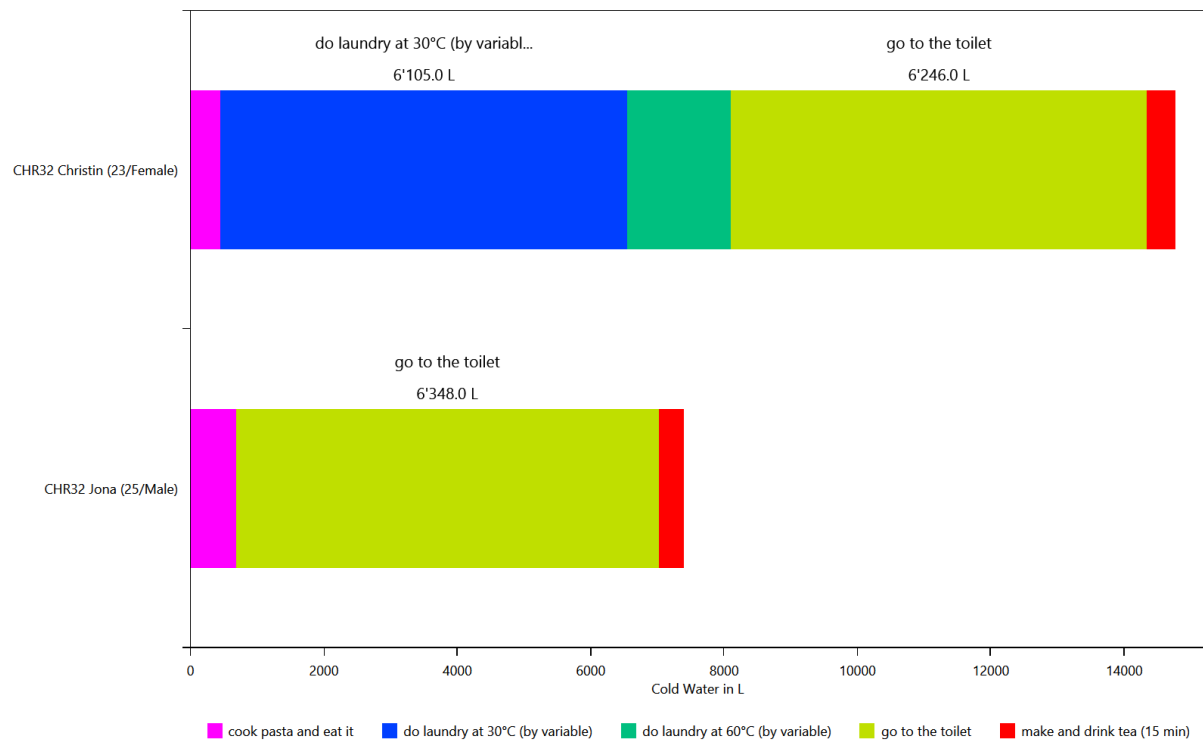


# Energy use per person per affordance

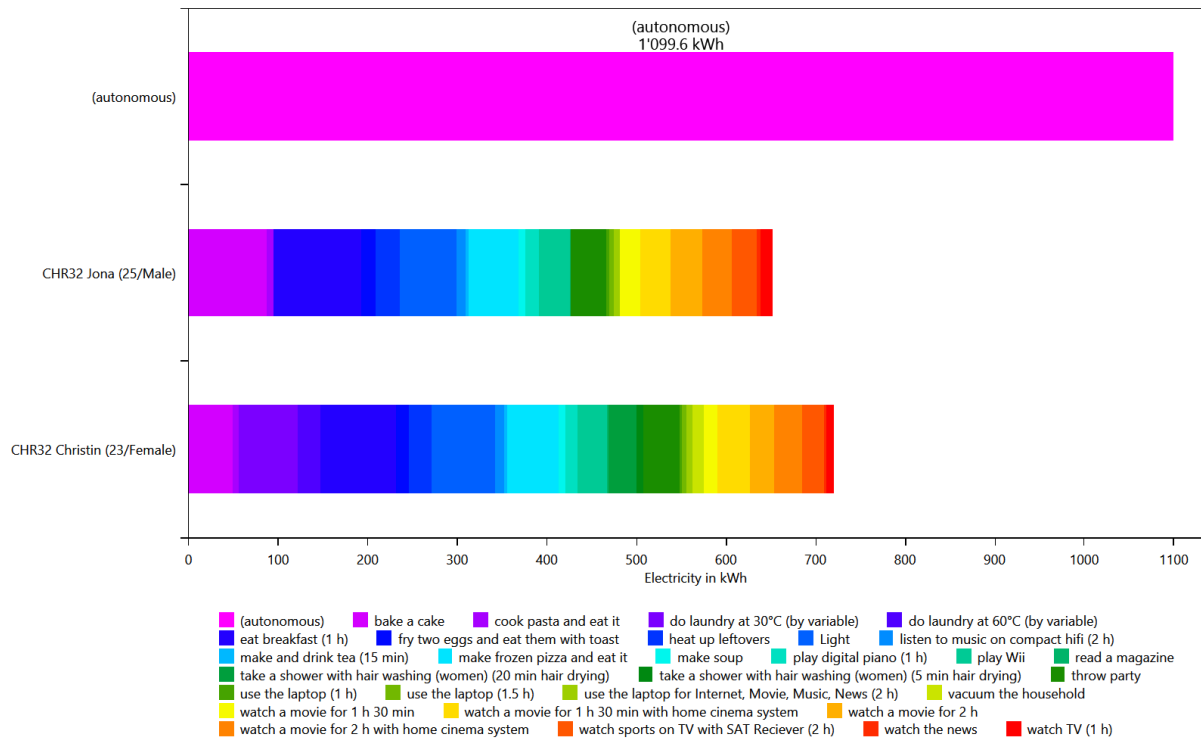
This is made from the files starting with: **AffordanceEnergyUsePerPerson**

This shows the distribution of the energy/ressource use to each affordance by load type and by person. This helps with figuring out if a person is using too much electricity.

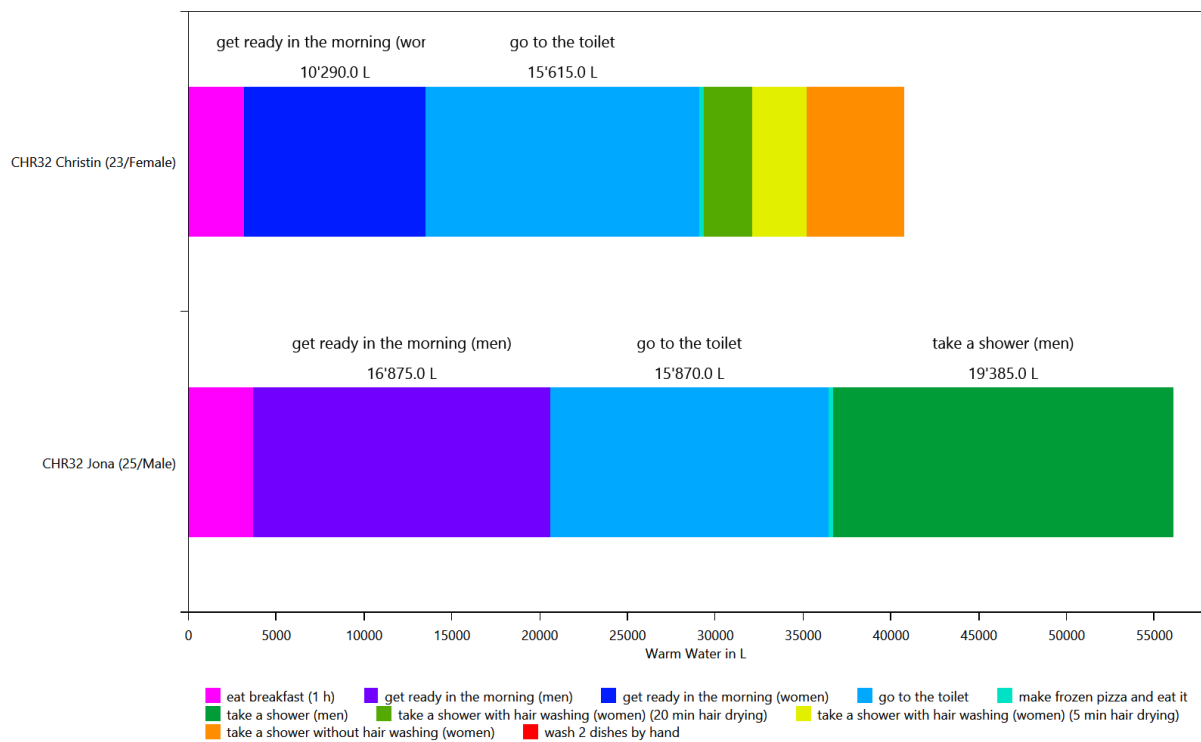
## HH0 - Cold Water



## HH0 - Electricity



## HH0 - Warm Water

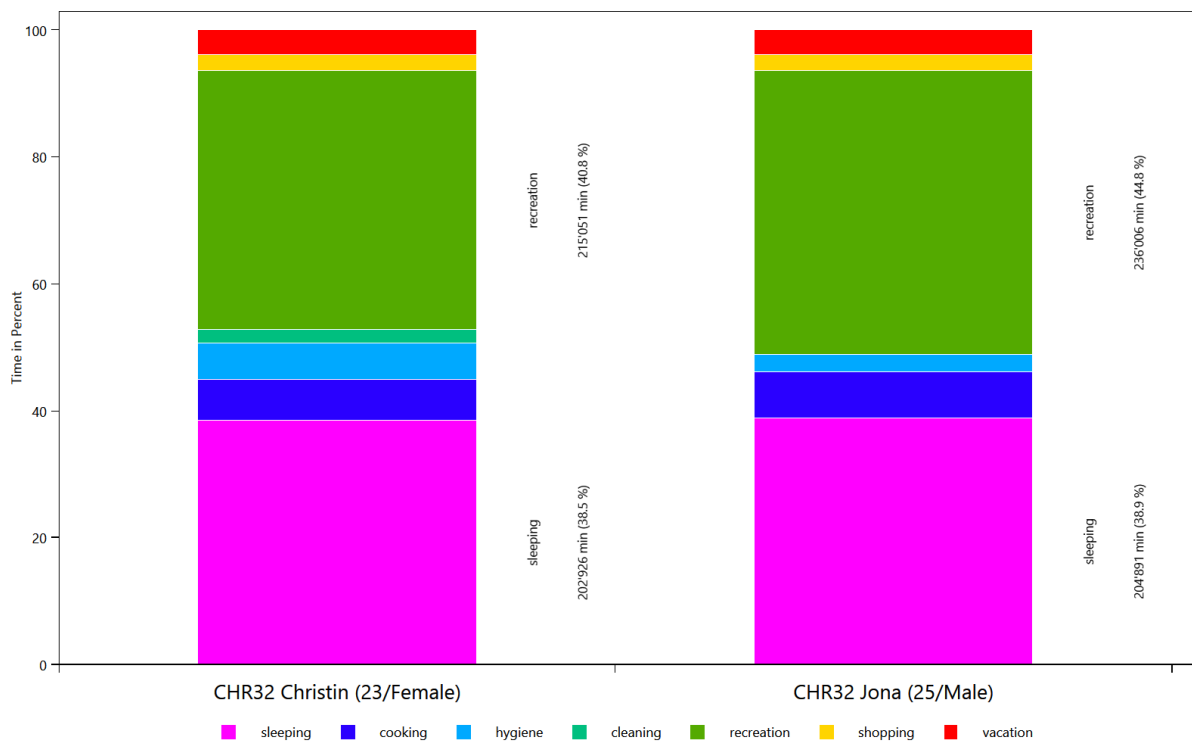


# Time Use per Person Per Affordance according to different category definitions

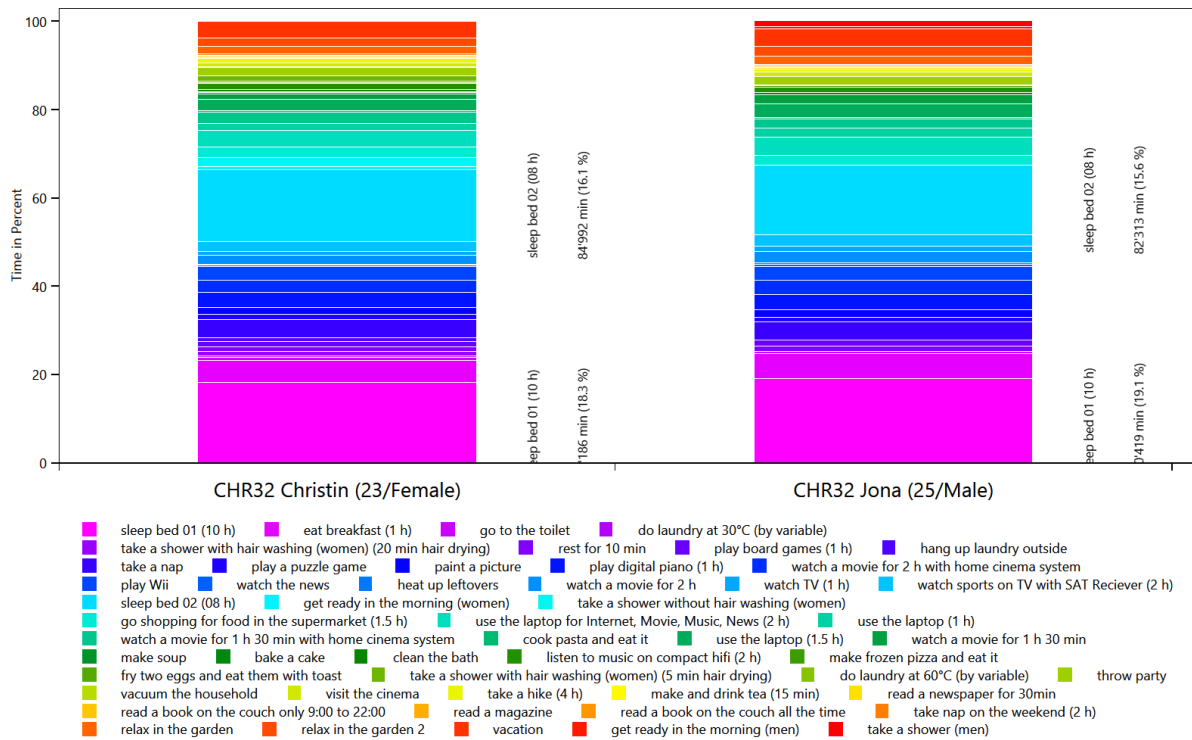
This is made from the files starting with: **AffordanceTaggingSet**

These charts show how the people in the household use their time. To help with analysis, the activities can be grouped by various criteria. This is done with the affordance tagging sets in the LPG.

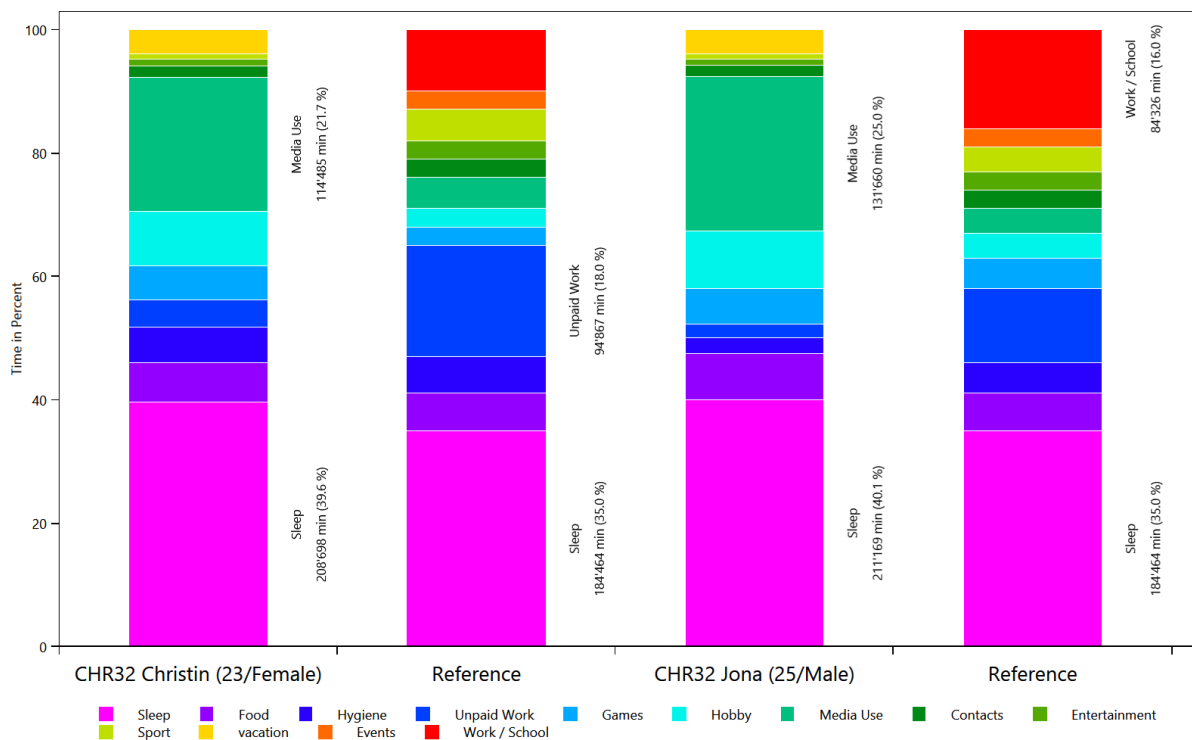
## Basic Tagging - HH0



## Tagging Set For Planning - HH0

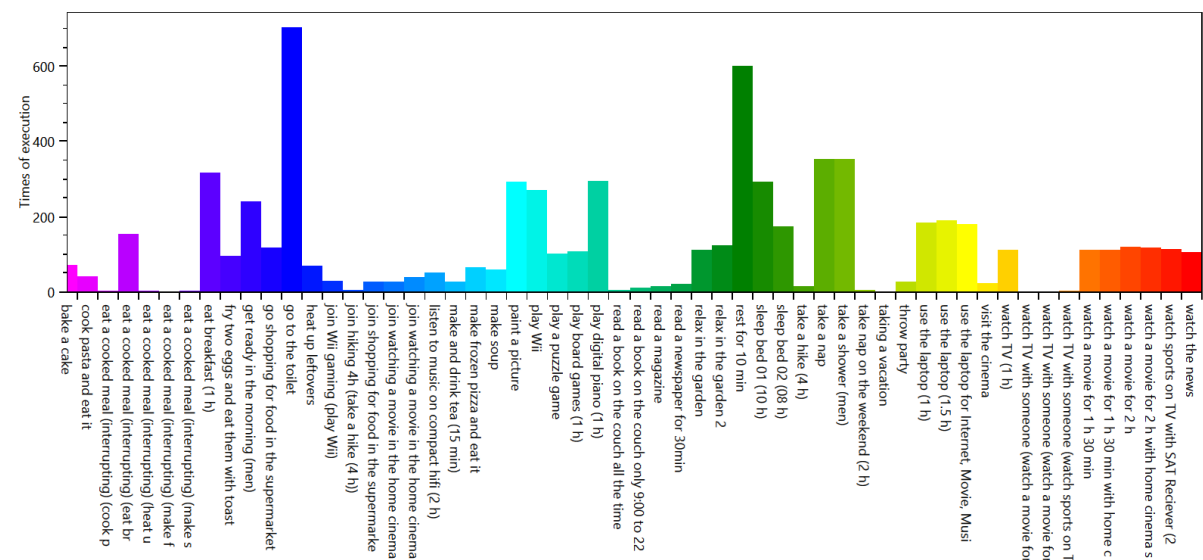


## Wo bleibt die Zeit - HH0



Activity	Times of execution (approx.)
watch the news	100
watch sports on TV with SAT Redever (2 h)	100
watch a movie for 2 h with home cinema s	100
watch a movie for 1 h 30 min with home c	100
watch a movie for 1 h	100
watch TV with someone (watch sports on T	100
watch TV with someone (watch a movie for	100
watch TV with someone (watch a movie for	100
watch TV with someone (watch a movie for	100
watch TV with someone (watch TV (1 h))	100
watch TV (1 h)	100
visit the cinema	100
vacuum the household	100
use the laptop for internet, Movie, Musi	100
use the laptop (1.5 h)	100
use the laptop (1 h)	100
throw party	100
taking a vacation	100
take nap on the weekend (2 h)	100
take a shower without hair washing (women)	100
take a shower with hair washing (women)	100
take a nap	100
sleep (4 h)	100
sleep bed 02 (08 h)	100
sleep bed 01 (10 h)	100
rest for 10 min	100
relax in the garden 2	100
relax in the garden	100
read a newspaper for 30min	100
read a magazine	100
read a book on the couch only 9:00 to 22	100
read a book on the couch all the time	100
play digital piano (1 h)	100
play board games (1 h)	100
play a puzzle game	100
play Wii	100
paint a picture	100
make soup	100
make frozen pizza and eat it	100
make and drink tea (15 min)	100
listen to music on compact lift (2 h)	100
join watching a movie in the home cinema	100
join shopping for food in the home cinema	100
join shopping for food in the supermarke	100
join hiking 4h (take a hike (4 h))	100
join Wii gaming (play Wii)	100
hang up leftovers	100
hang up laundry outside	100
go to the toilet	100
go shopping for food in the supermarket	100
get ready in the morning (women)	100
try two eggs and eat them with toast	100
eat breakfast (1 h)	100
eat a cooked meal (interrupting) (make s	100
eat a cooked meal (interrupting) (make f	100
eat a cooked meal (interrupting) (eat u	100
eat a cooked meal (interrupting) (cook p	100
do laundry at 60°C (by variable)	100
do laundry at 30°C (by variable)	100
cook pasta and eat it	100
clean the bath	100
bake a cake	100

HH0 - CHR32 Jona (25 Male)

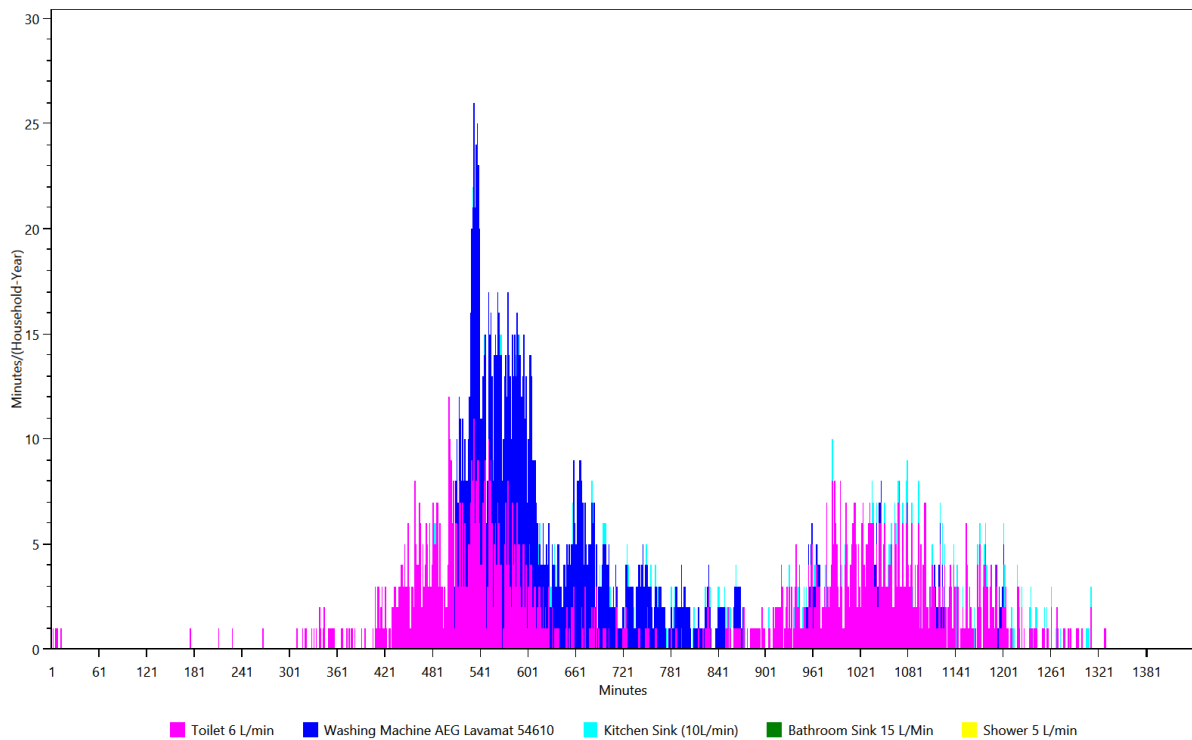


# Overview of the time of the use per load type per device

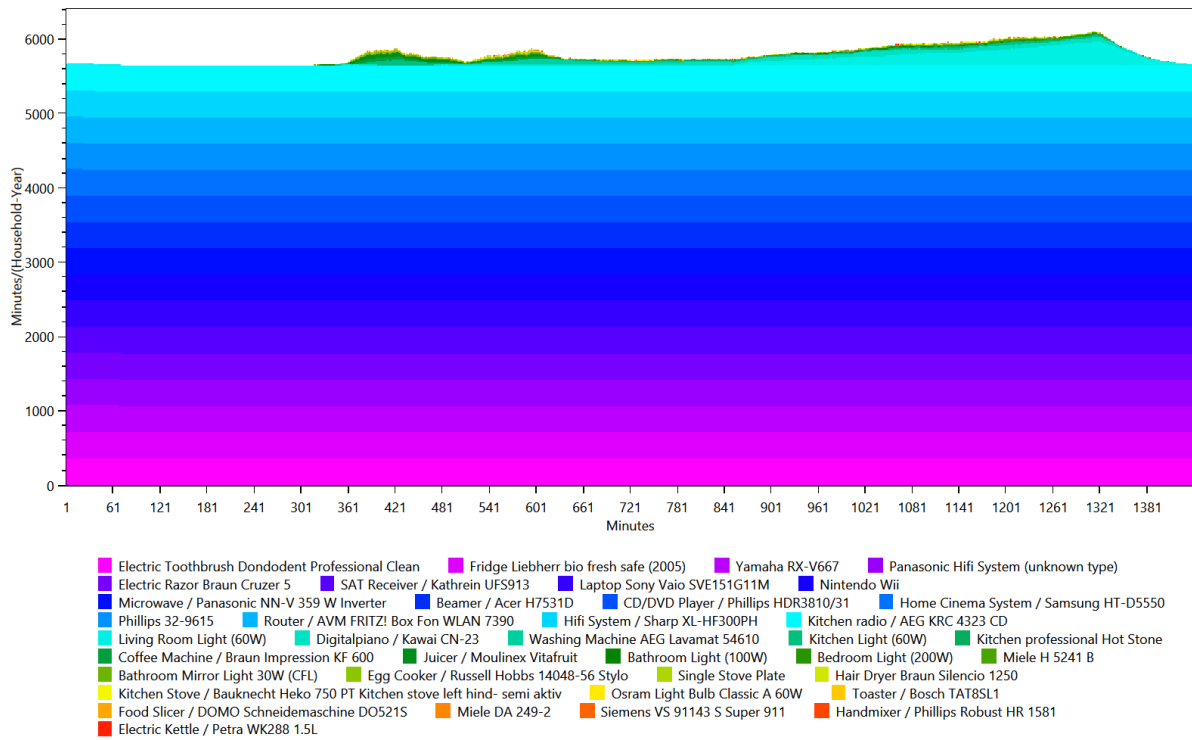
This is made from the files starting with: **TimeOfUseEnergyProfiles**

The time of use energy profiles shows when each device was used.

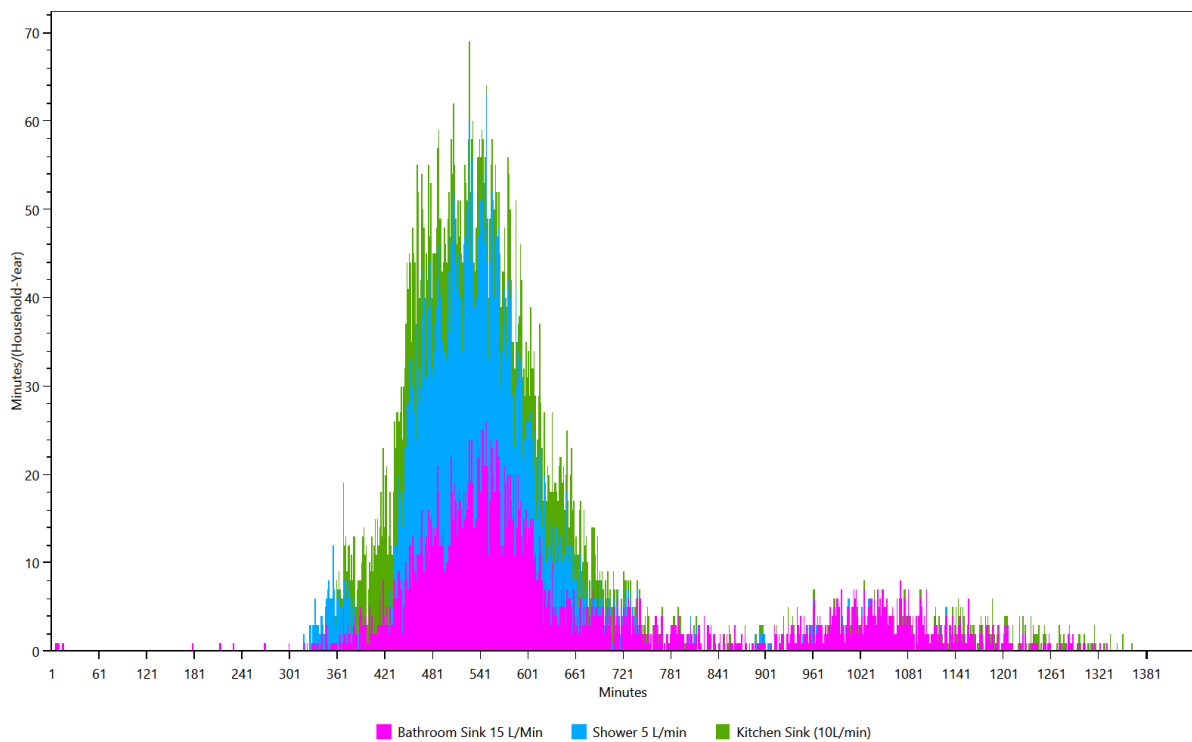
## Cold Water



## Electricity



## Warm Water

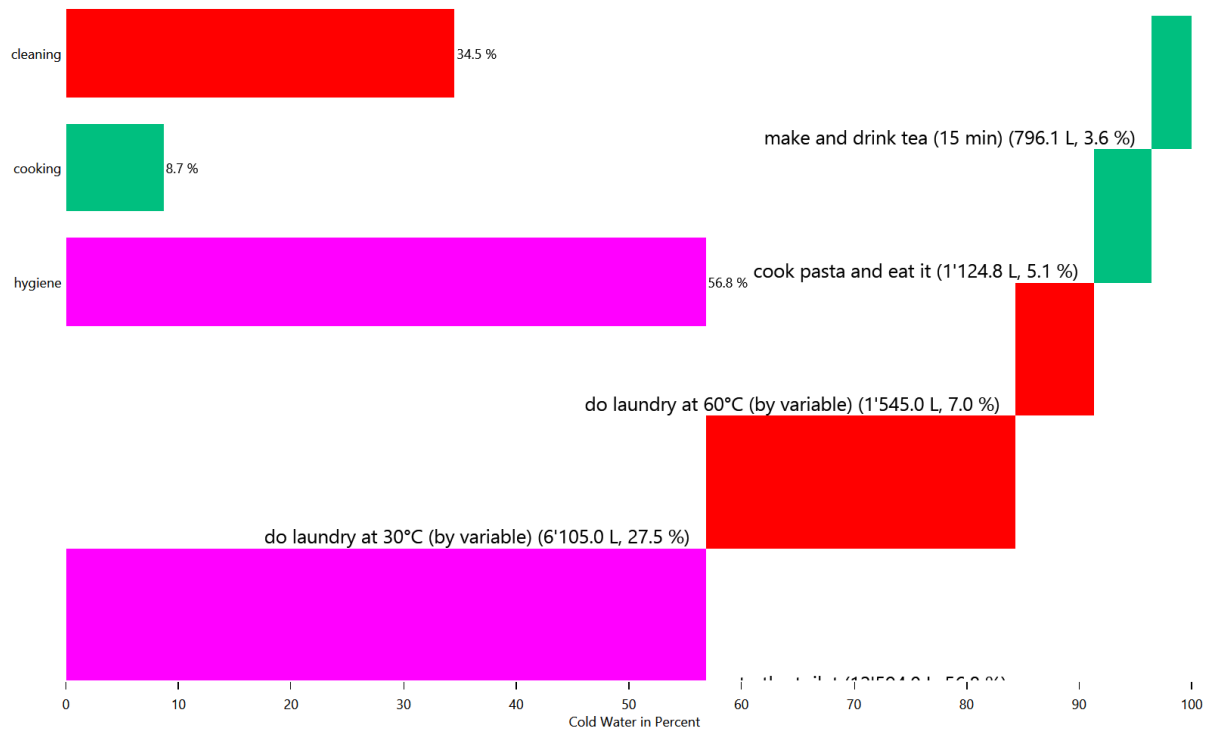


# Energy/Resource use distribution per load type per affordance

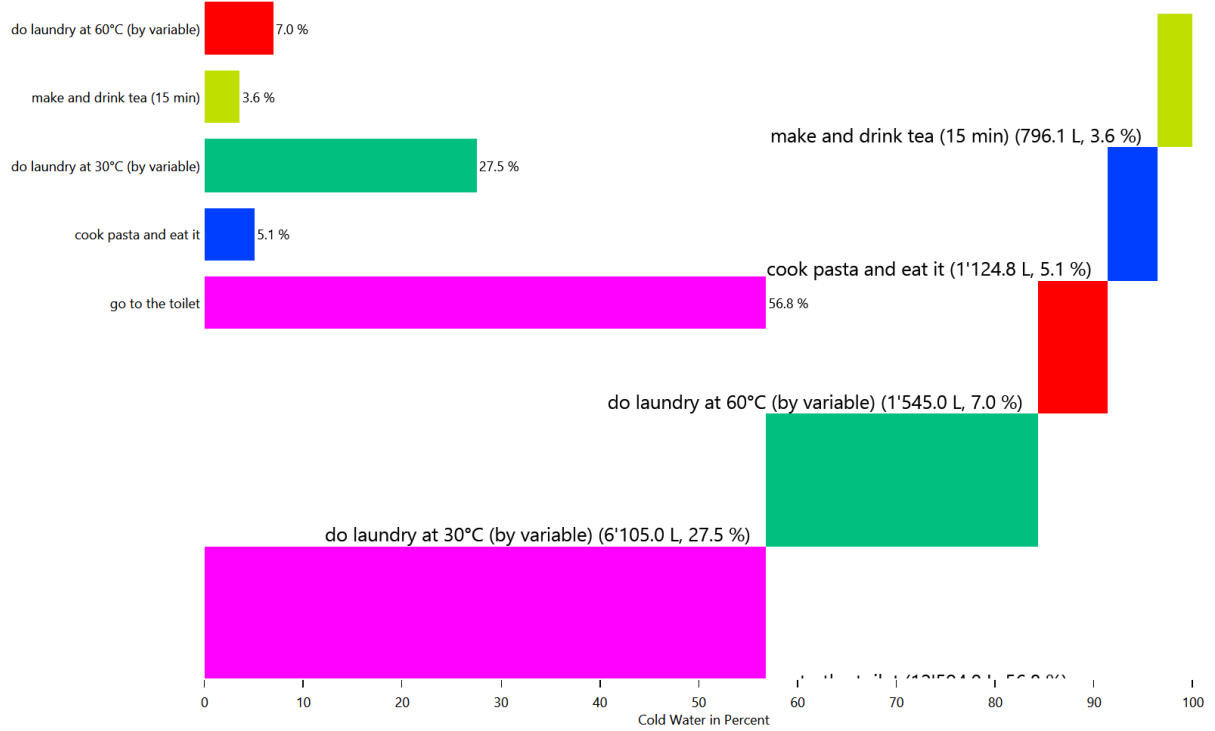
This is made from the files starting with: **AffordanceEnergyUse**

This shows the distribution of the energy/ressource use to each affordance by load type.

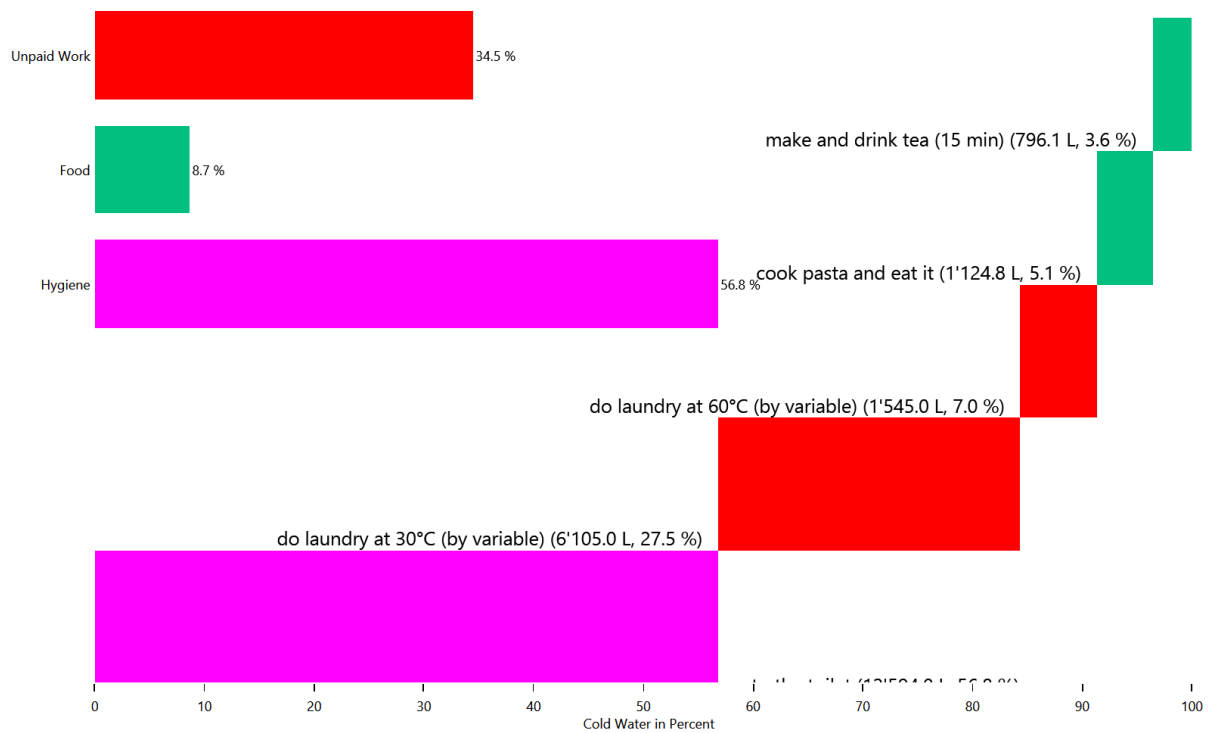
## HH0 - Cold Water



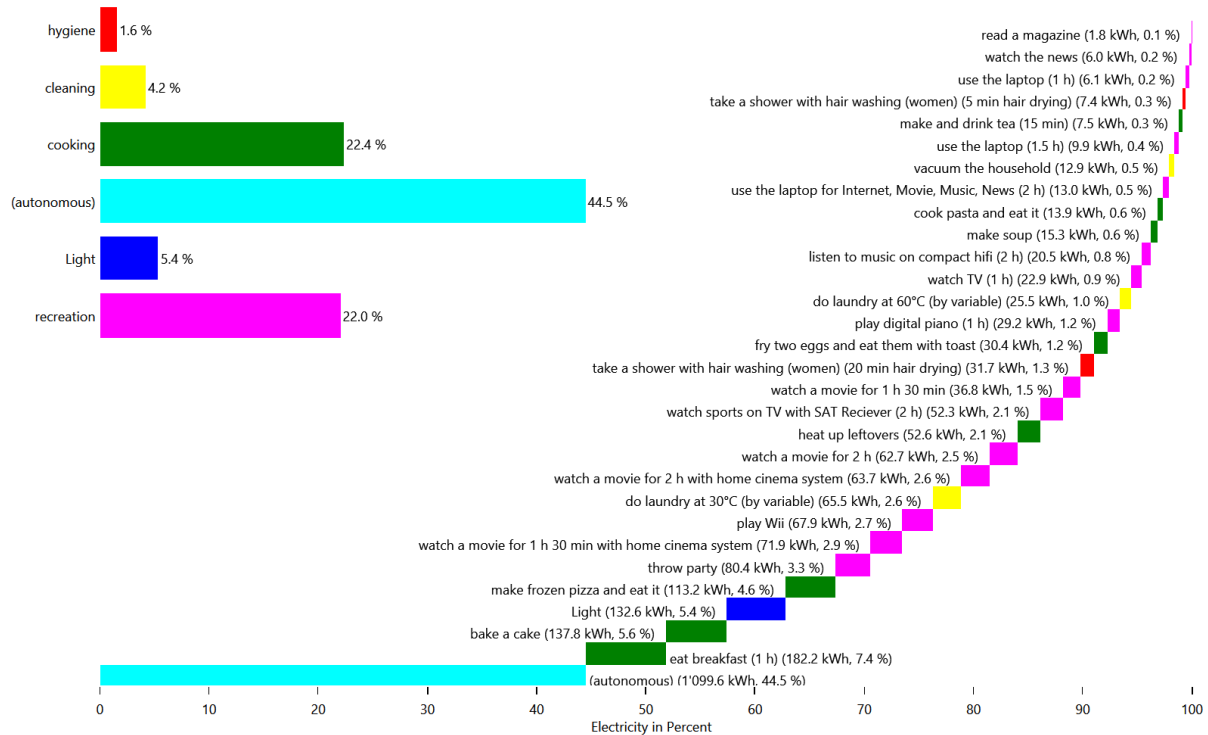
## HH0 - Cold Water



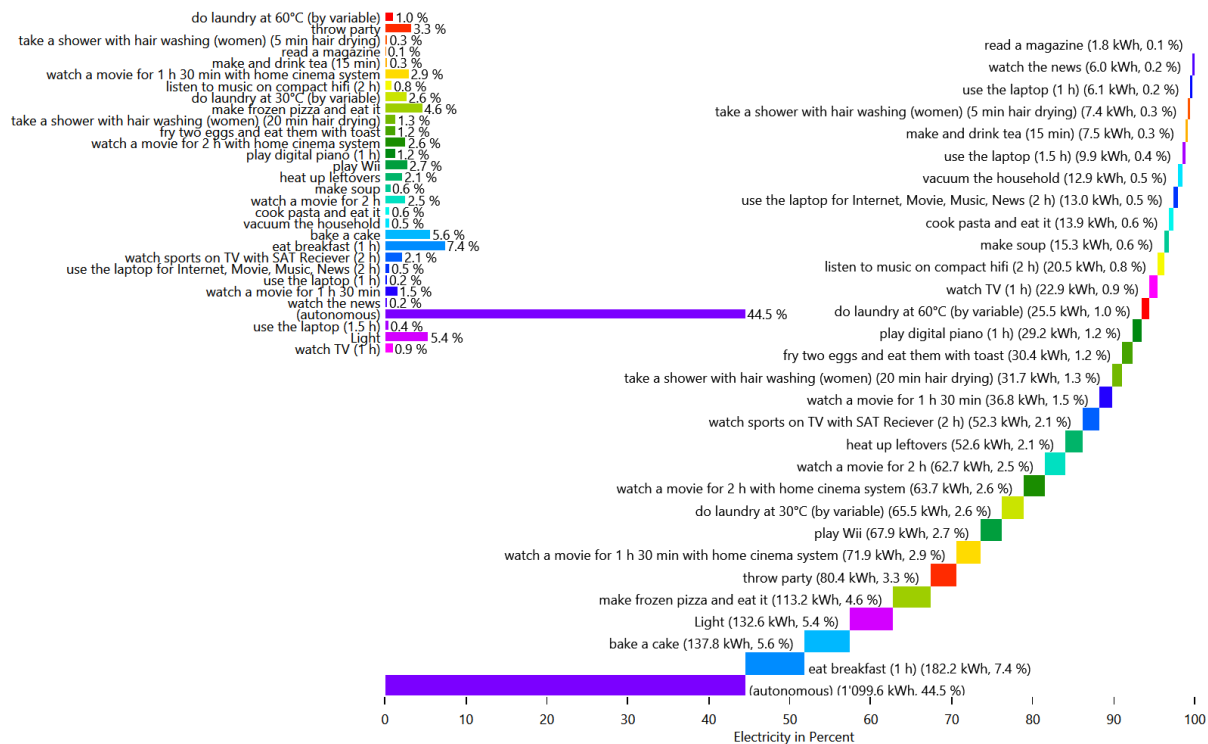
## HH0 - Cold Water



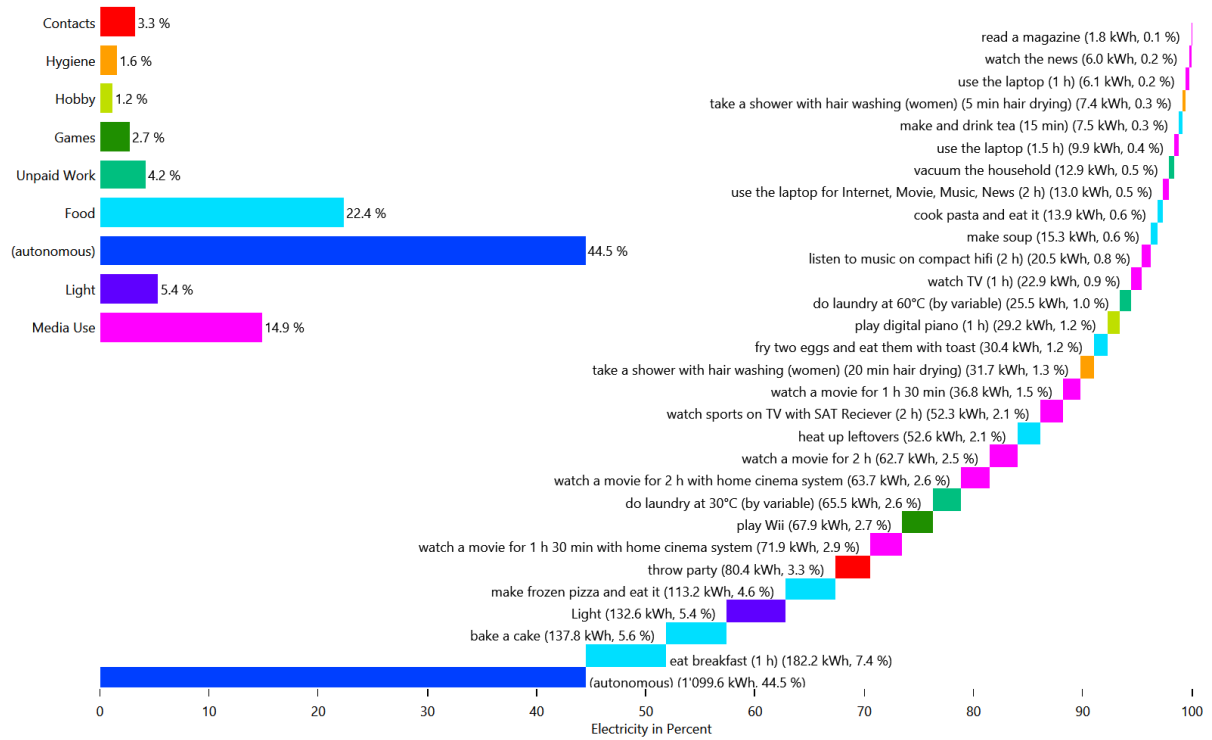
## HH0 - Electricity



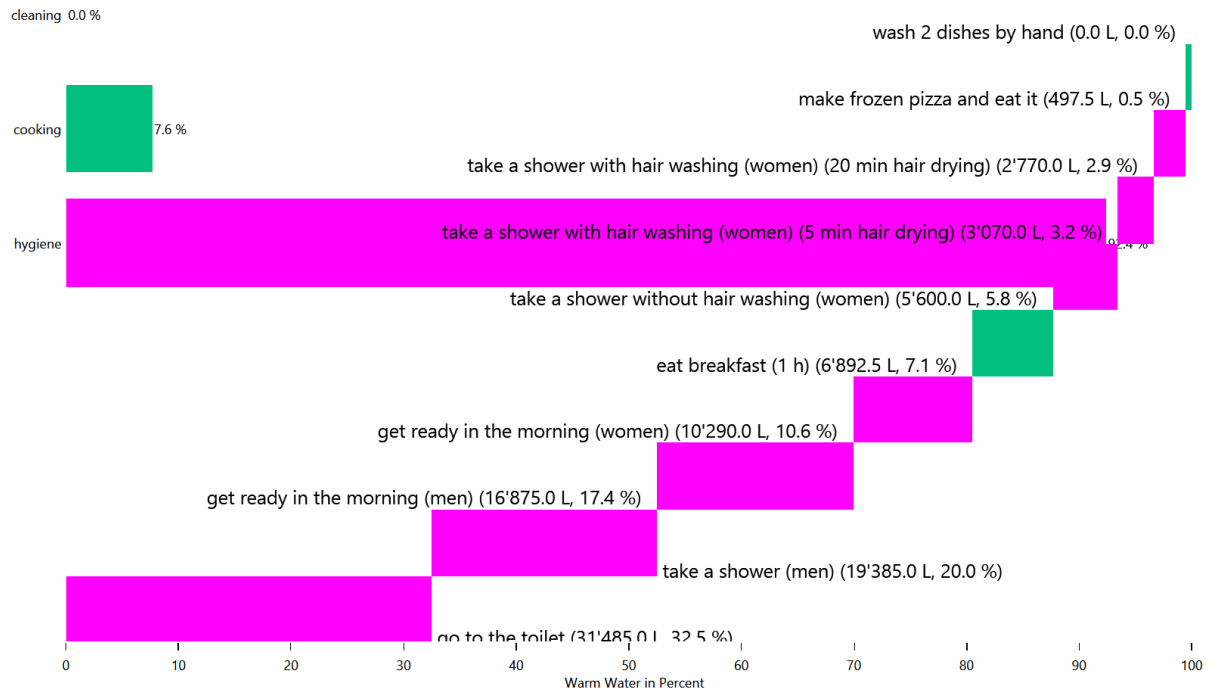
## HH0 - Electricity



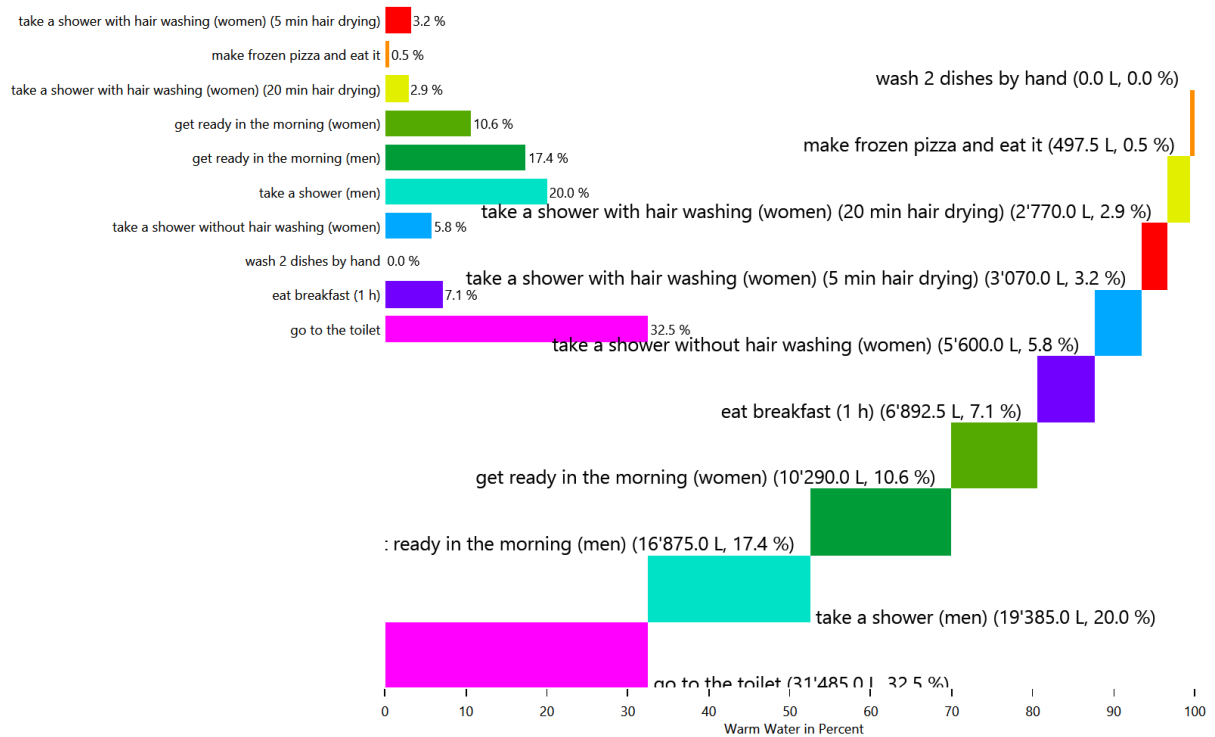
## HH0 - Electricity



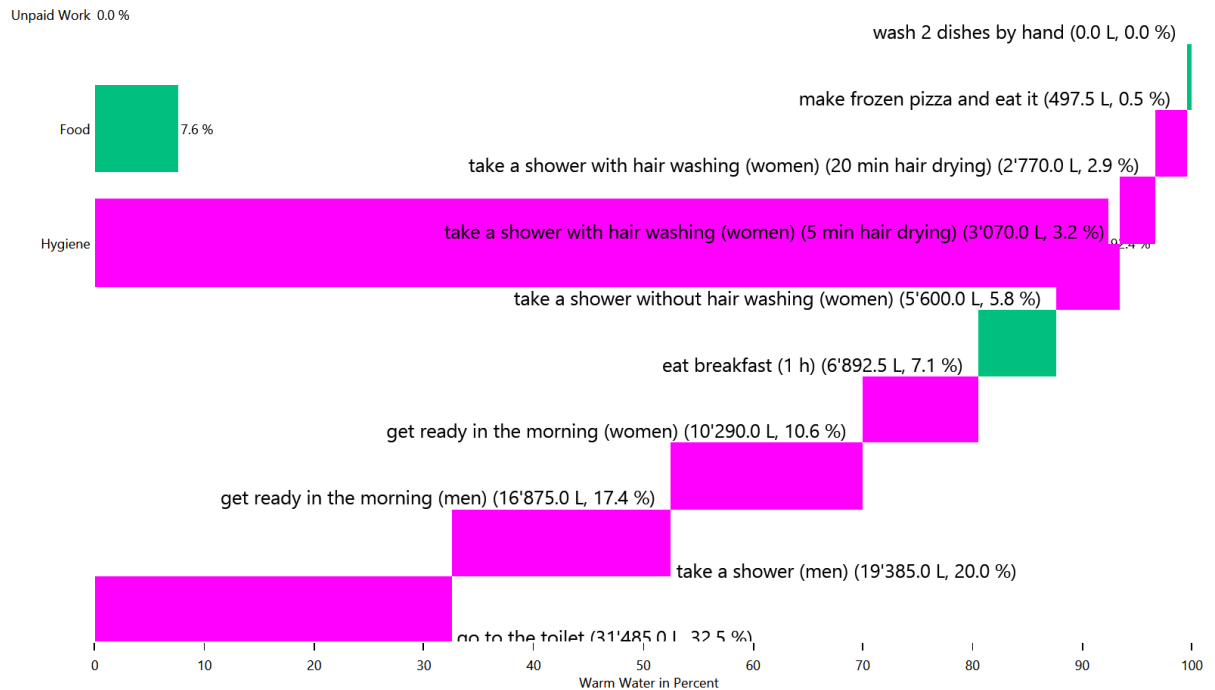
## HH0 - Warm Water



## HH0 - Warm Water



## HH0 - Warm Water

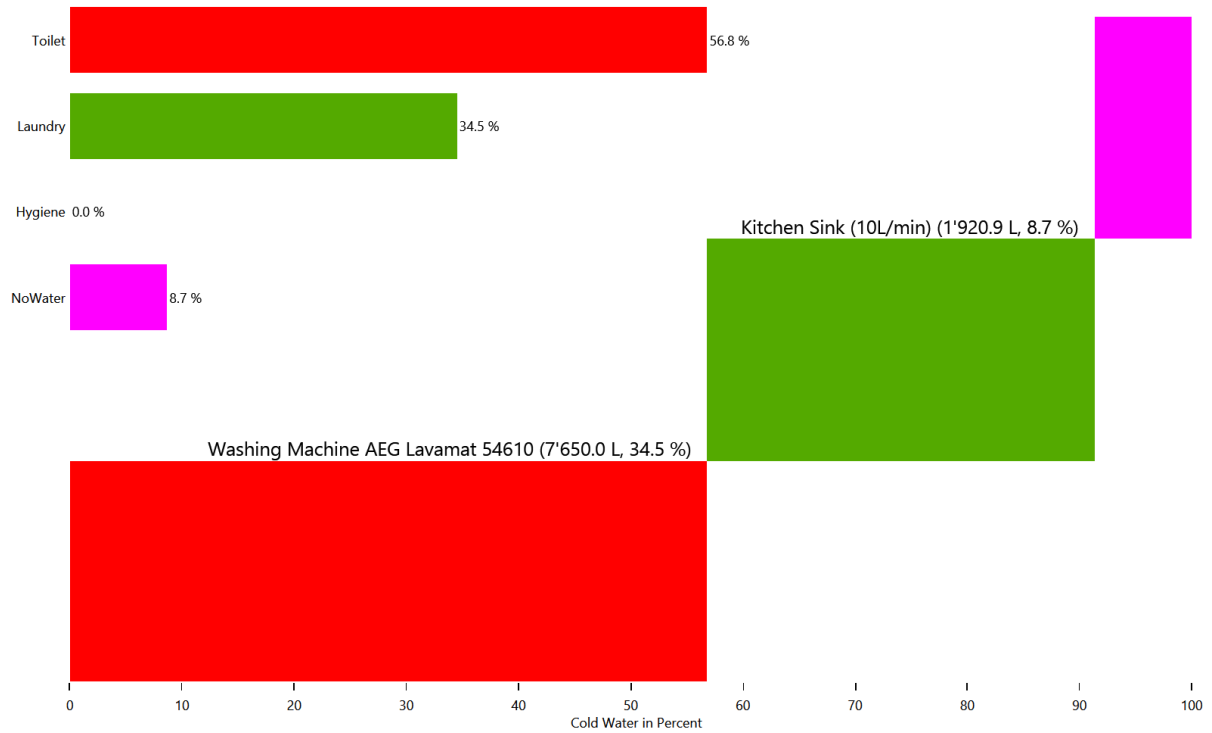


# Energy use for each load type for each device

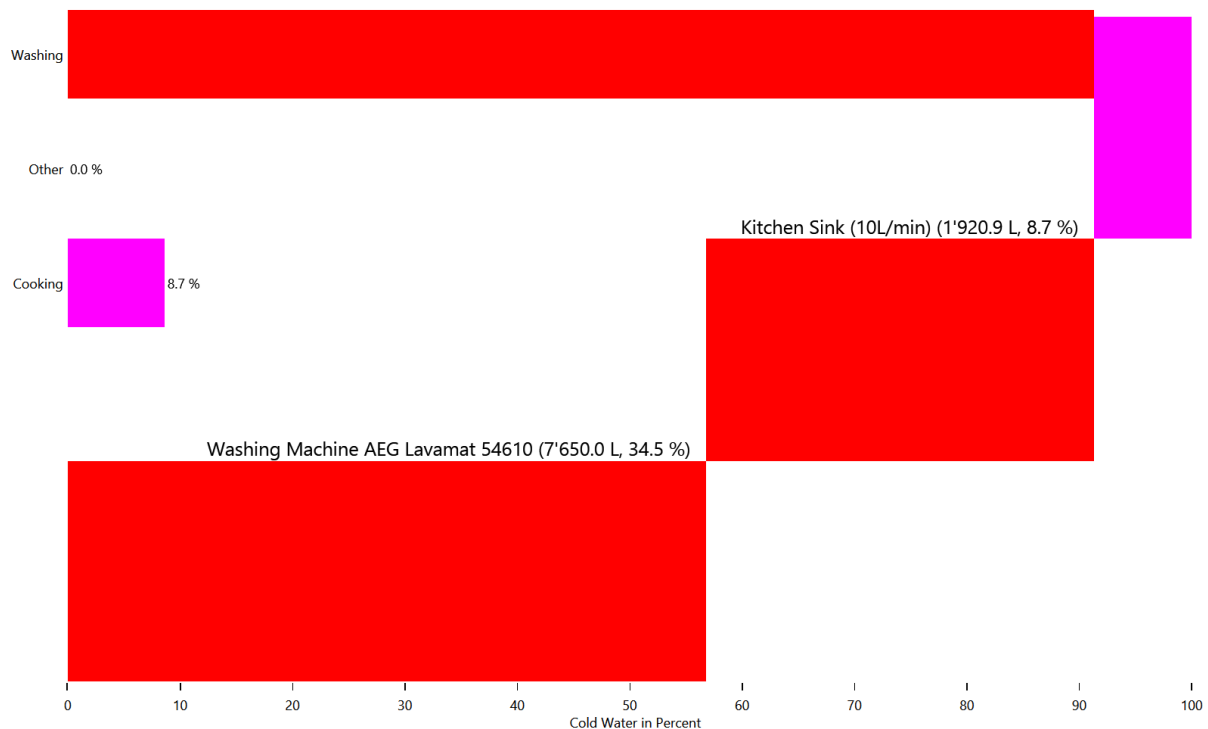
This is made from the files starting with: DeviceSums

These pie charts show the energy use for each invidividual device in each load type.

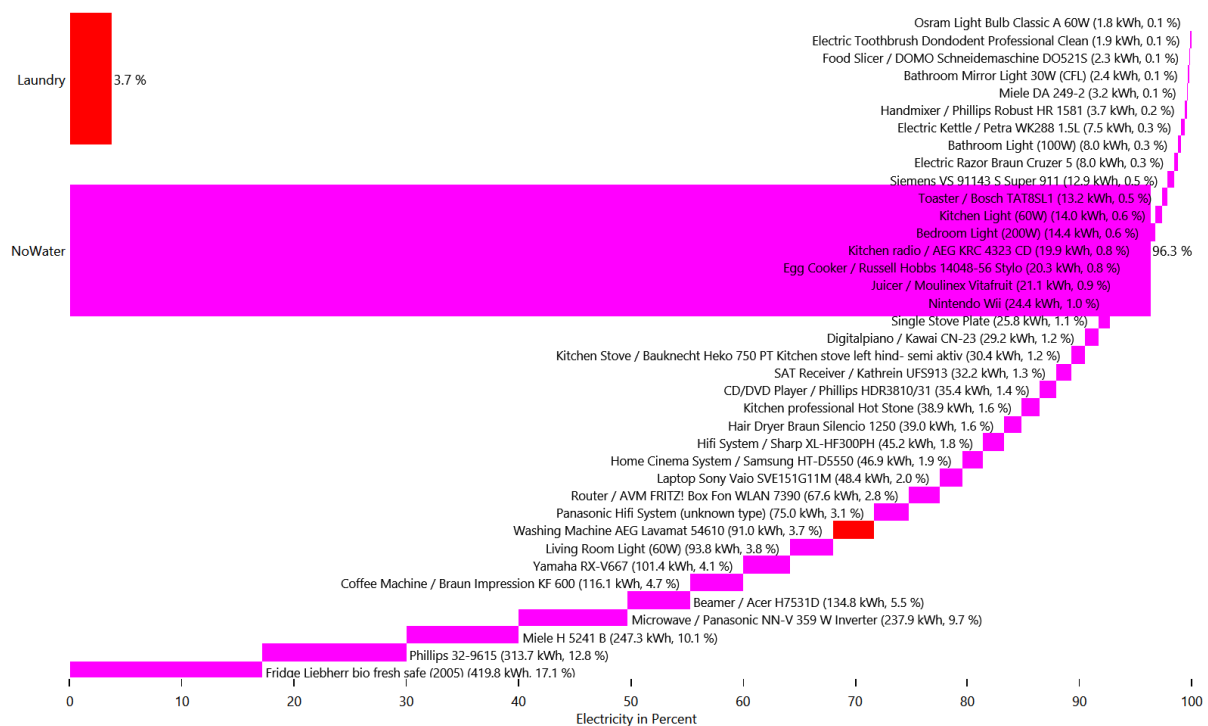
## Cold Water



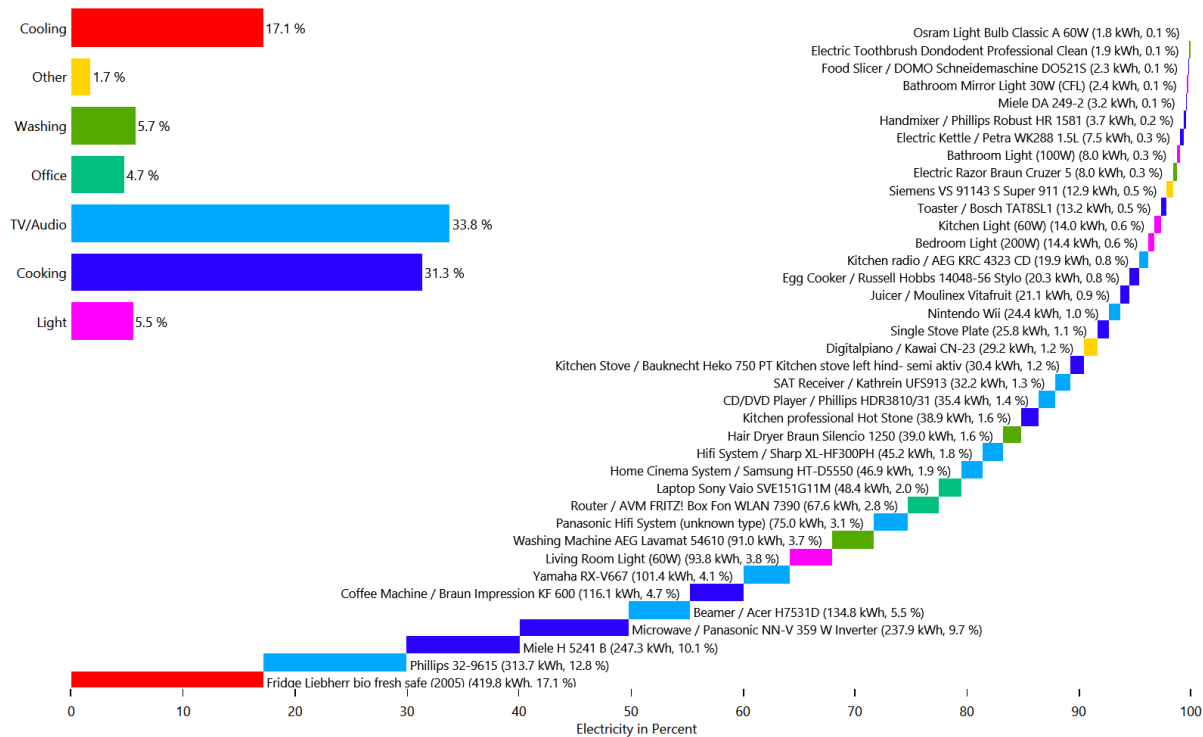
## Cold Water



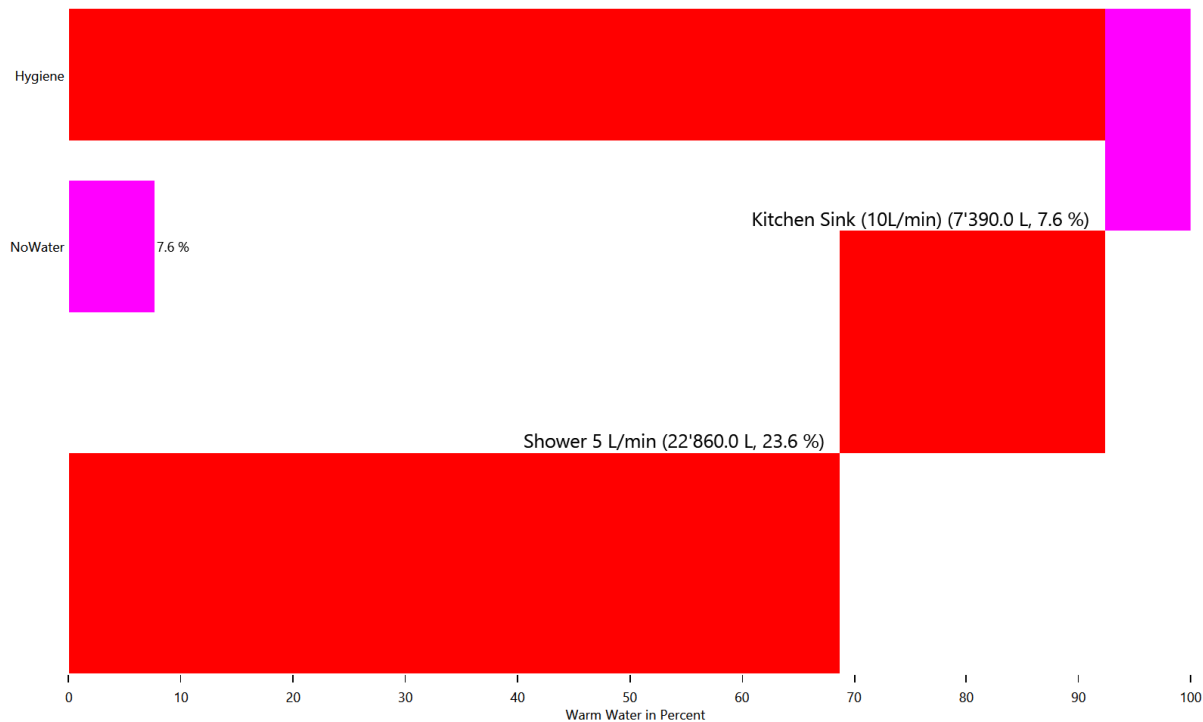
## Electricity



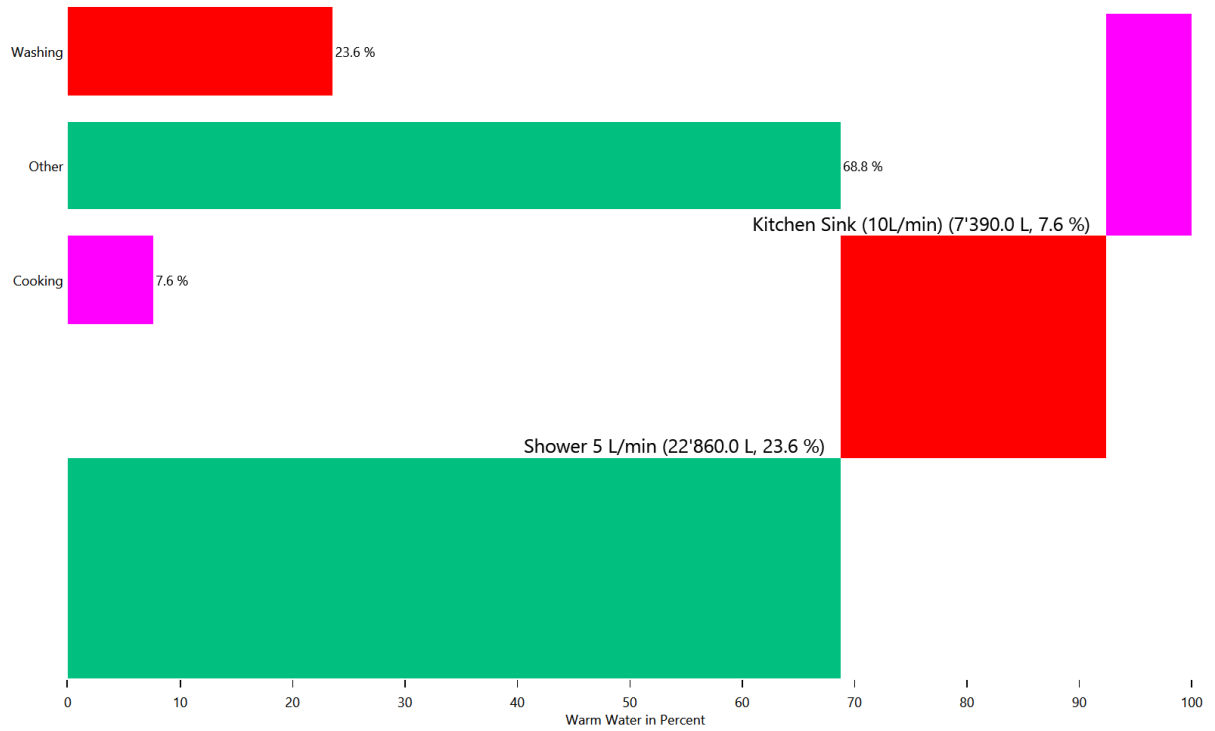
Electricity



Warm Water



## Warm Water

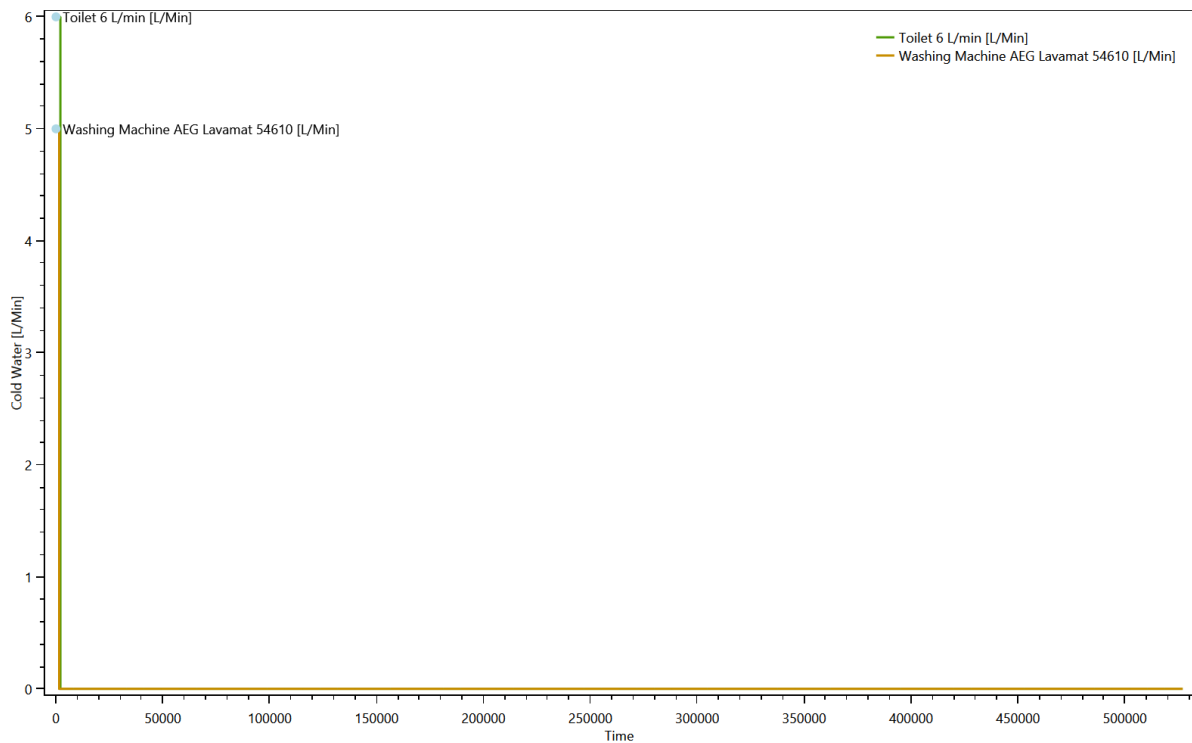


# Duration curve for each device for each load type

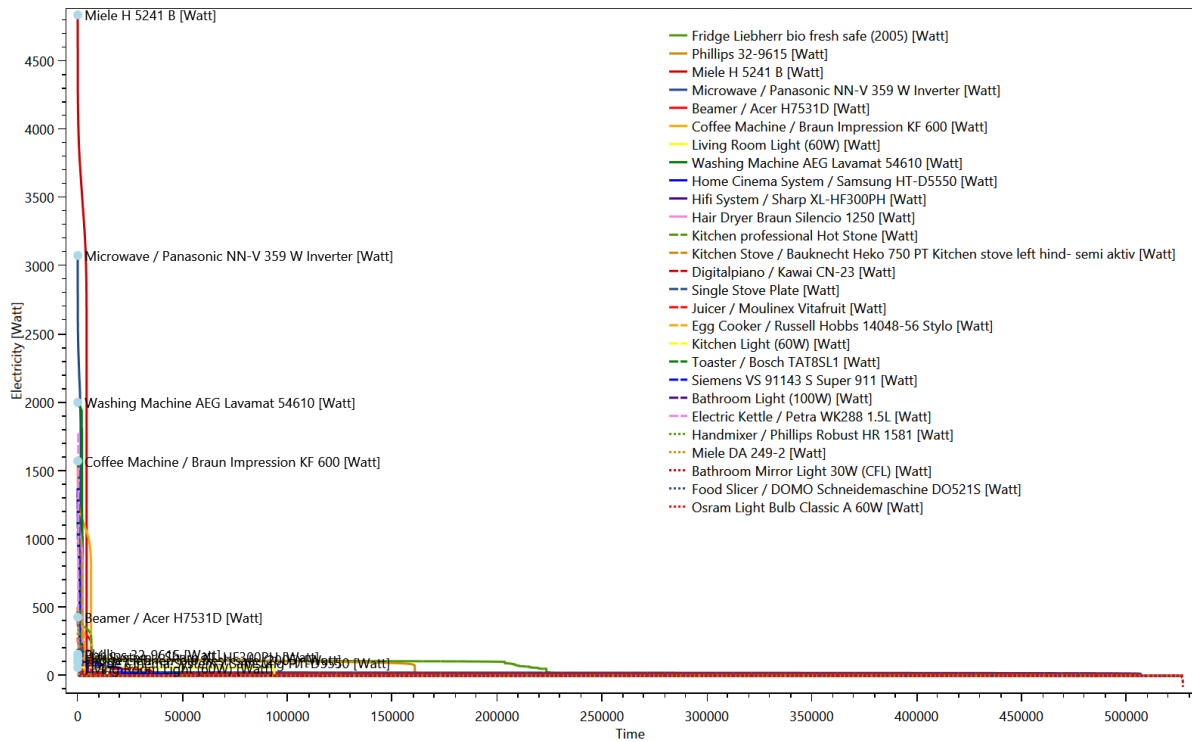
This is made from the files starting with: DeviceDurationCurves

The device duration curve show the duration curve of each device to give an overview of the power consumption.

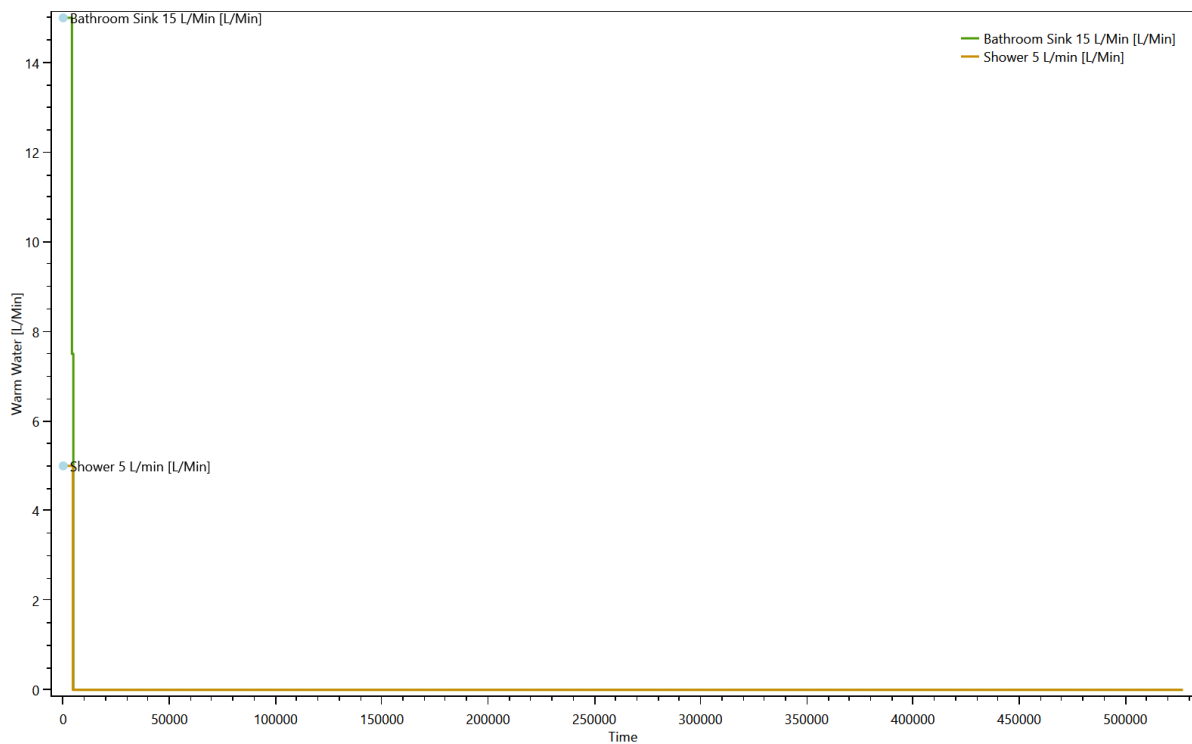
## Cold Water



## Electricity



## Warm Water

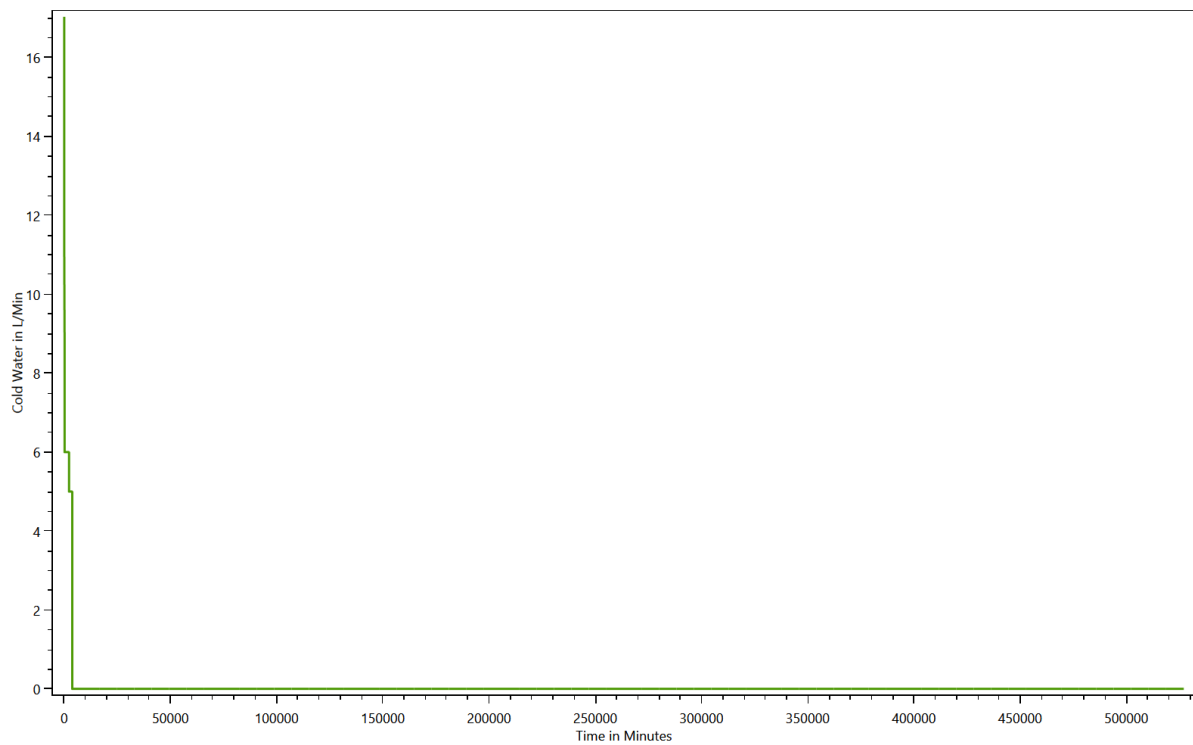


# Duration curve for each load type

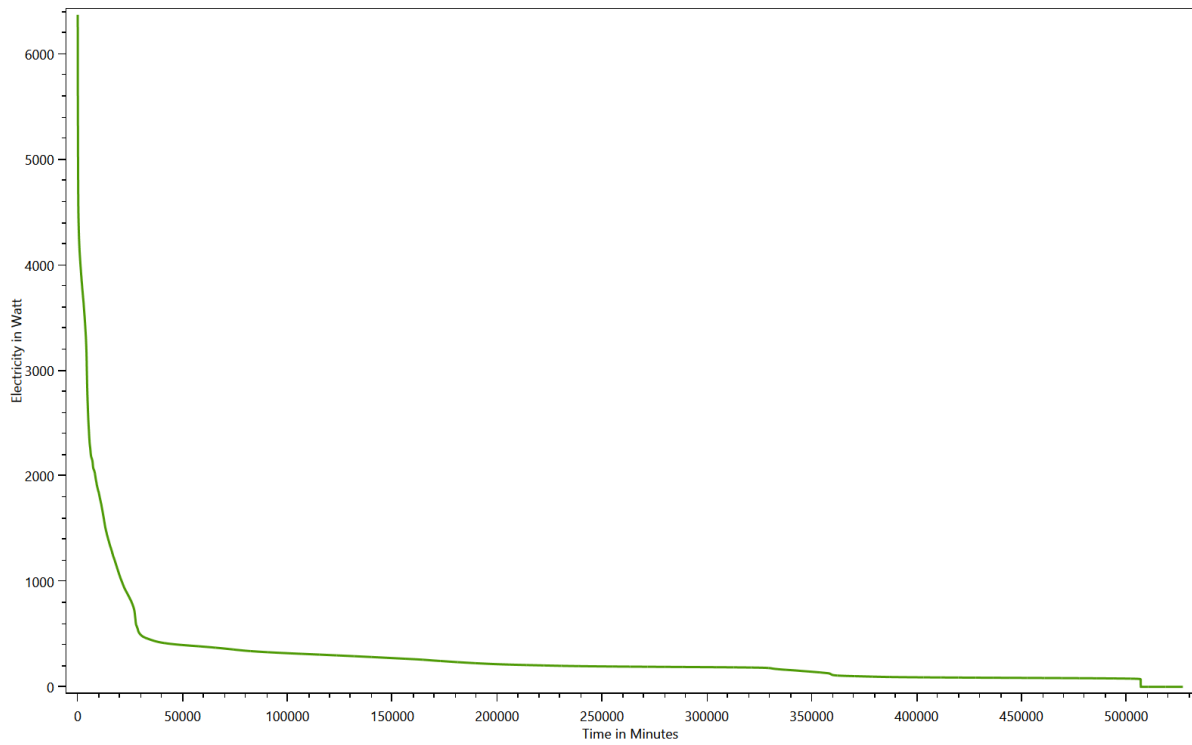
This is made from the files starting with: **DurationCurve**

The duration curve show the duration curve for the entire household to give an overview of the power consumption.

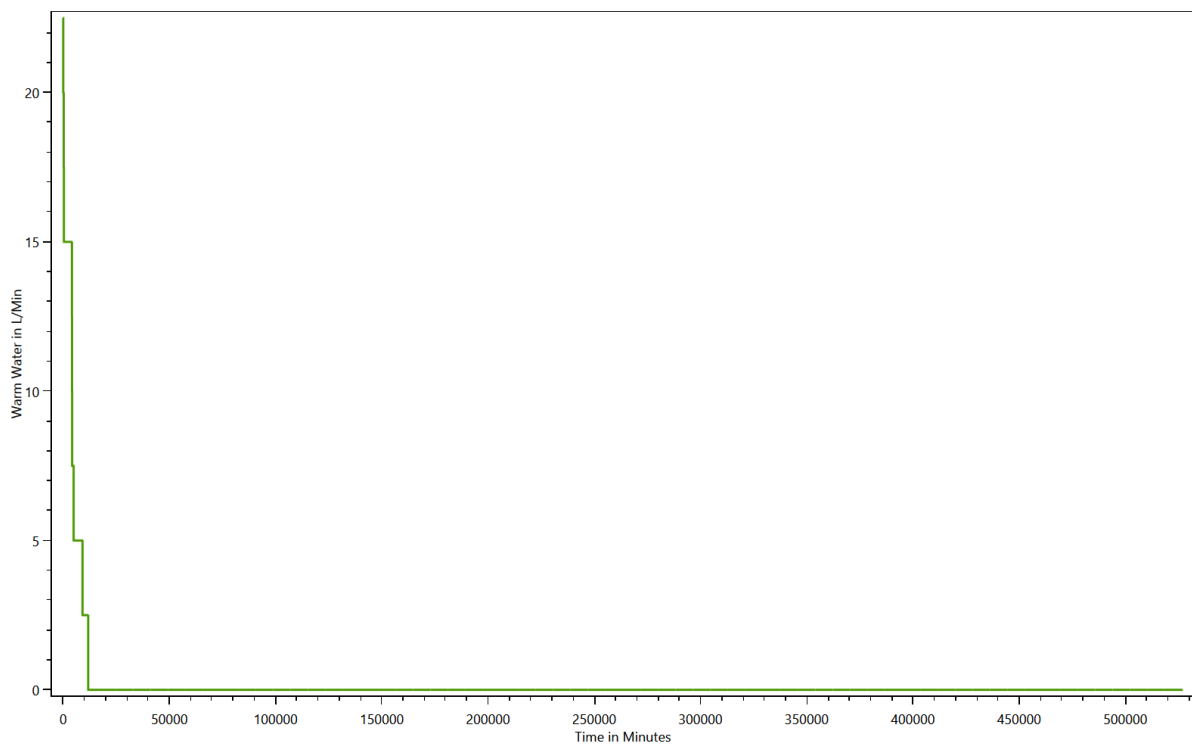
## Cold Water



## Electricity



## Warm Water

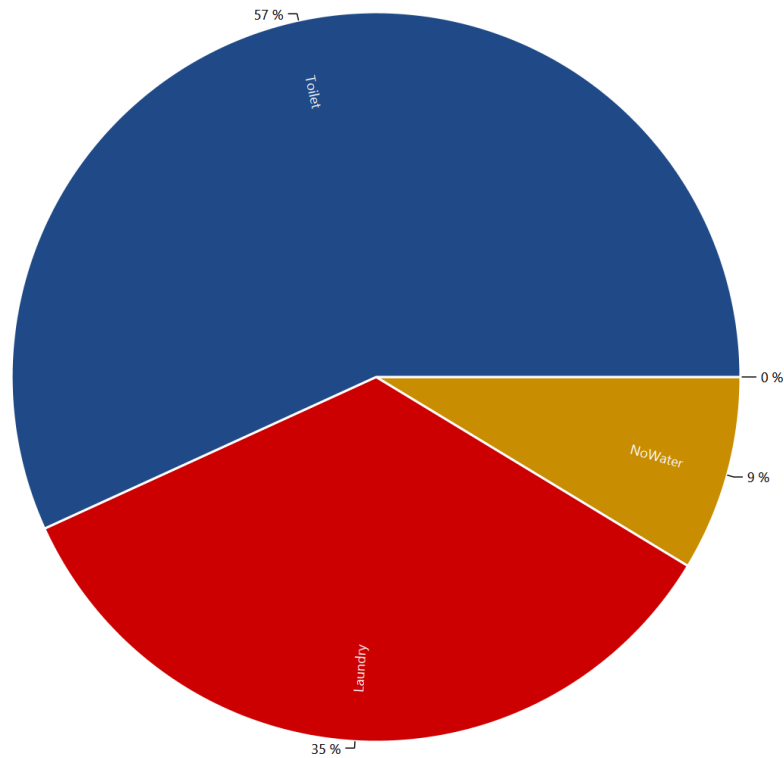


# Grouped energy use for each load type for each device

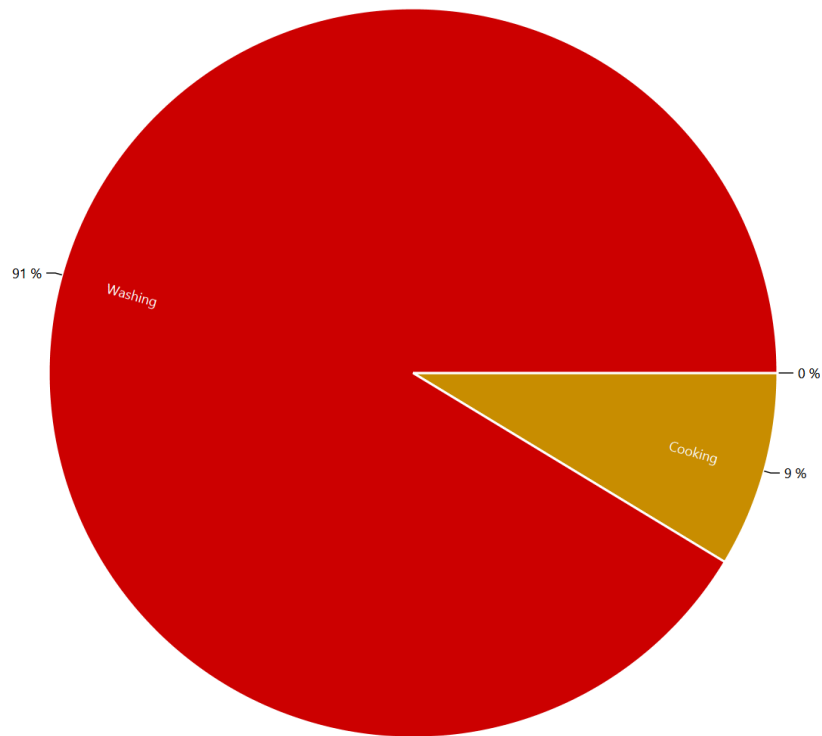
This is made from the files starting with: DeviceTaggingSet

The devices in the LPG can be grouped with various criteria by the device tagging sets. These charts show the results.

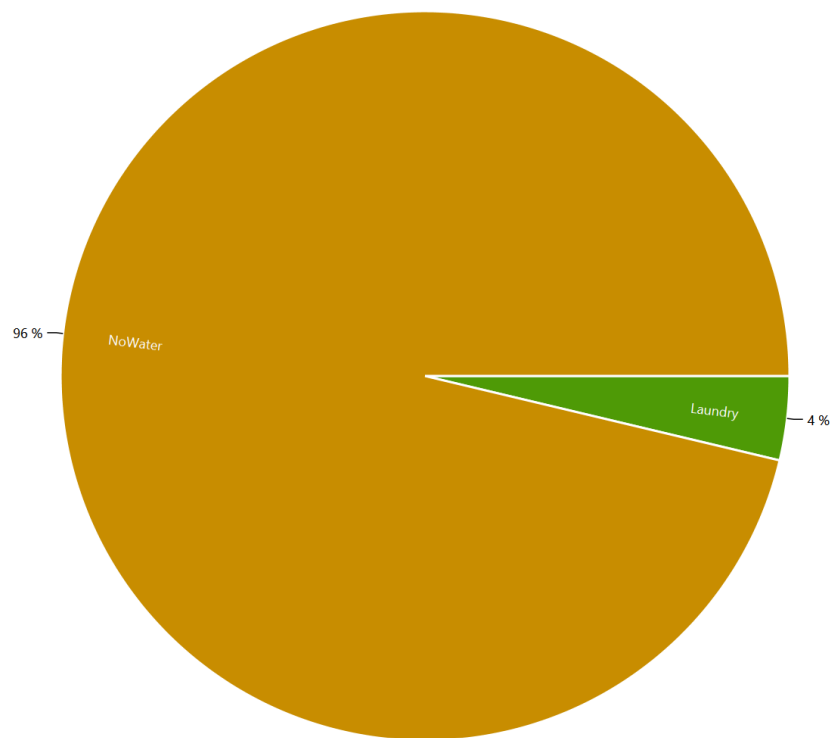
## HH0 - Destatis Water Usage Statistics - Cold Water



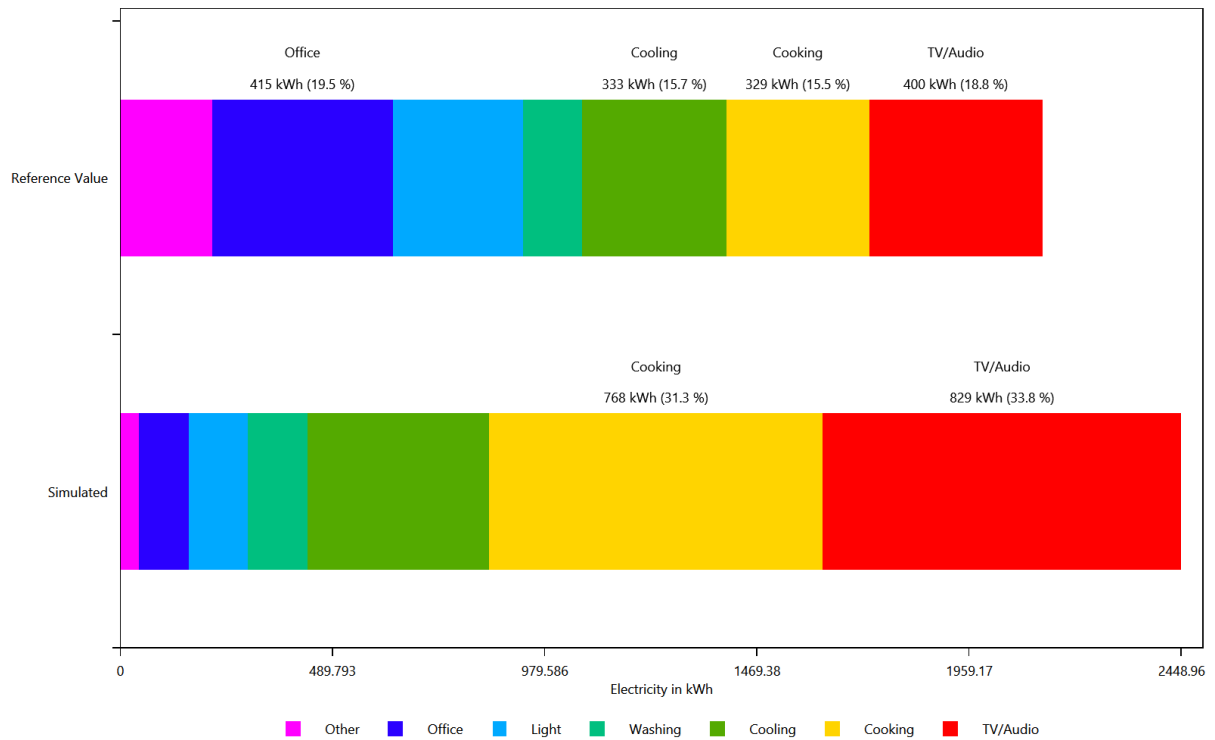
## HH0 - Energieagentur - Cold Water



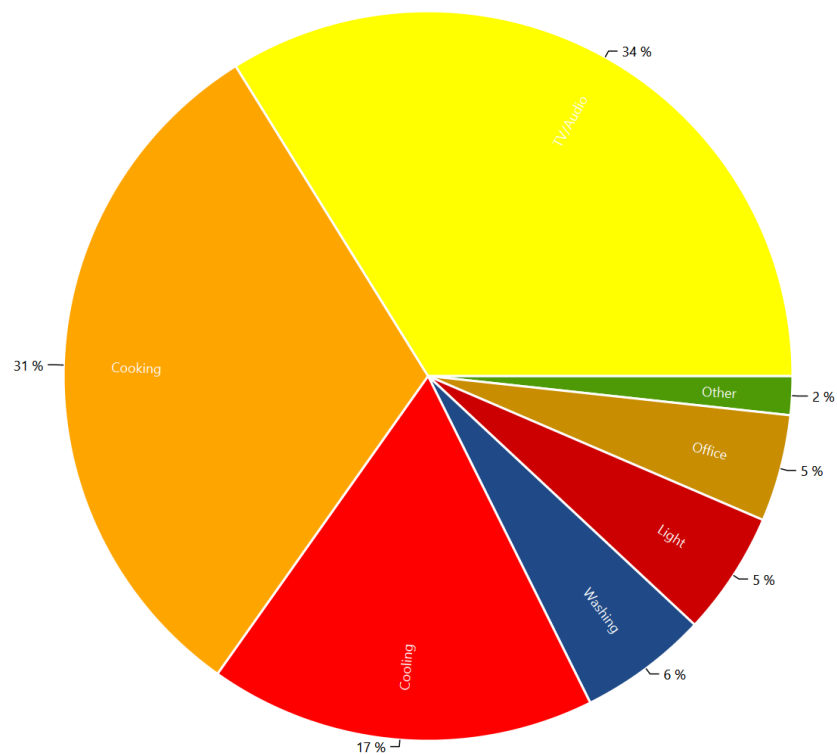
## HH0 - Destatis Water Usage Statistics - Electricity



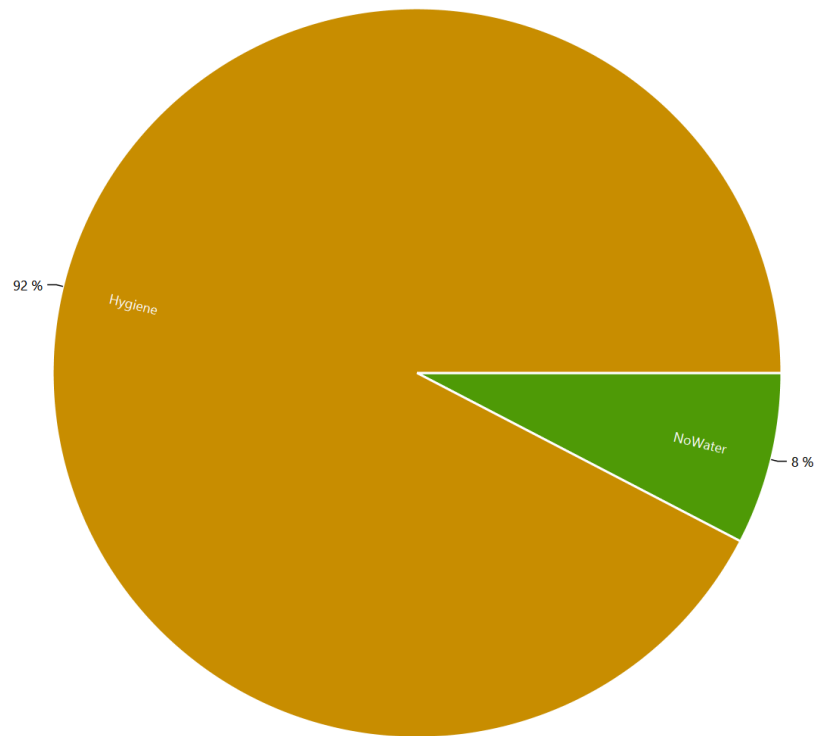
## HH0 - Energieagentur - Electricity



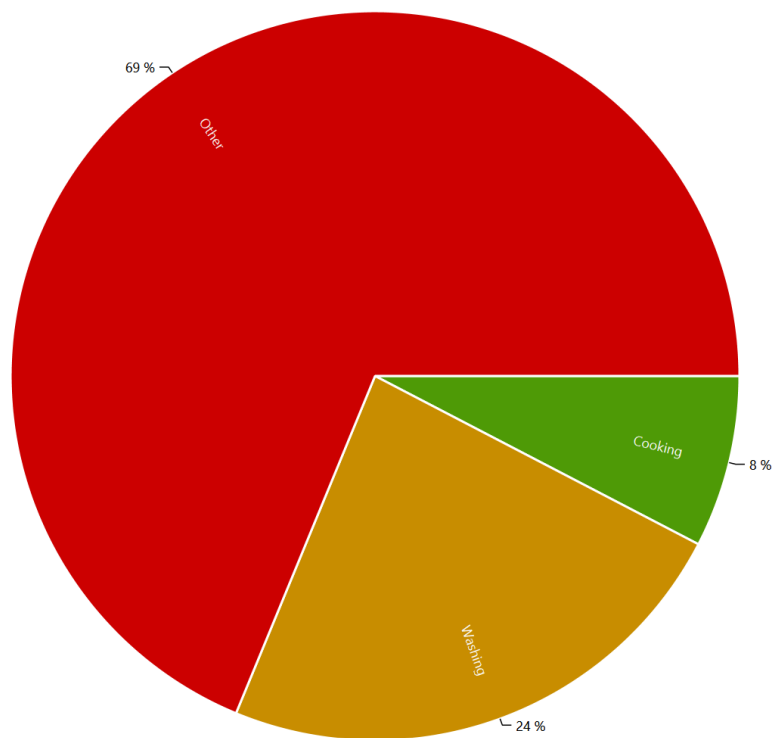
## HH0 - Energieagentur - Electricity



## HH0 - Destatis Water Usage Statistics - Warm Water



## HH0 - Energieagentur - Warm Water

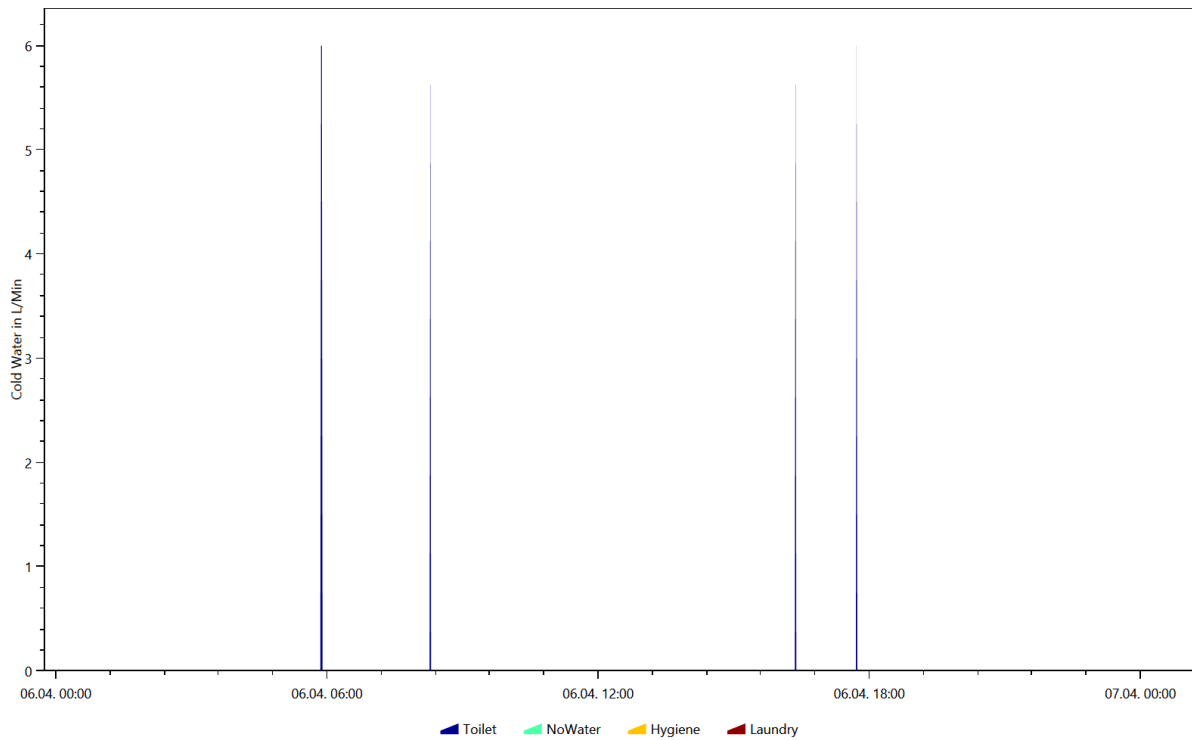


# Example of the device profiles for each load type

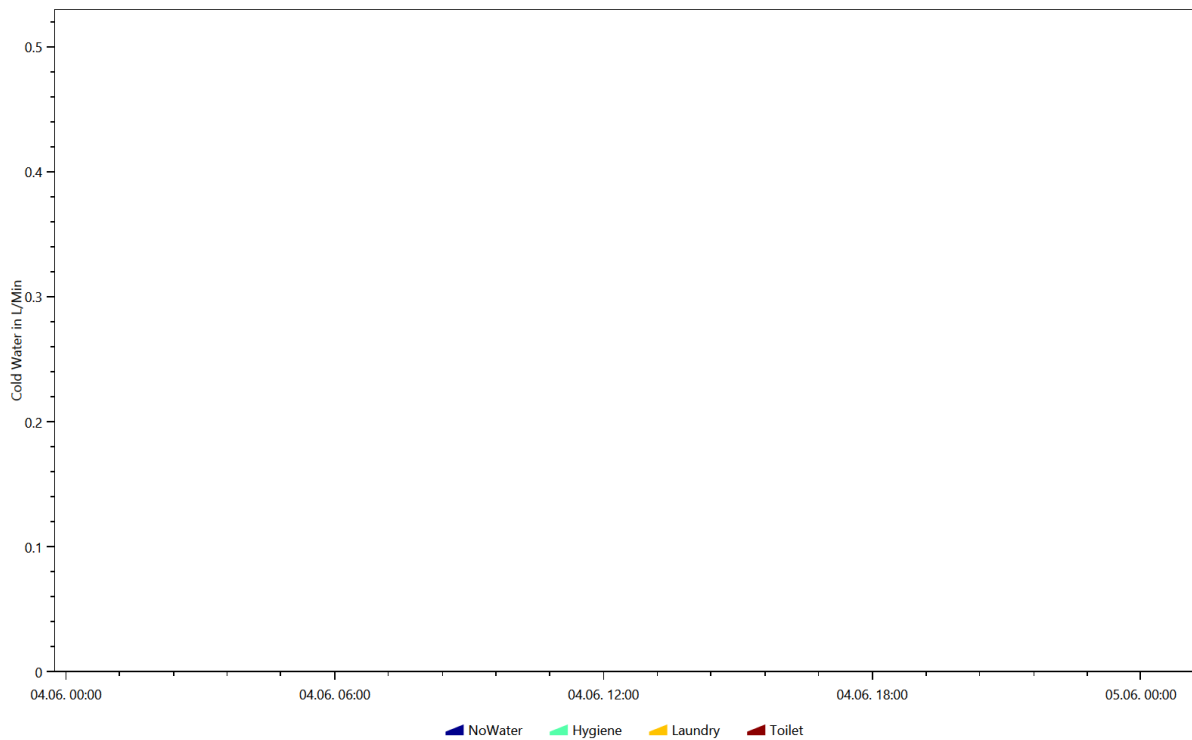
This is made from the files starting with: DeviceProfiles

The device profile files are the reason for the LPG. They show the power consumption of each device.

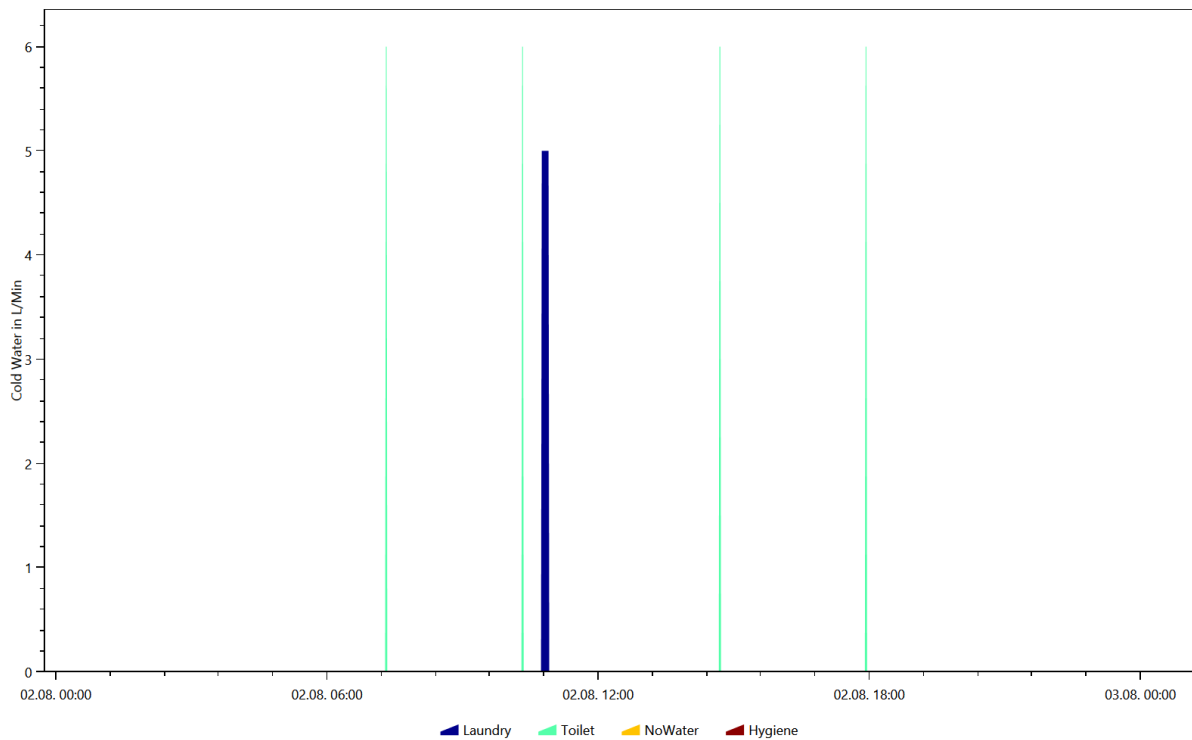
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.6



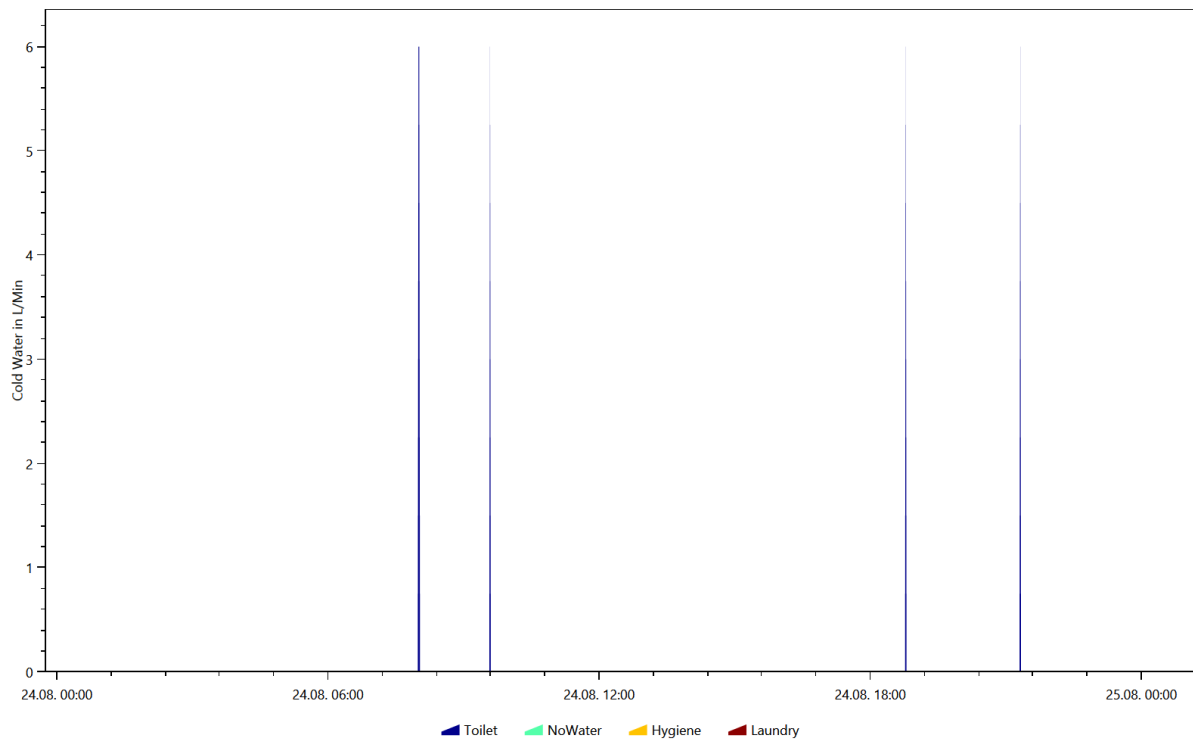
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.4



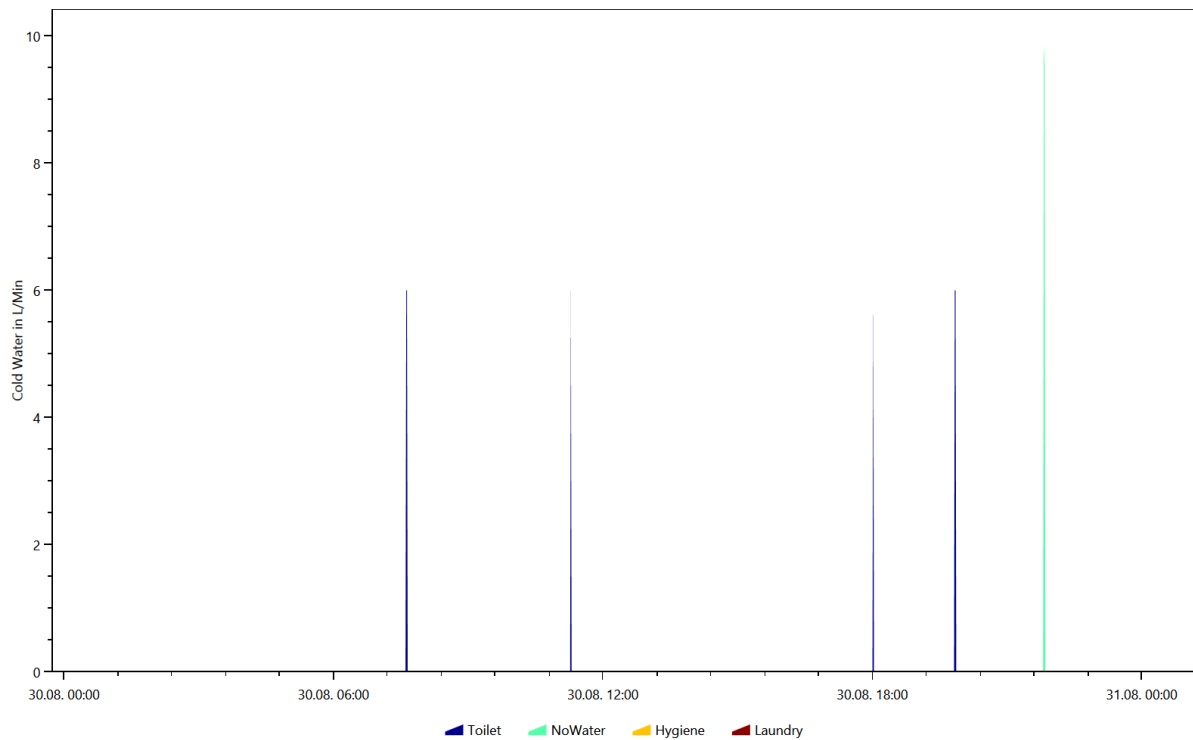
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.2



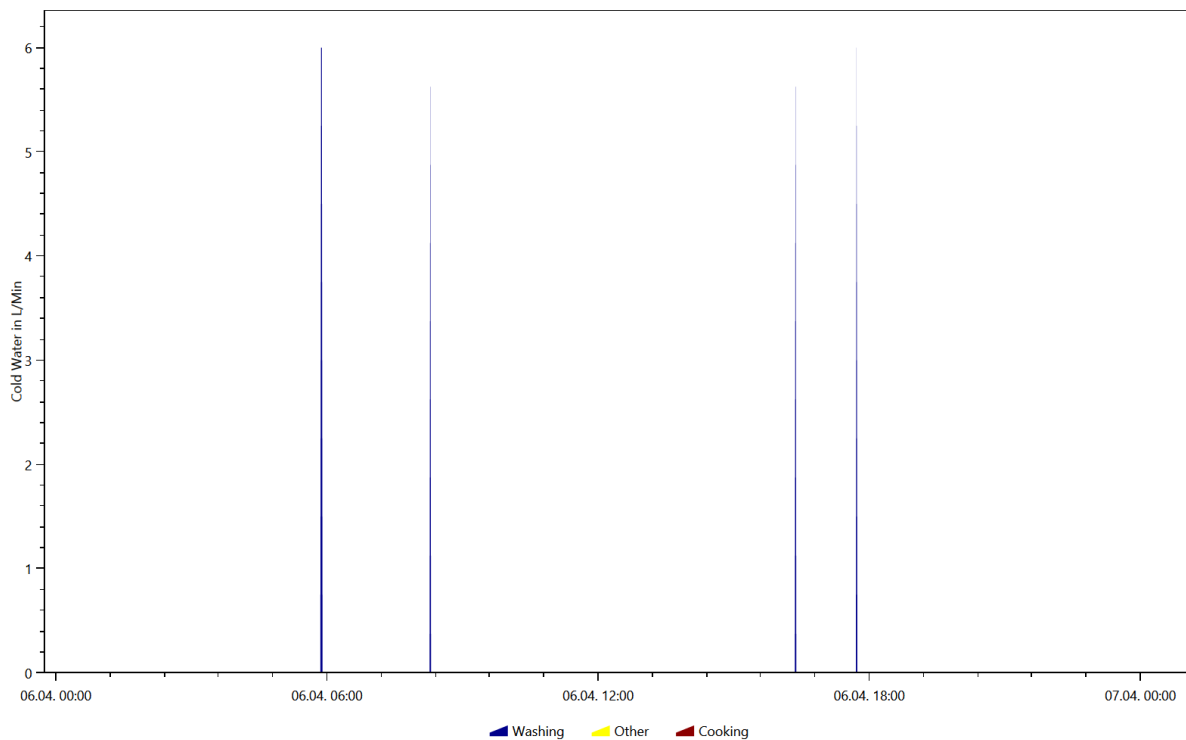
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.24



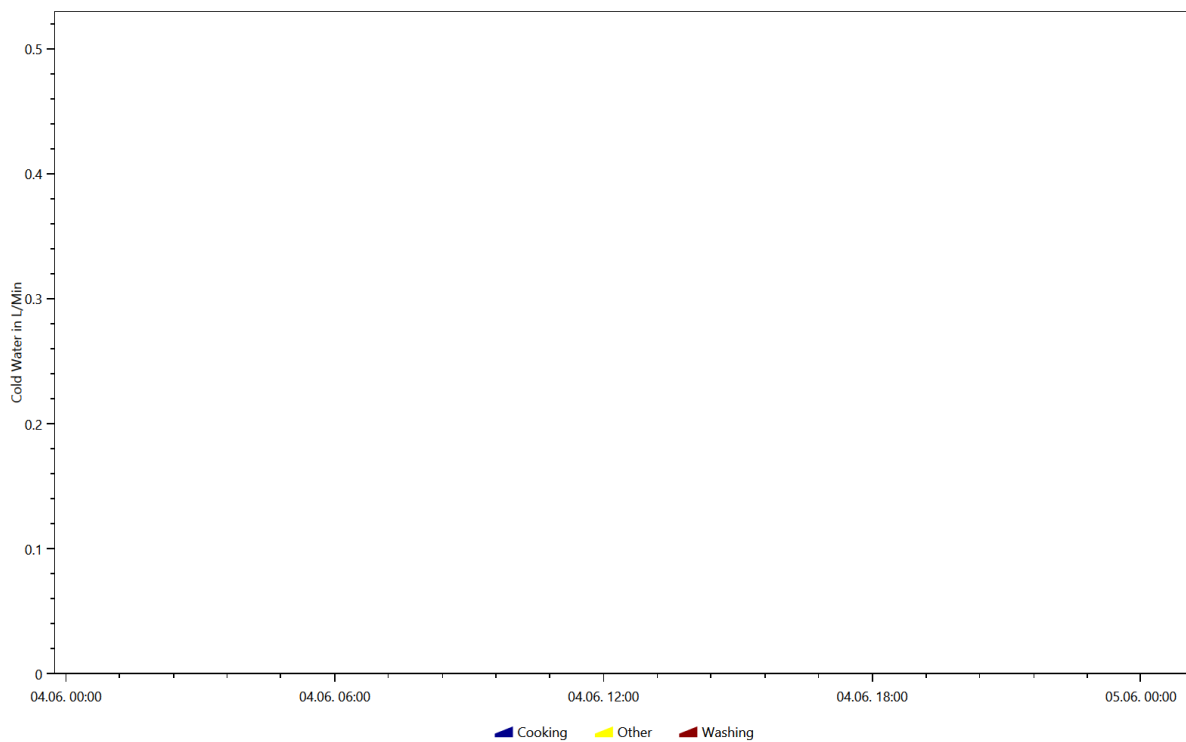
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.30



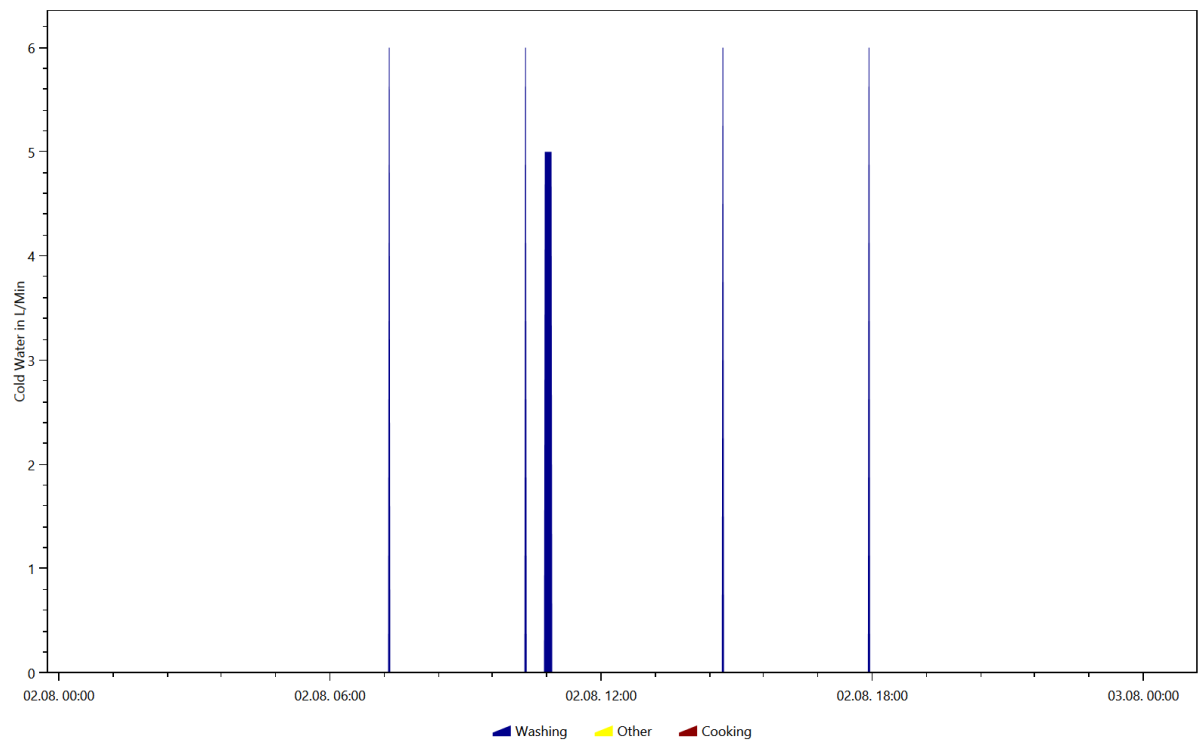
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.6



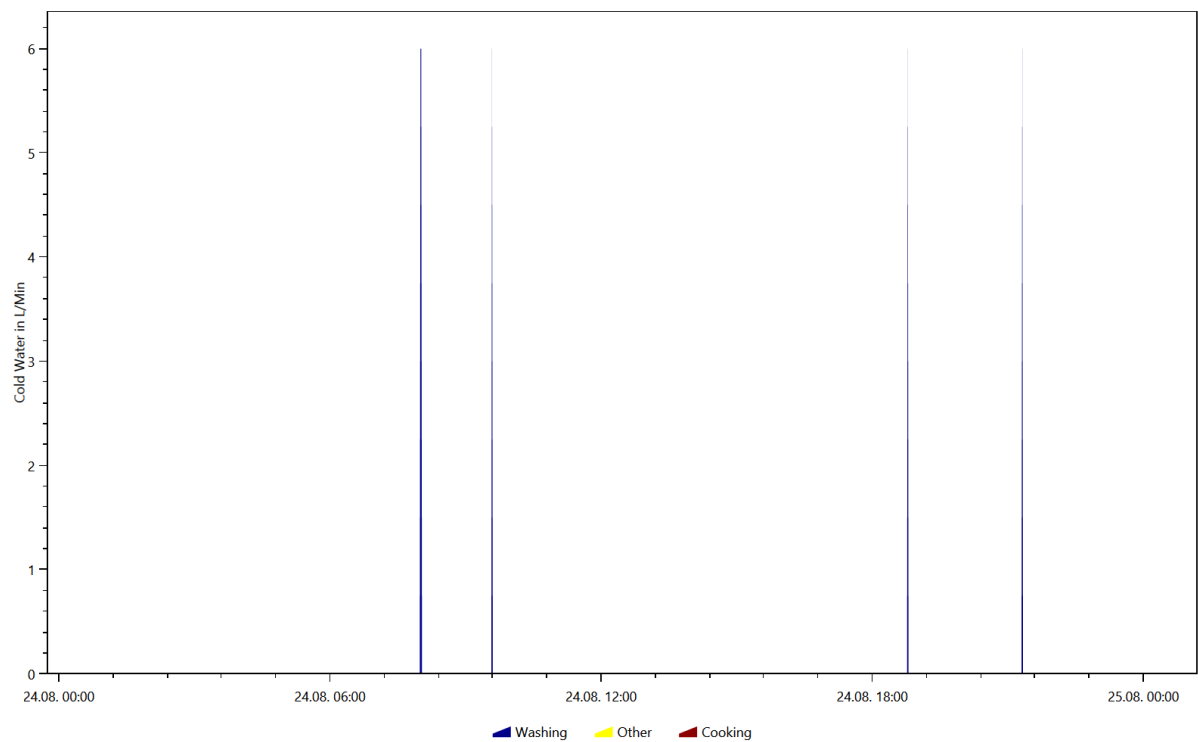
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.4



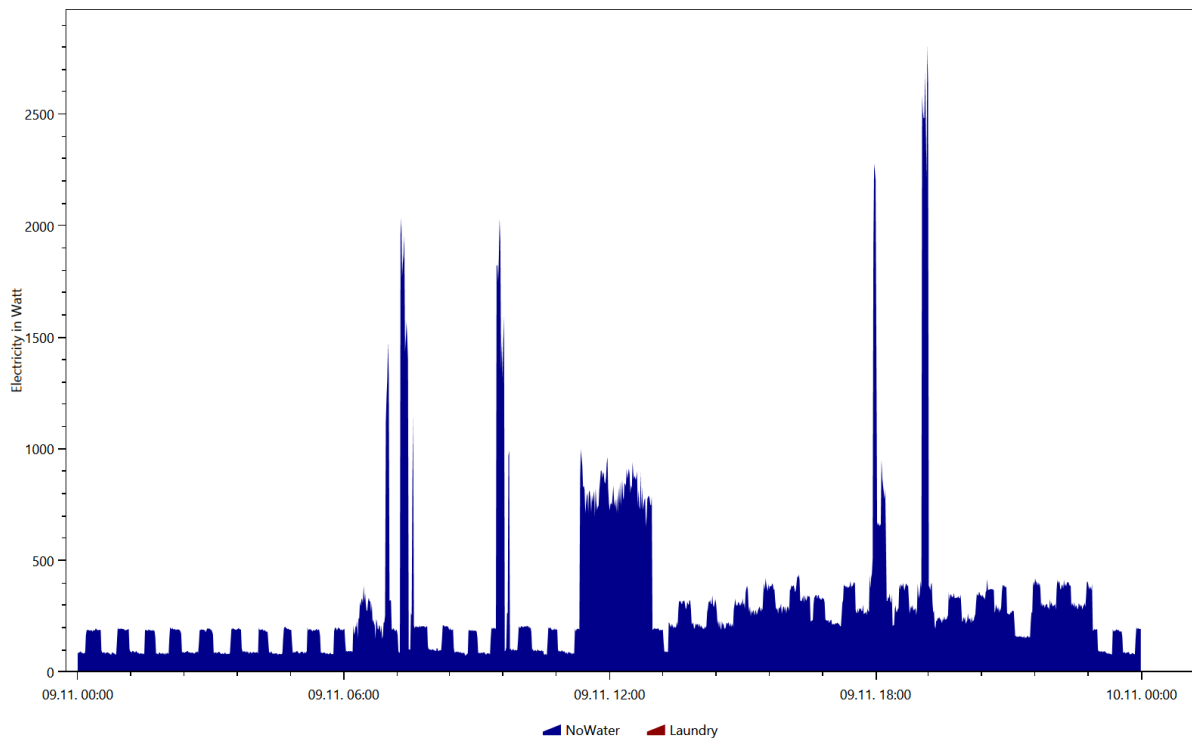
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.2



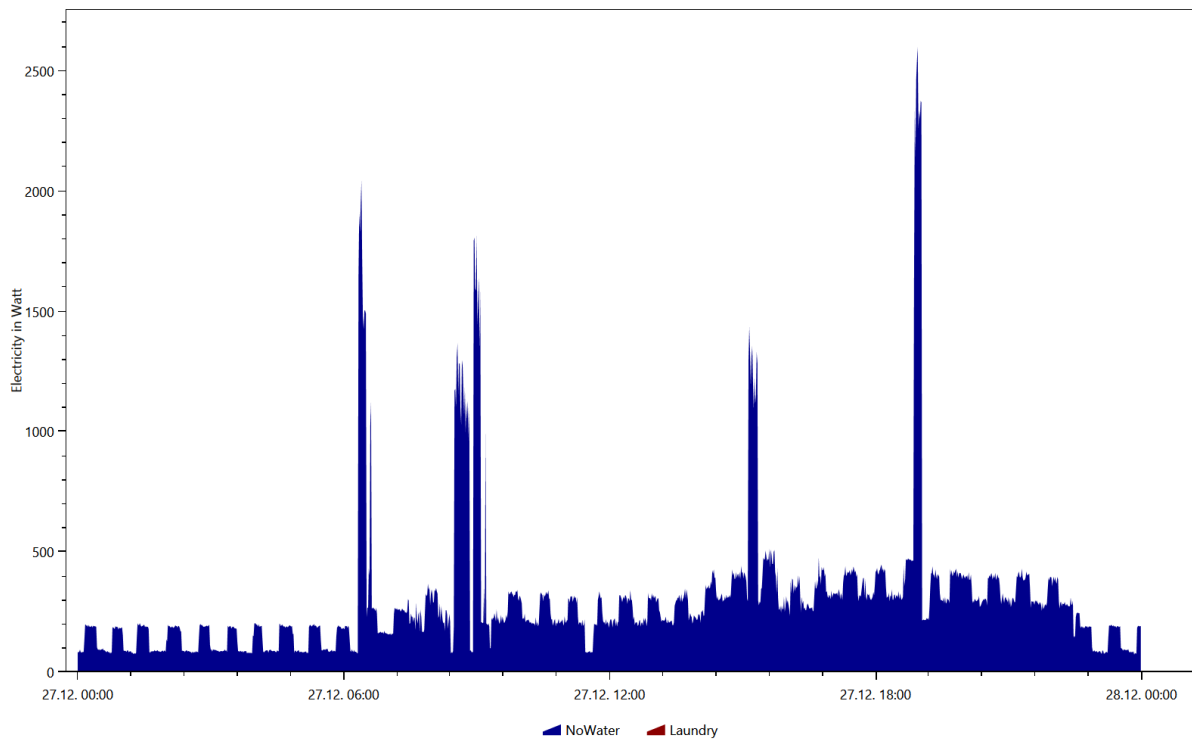
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.24



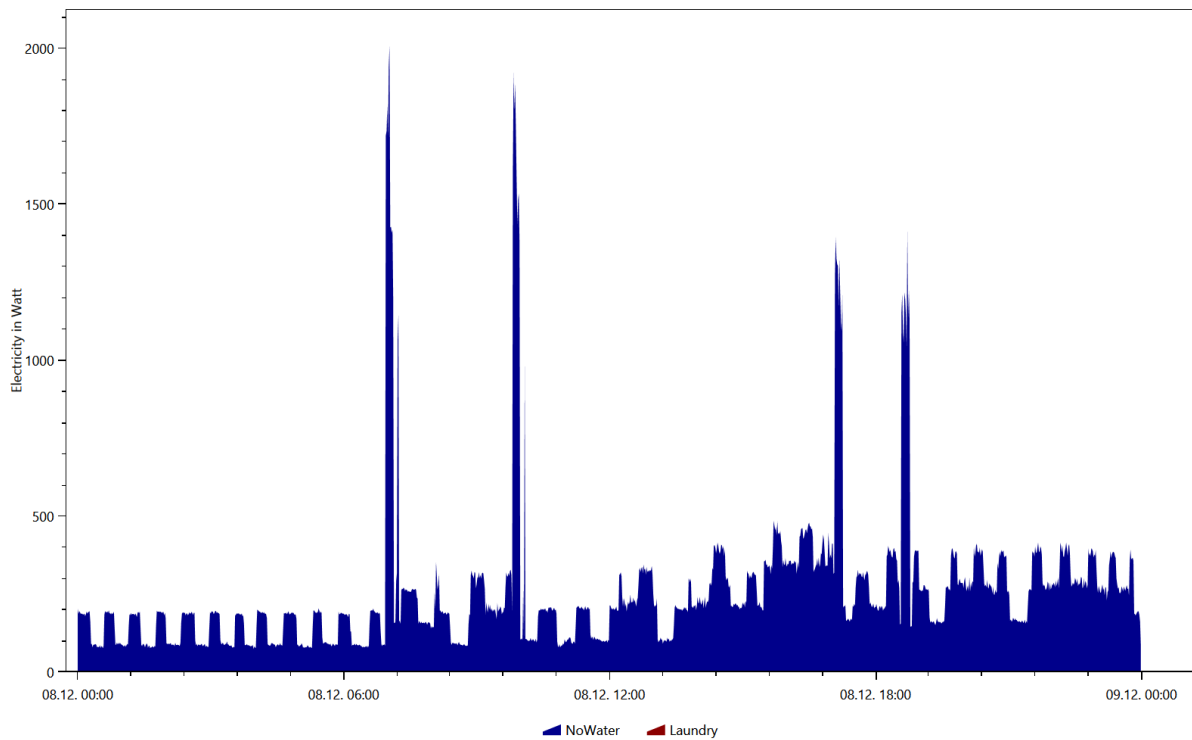
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.9



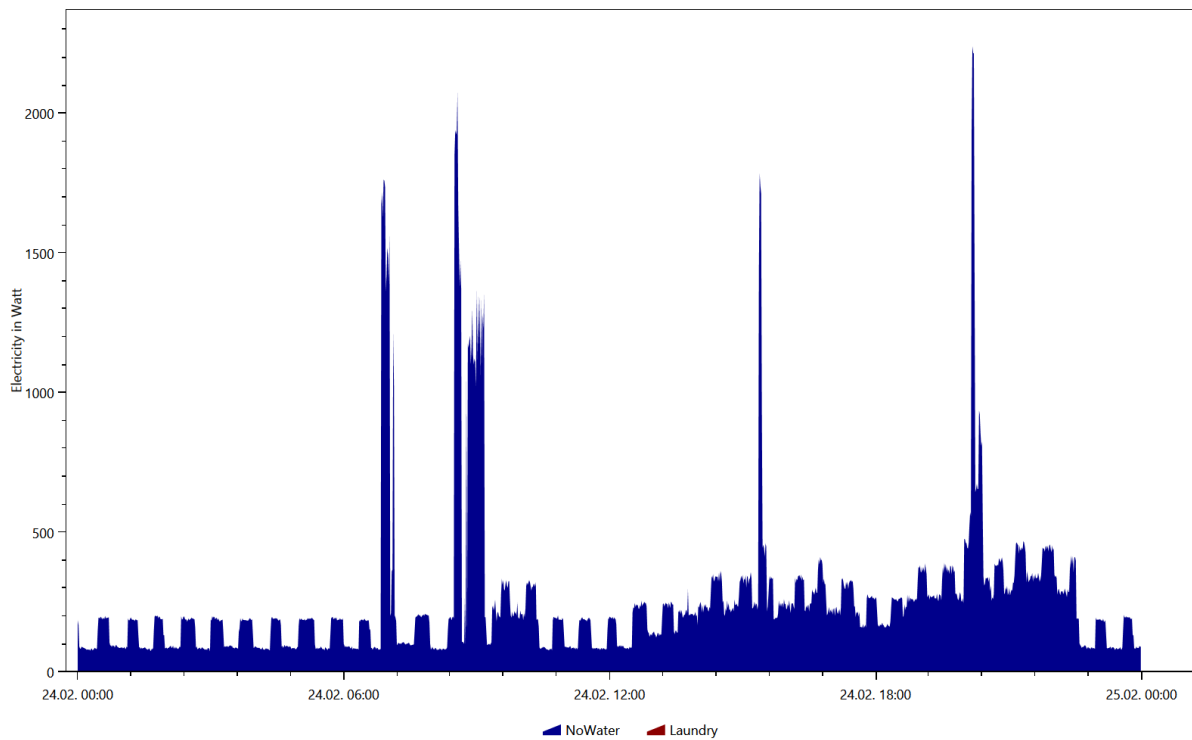
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.27



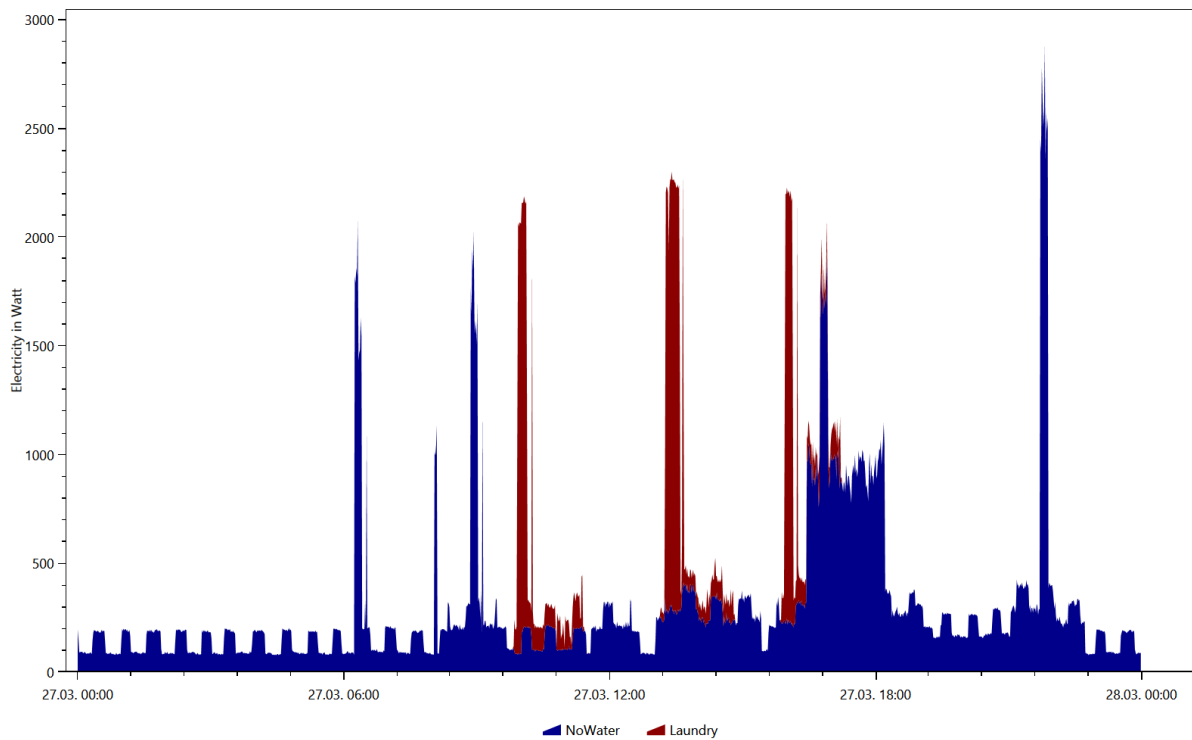
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.8



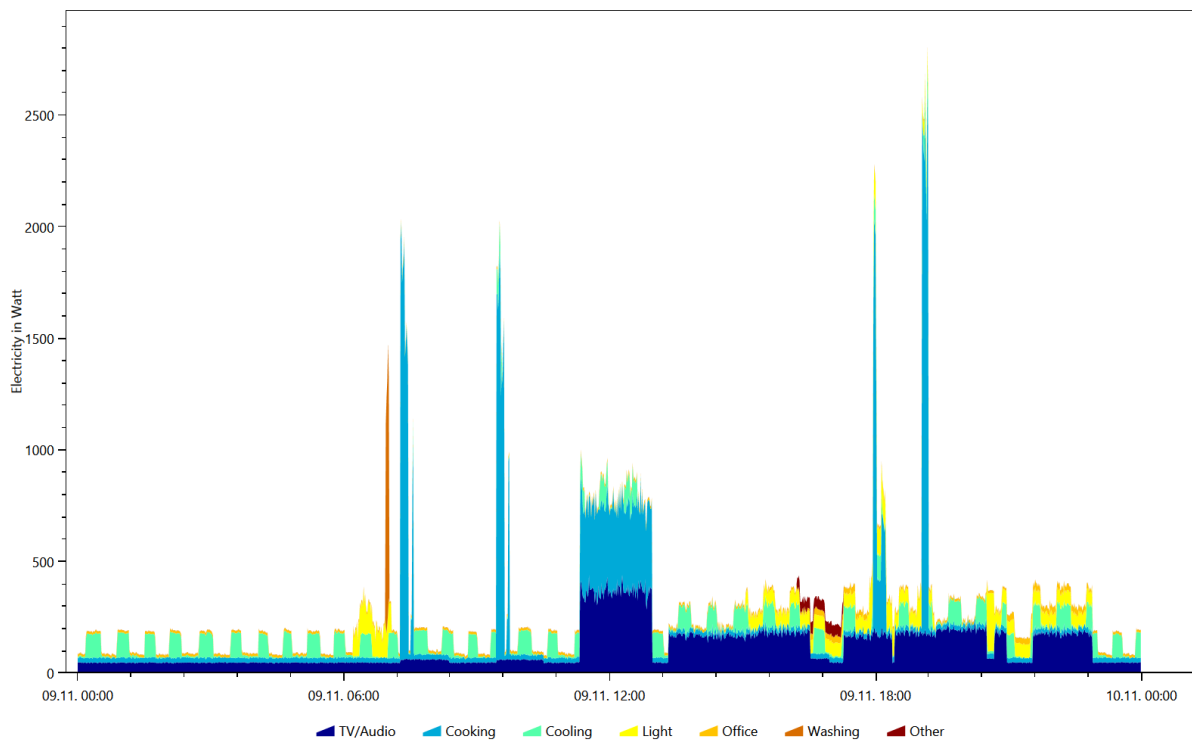
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.24



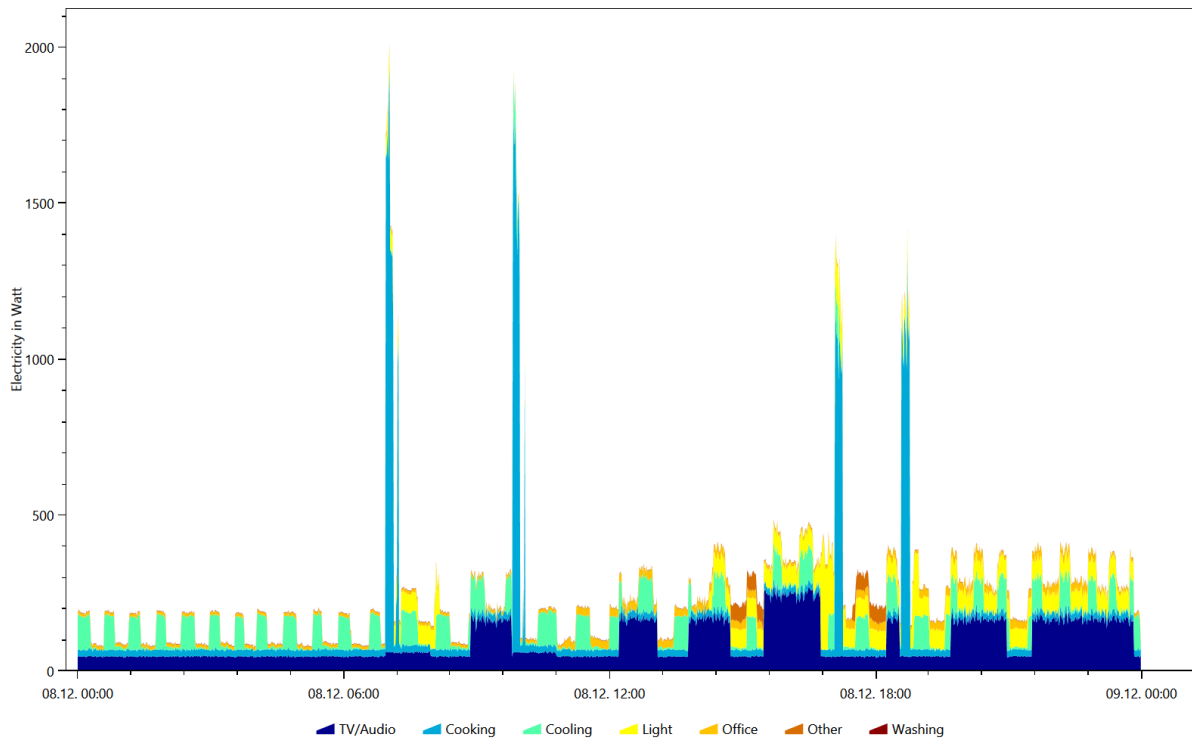
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.27



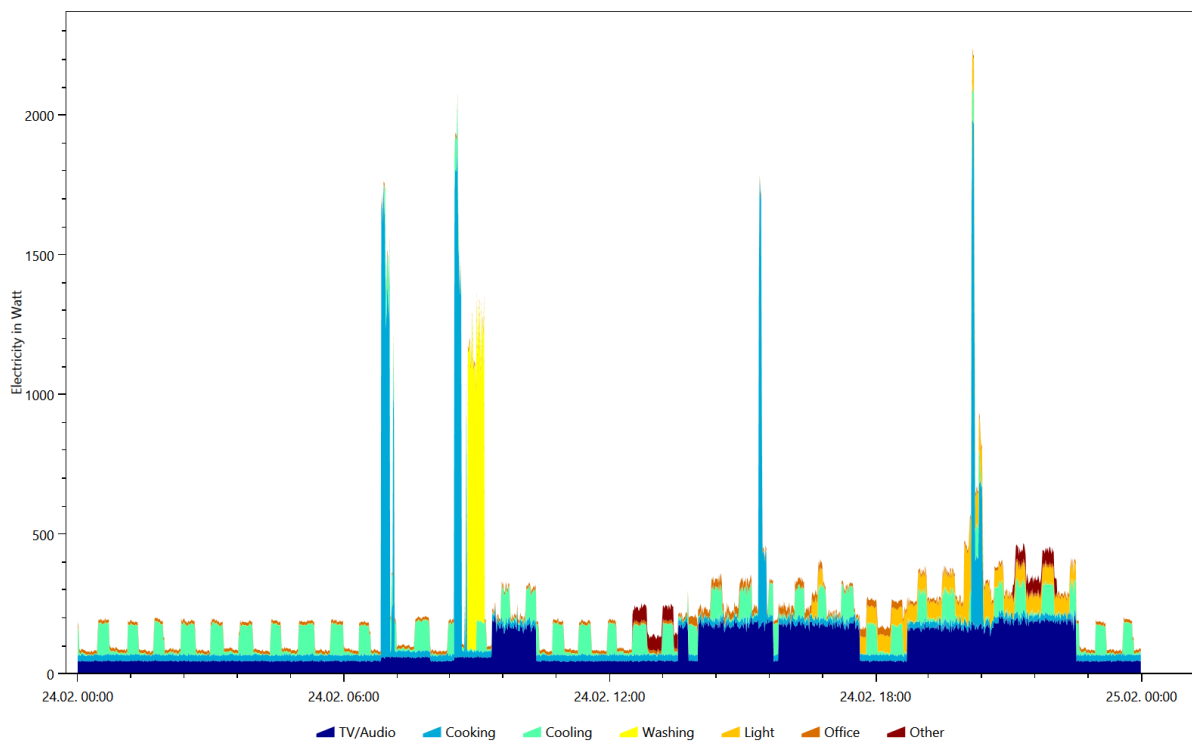
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.11.9



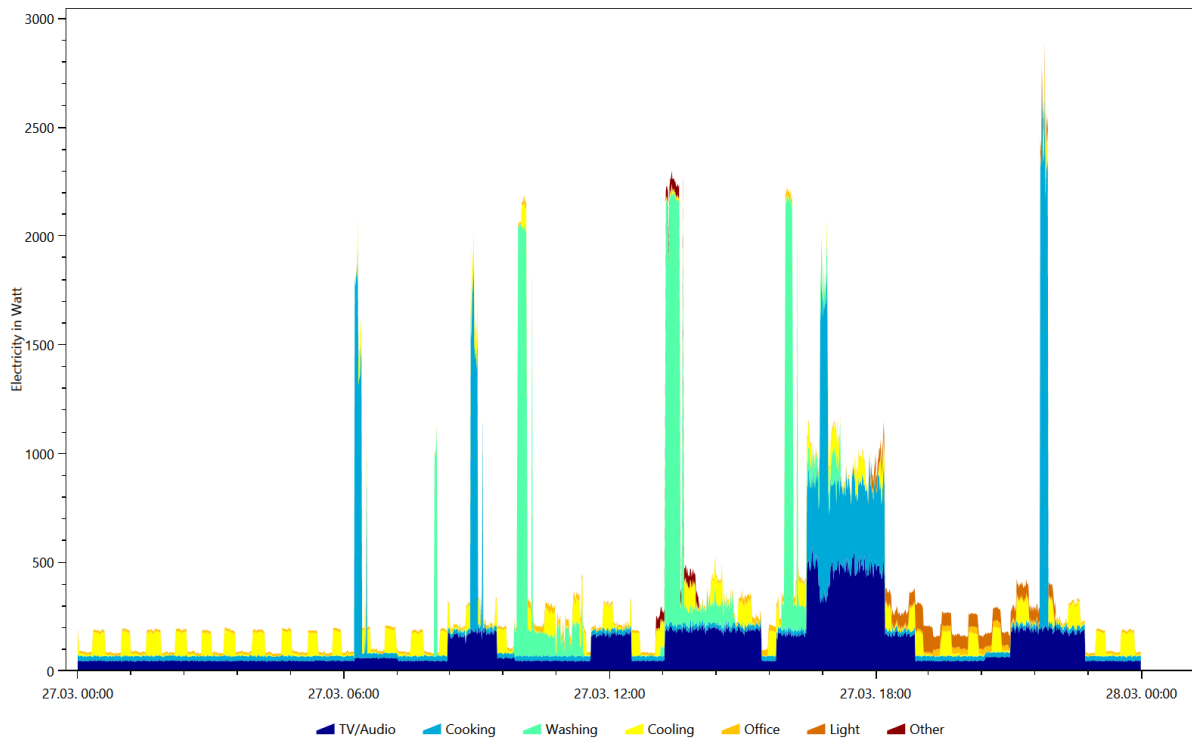
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.12.8



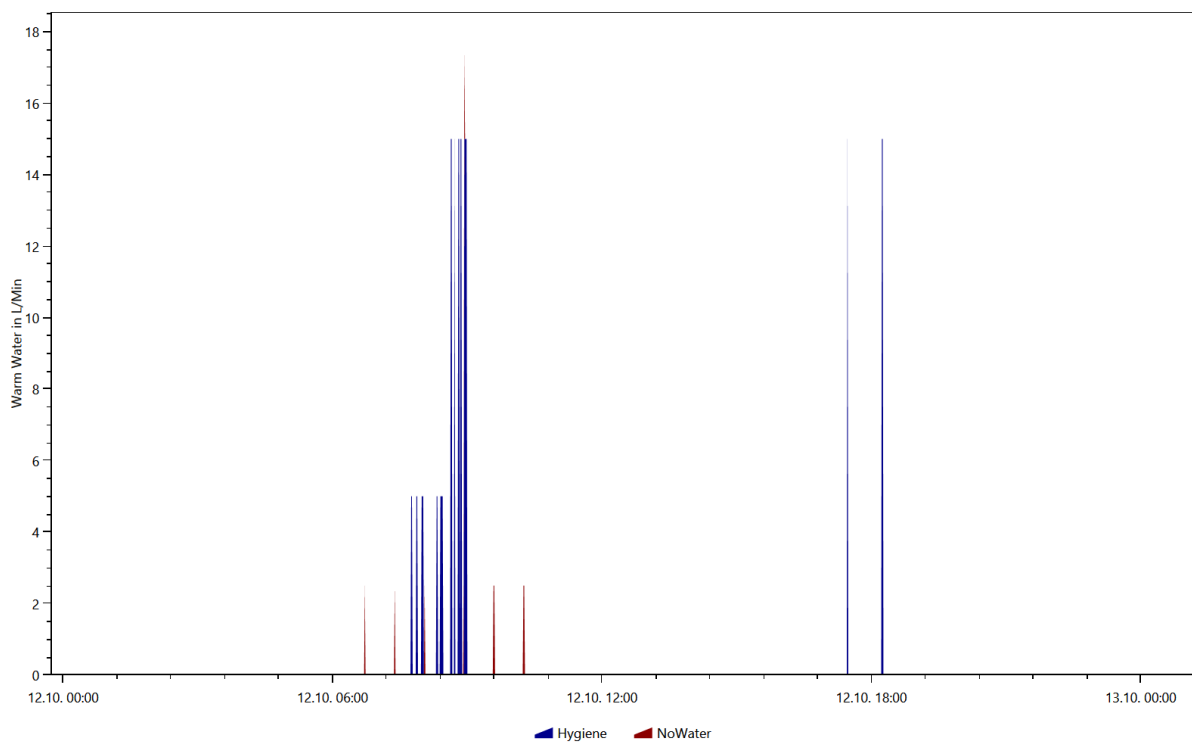
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.24



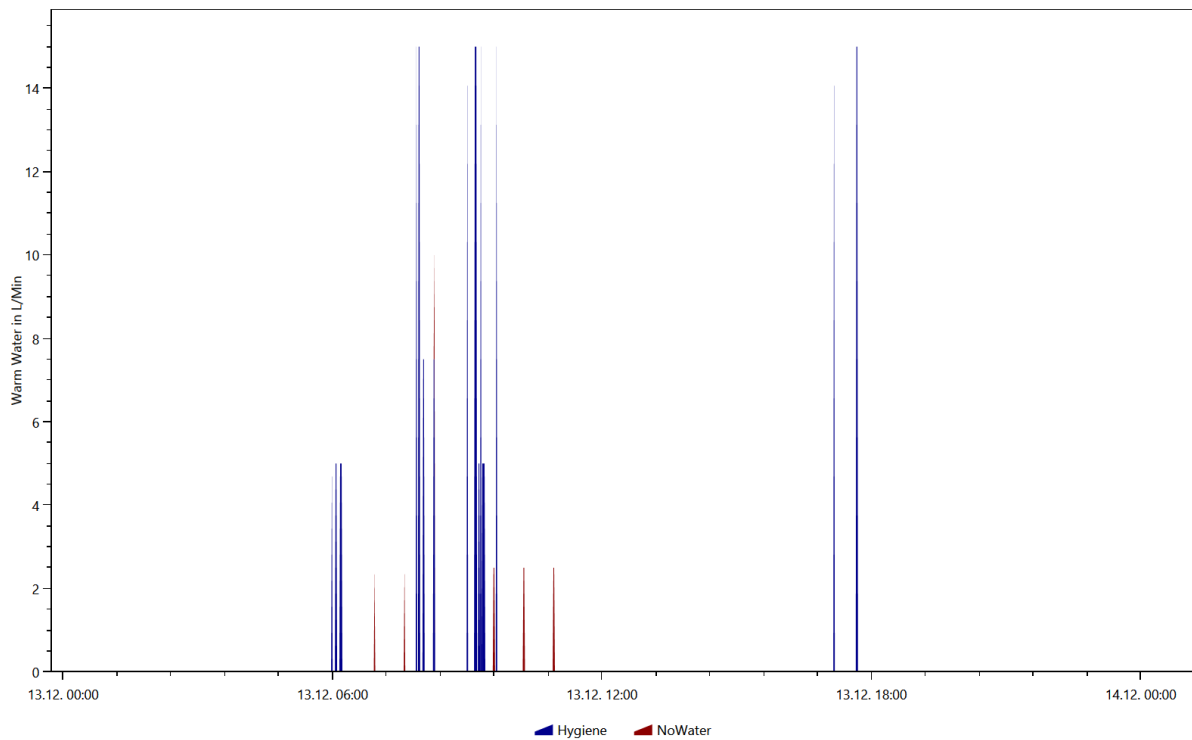
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.27



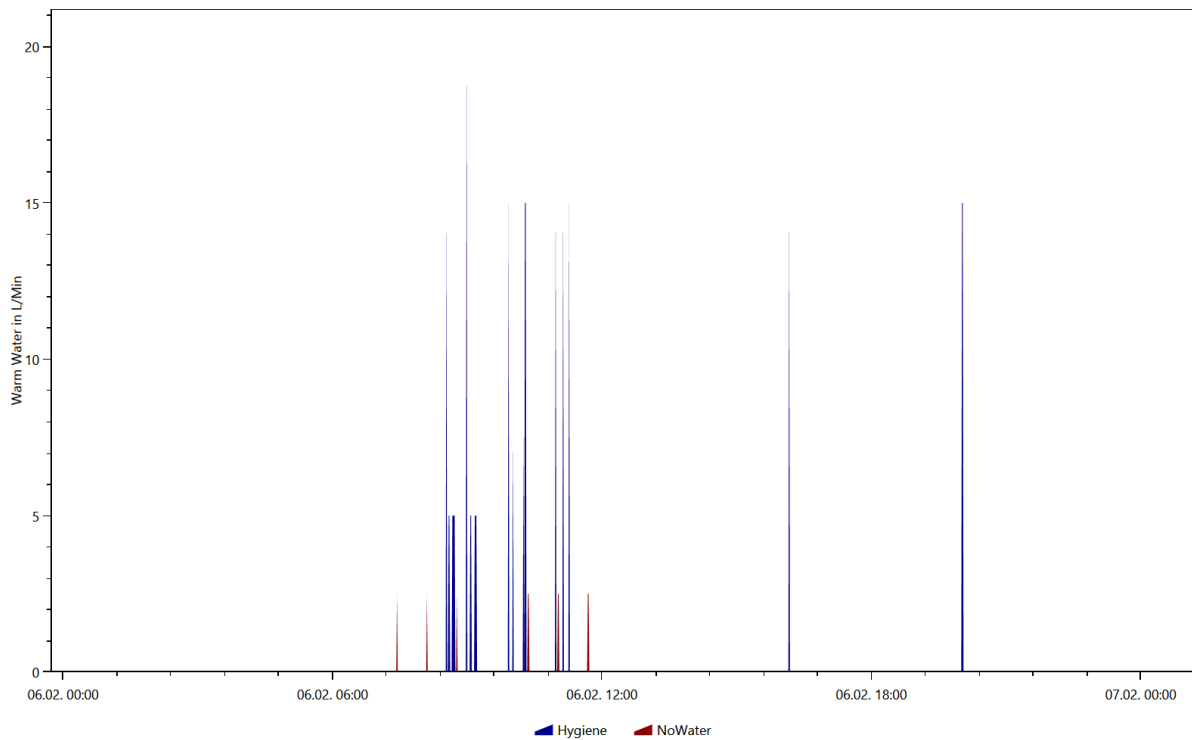
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.12



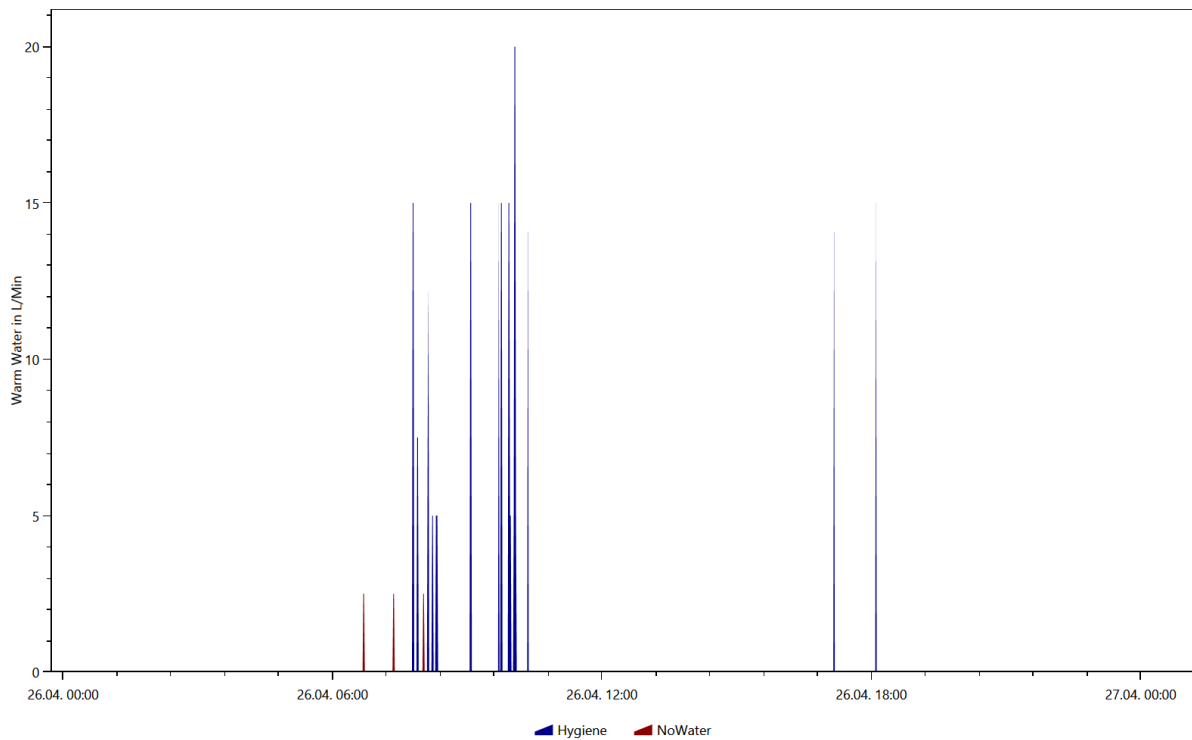
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.13



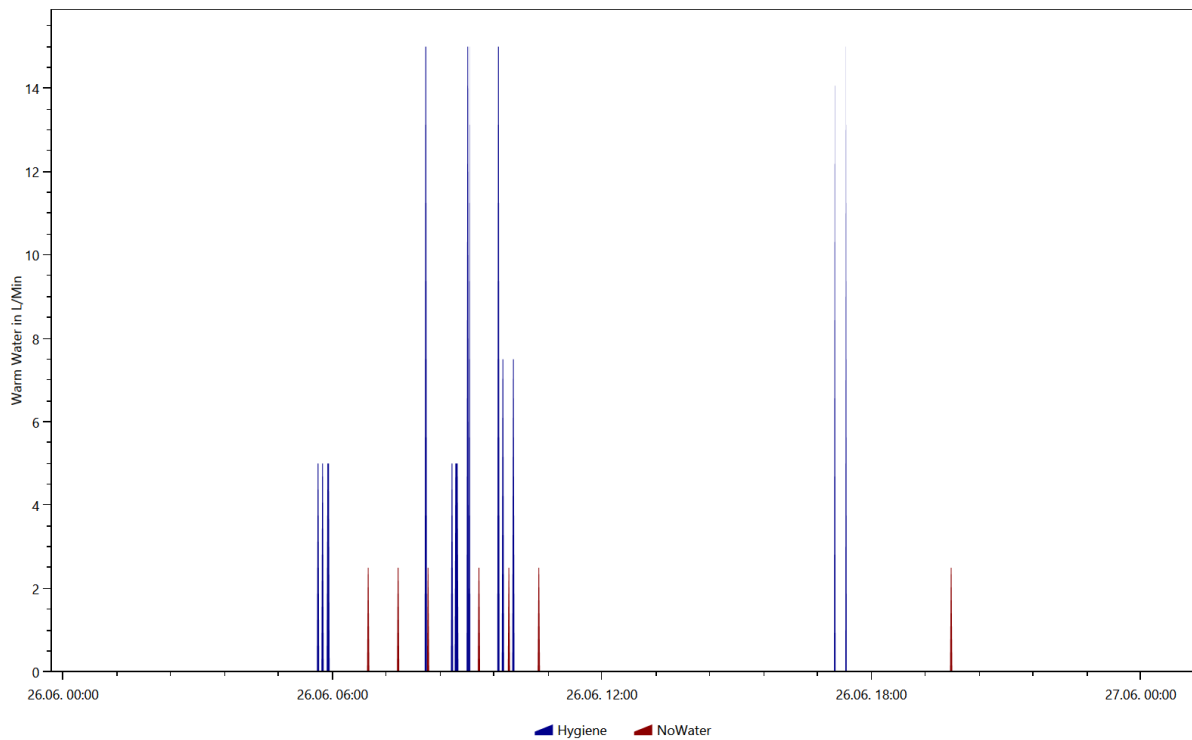
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.6



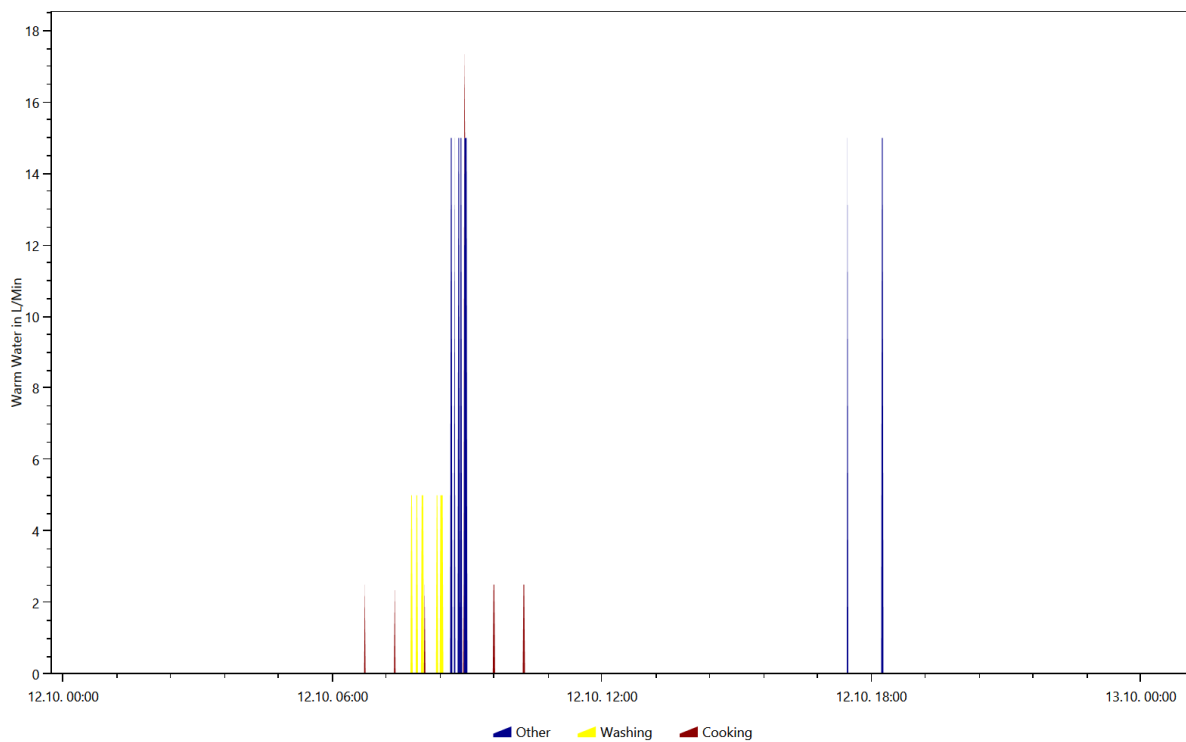
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.26



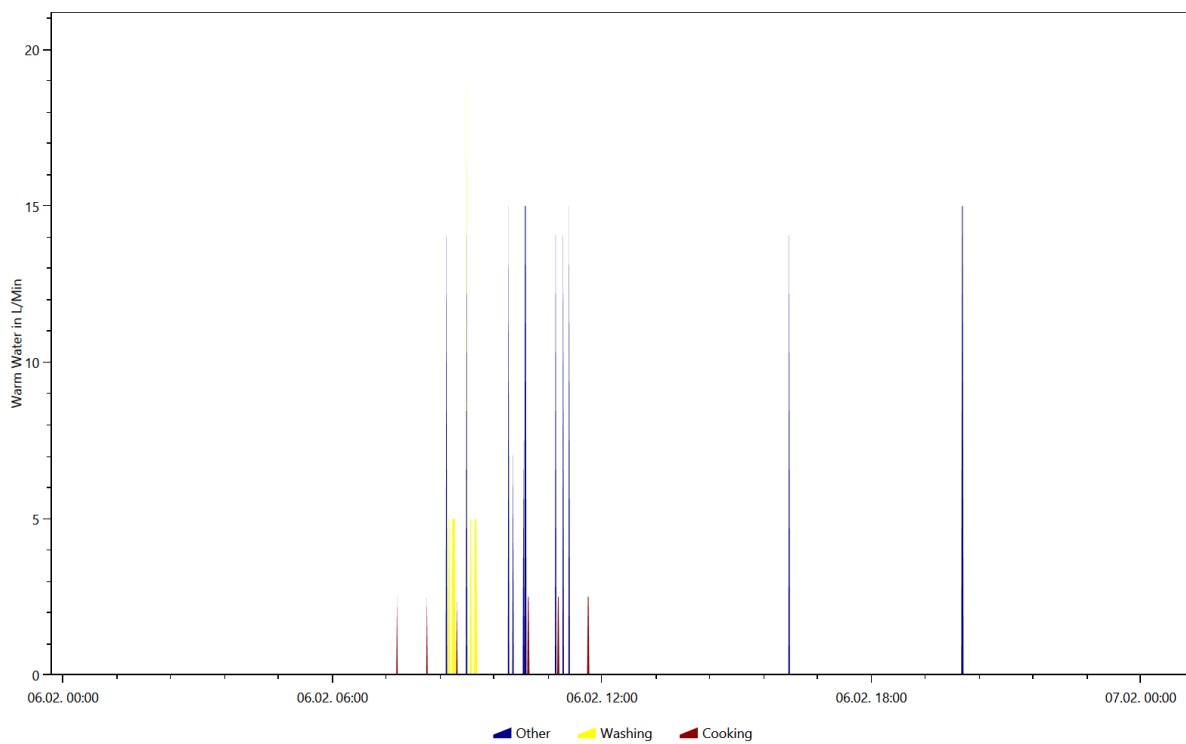
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.26



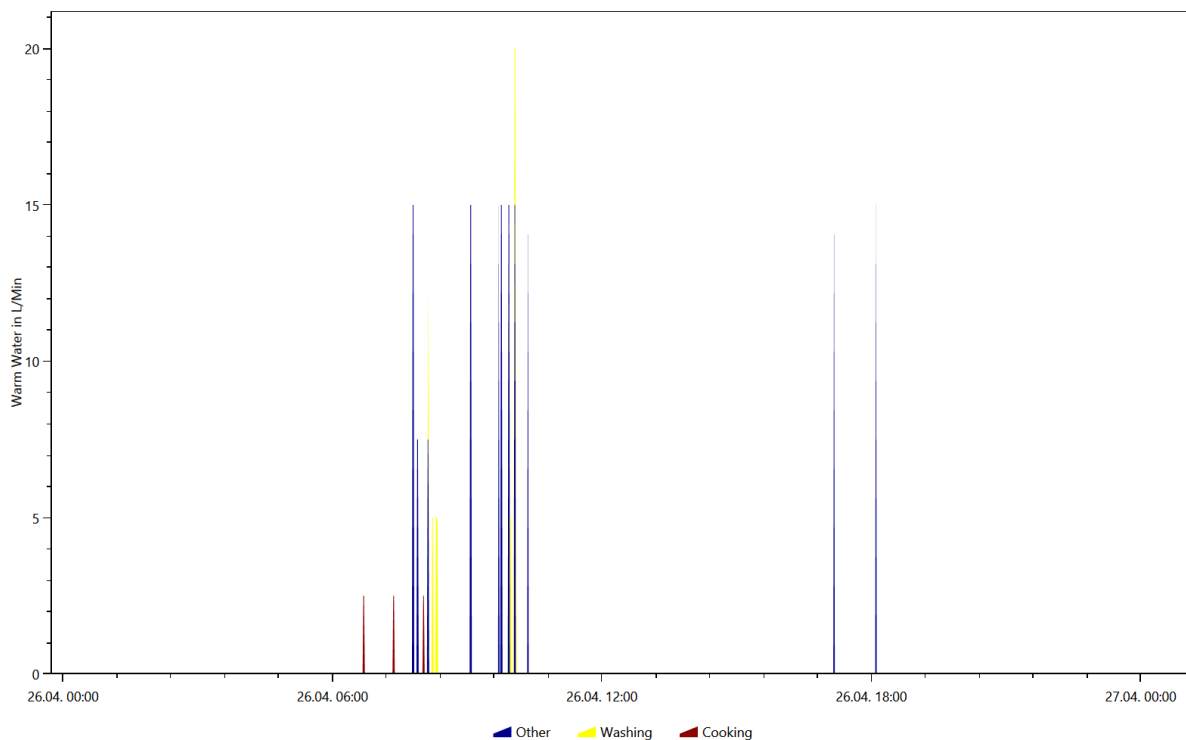
## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.10.12



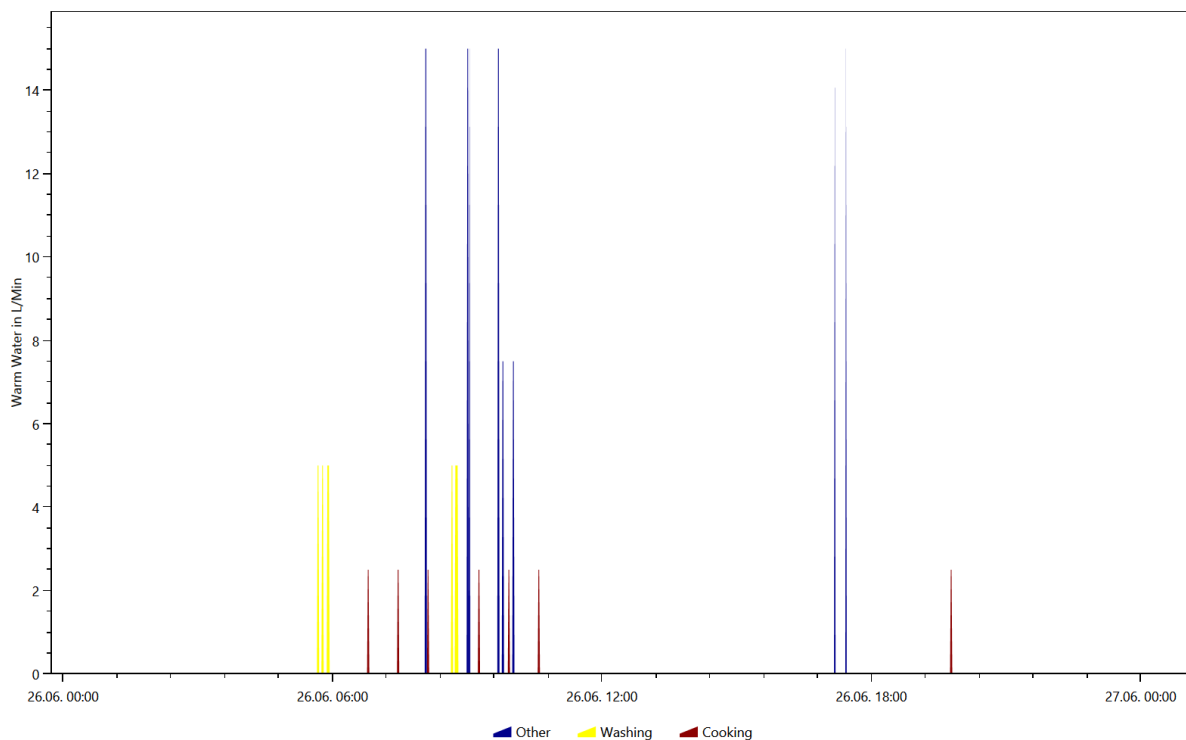
## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.6



## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.26



## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.26

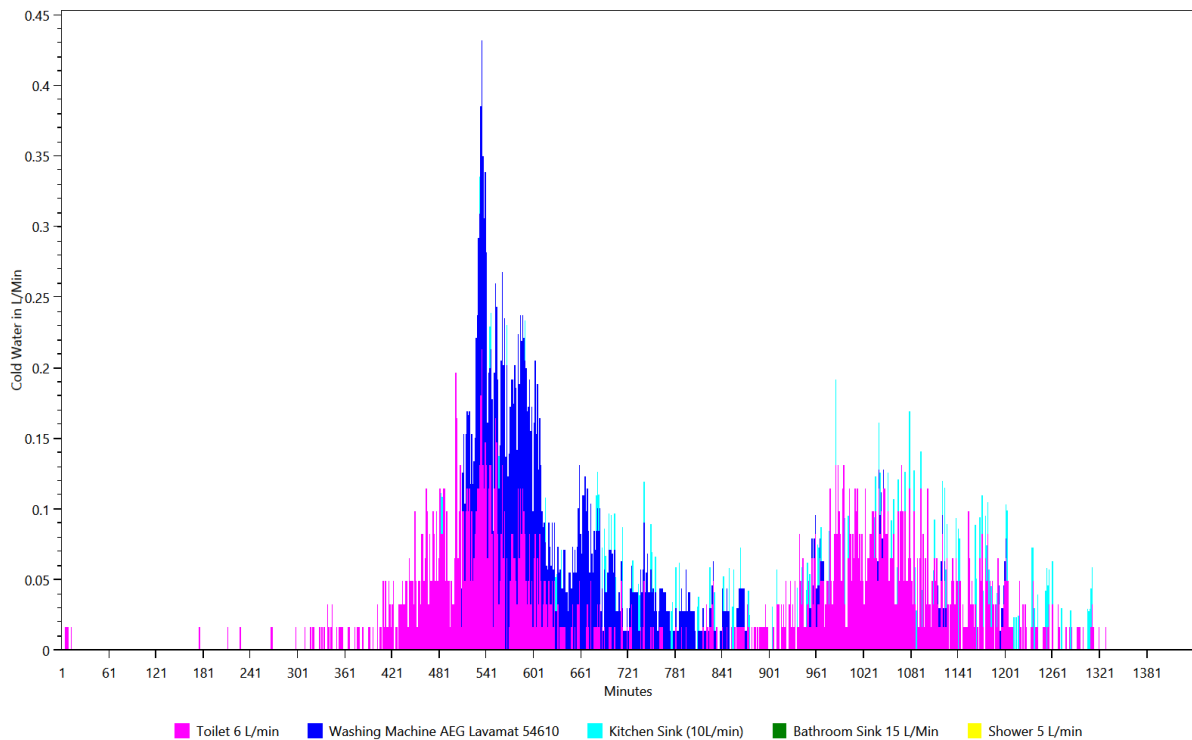


# Overview of the time and power of the use per load type per device

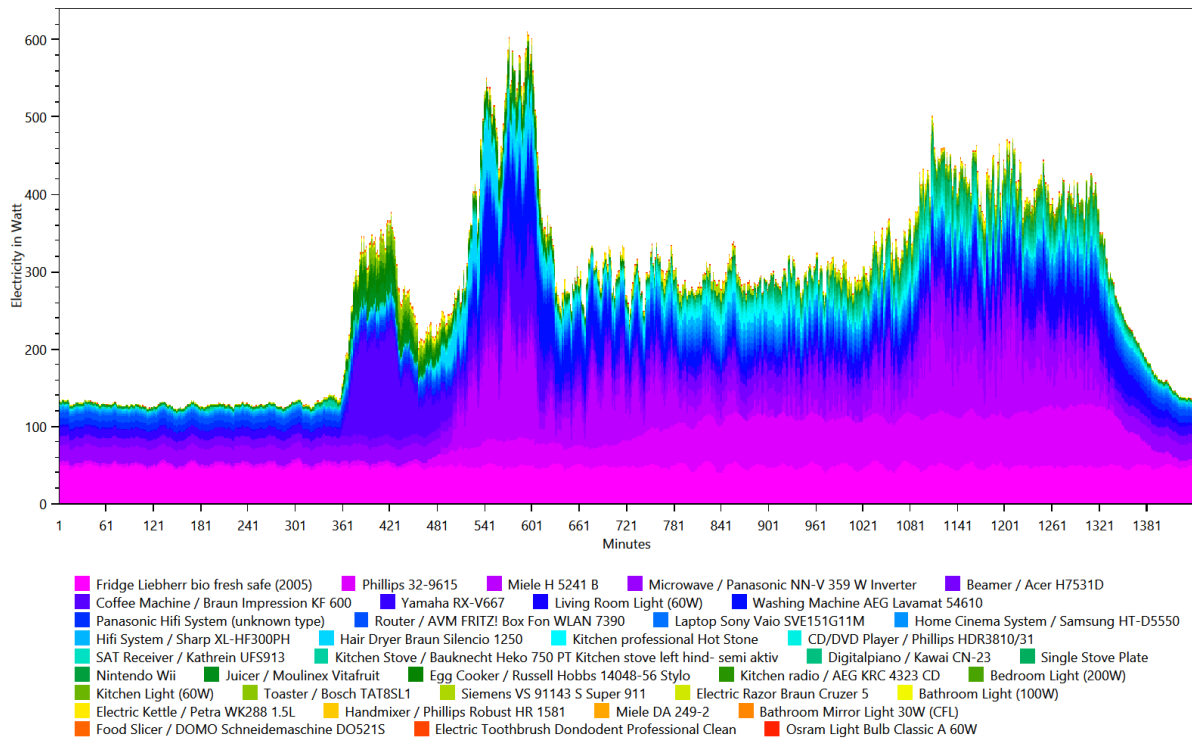
This is made from the files starting with: **TimeOfUseEnergyProfiles**

The time of use energy profiles show when each device was used and how much power it used.

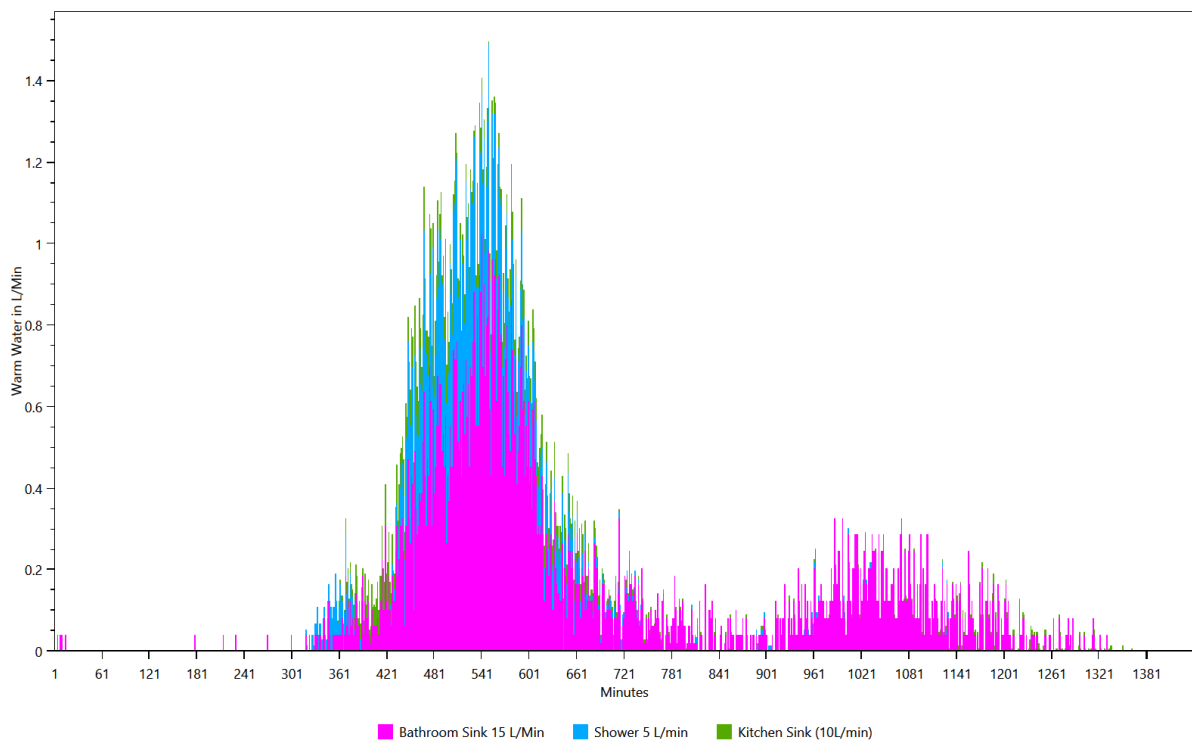
## Cold Water



## Electricity



## Warm Water

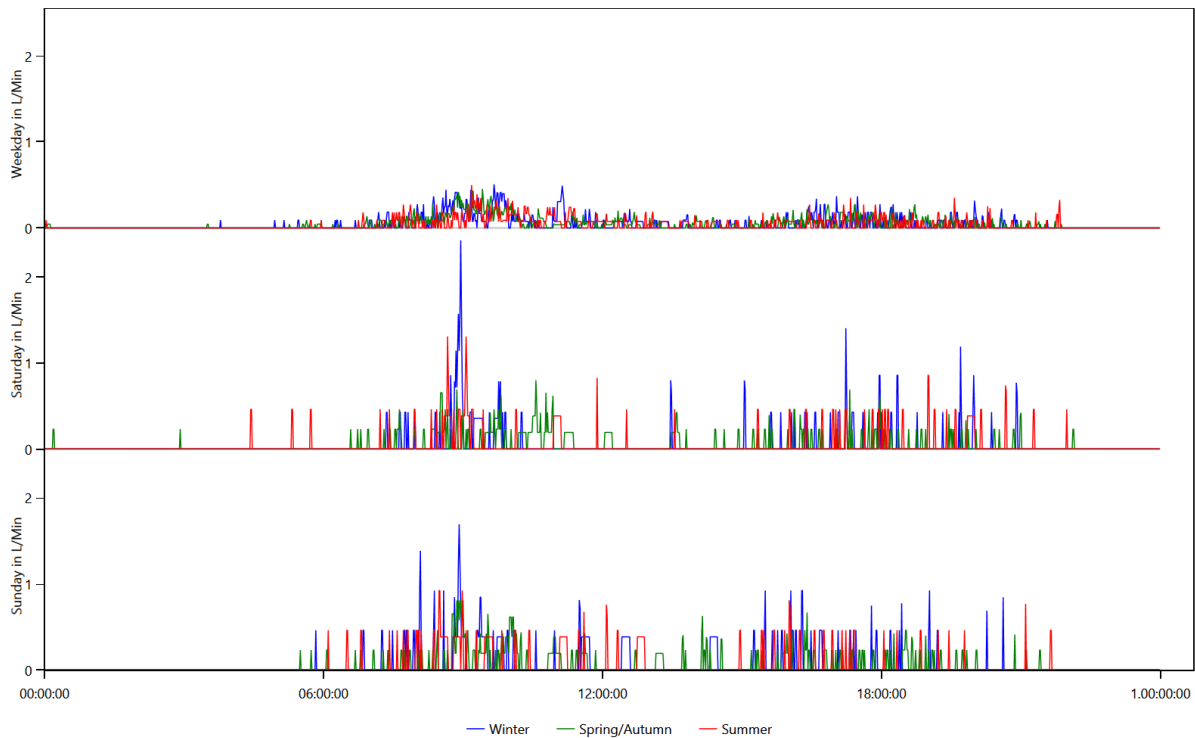


# Energy use per load type during different seasons, split by weekday/saturday/sunday

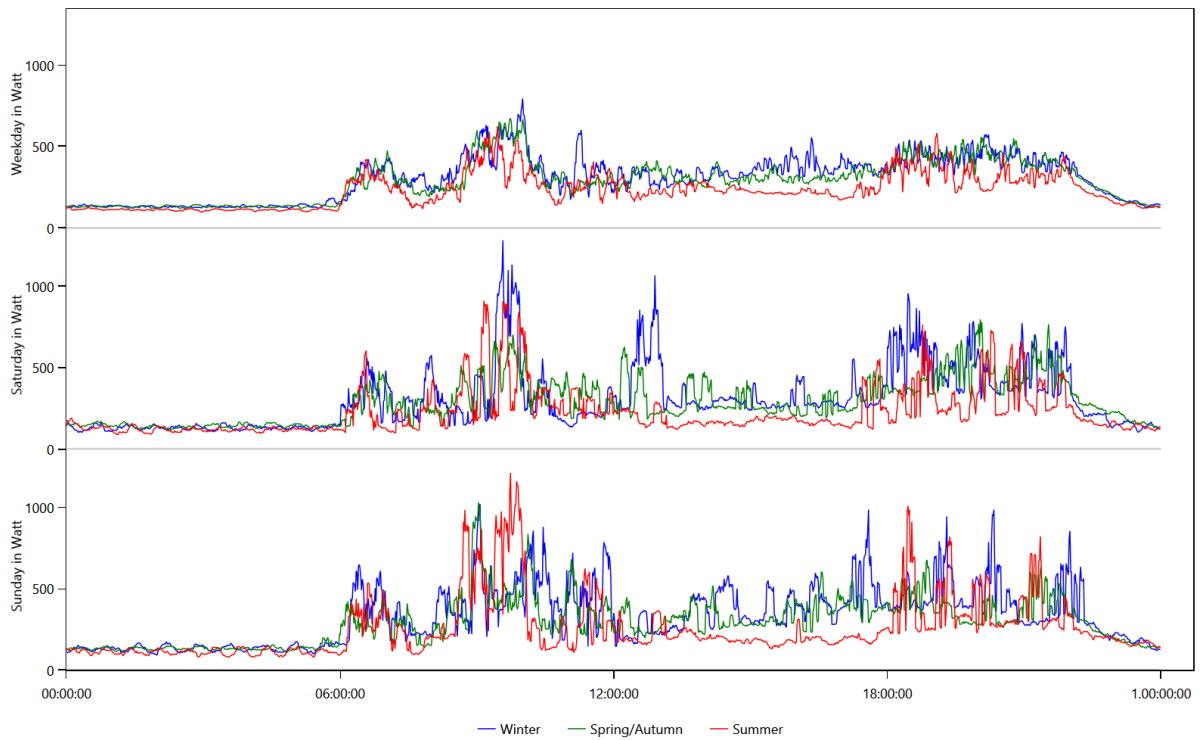
This is made from the files starting with: WeekdayProfiles

This graph shows for each load type the average power consumption per day grouped by season and weekday/saturday/sunday.

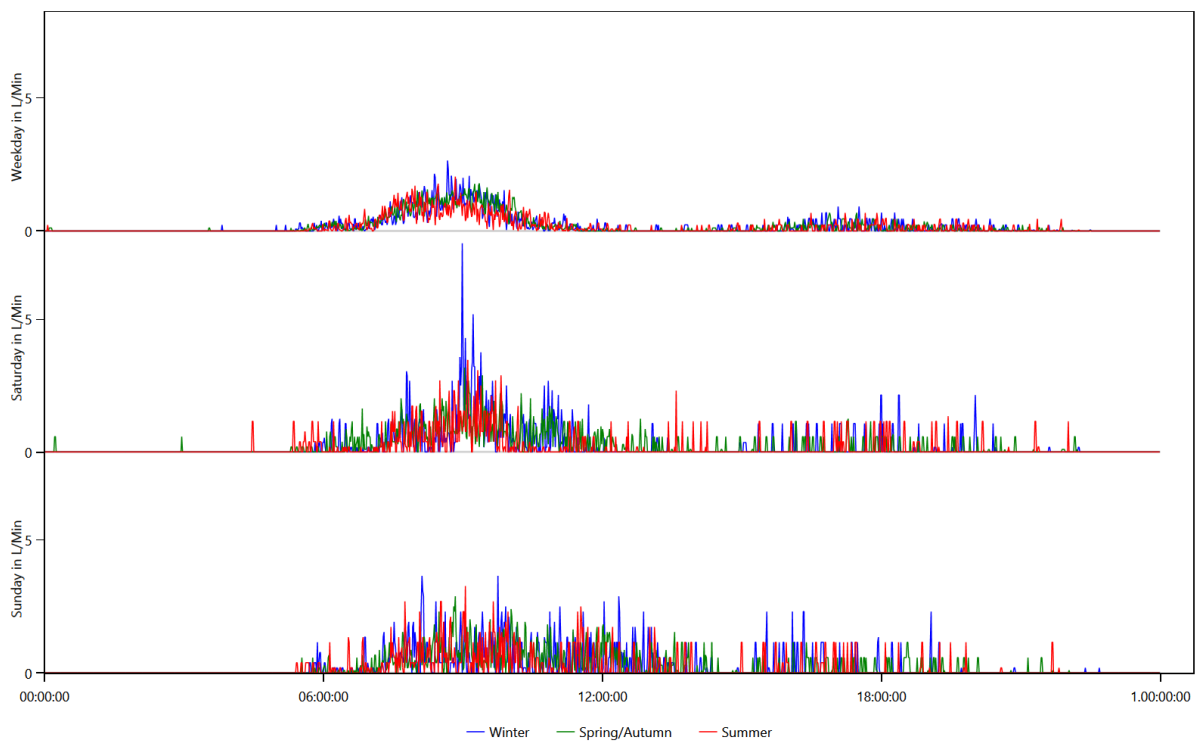
## Cold Water



## Electricity



## Warm Water

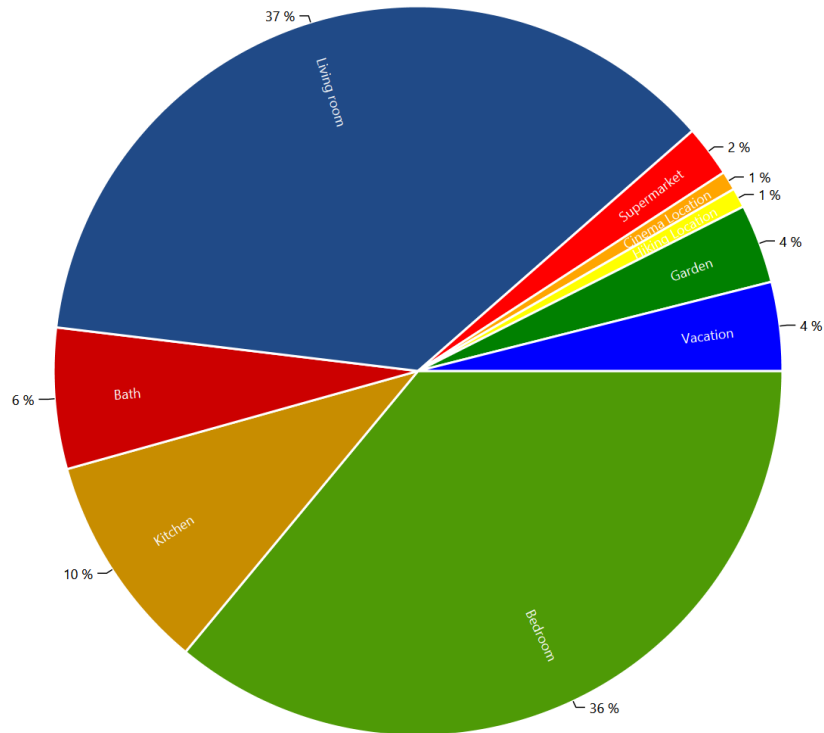


# Location Distribution per Person

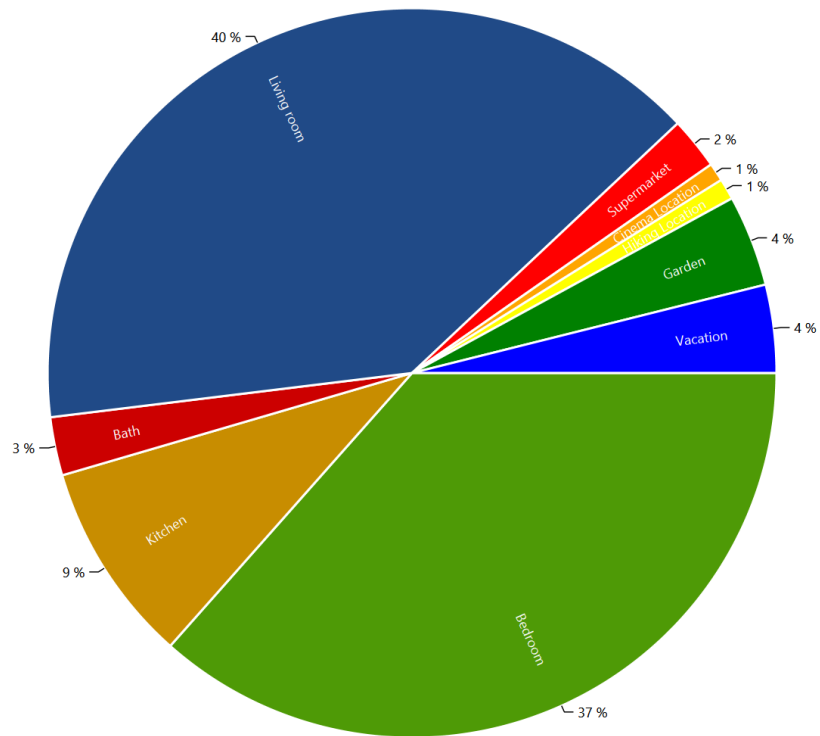
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR32 Christin (23 Female)



## CHR32 Jona (25 Male)



# Actions.csv

## This is made from the files starting with: Actions

These files show the actions of each person in the household. The content looks like this:

Actions.HH0.csv

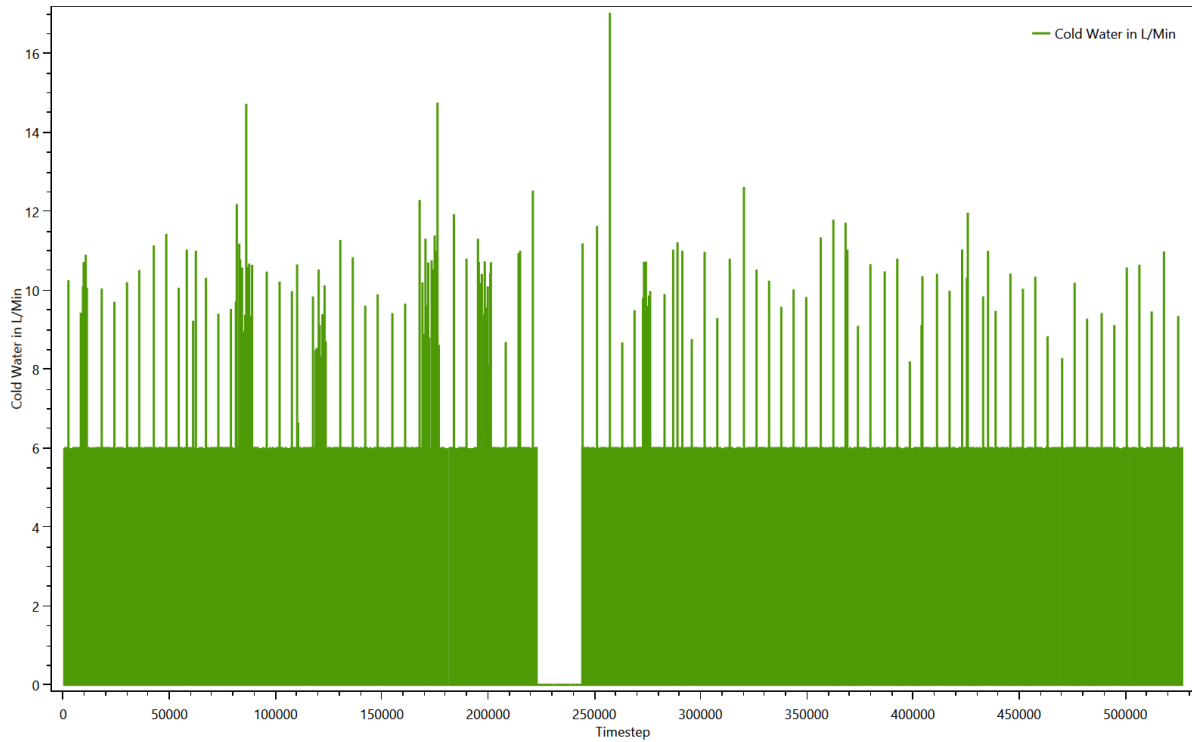
```
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHR32 Christin (23/Female);sleep bed 01 (10 h);sleep;False;
0;01.01.2016 00:00;CHR32 Jona (25/Male);sleep bed 02 (08 h);sleep;False;
454;01.01.2016 07:34;CHR32 Jona (25/Male);eat breakfast (1 h);cooking;False;
465;01.01.2016 07:45;CHR32 Christin (23/Female);eat a cooked meal (interrupting) (eat breakfast (1
h));cooking;False;
521;01.01.2016 08:41;CHR32 Christin (23/Female);go to the toilet;hygiene;False;
521;01.01.2016 08:41;CHR32 Jona (25/Male);get ready in the morning (men);hygiene;False;
526;01.01.2016 08:46;CHR32 Christin (23/Female);do laundry at 30°C (by variable);cleaning;False;
531;01.01.2016 08:51;CHR32 Jona (25/Male);go to the toilet;hygiene;False;
536;01.01.2016 08:56;CHR32 Jona (25/Male);play board games (1 h);Offline Entertainment;False;
542;01.01.2016 09:02;CHR32 Christin (23/Female);take a shower with hair washing (women) (20 min hair
drying);hygiene;False;
600;01.01.2016 10:00;CHR32 Christin (23/Female);rest for 10 min;sleep;False;
603;01.01.2016 10:03;CHR32 Jona (25/Male);take a nap;sleep;False;
610;01.01.2016 10:10;CHR32 Christin (23/Female);play board games (1 h);Offline Entertainment;False;
660;01.01.2016 11:00;CHR32 Jona (25/Male);rest for 10 min;sleep;False;
663;01.01.2016 11:03;CHR32 Christin (23/Female);hang up laundry outside;cleaning;False;
671;01.01.2016 11:11;CHR32 Jona (25/Male);bake a cake;cooking;False;
694;01.01.2016 11:34;CHR32 Christin (23/Female);take a nap;sleep;False;
703;01.01.2016 11:43;CHR32 Jona (25/Male);play Wii;Passive Entertainment (TV etc.);False;
750;01.01.2016 12:30;CHR32 Christin (23/Female);play a puzzle game;Offline Entertainment;False;
```

# Sum Profiles

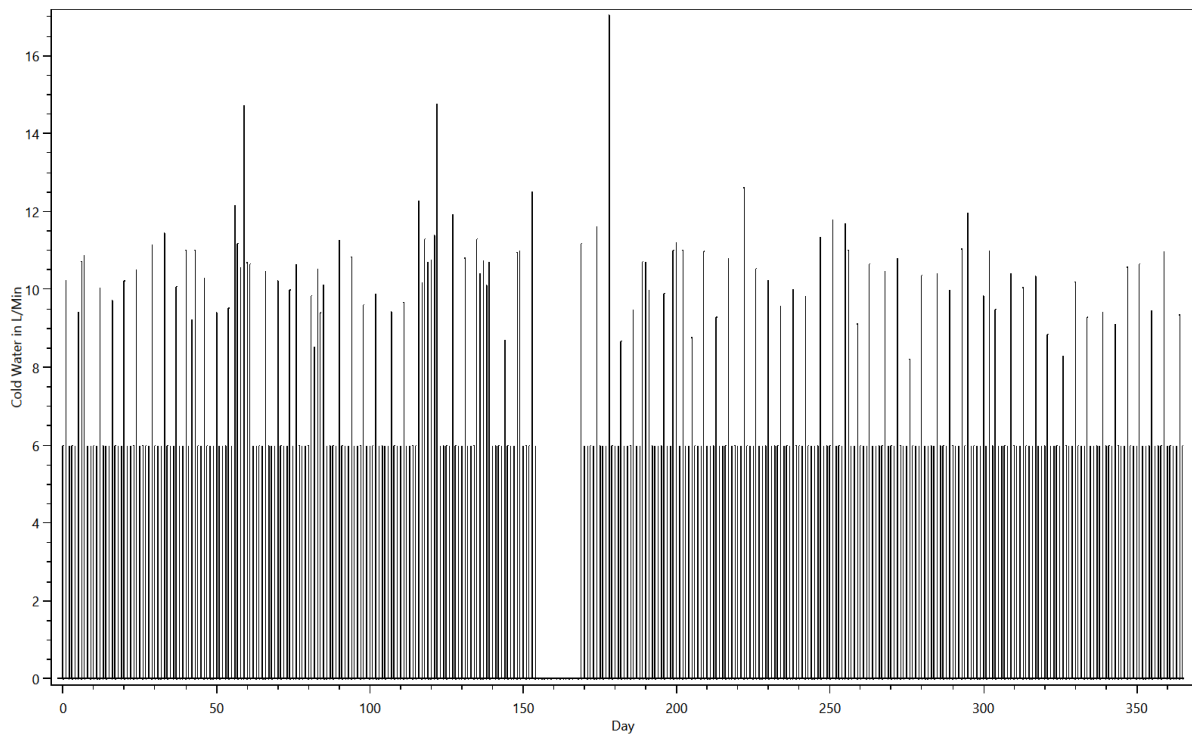
This is made from the files starting with: **SumProfiles**

This shows the energy use during the simulation.

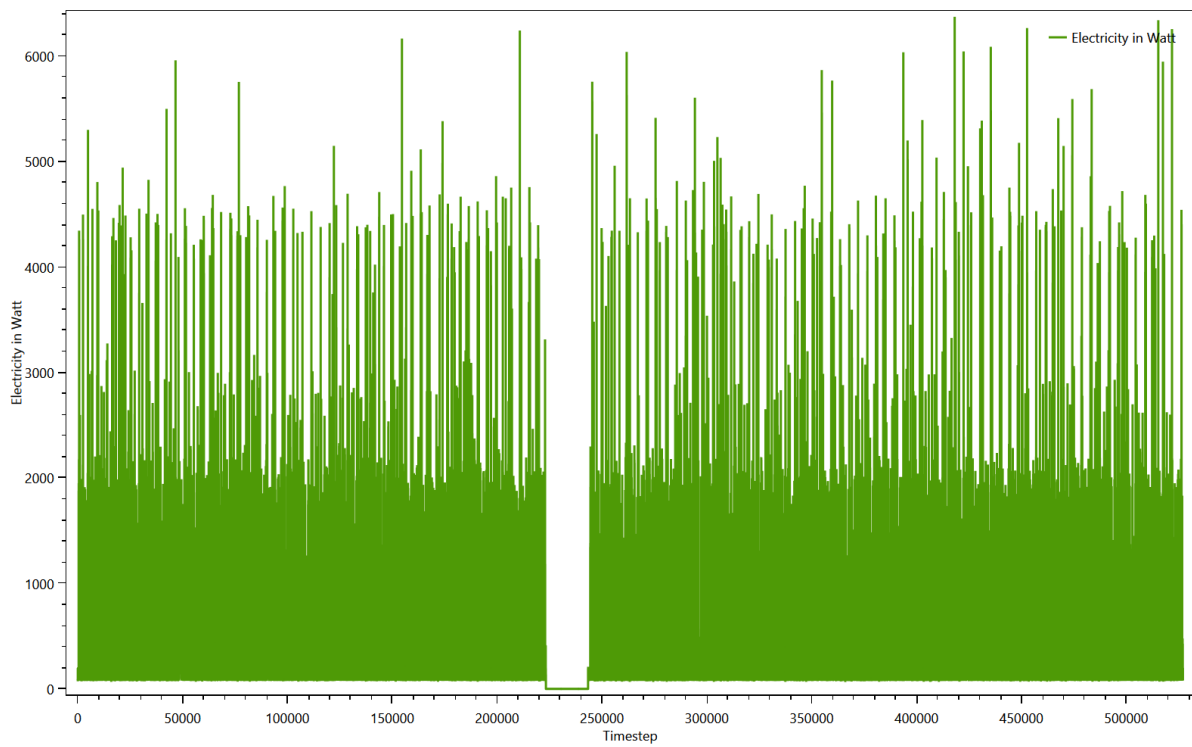
Summed up curve for Cold Water from SumProfiles.Cold Water.png



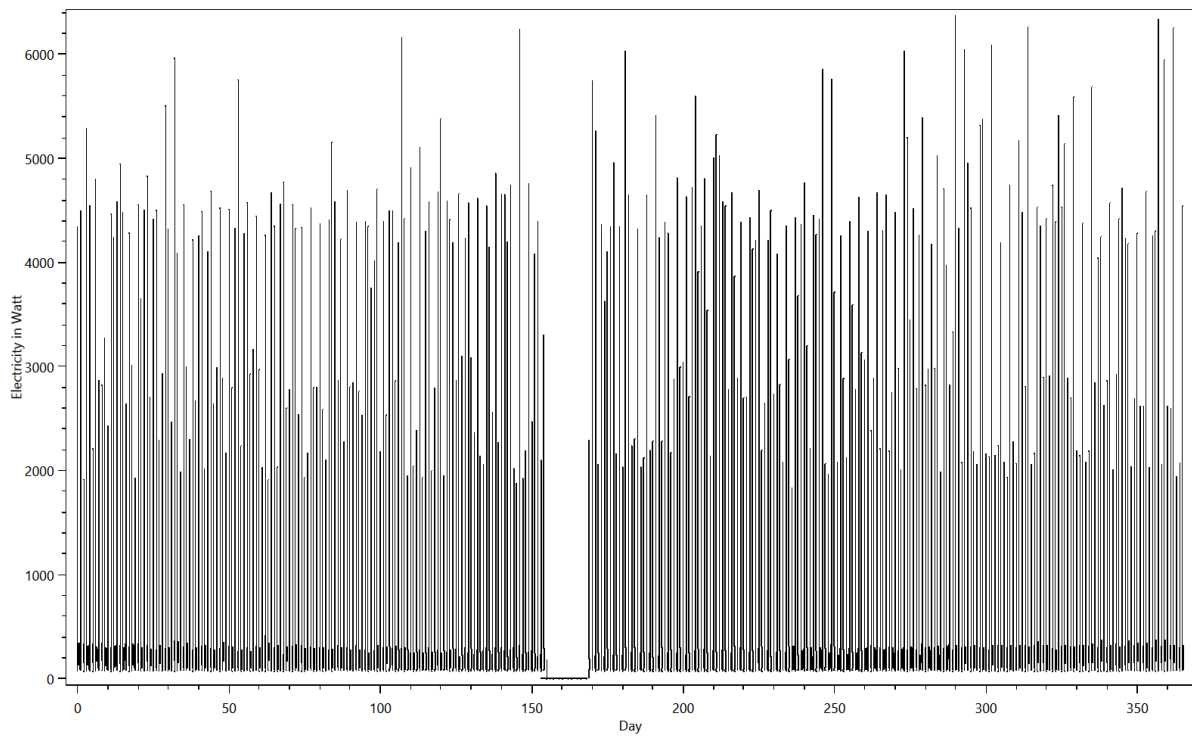
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax.png



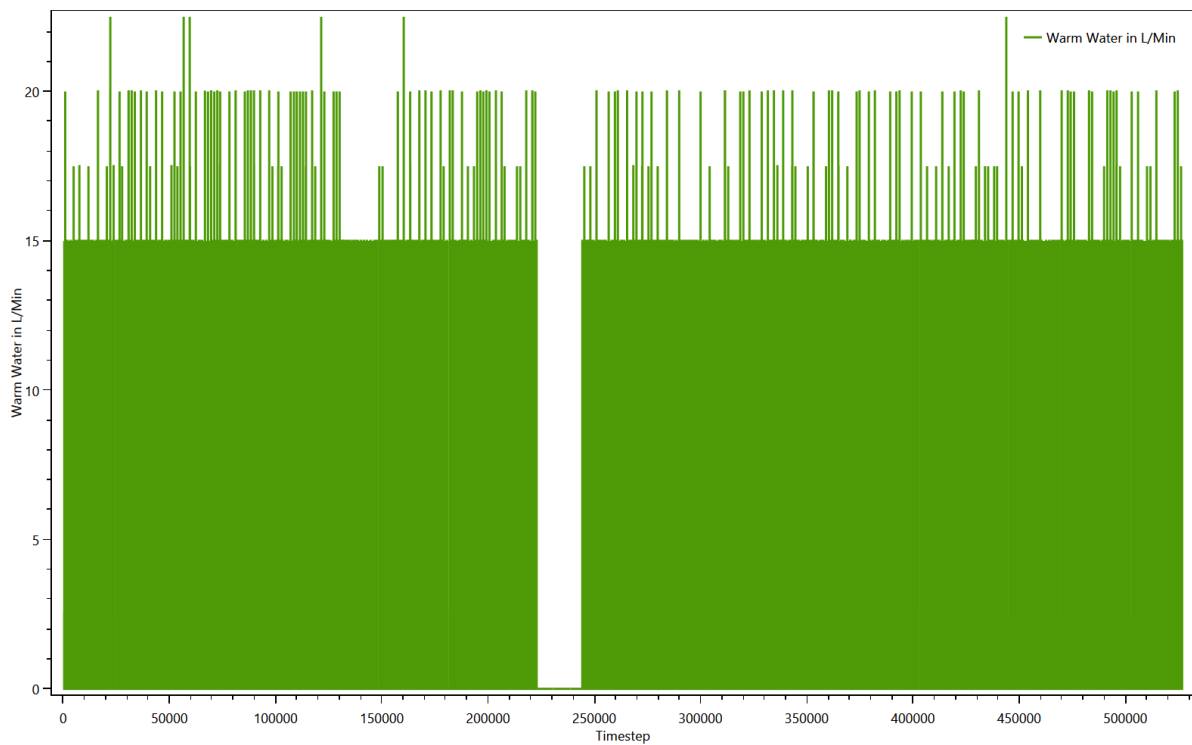
Summed up curve for Electricity from SumProfiles.Electricity.png



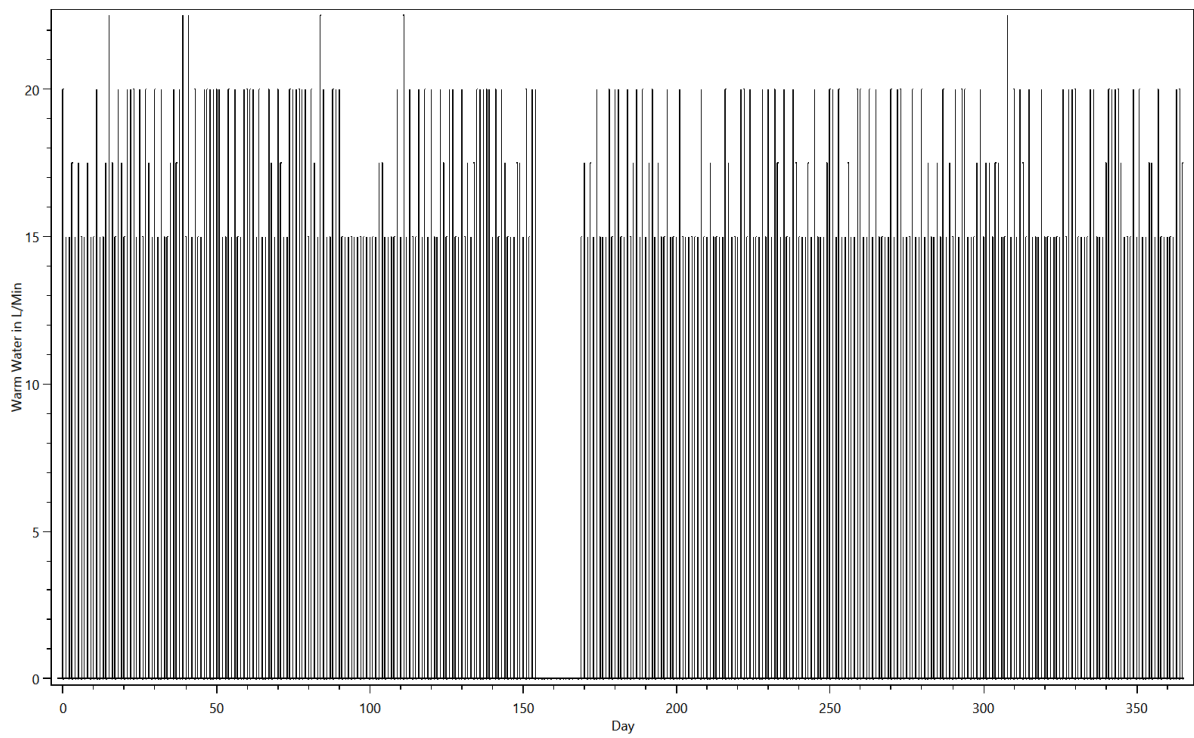
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



Summed up curve for Warm Water from SumProfiles.Warm Water.png



Summed up curve for Warm WaterMinMax from SumProfiles.Warm  
WaterMinMax.png



# Time Profiles

## This is made from the files starting with: Time Profiles

These files show which time profiles were used for each device and how often. The content looks like this:

TimeProfiles.HH0.CHR32 Couple under 30 years without work 0.txt

Device;Load Type;Profile;Number of Activations

Bathroom Light (100W);Electricity;Bath - light [Synthetic for Light Device];490

Bathroom Mirror Light 30W (CFL);Electricity;Bath - light [Synthetic for Light Device];490

Bathroom Sink 15 L/Min;Warm Water;0 h 01 min 100% [Synthetic];2727

Bathroom Sink 15 L/Min;Warm Water;0 h 01 min 50% [Synthetic];456

Beamer / Acer H7531D;Electricity;02 h 0 min 100% [Synthetic];53

Beamer / Acer H7531D;Electricity;Standby PC 01 h 0 min 4% [Synthetic];8465

Bed 1;None;10 h 0 min 100% [Synthetic];352

Bed 2;None;08 h 0 min 100% [Synthetic];353

Bedroom Light (200W);Electricity;Bedroom - light [Synthetic for Light Device];374

Board Games;None;01 h 0 min 100% [Synthetic];212

CD/DVD Player / Phillips HDR3810/31;Electricity;01 h 30 min 100% [Synthetic];416

CD/DVD Player / Phillips HDR3810/31;Electricity;02 h 0 min 100% [Synthetic];266

CD/DVD Player / Phillips HDR3810/31;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8442

Chair;None;0 h 10 min 100% [Synthetic];1164

Cinema;None;03 h 0 min 100 % [Synthetic];48

Cleanser;None;01 h 0 min 100% [Synthetic];52

Cloth Drying Rack;None;0 h 20 min 100% [Synthetic];146

Coffee Machine / Braun Impression KF 600;Electricity;0 h 10 min 100% [Synthetic];606

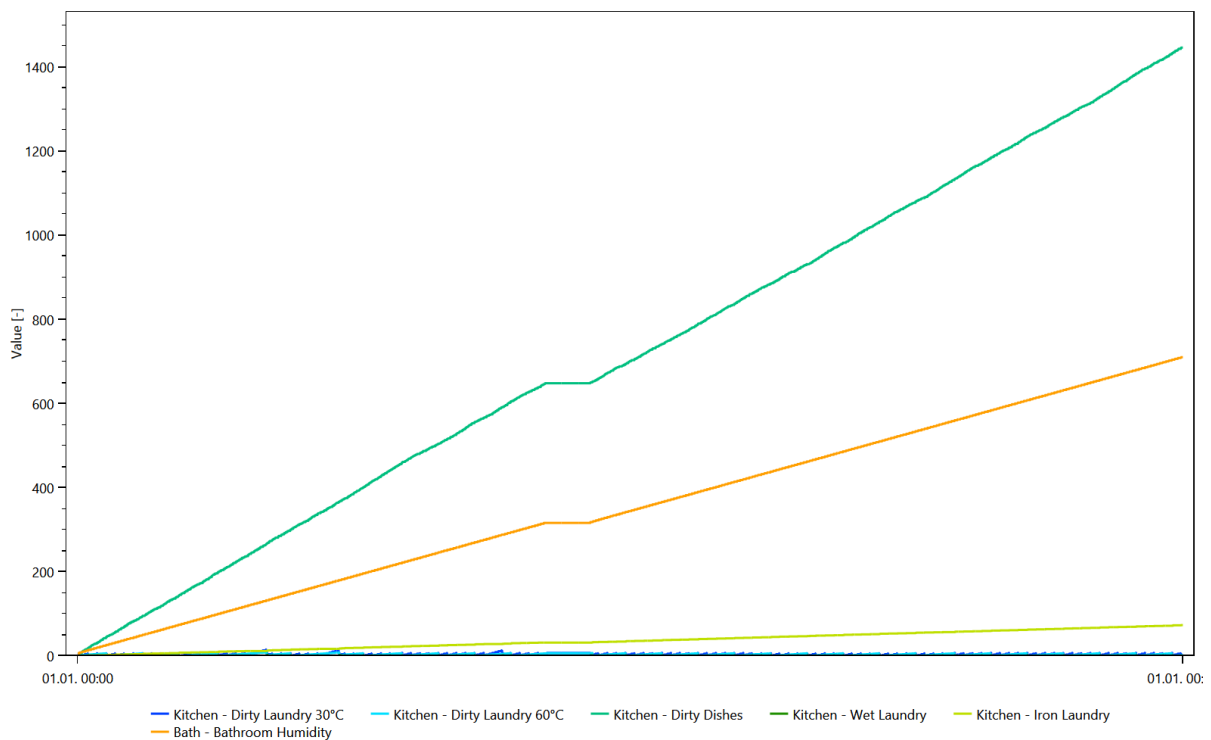
Couch;None;01 h 0 min 100% [Synthetic];709

# Variables

This is made from the files starting with: Variablelogfile

The variables are used to keep track of things like dirty laundry, dirty dishes and the amount of laundry to iron. They are used to ensure that for example the dishwasher is only turned on if there are sufficient dirty dishes. One chart shows the first 25000 timesteps of the contents of all variables, the other shows the entire time span.

## Variables



## Variables

