Overview of the results of the household
CHR04 Couple, 30 - 64 years, 1 at work, 1 at home 0

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

Energy Intensity: Random

Seed 4278

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

http://www.loadprofilegenerator.de

Rendering date:16.12.2016 09:08:24

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Totals

Totals for each Loadtype

Load Type	Value	Unit
Cold Water	23539.38	L
Electricity	2870.33	kWh
Warm Water	84570.00	L

Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	64.32	L
Electricity	7.84	kWh
Warm Water	231.07	L

Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	16.02	L/Min
Electricity	1.18	12451.64	Watt
Warm Water	0.00	20.00	L/Min

Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	11769.69	L
Electricity	1435.16	kWh

Warm Water	42285.00	L

Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	32.16	L
Electricity	3.92	kWh
Warm Water	115.53	L

Persons

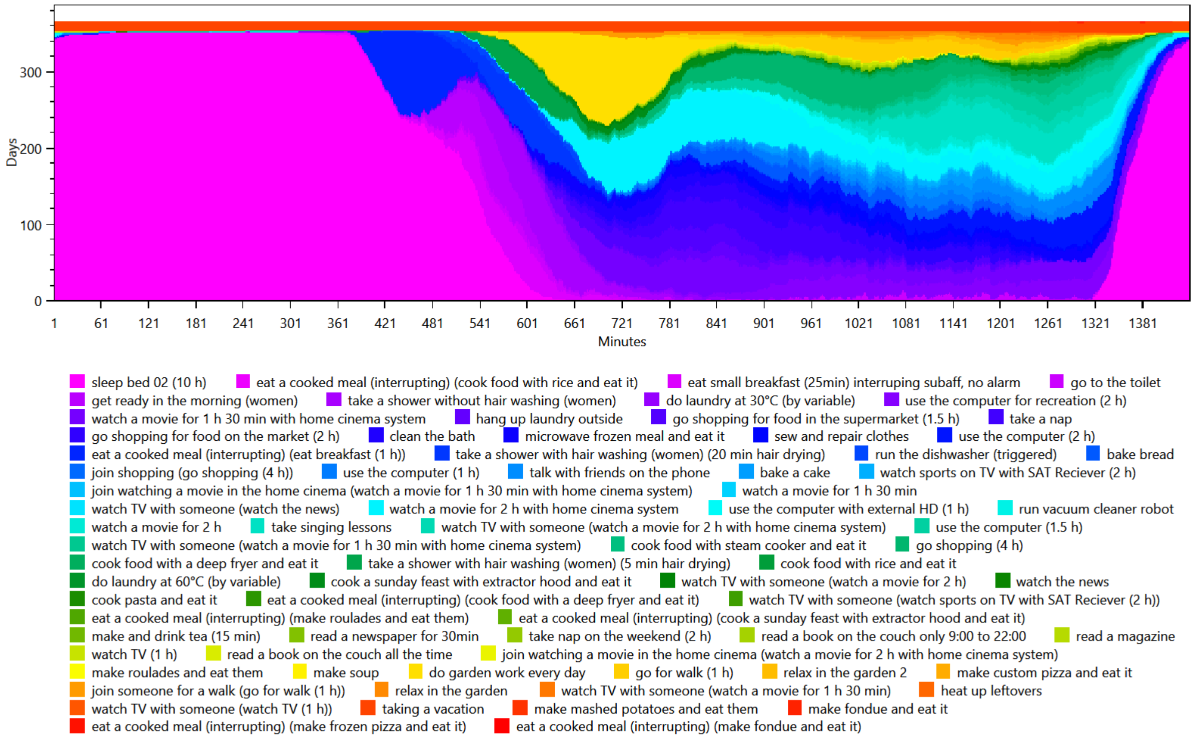
- HH0
    - CHR04 Amy (45/Female)(45/Female)
    - CHR04 Jim (50/Male)(50/Male)

Activity Frequency Charts

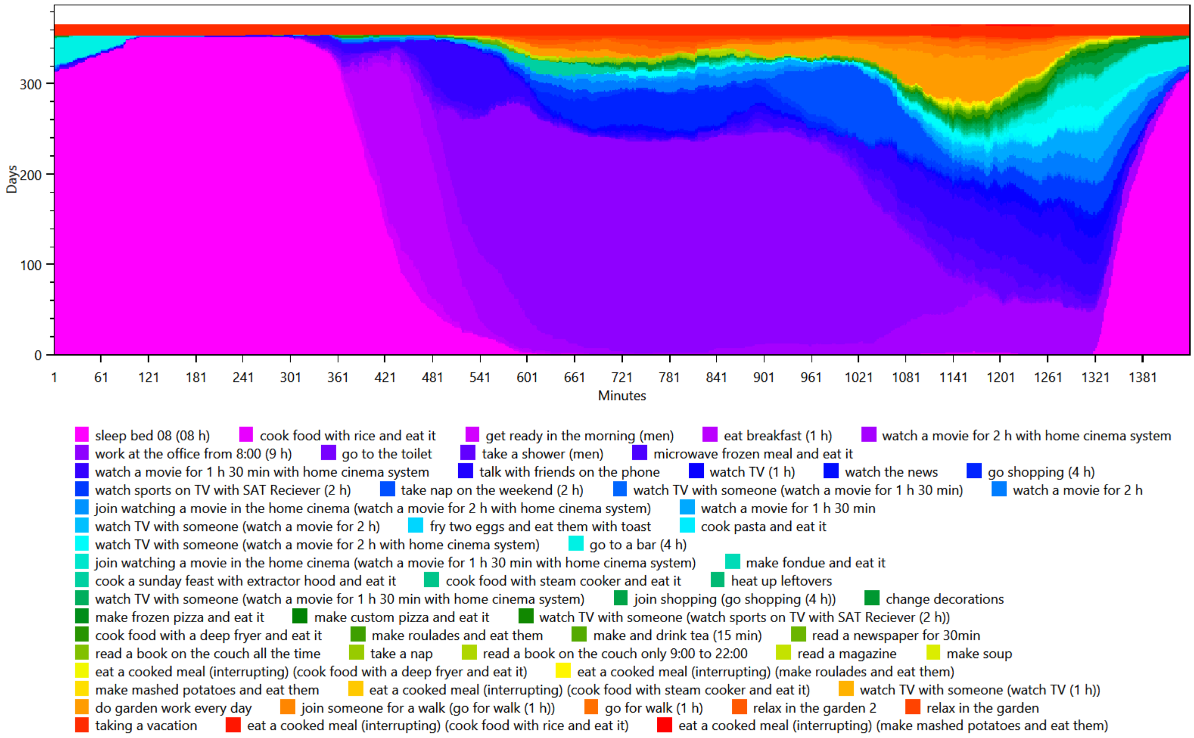
This is made from the files starting with: ActivityFrequenciesPerMinute

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 - CHR04 Amy (45 Female)



HH0 - CHR04 Jim (50 Male)

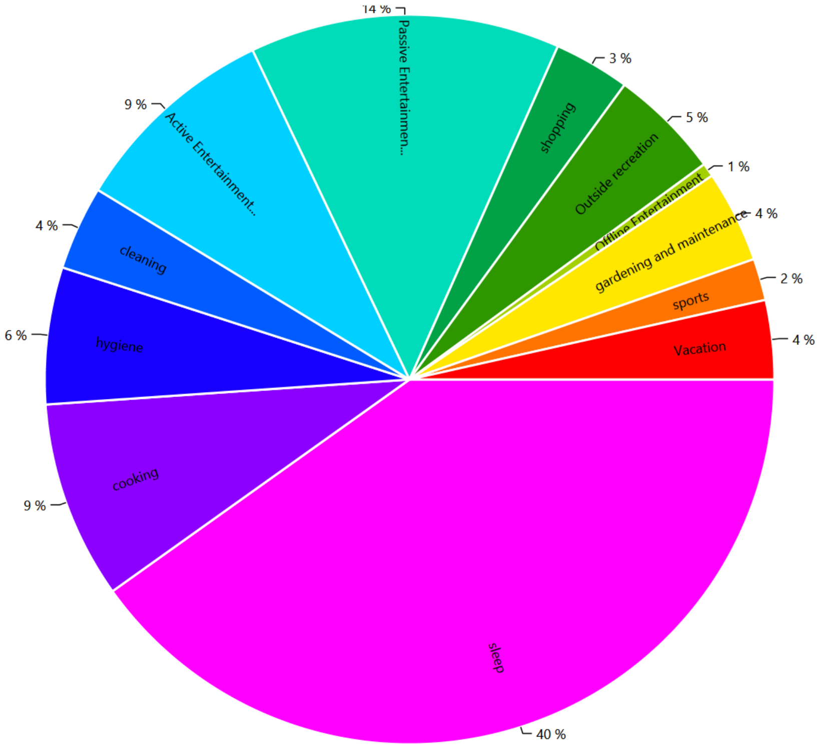


Activity Distribution per Person

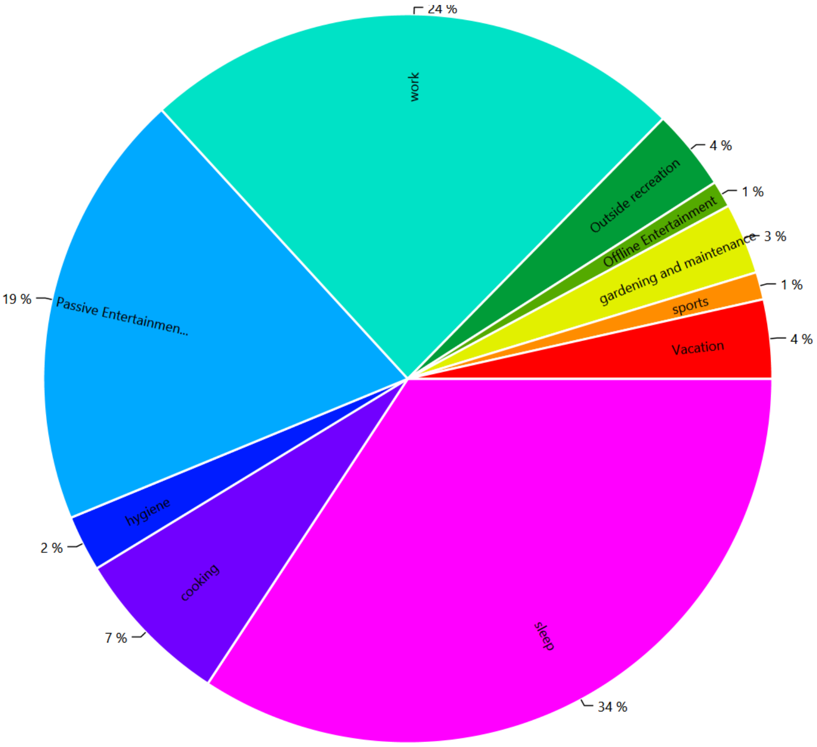
This is made from the files starting with: ActivityPercentage

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

HH0 - CHR04 Amy (45 Female)



HH0 - CHR04 Jim (50 Male)

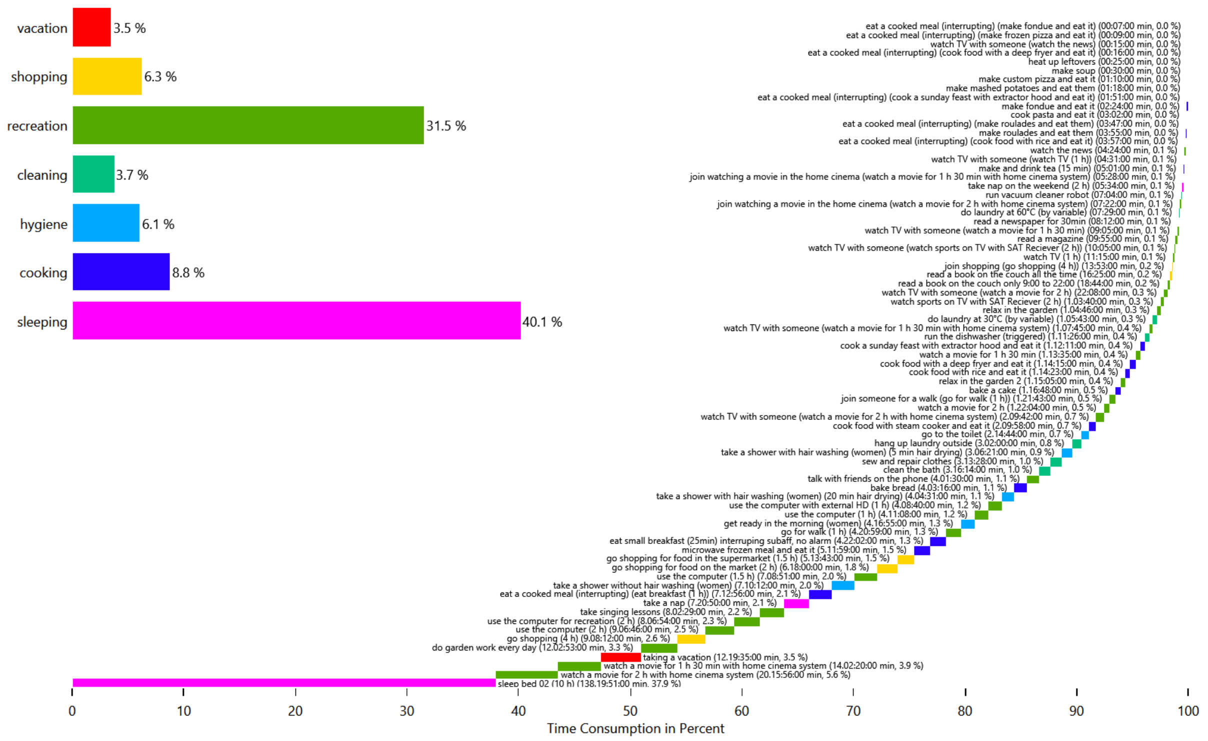


Time Use per Person per Affordance Per Person

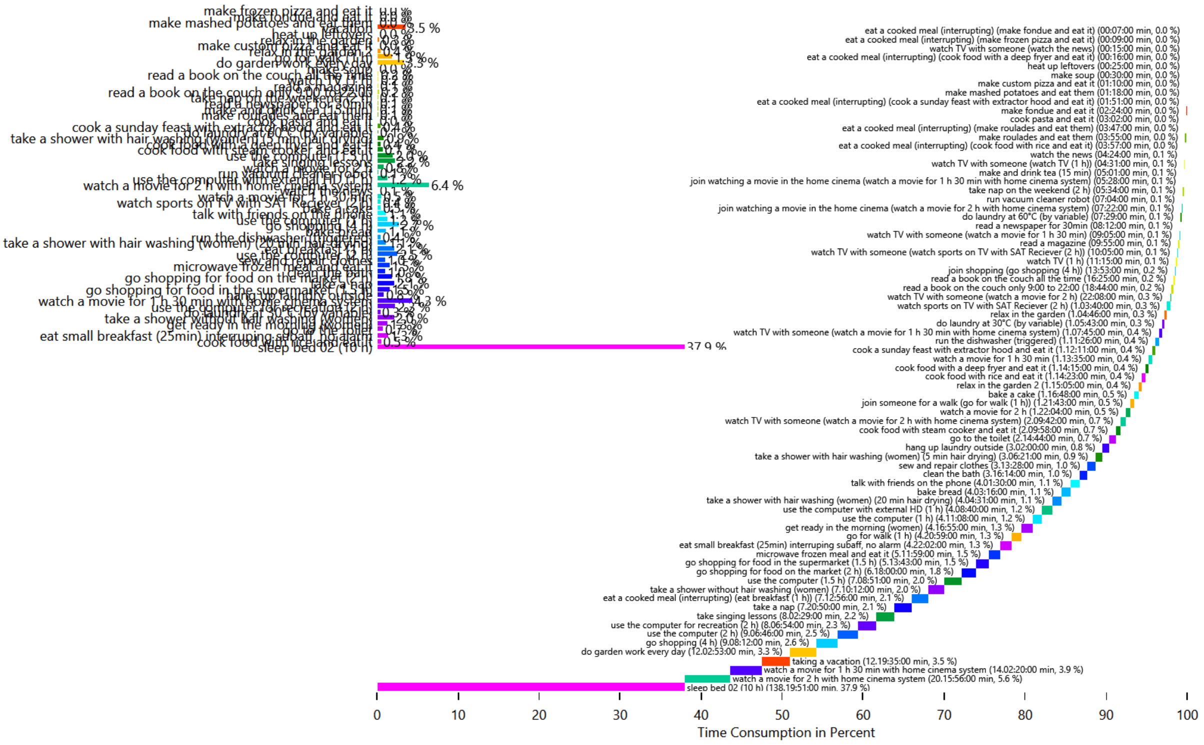
This is made from the files starting with: AffordanceTimeUse

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.

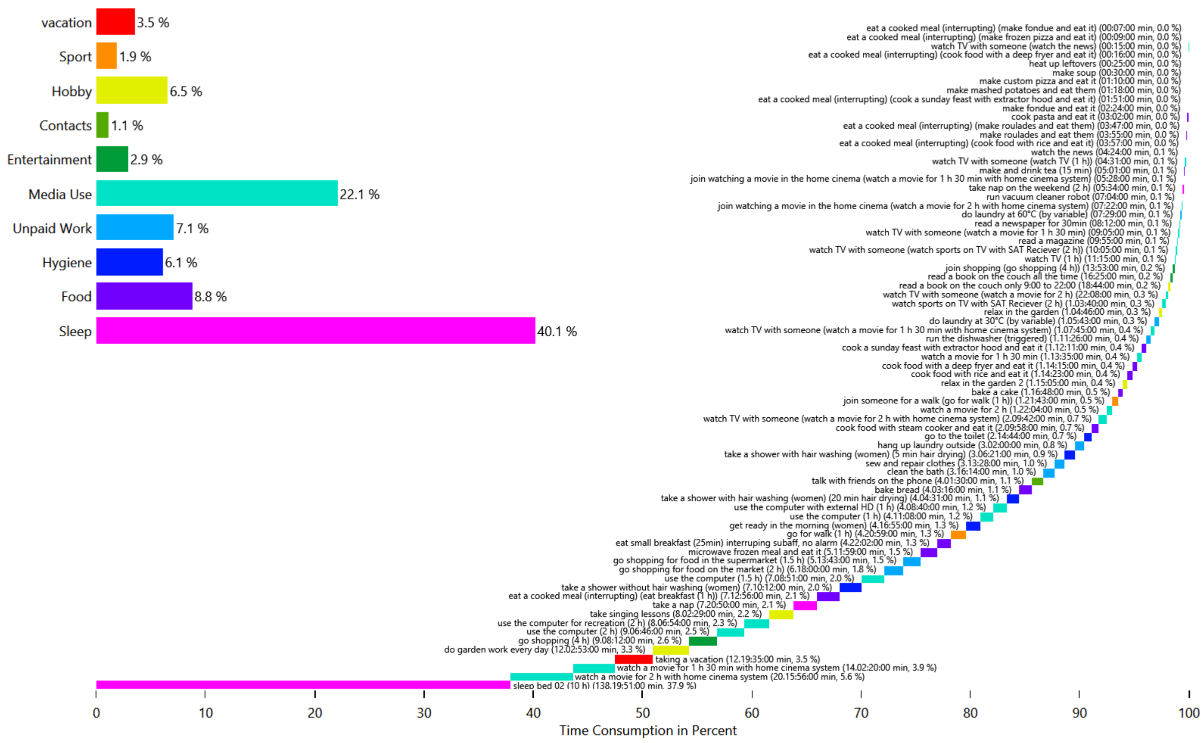
HH0 - CHR04 Amy (45 Female)



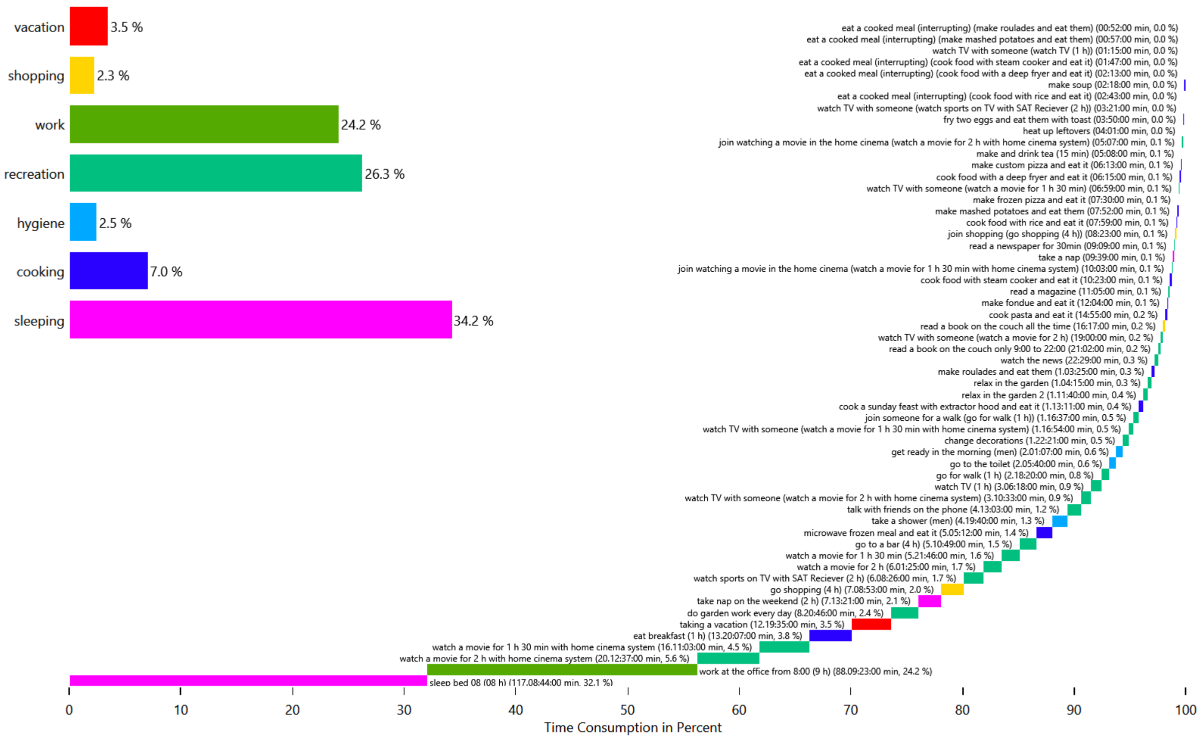
HH0 - CHR04 Amy (45 Female)



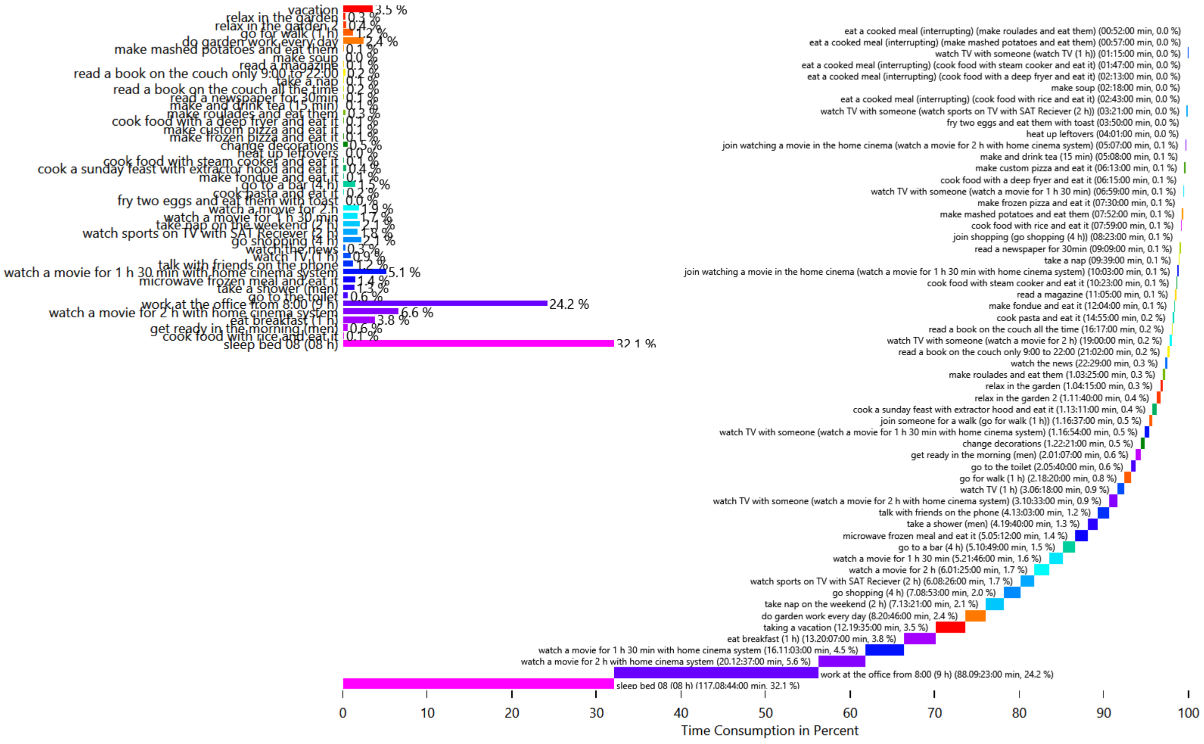
HH0 - CHR04 Amy (45 Female)



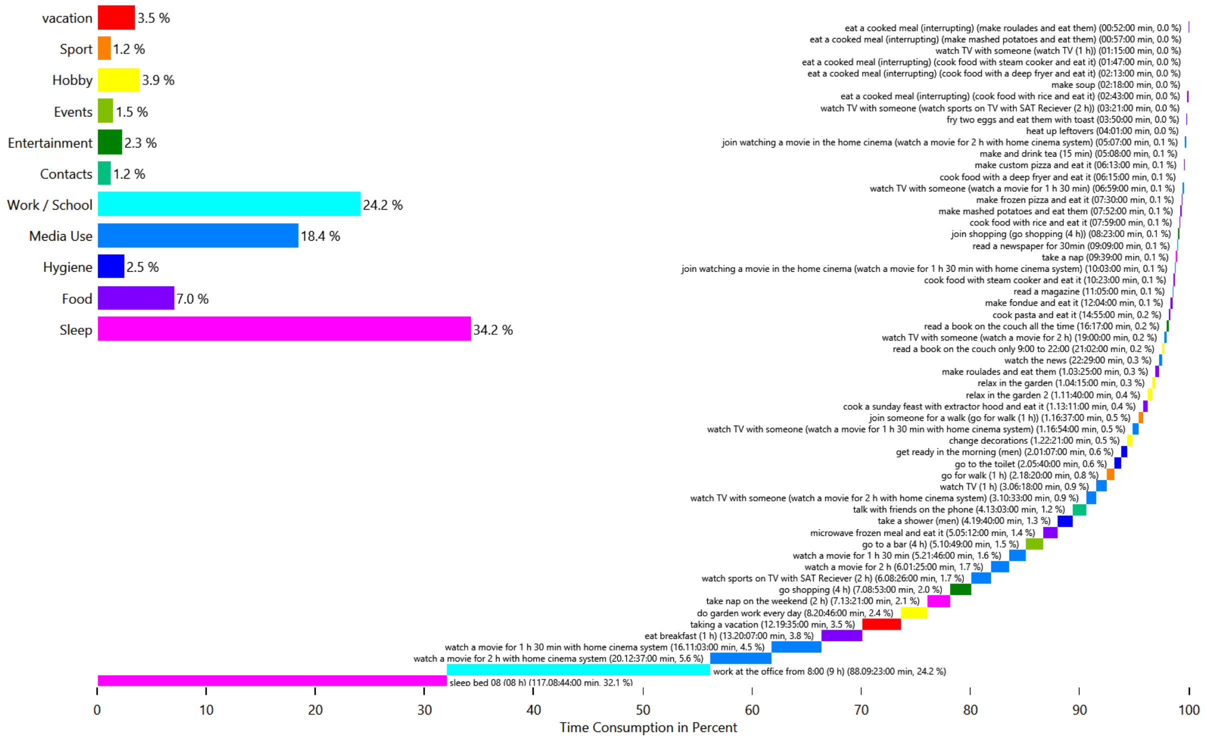
HH0 - CHR04 Jim (50 Male)



HH0 - CHR04 Jim (50 Male)



HH0 - CHR04 Jim (50 Male)

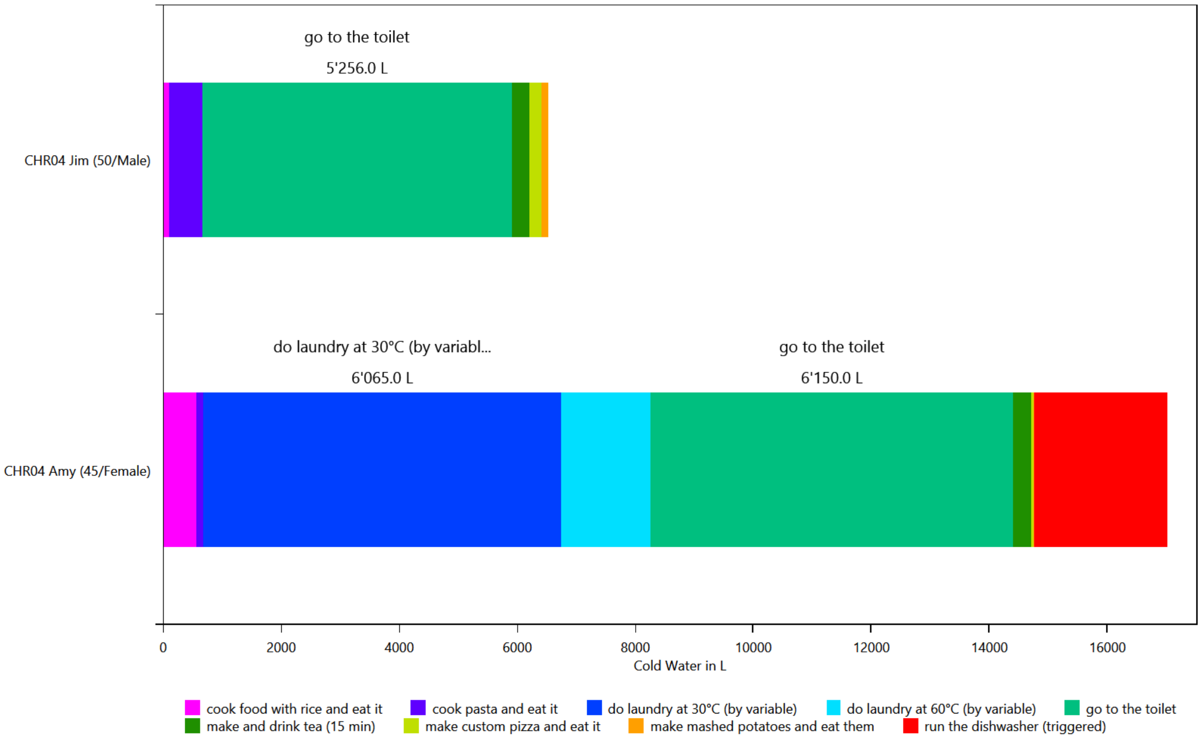


Energy use per person per affordance

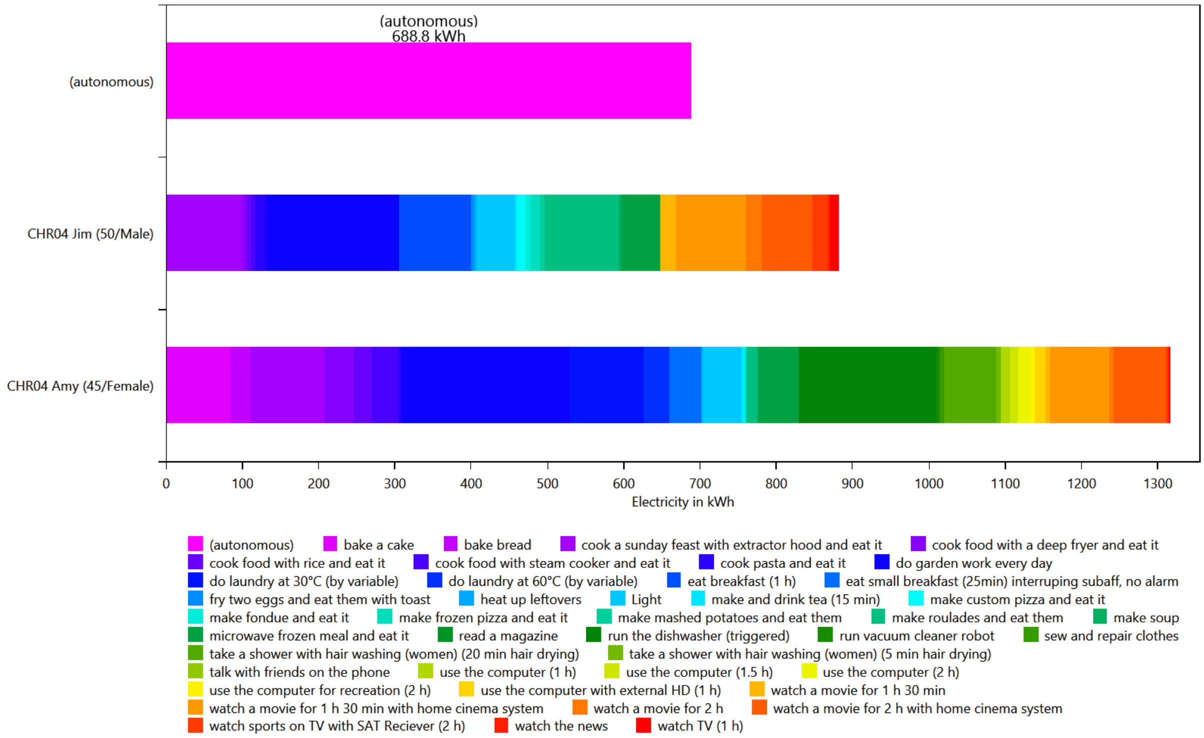
This is made from the files starting with: AffordanceEnergyUsePerPerson

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.

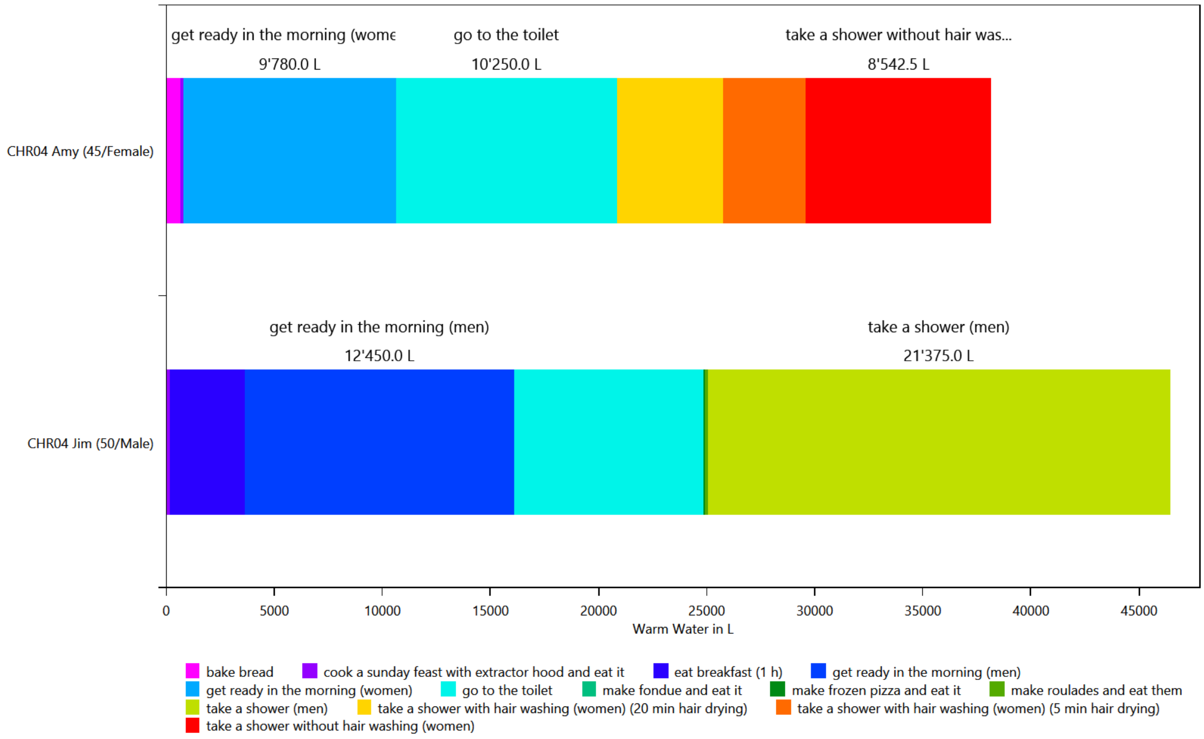
HH0 - Cold Water



HH0 - Electricity



HH0 - Warm Water

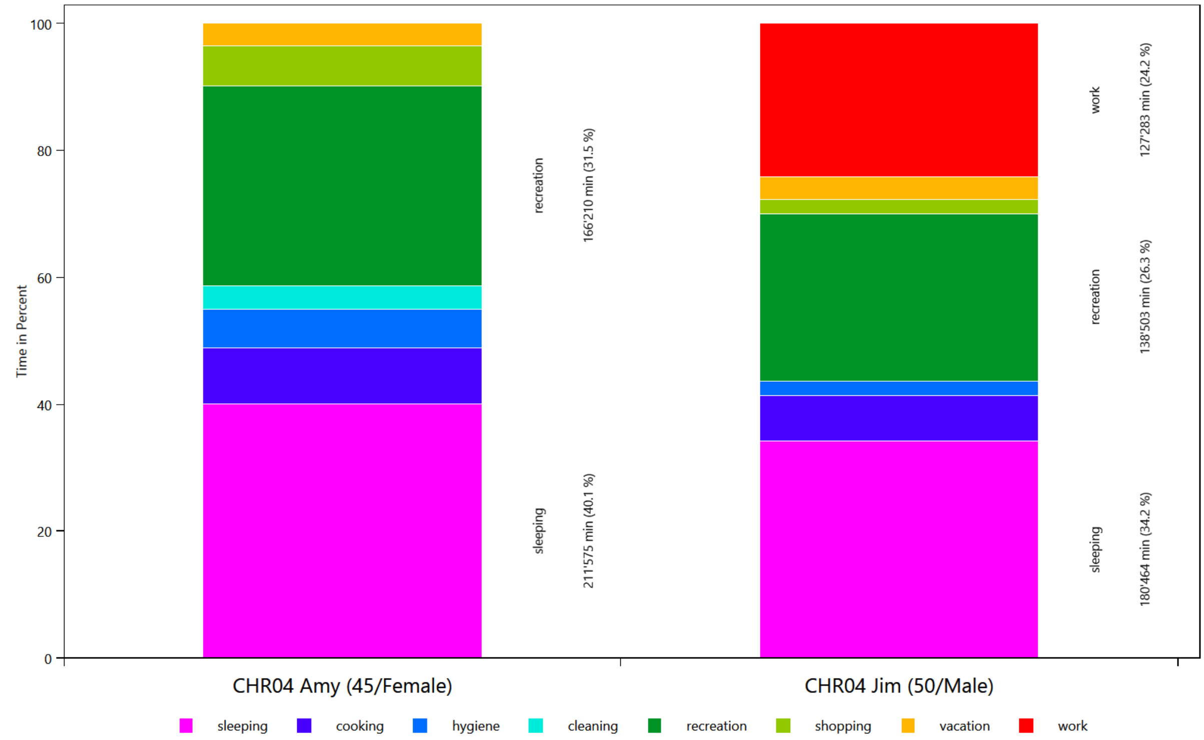


Time Use per Person Per Affordance according to different category definitions

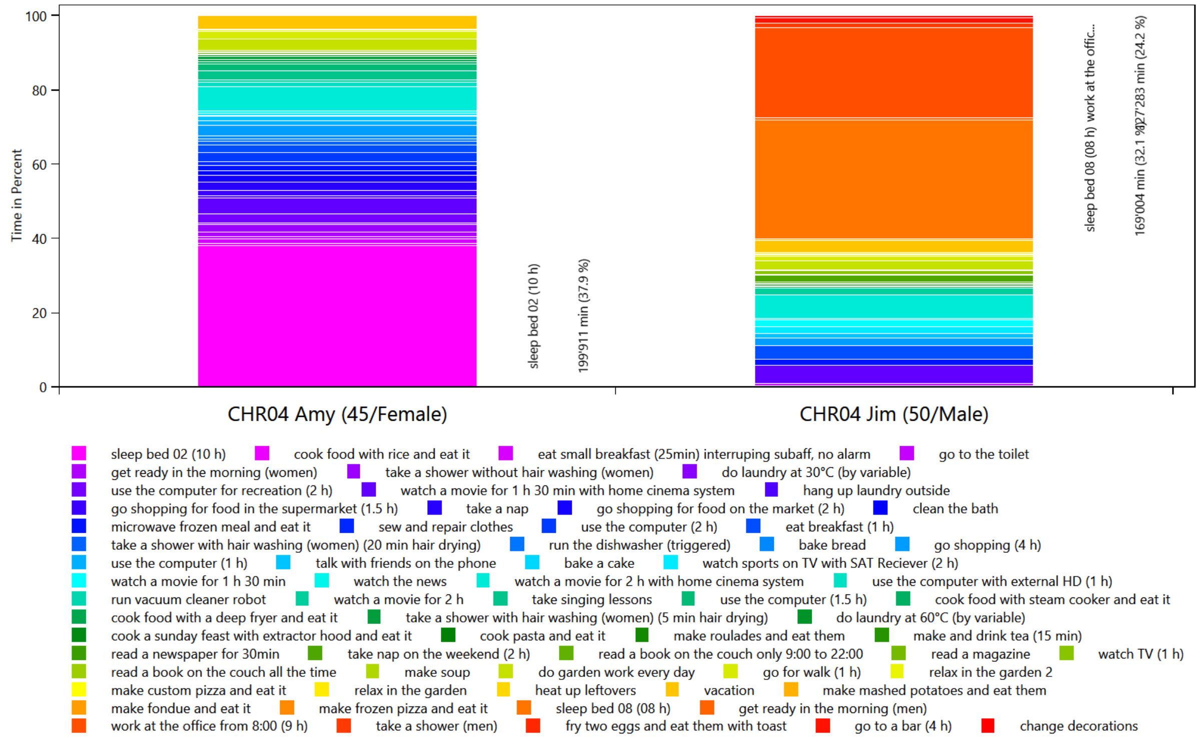
This is made from the files starting with: AffordanceTaggingSet

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.

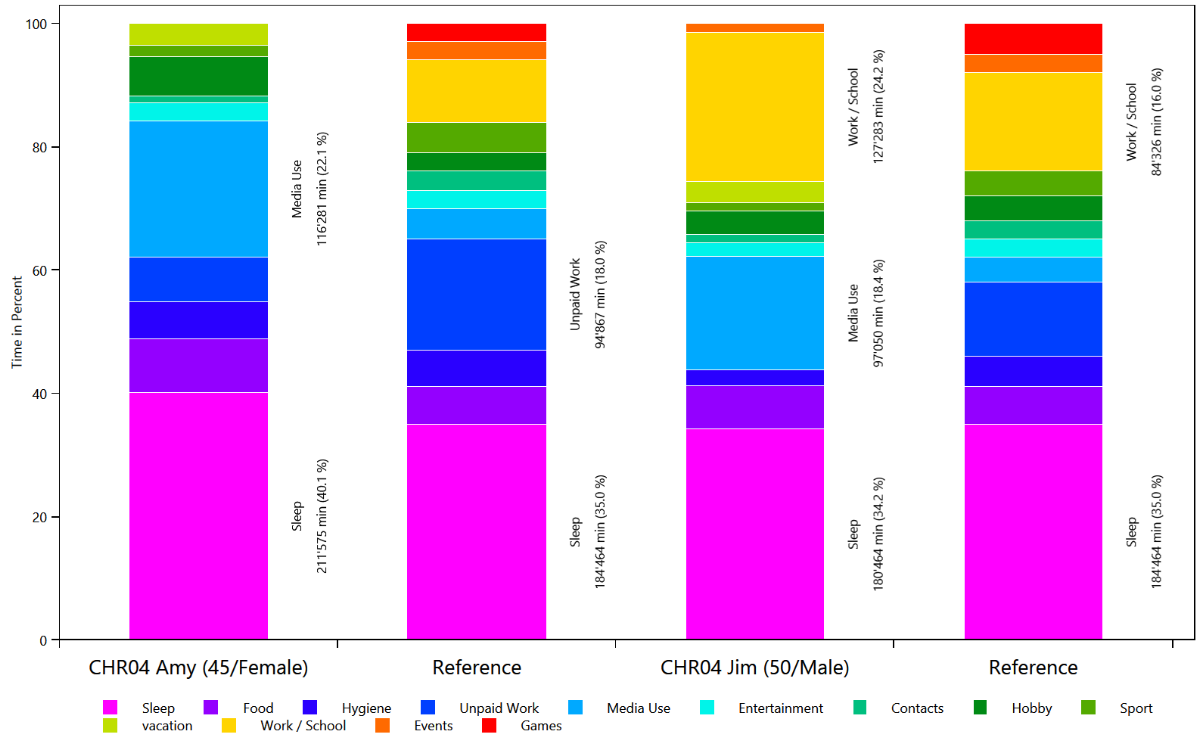
Basic Tagging - HH0



Tagging Set For Planning - HH0



Wo bleibt die Zeit - HH0

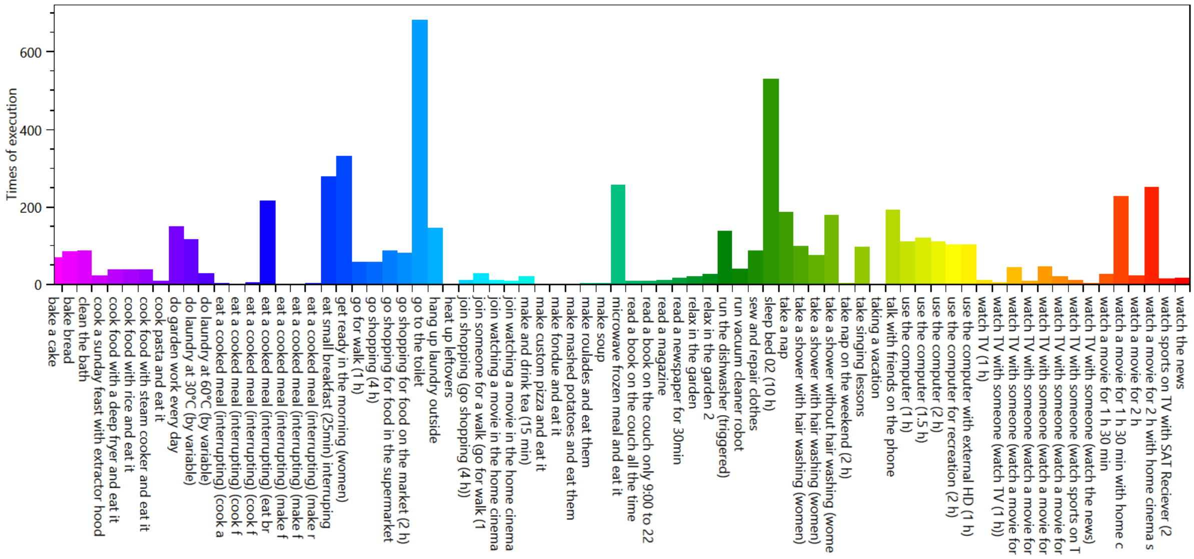


Overview of the actions of each member of the household

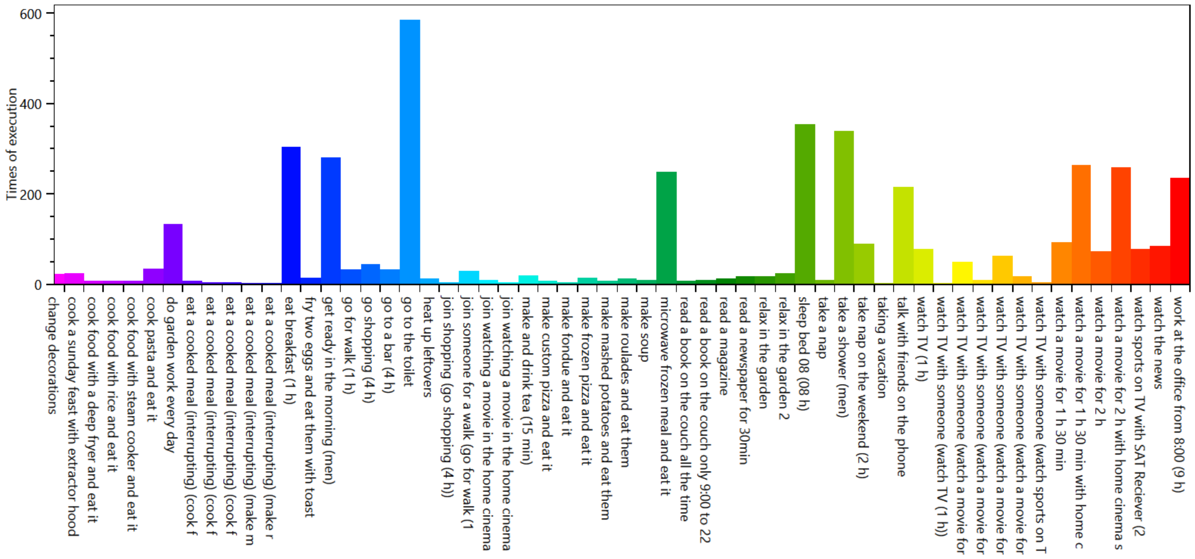
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHR04 Amy (45 Female)



HH0 - CHR04 Jim (50 Male)

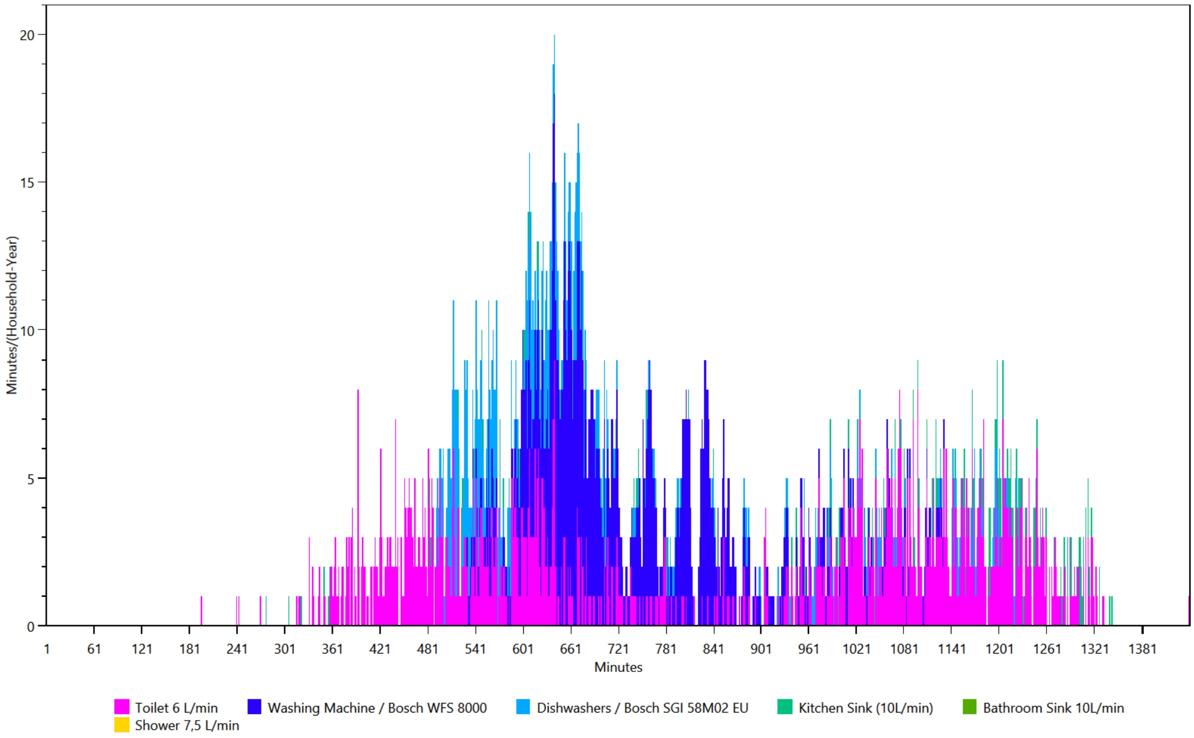


Overview of the time of the use per load type per device

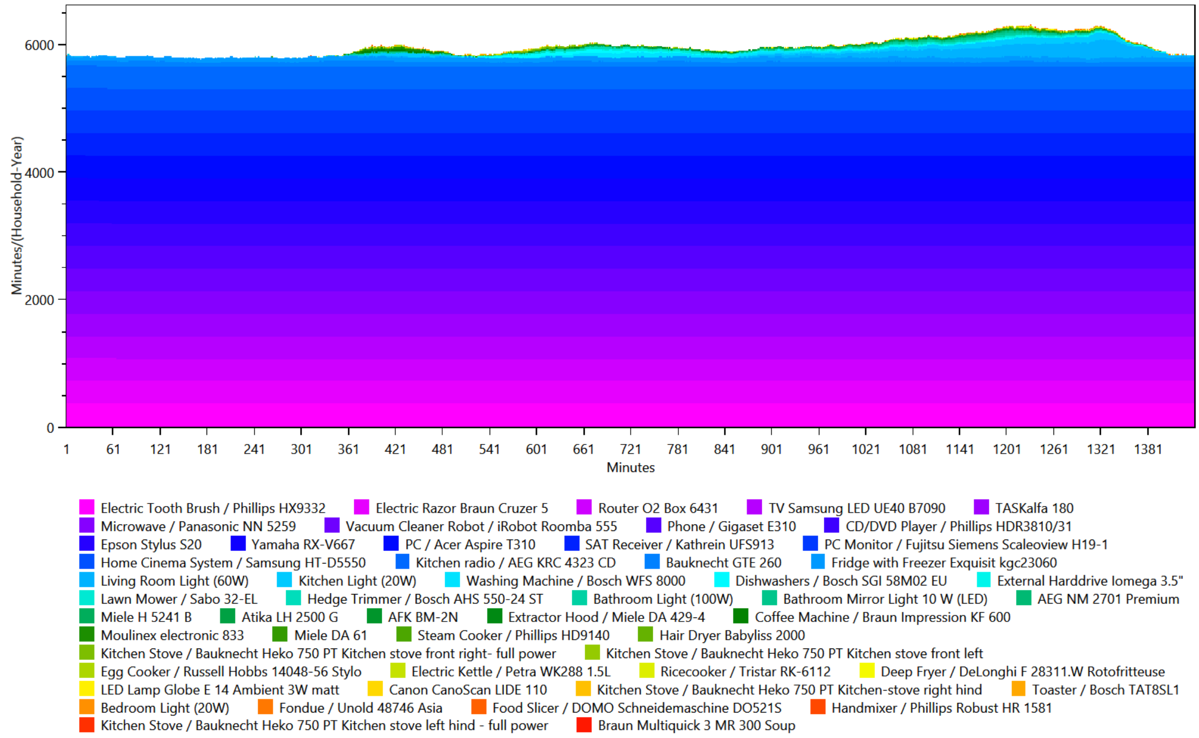
This is made from the files starting with: TimeOfUseEnergyProfiles

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

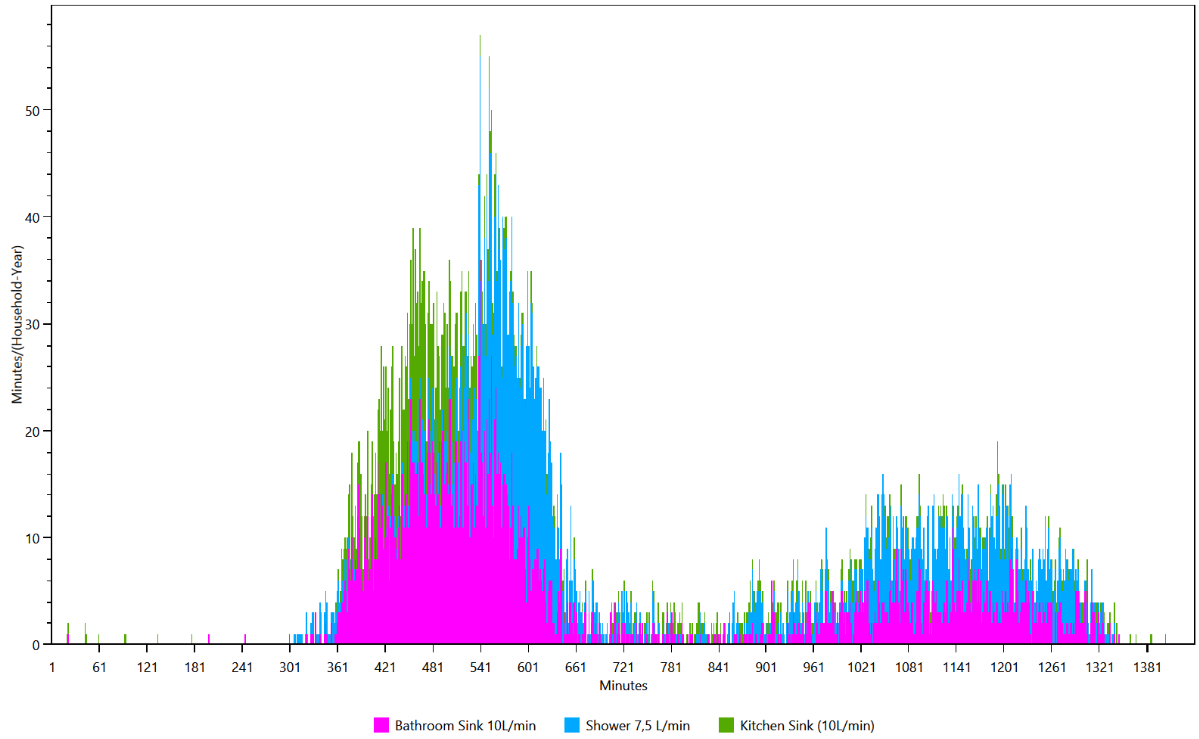
Cold Water



Electricity



Warm Water

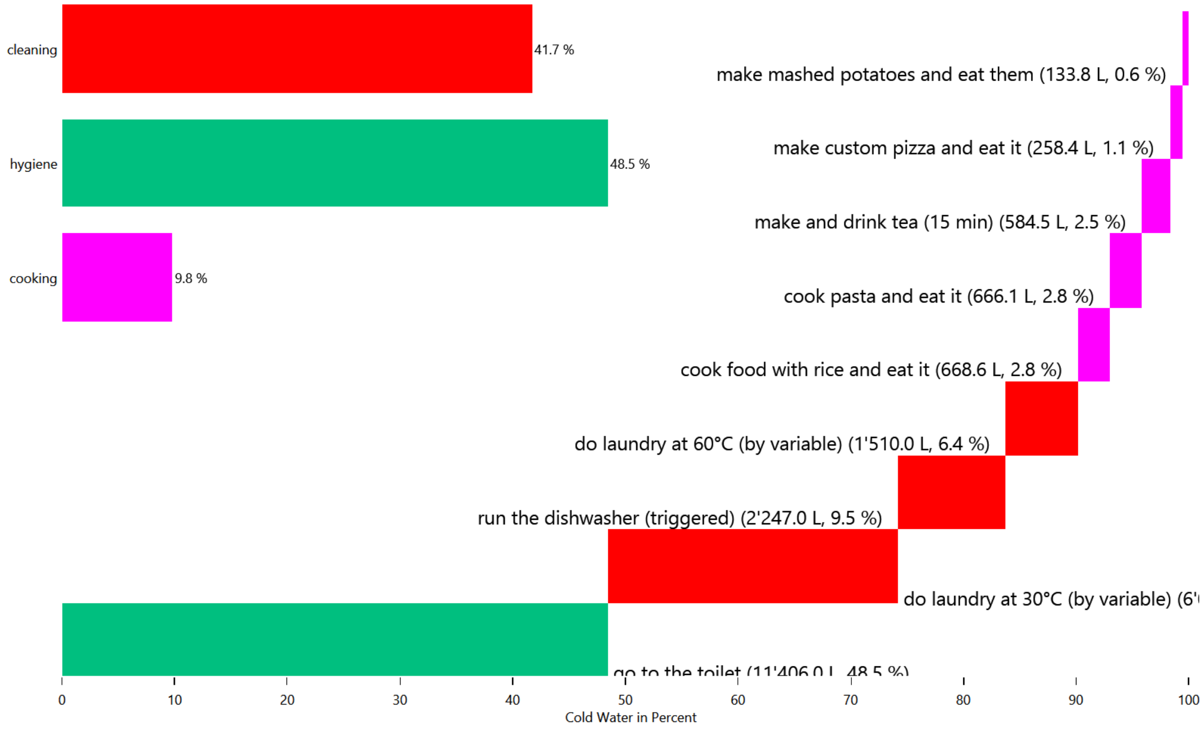


Energy/Resource use distribution per load type per affordance

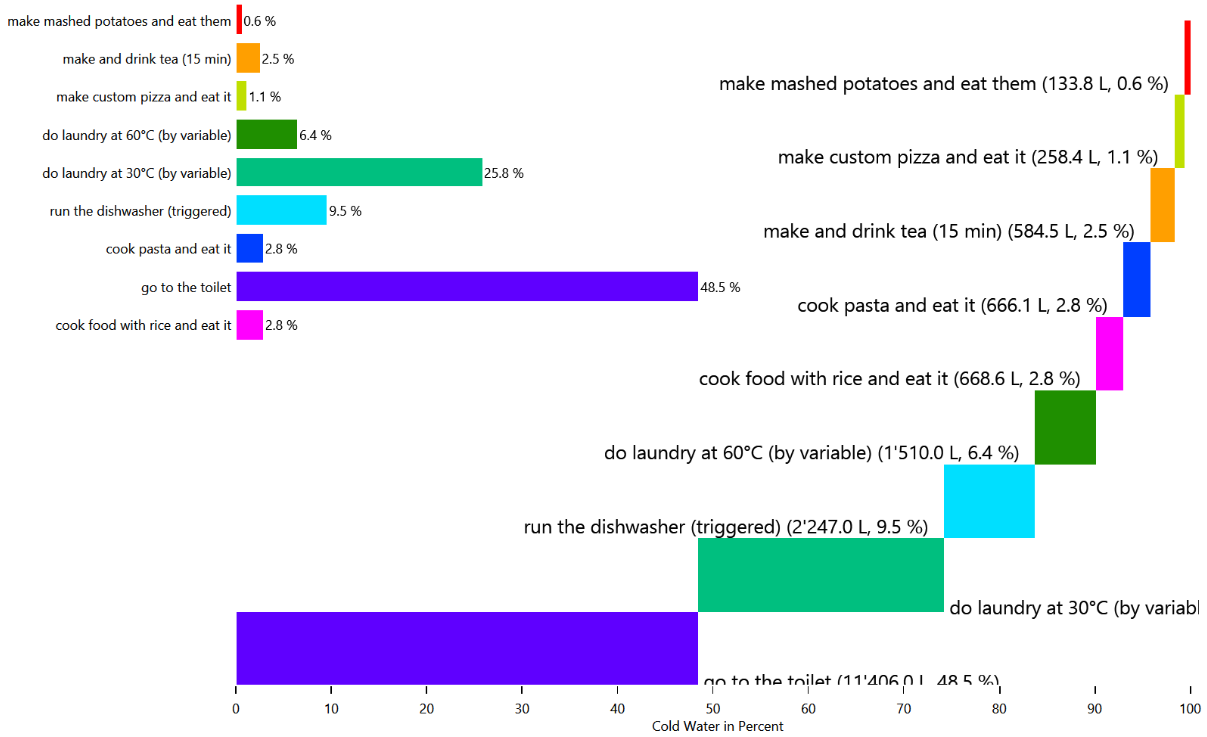
This is made from the files starting with: AffordanceEnergyUse

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

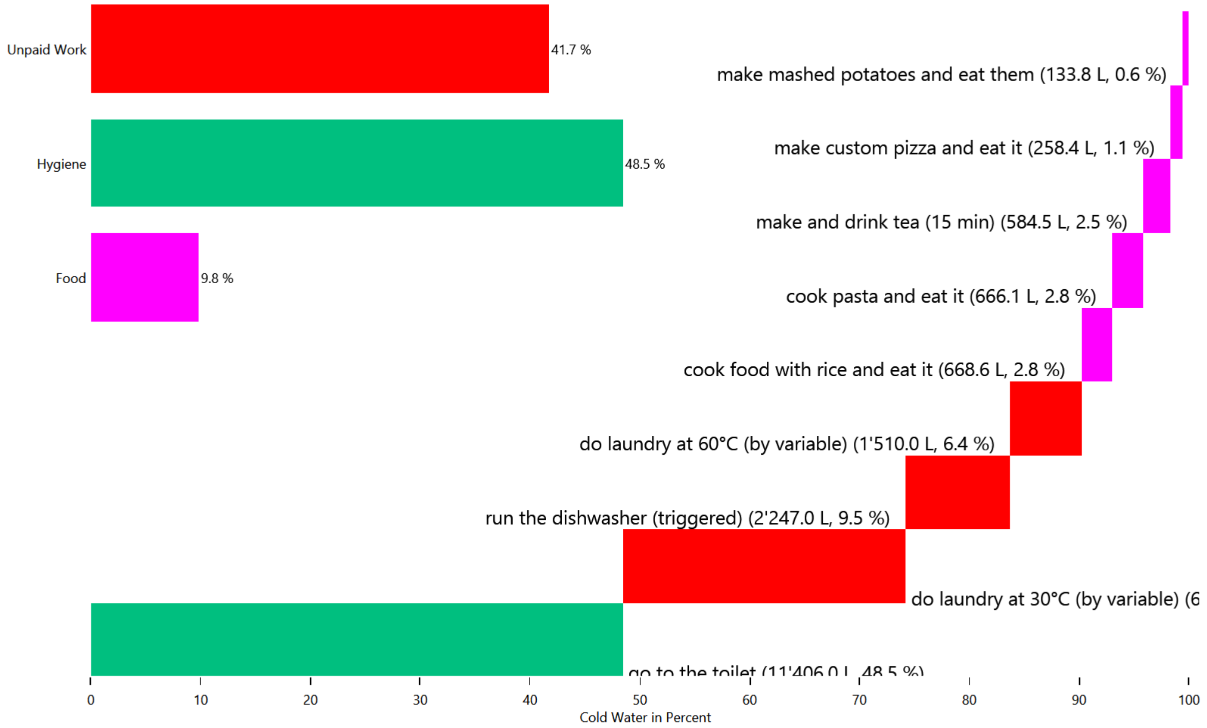
HH0 - Cold Water



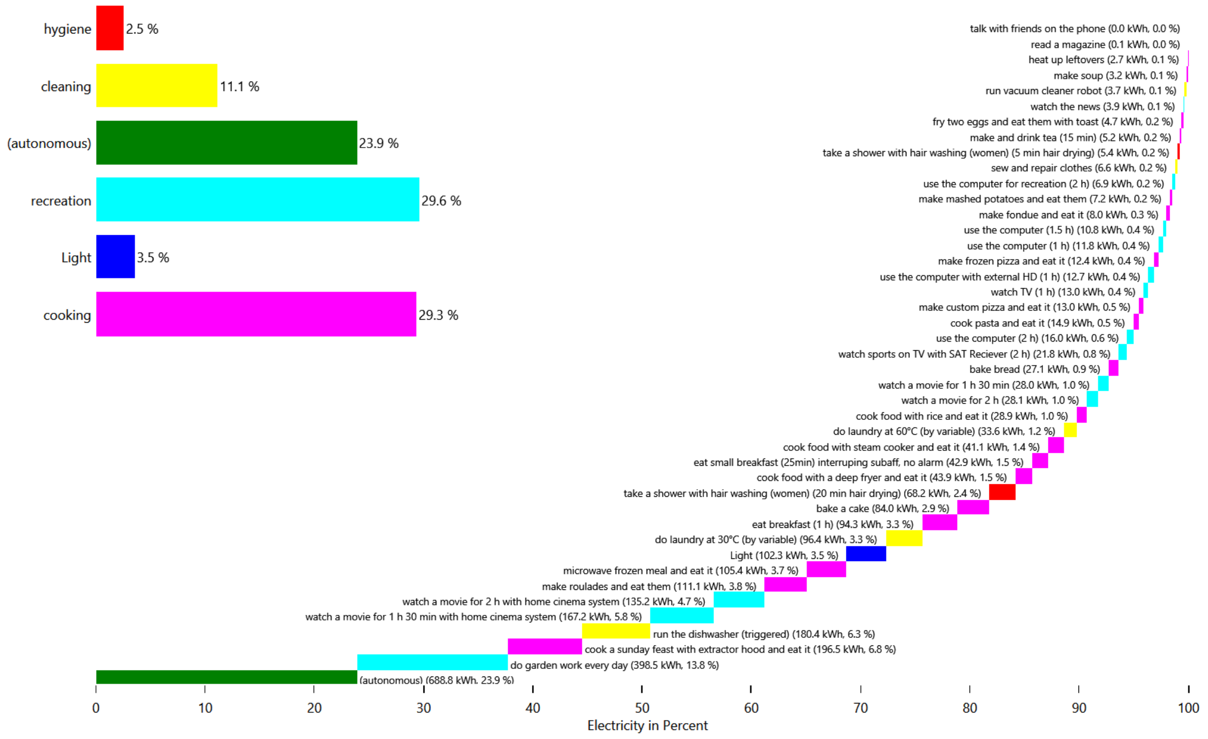
HH0 - Cold Water



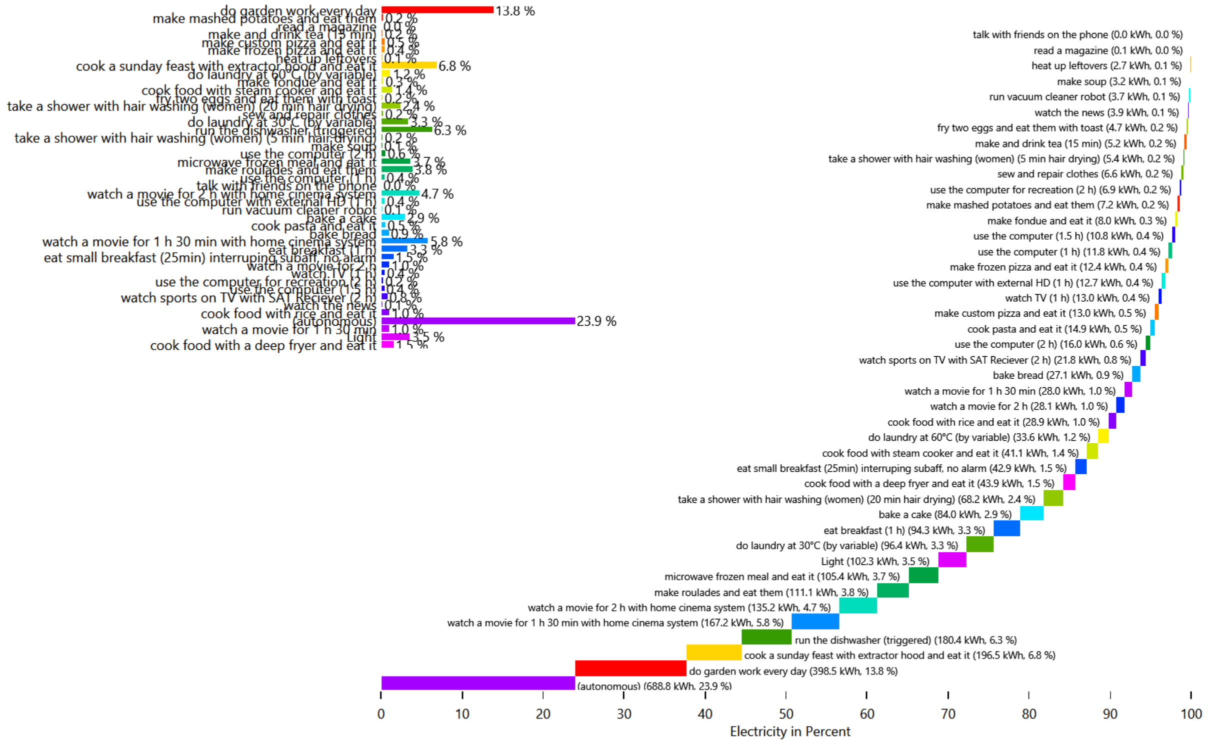
HH0 - Cold Water



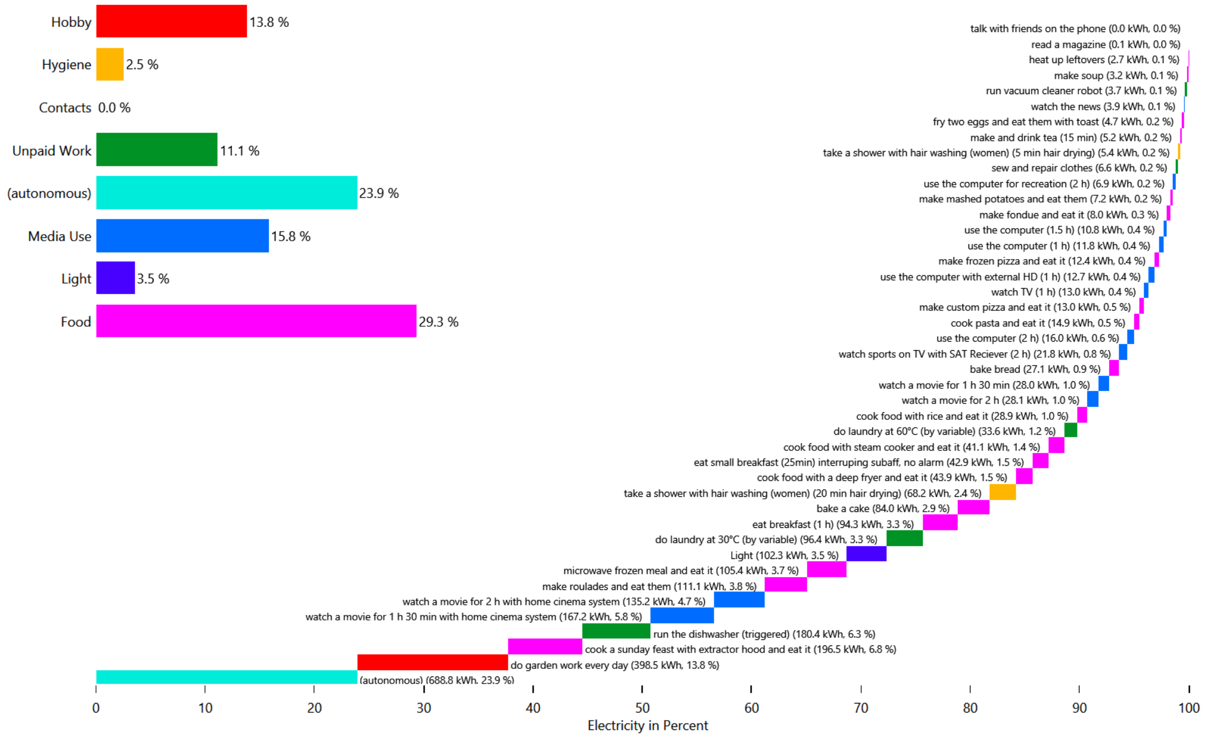
HH0 - Electricity



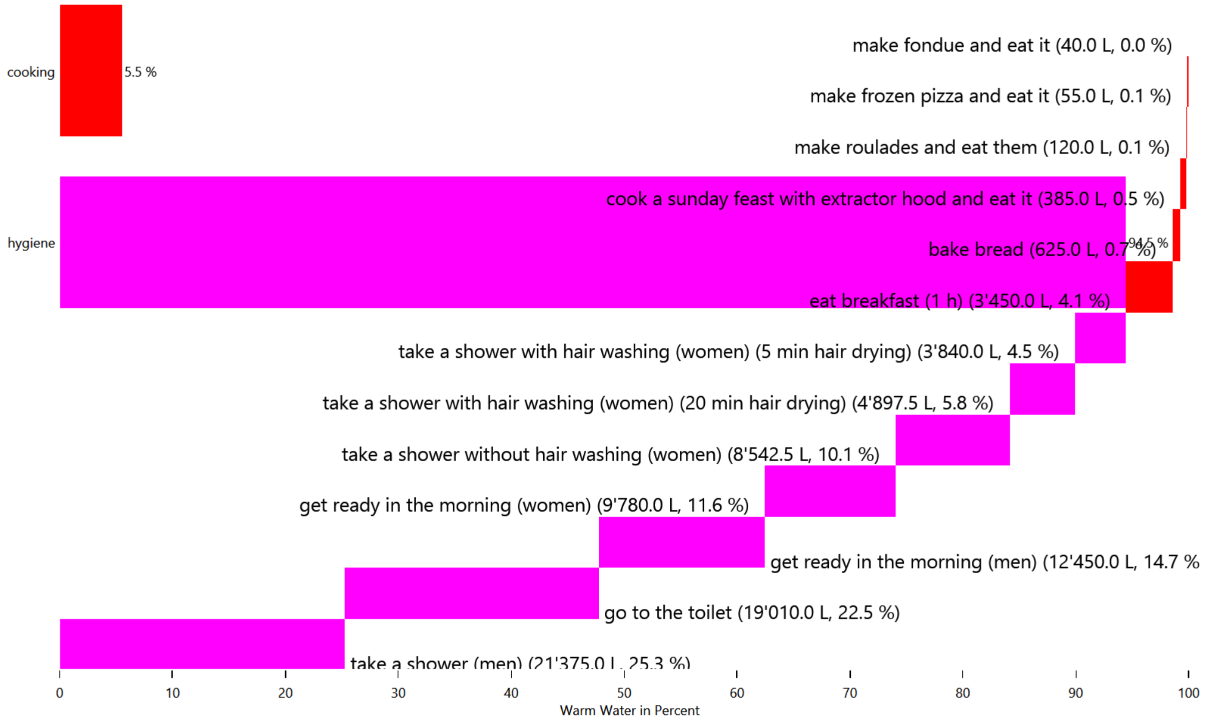
HH0 - Electricity



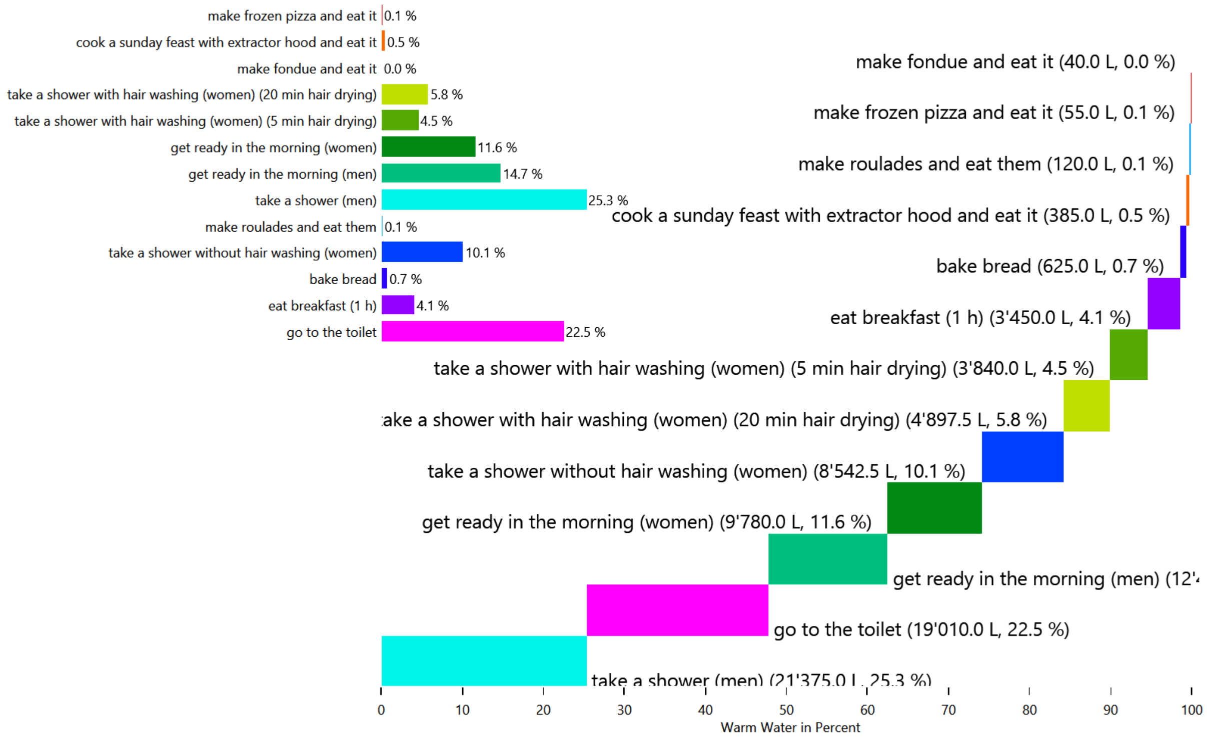
HH0 - Electricity



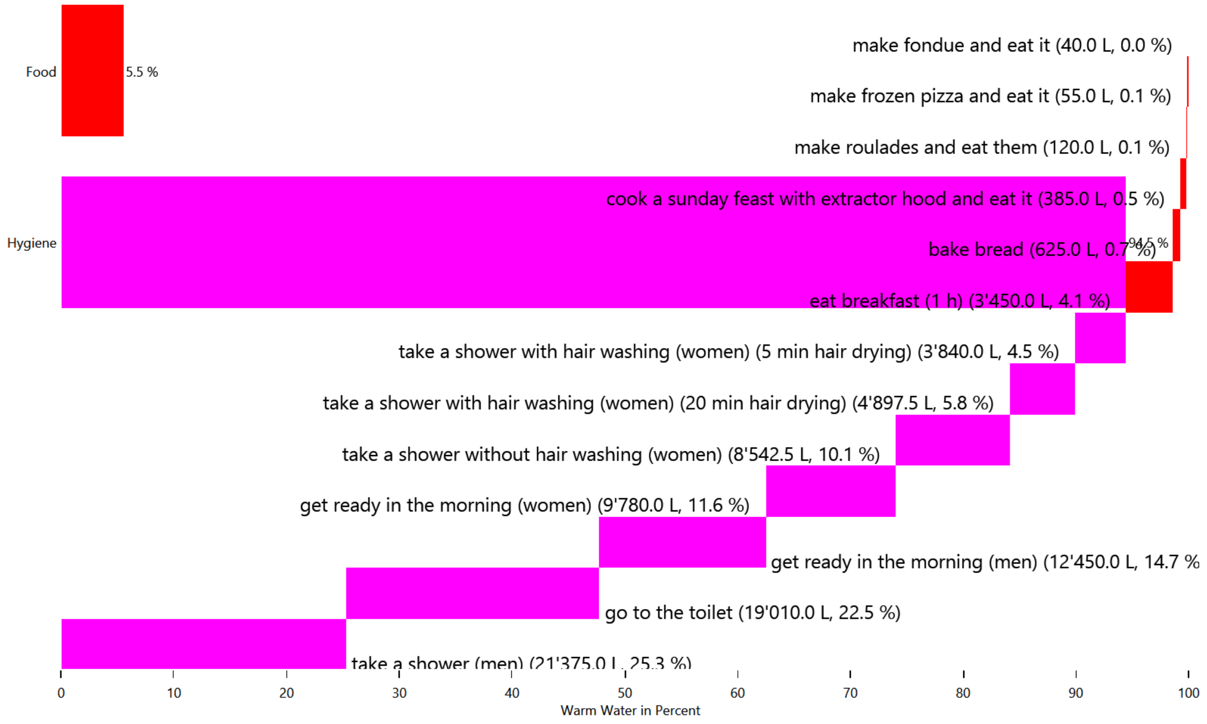
HH0 - Warm Water



HH0 - Warm Water



HH0 - Warm Water

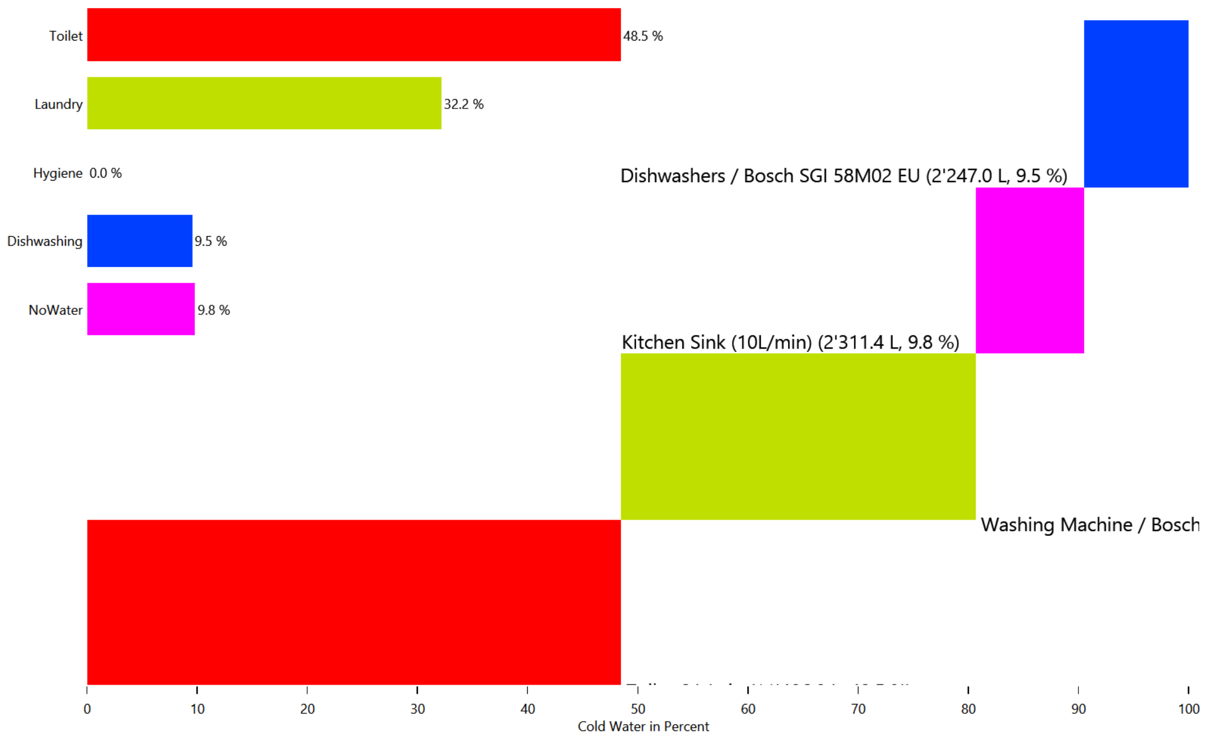


Energy use for each load type for each device

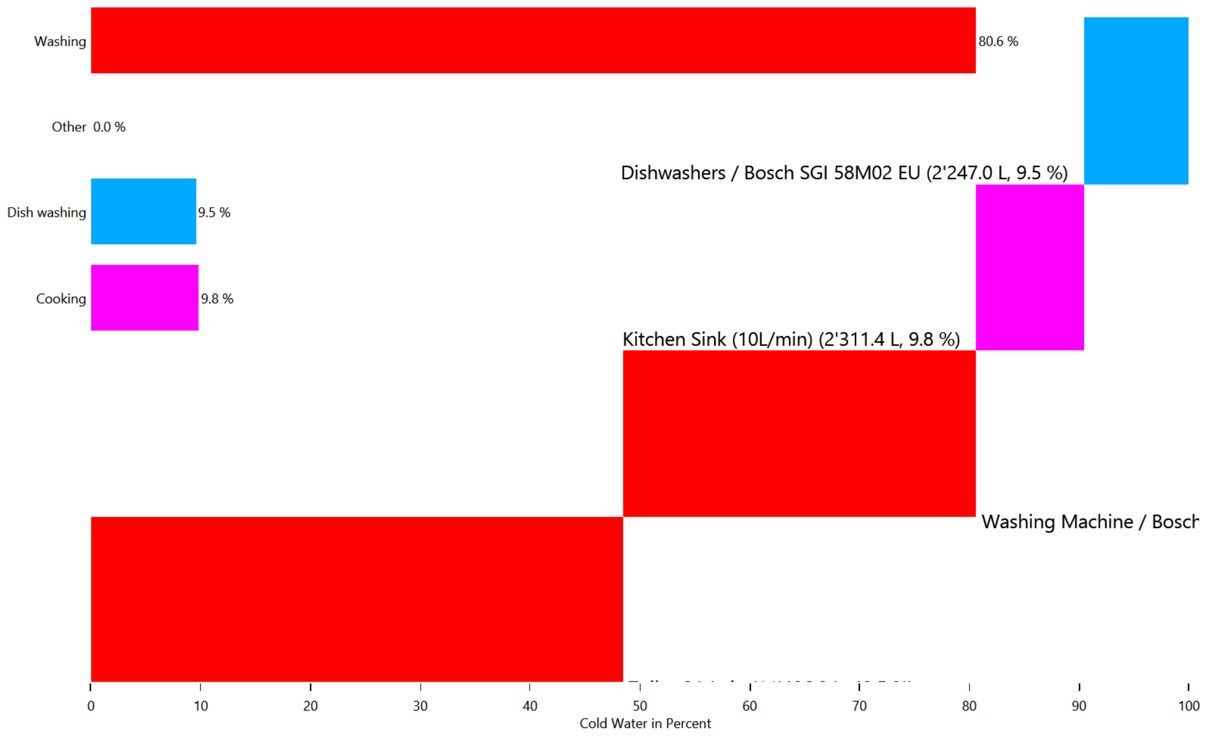
This is made from the files starting with: DeviceSums

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

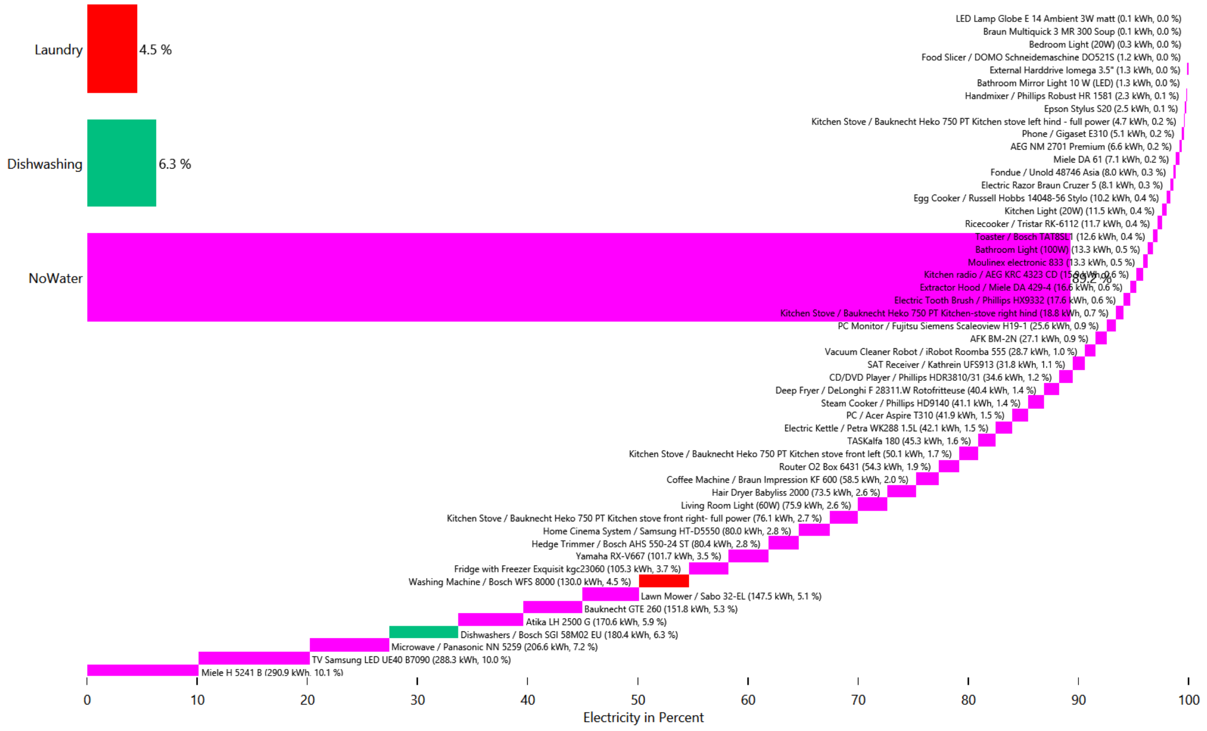
Cold Water



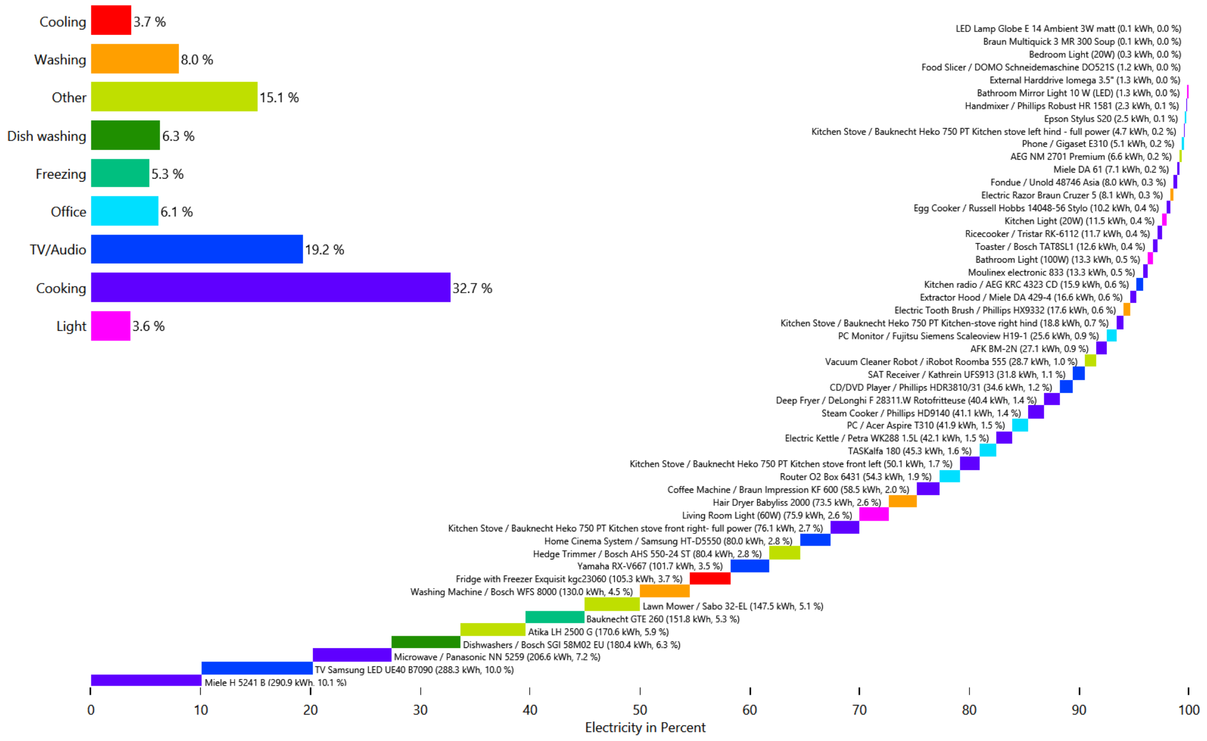
Cold Water



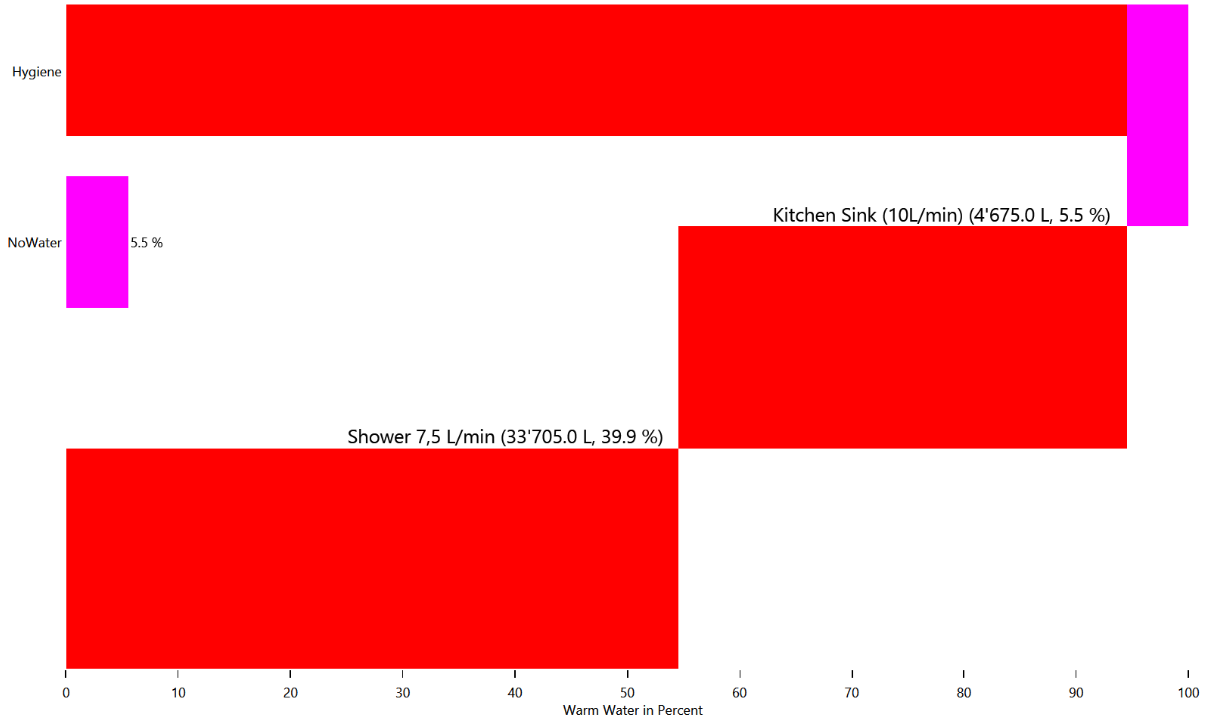
Electricity



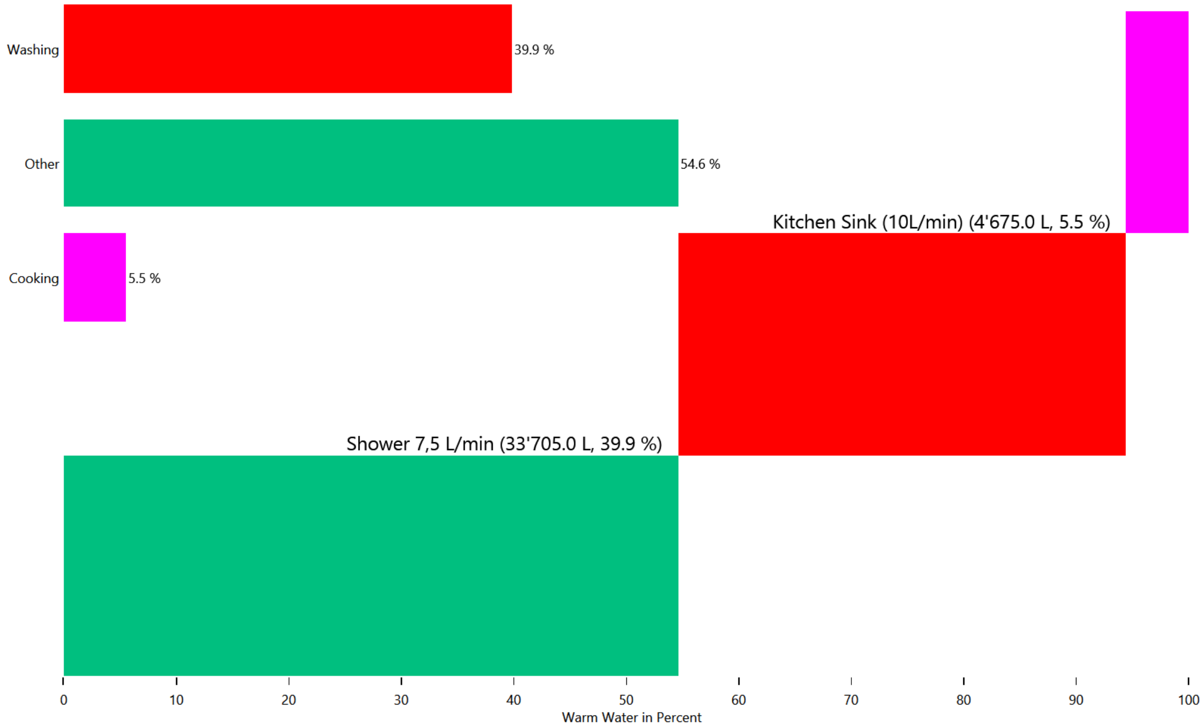
Electricity



Warm Water



Warm Water

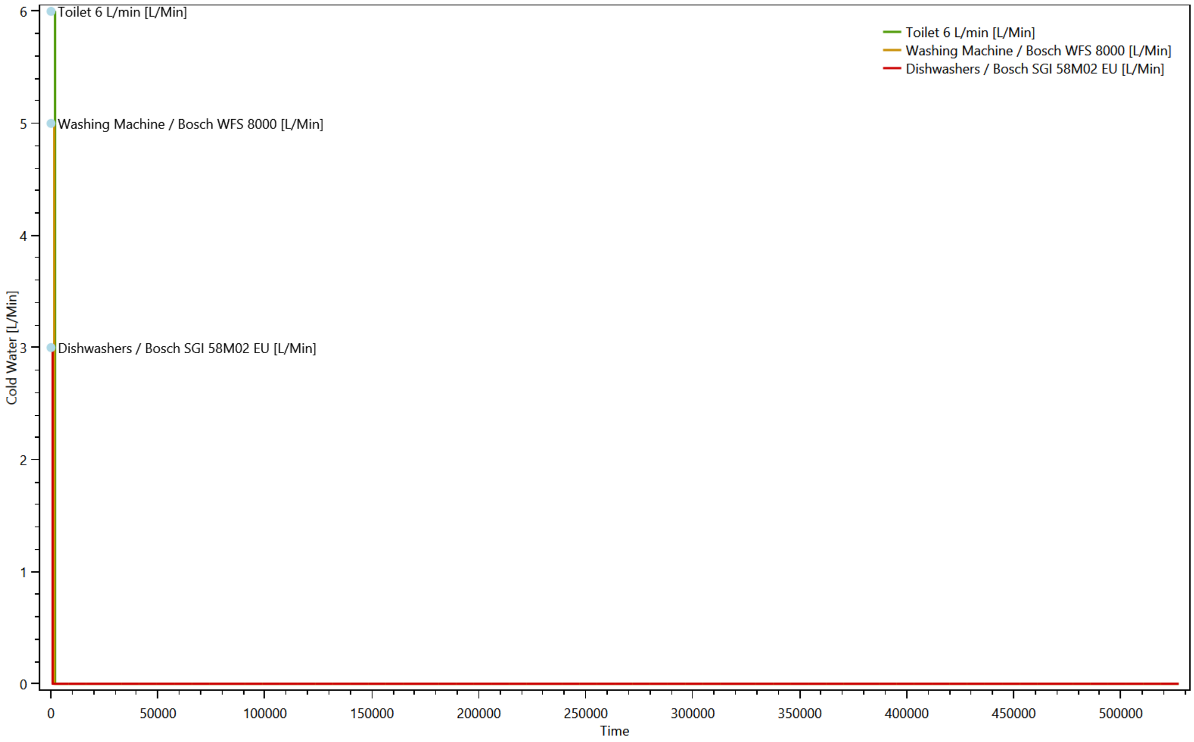

Washing
39.9 %
Other
54.6 %
Cooking
5.5 %
Kitchen Sink (10L/min) (4'675.0 L, 5.5 %)
Shower 7,5 L/min (33'705.0 L, 39.9 %)
0
10
20
30
40
50
60
70
80
90
100
Warm Water in Percent

Duration curve for each device for each load type

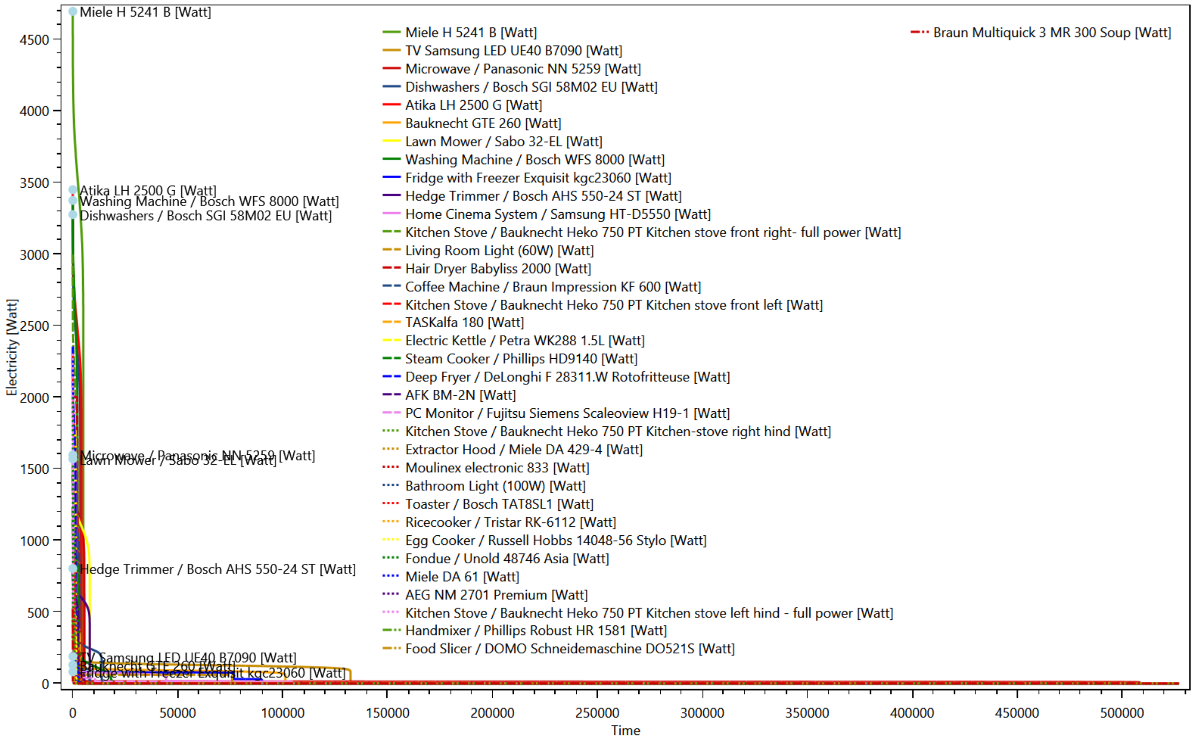
This is made from the files starting with: DeviceDurationCurves

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

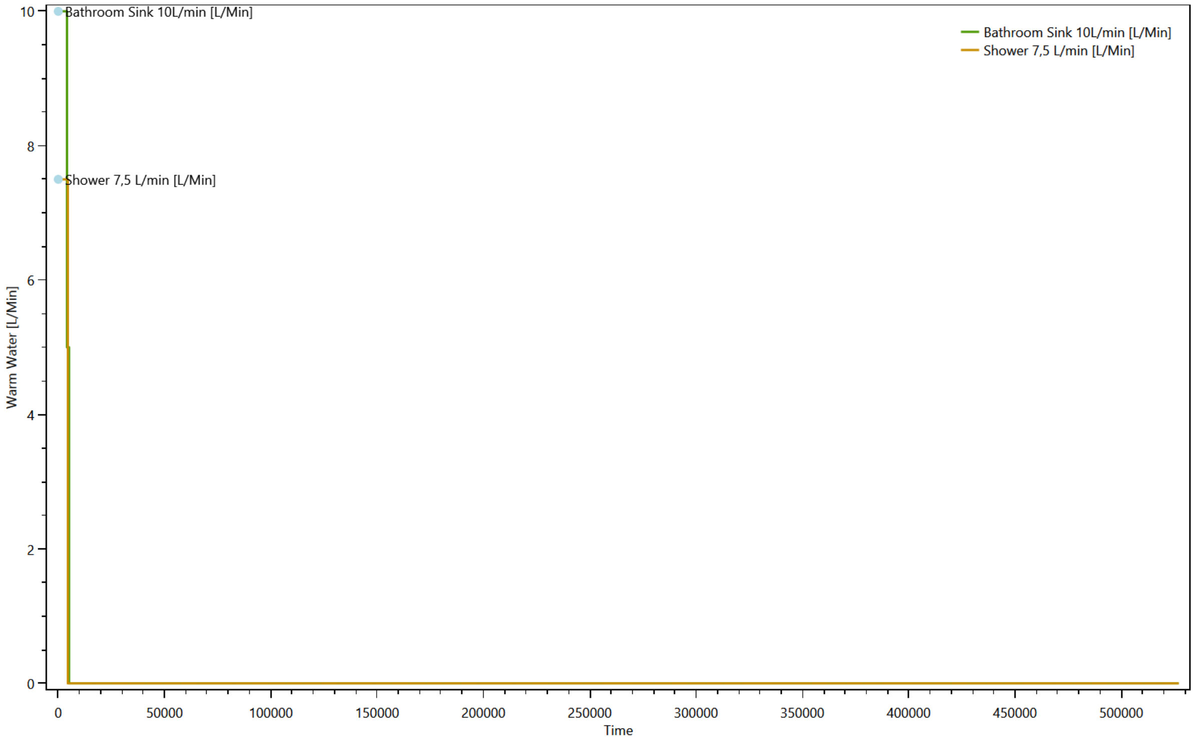
Cold Water



Electricity



Warm Water

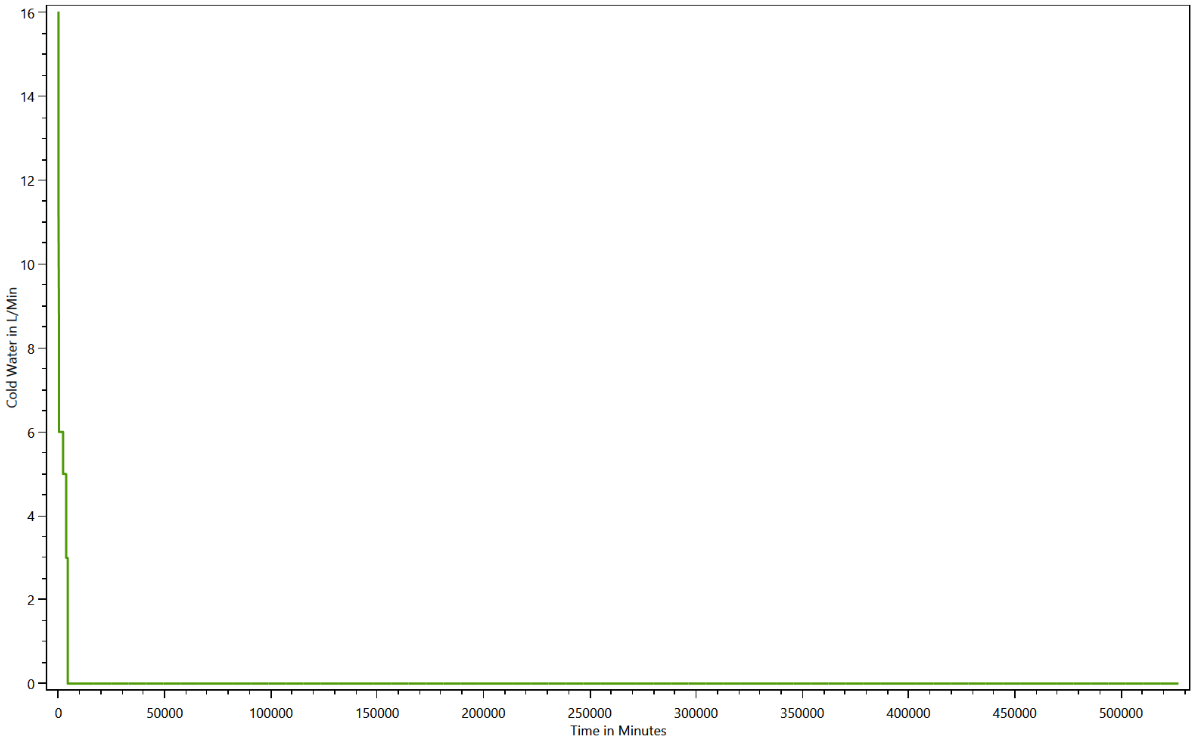


Duration curve for each load type

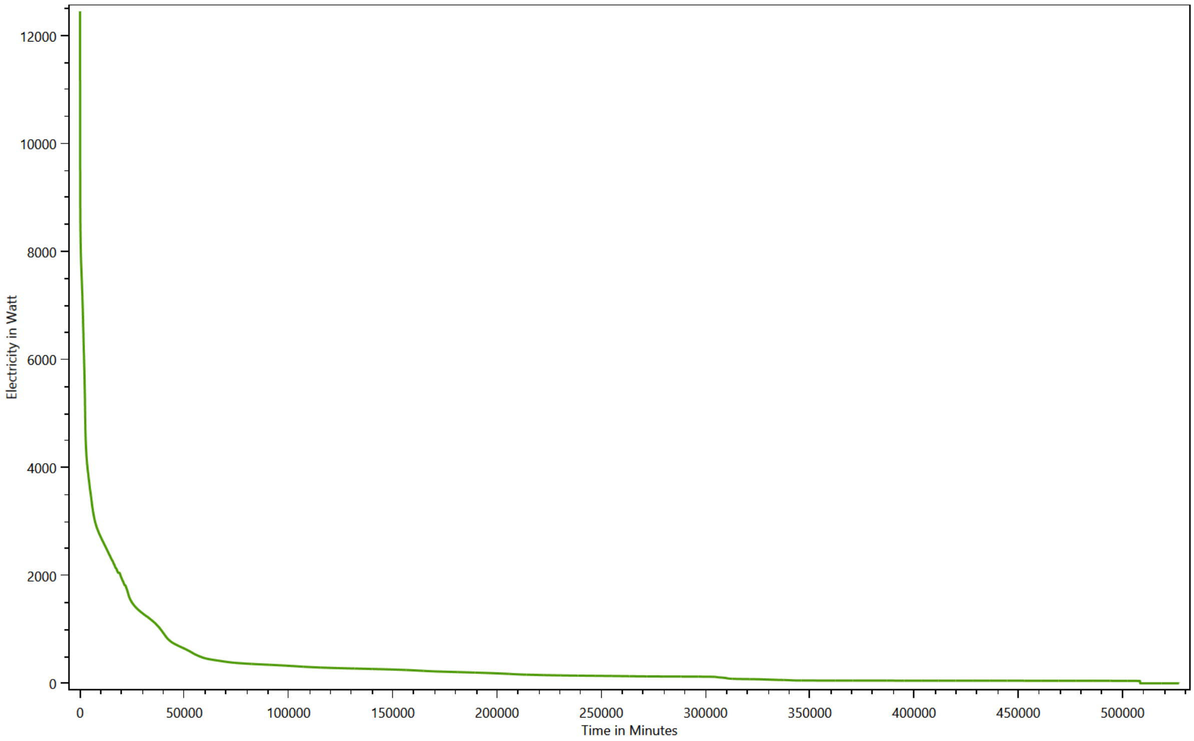
This is made from the files starting with: DurationCurve

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

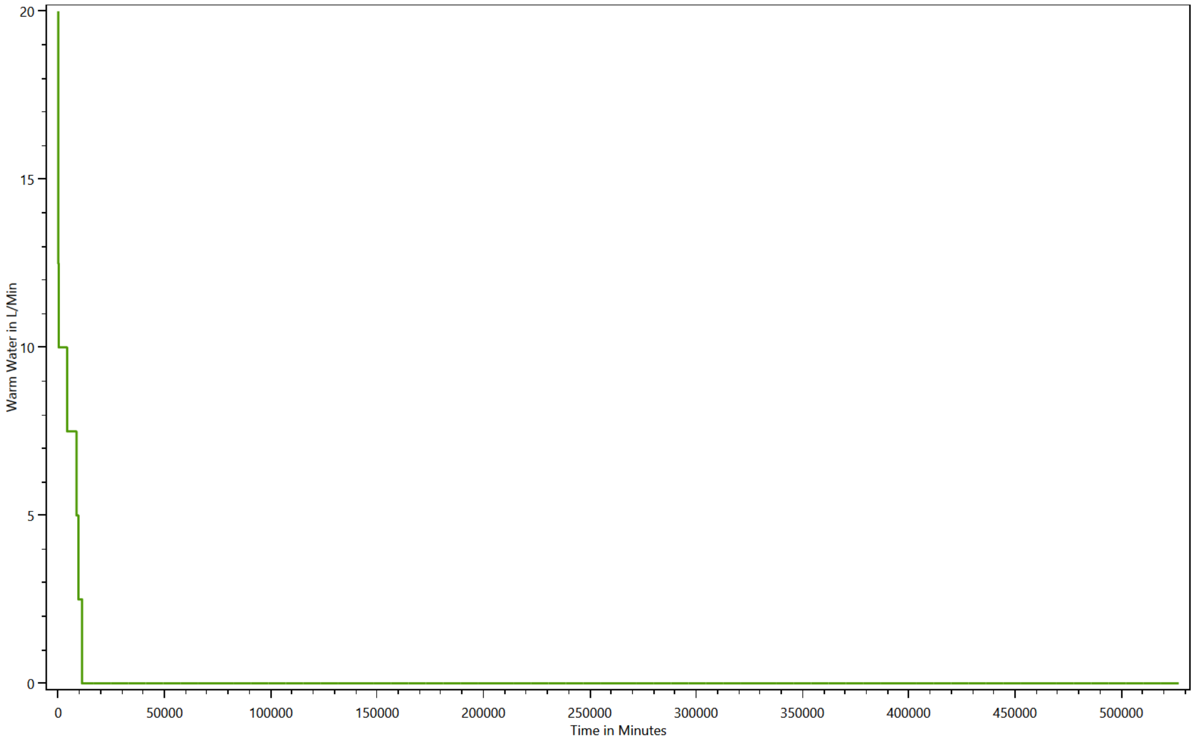
Cold Water



Electricity



Warm Water

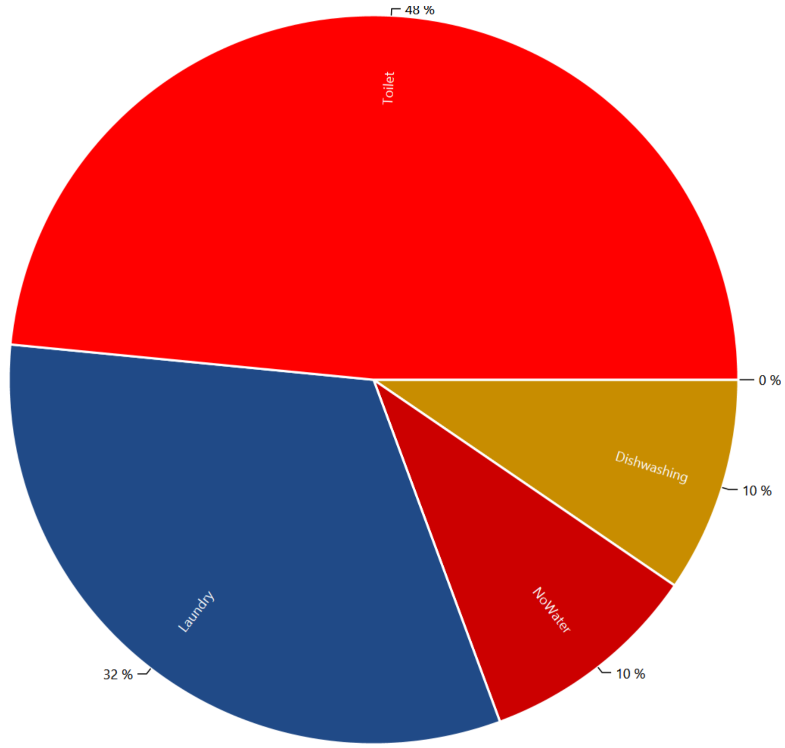


Grouped energy use for each load type for each device

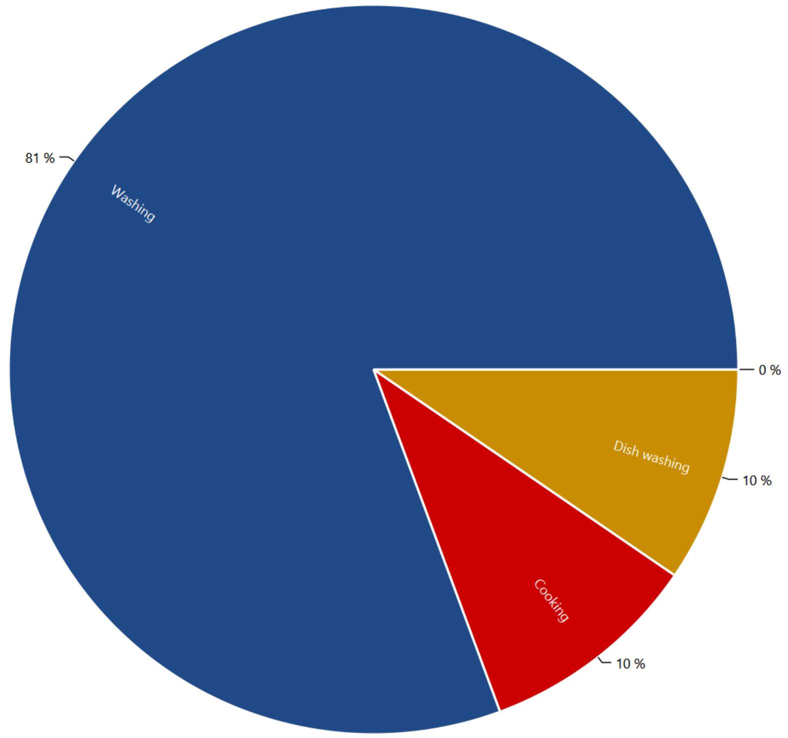
This is made from the files starting with: DeviceTaggingSet

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

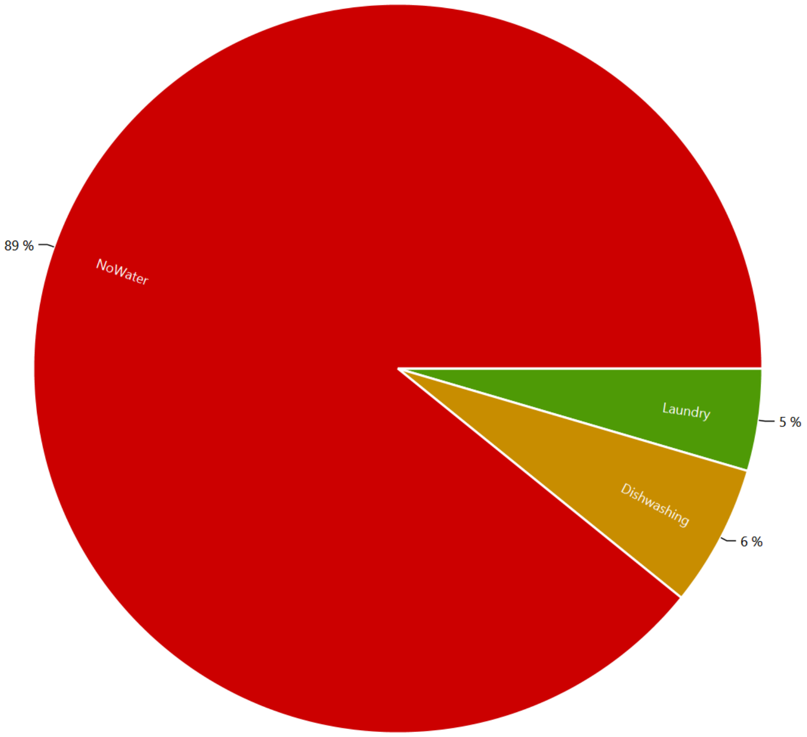
HH0 - Destatis Water Usage Statistics - Cold Water



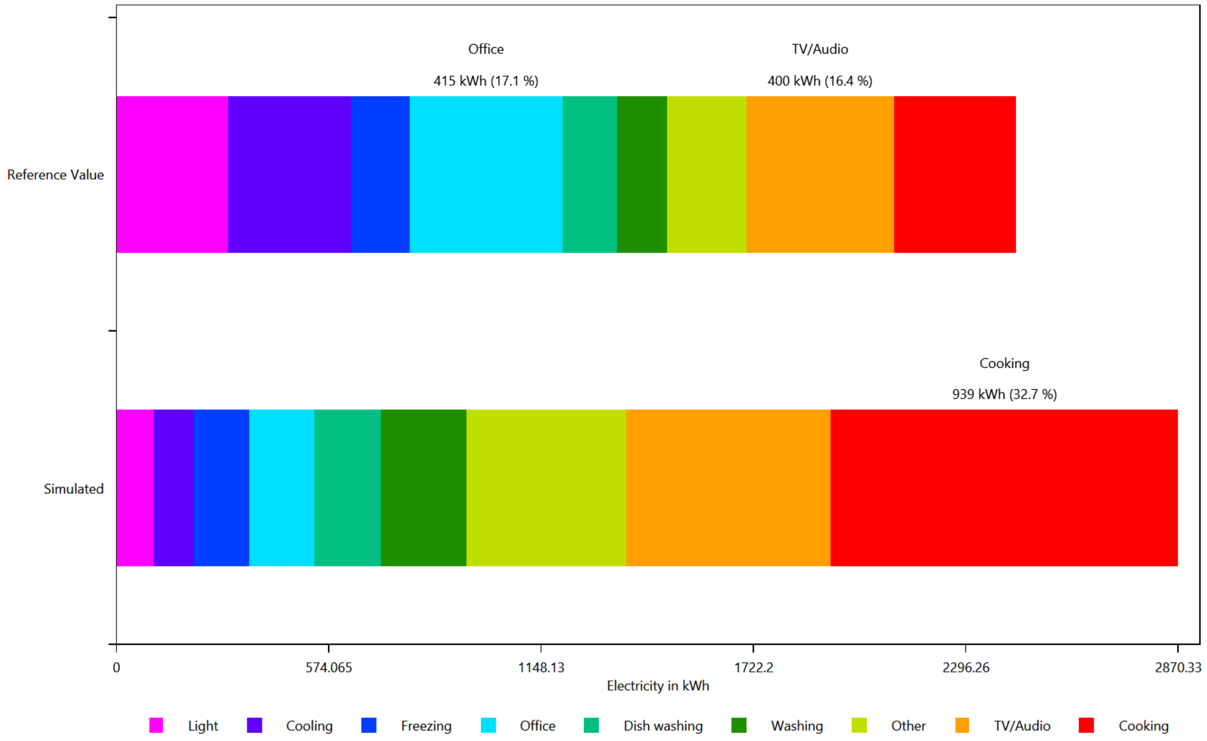
HH0 - Energieagentur - Cold Water



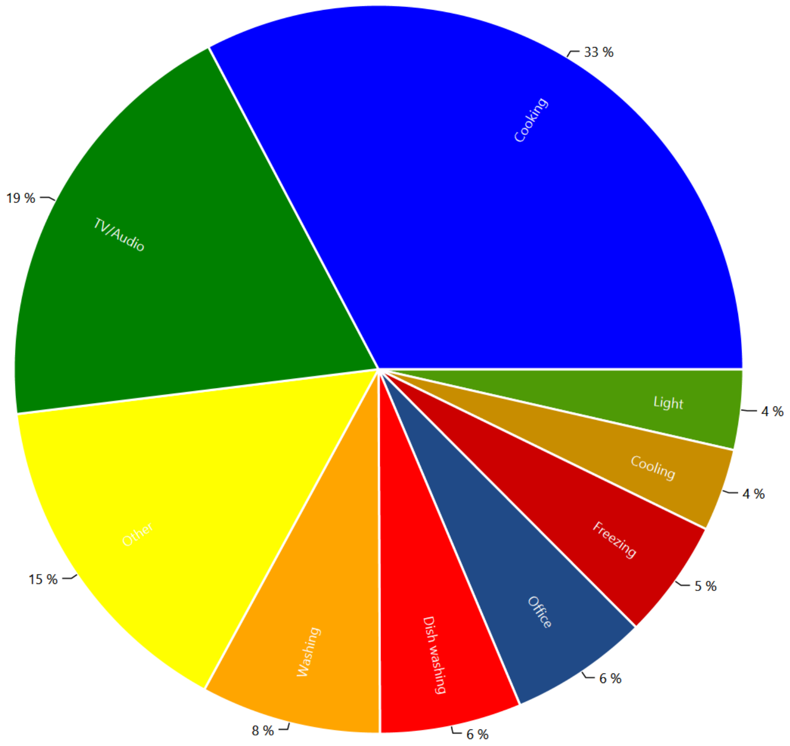
HH0 - Destatis Water Usage Statistics - Electricity



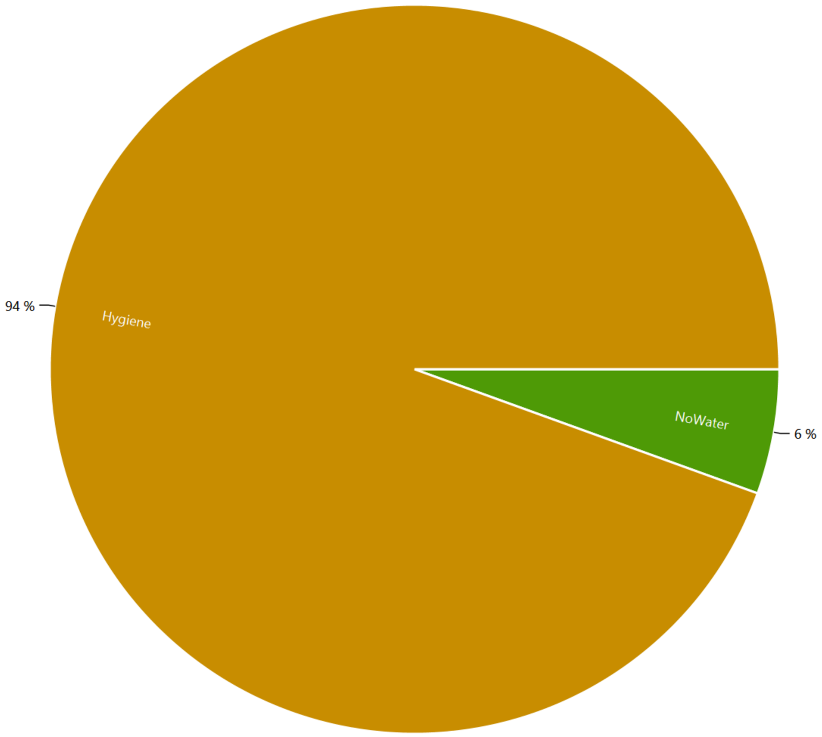
HH0 - Energieagentur - Electricity



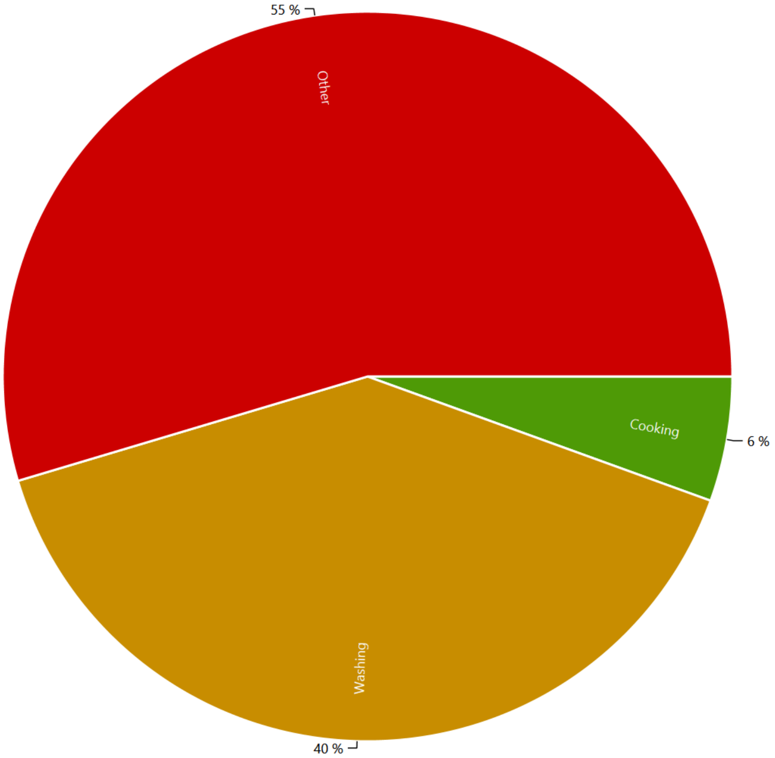
HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

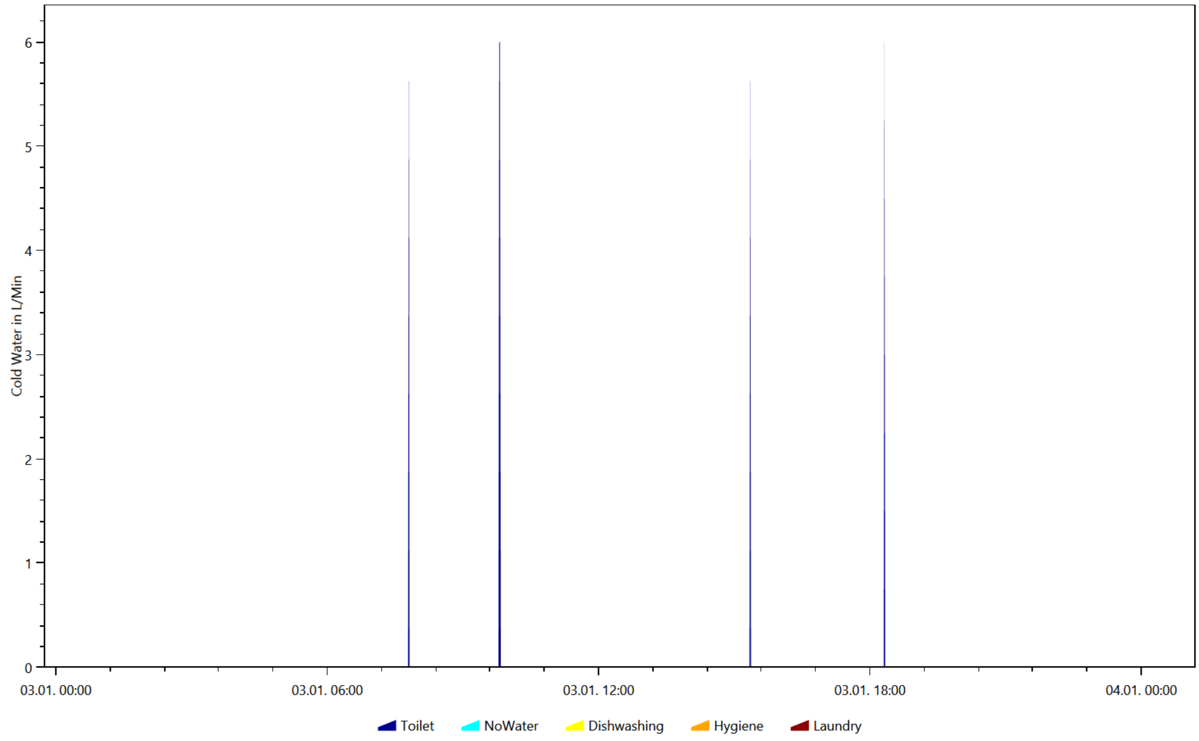


Example of the device profiles for each load type

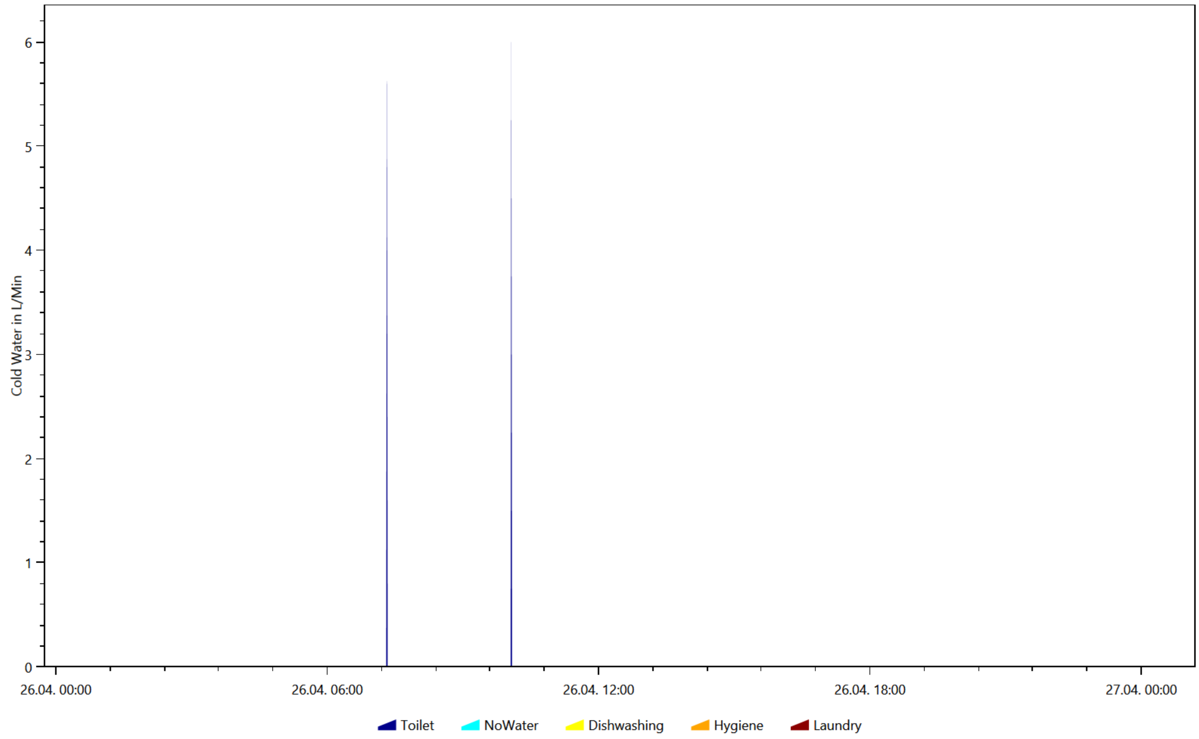
This is made from the files starting with: DeviceProfiles

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

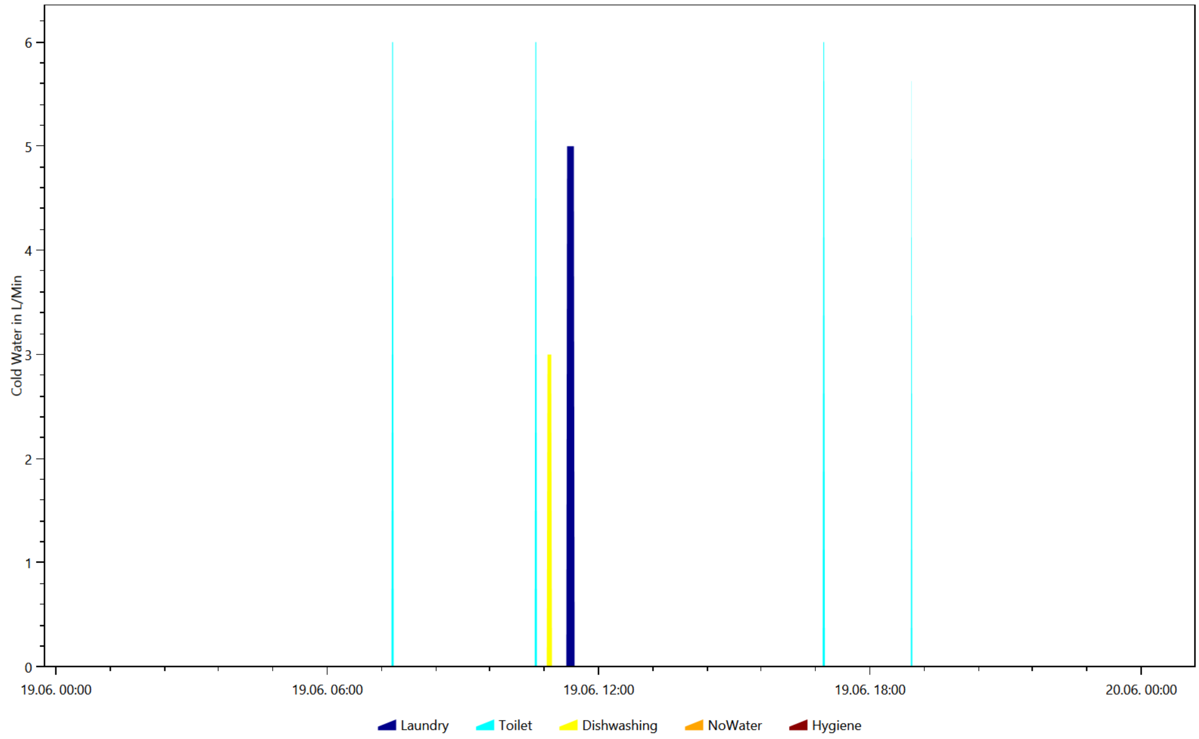
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.3



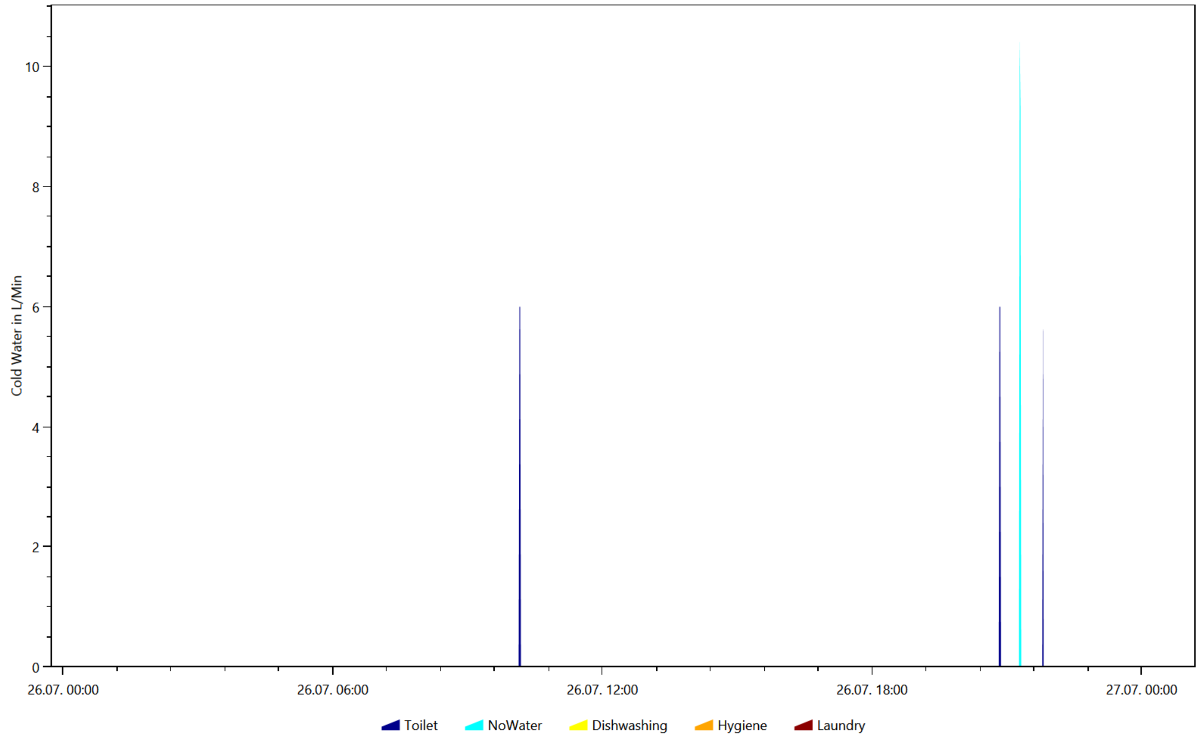
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.26



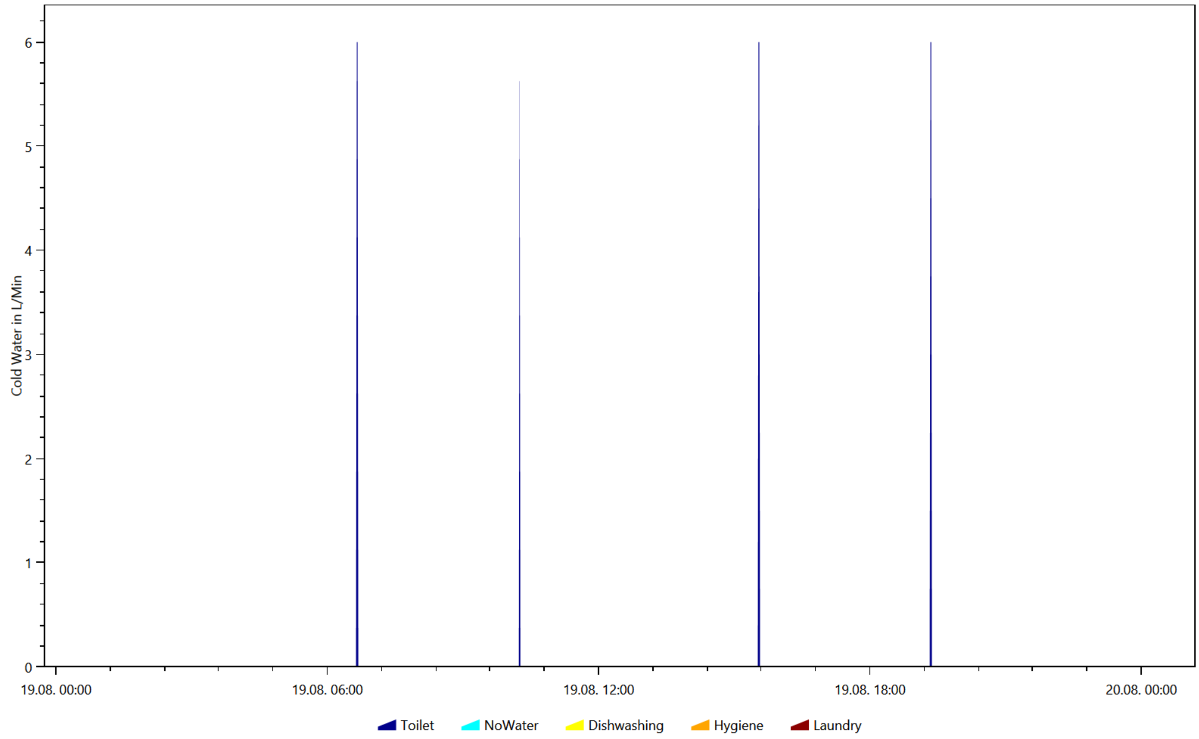
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.19



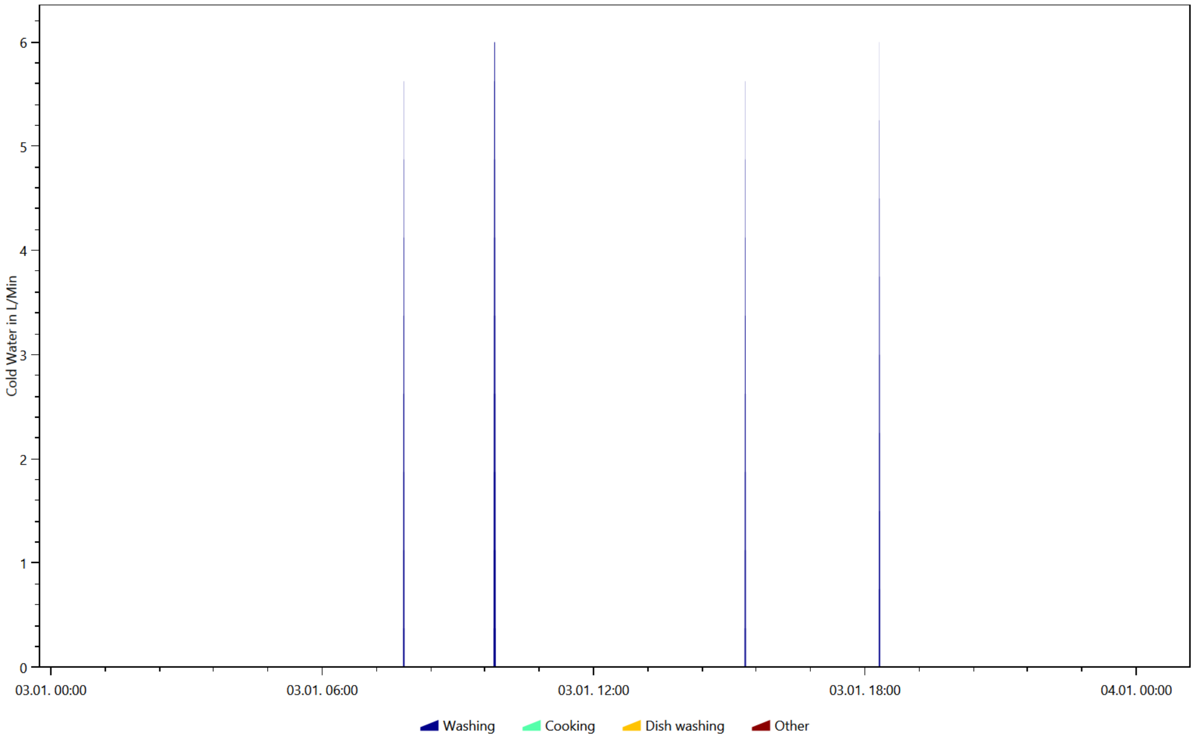
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.26



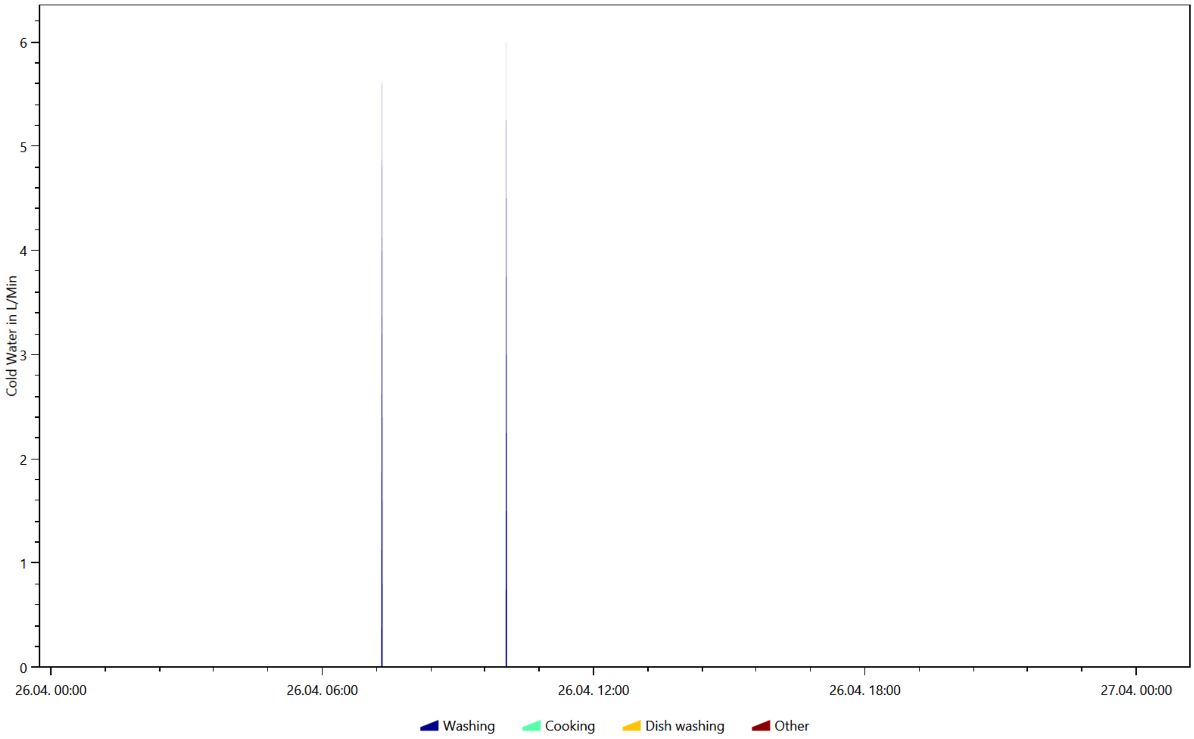
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.19



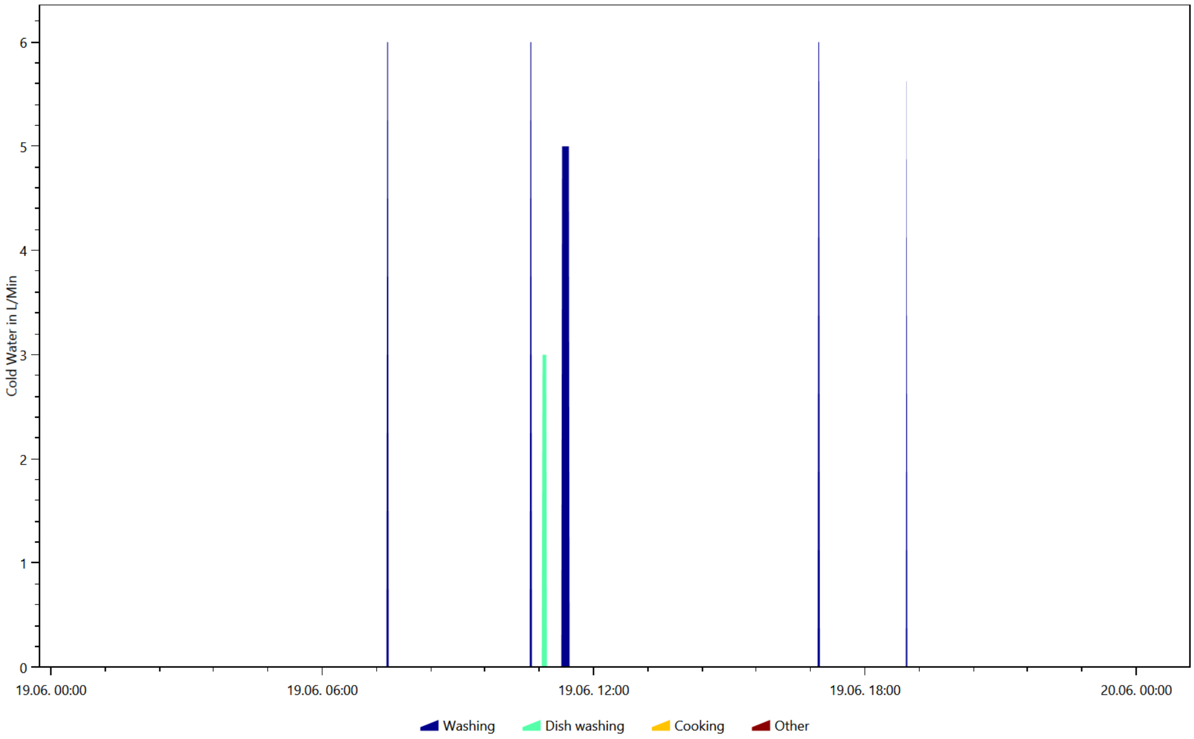
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.3



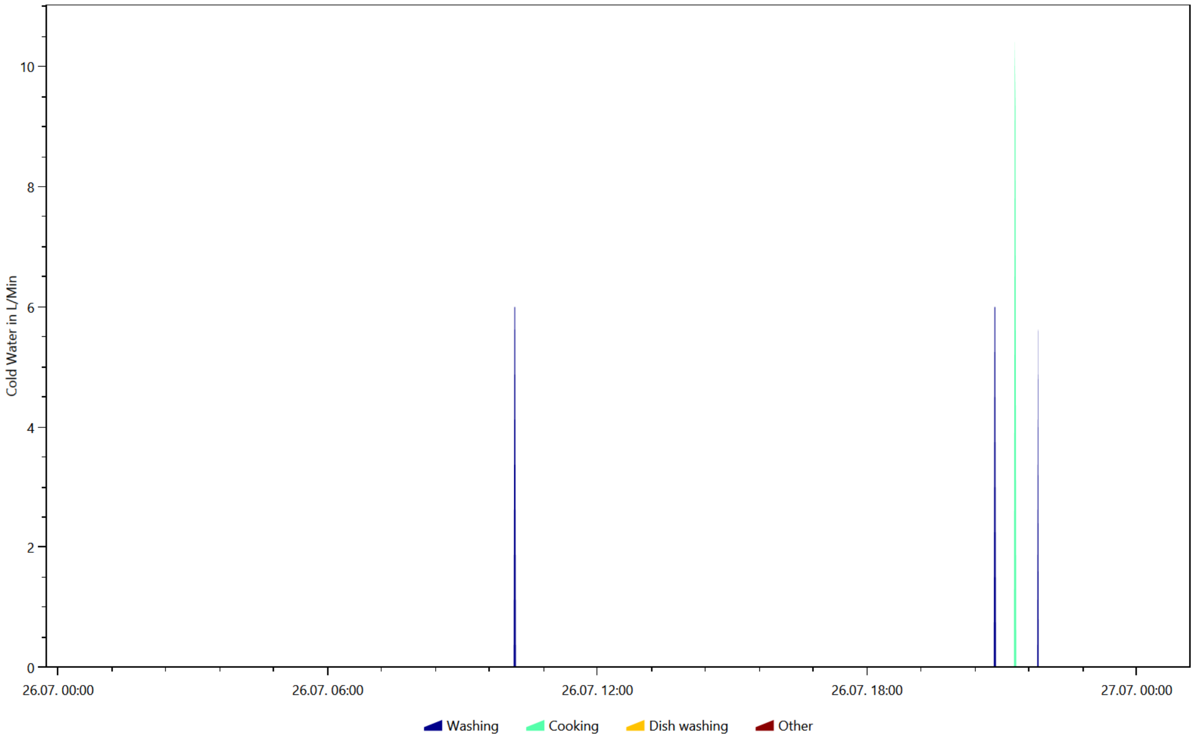
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.26



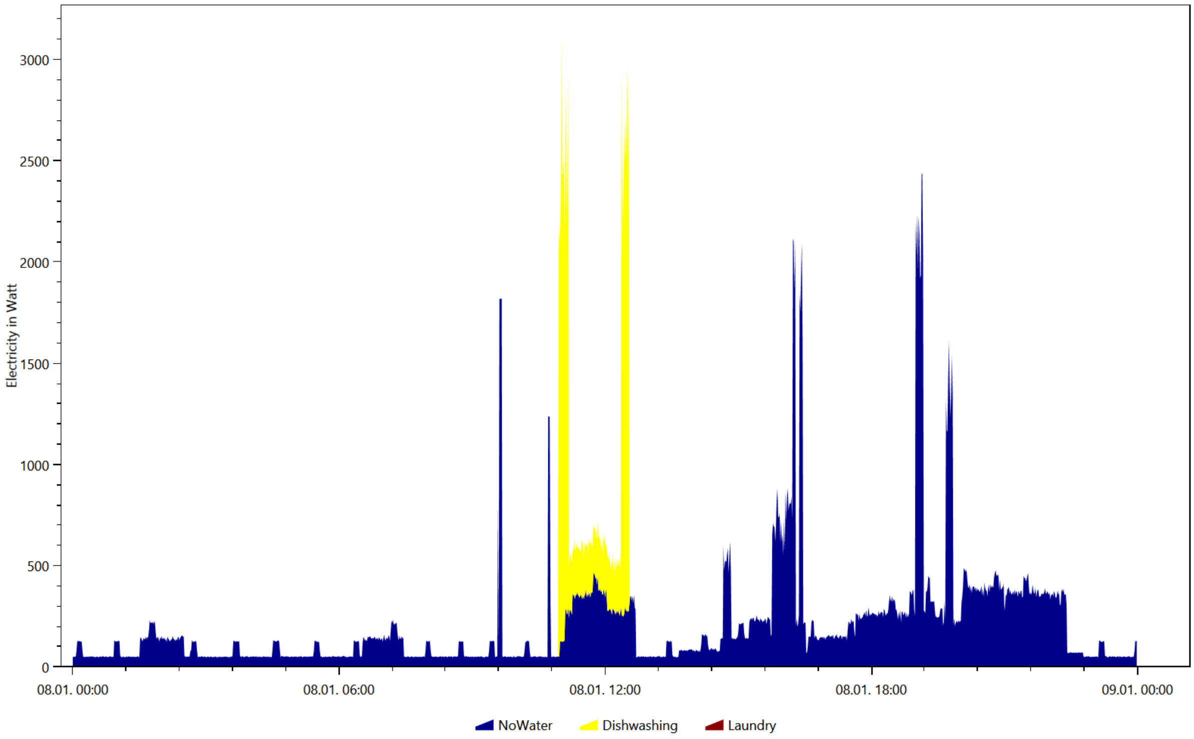
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.19



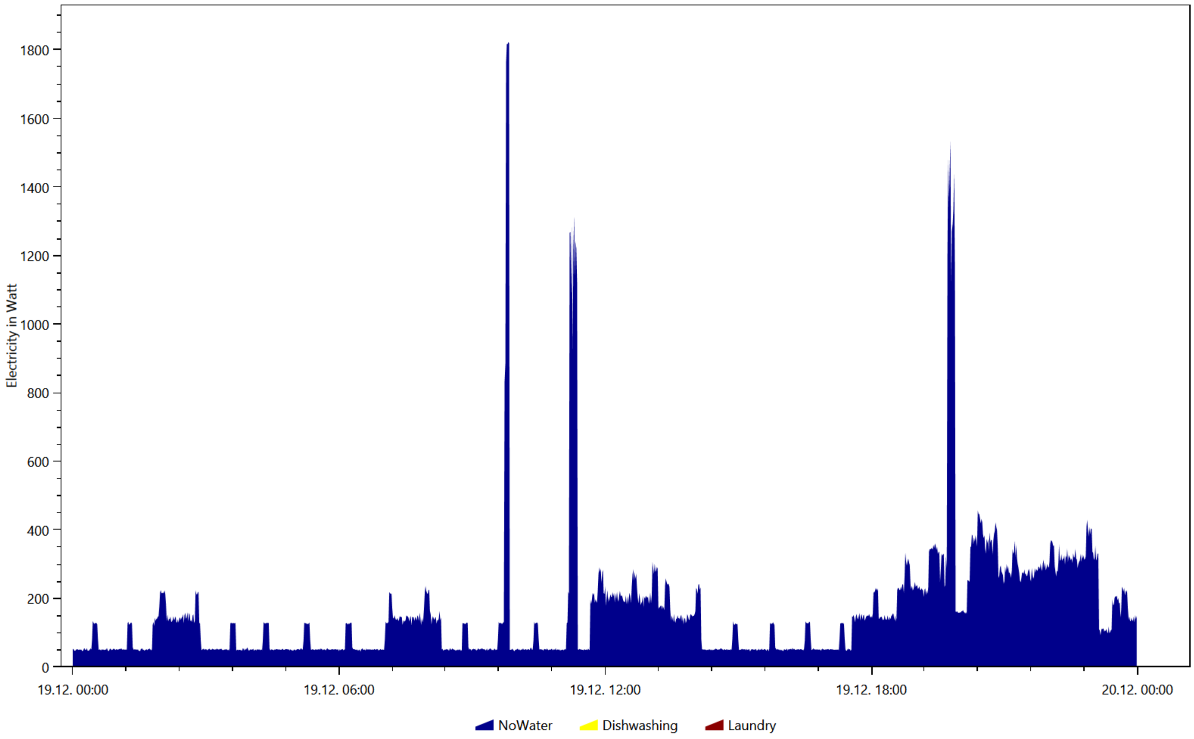
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.26



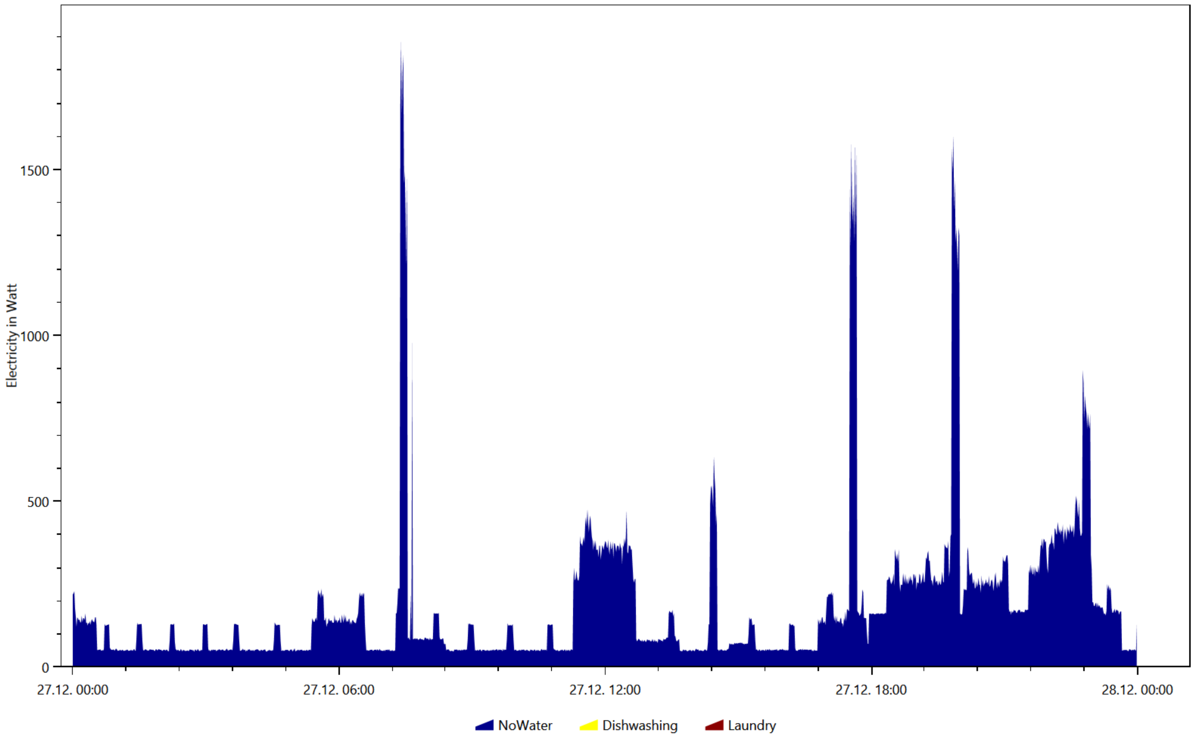
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.8



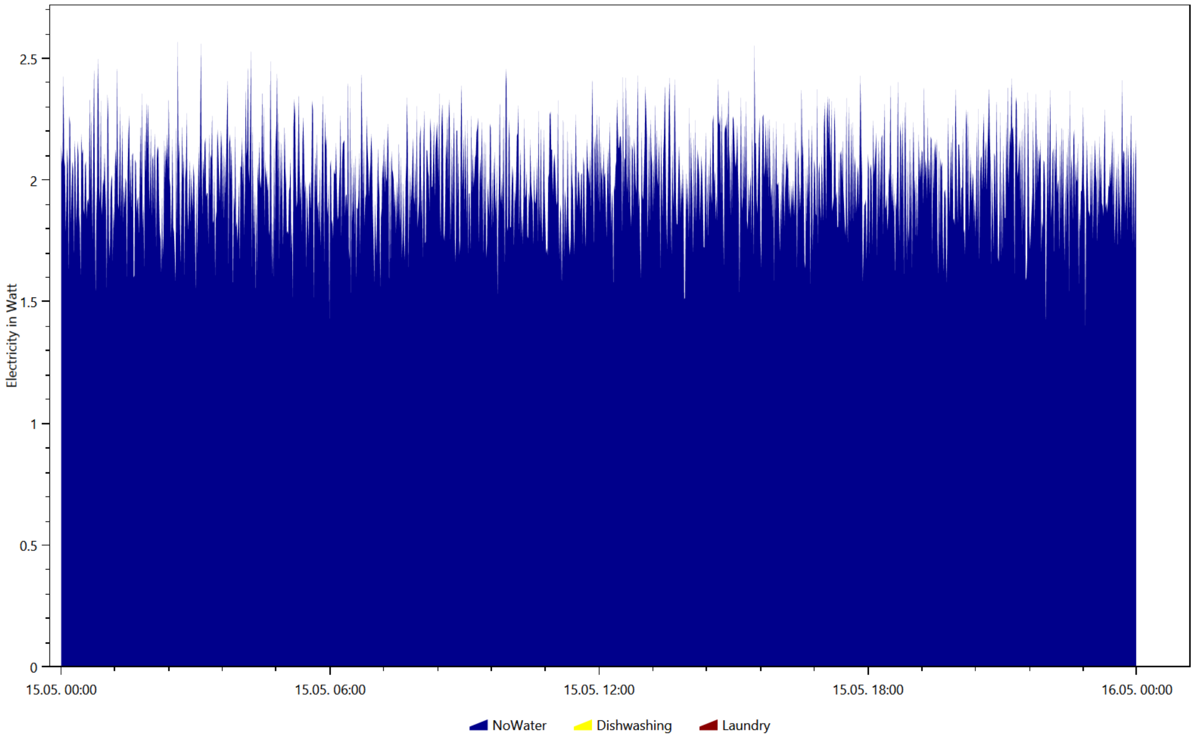
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.19



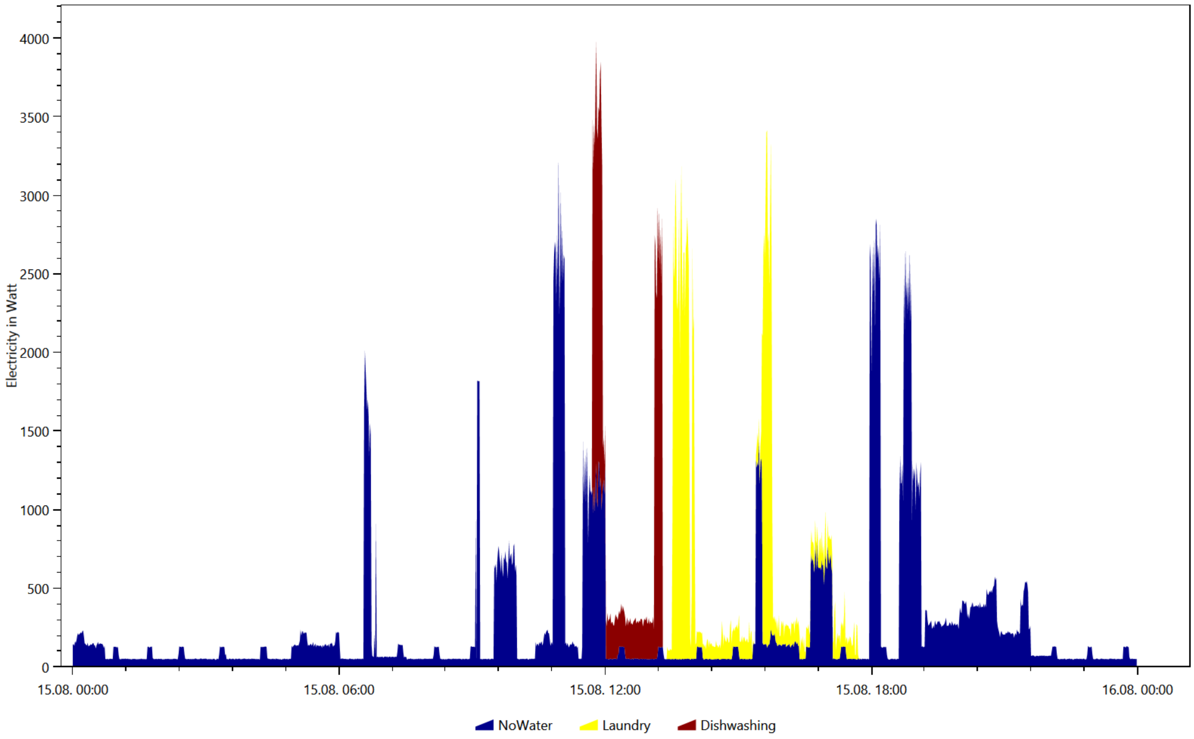
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.27



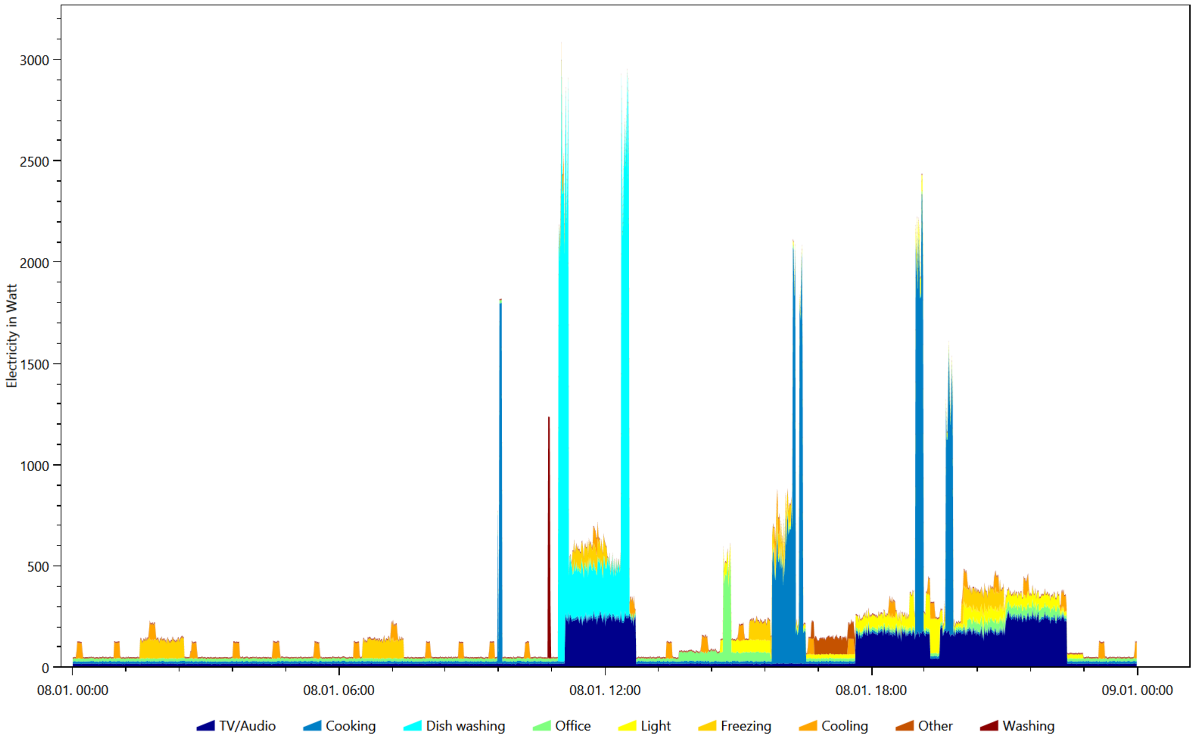
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.15



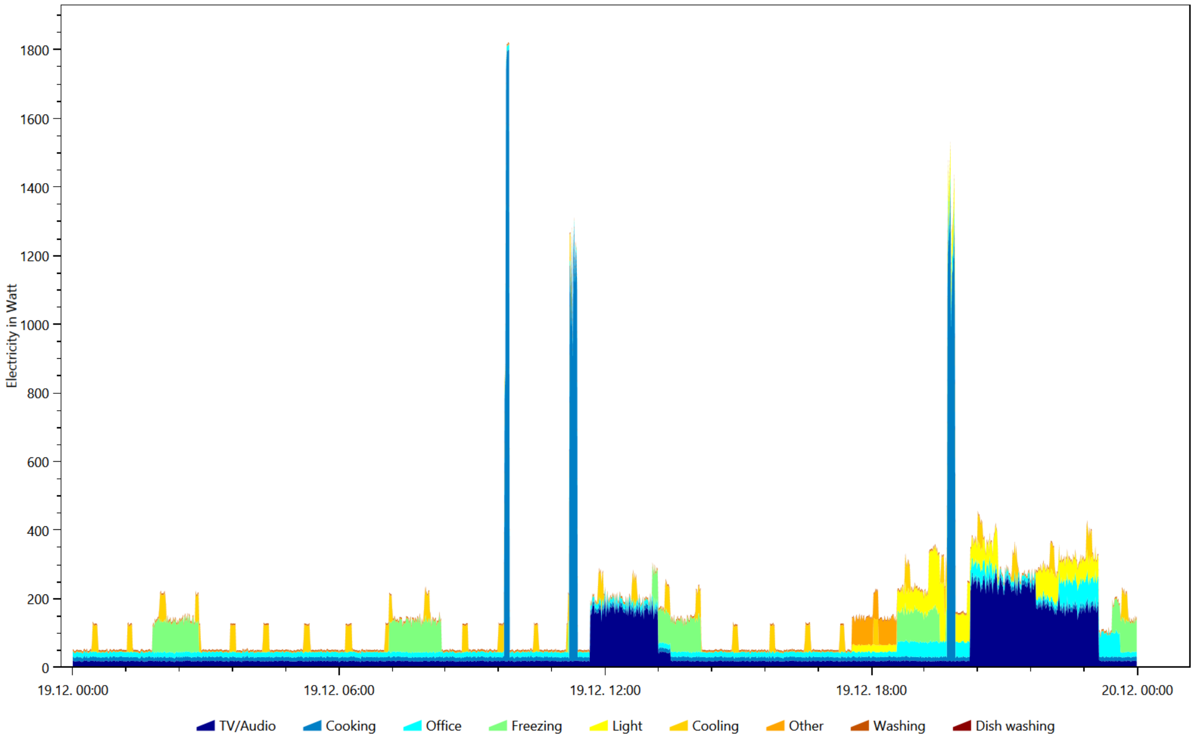
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.15



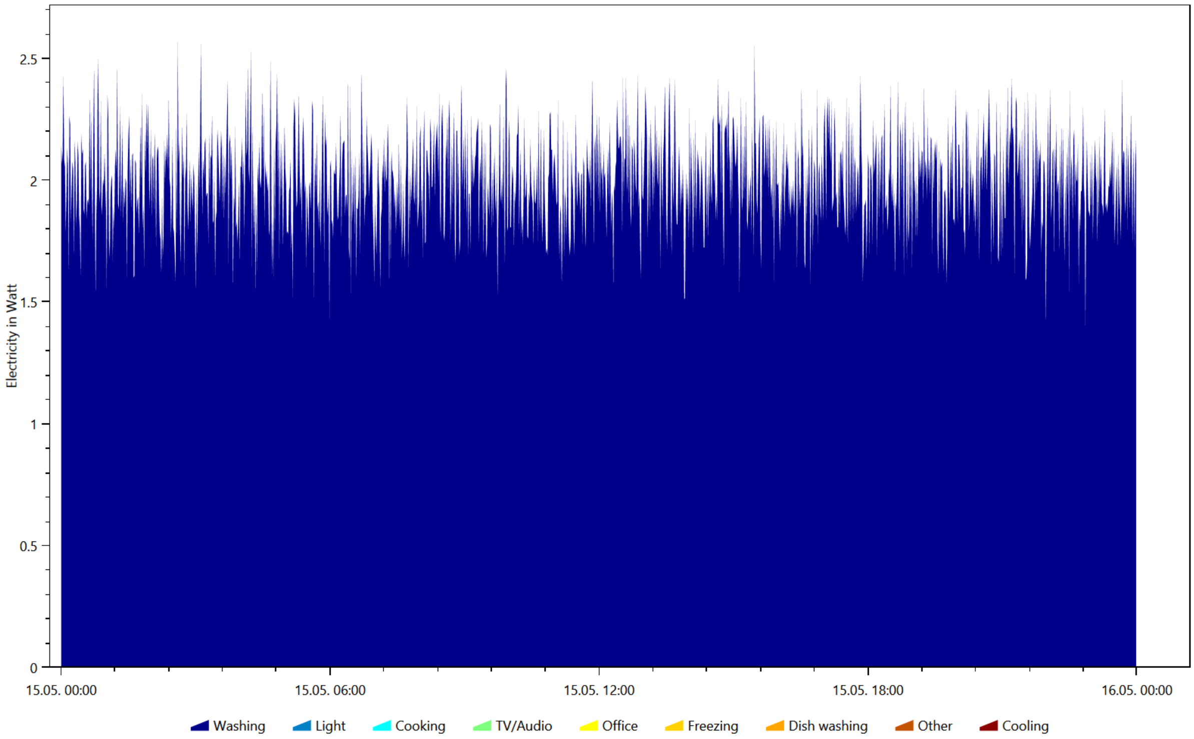
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.8



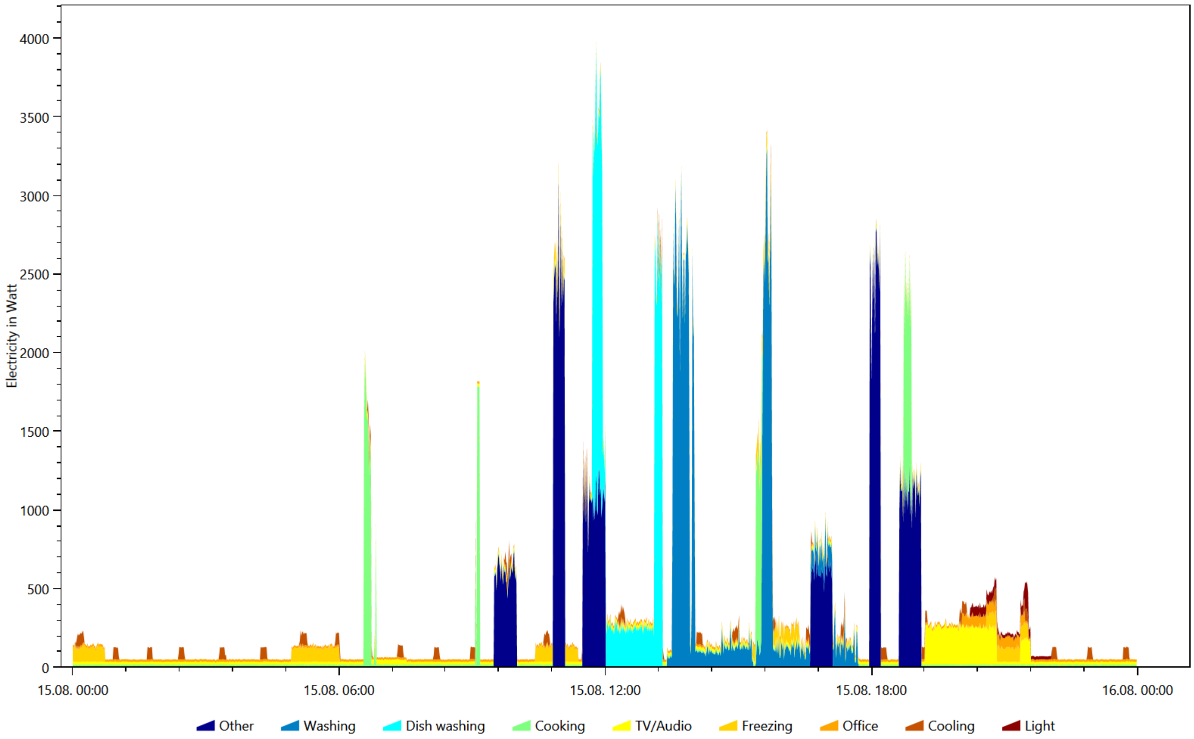
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.12.19



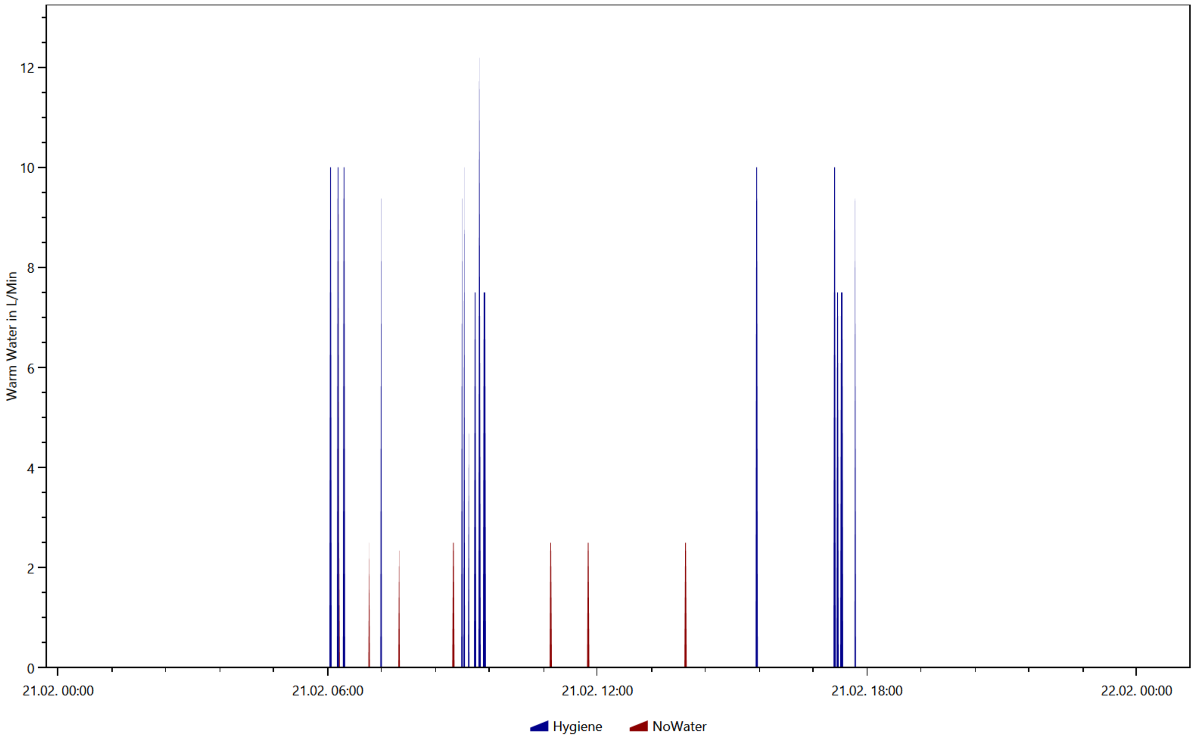
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.5.15



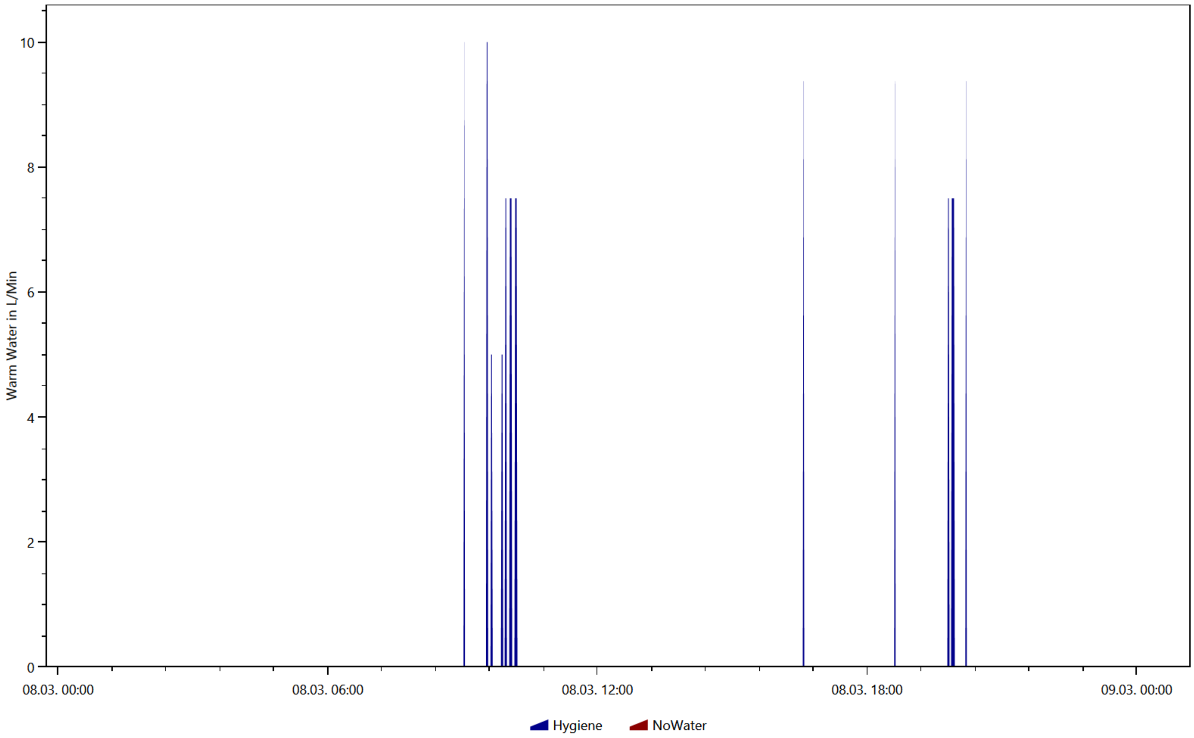
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.15



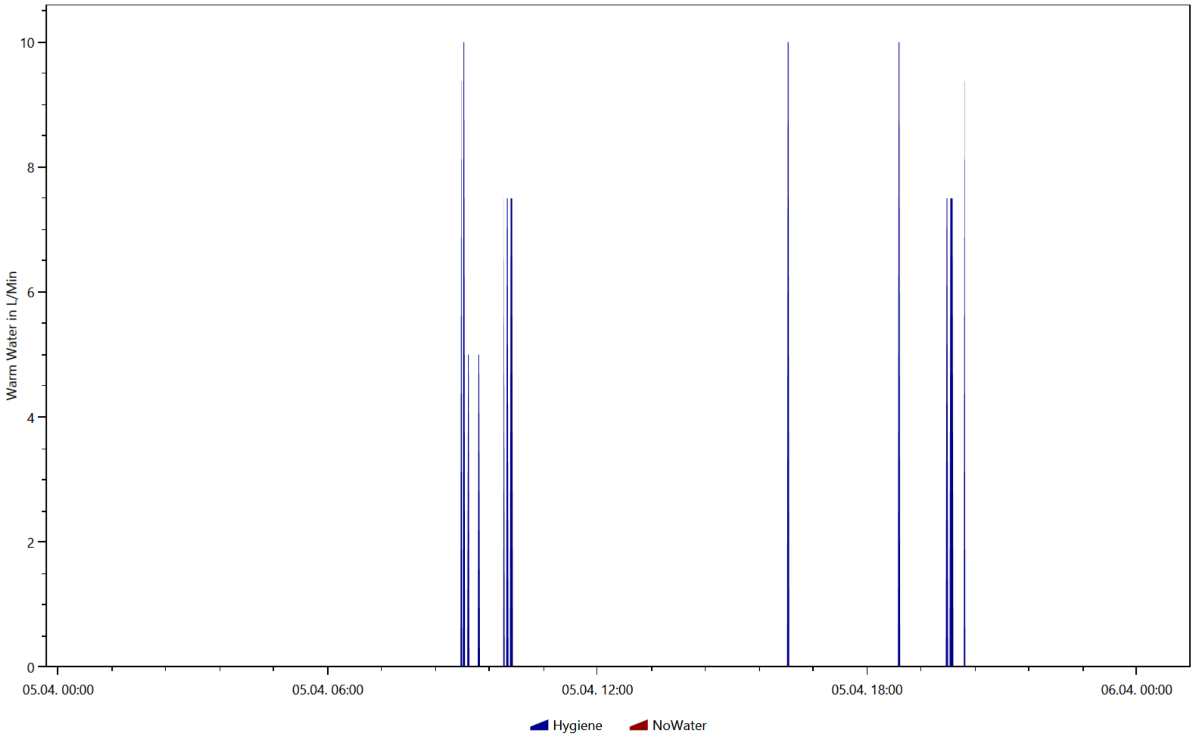
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.21



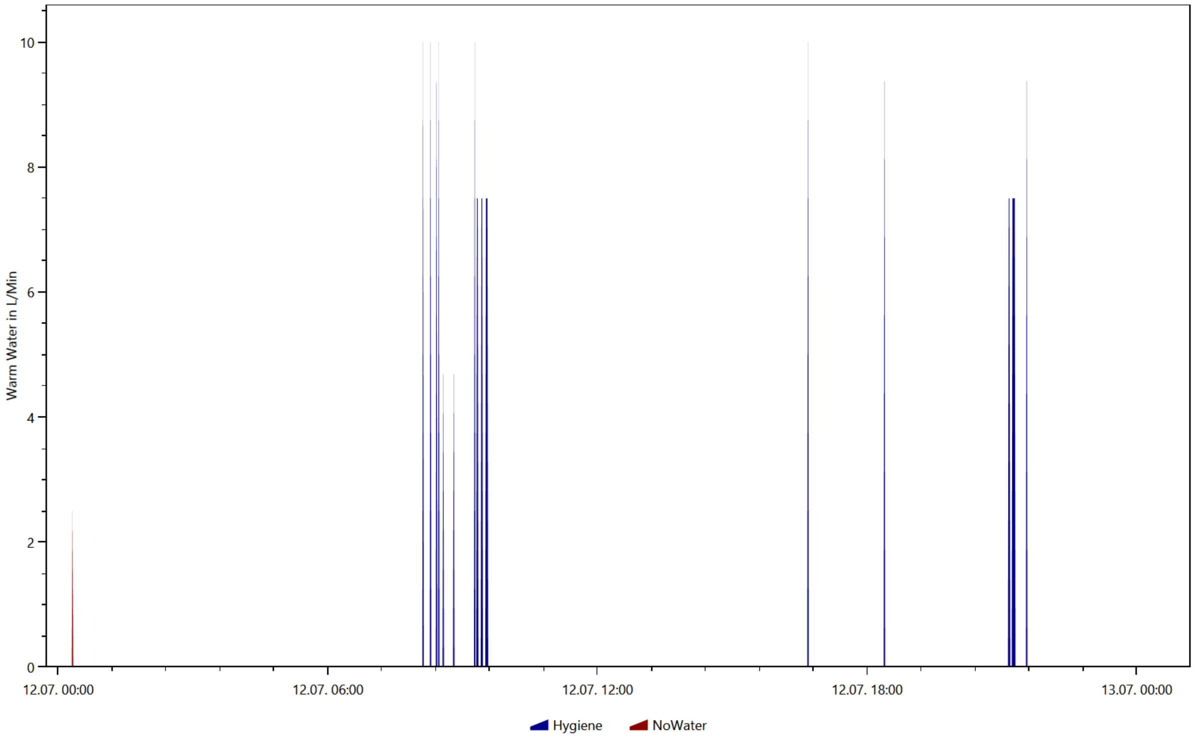
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.8



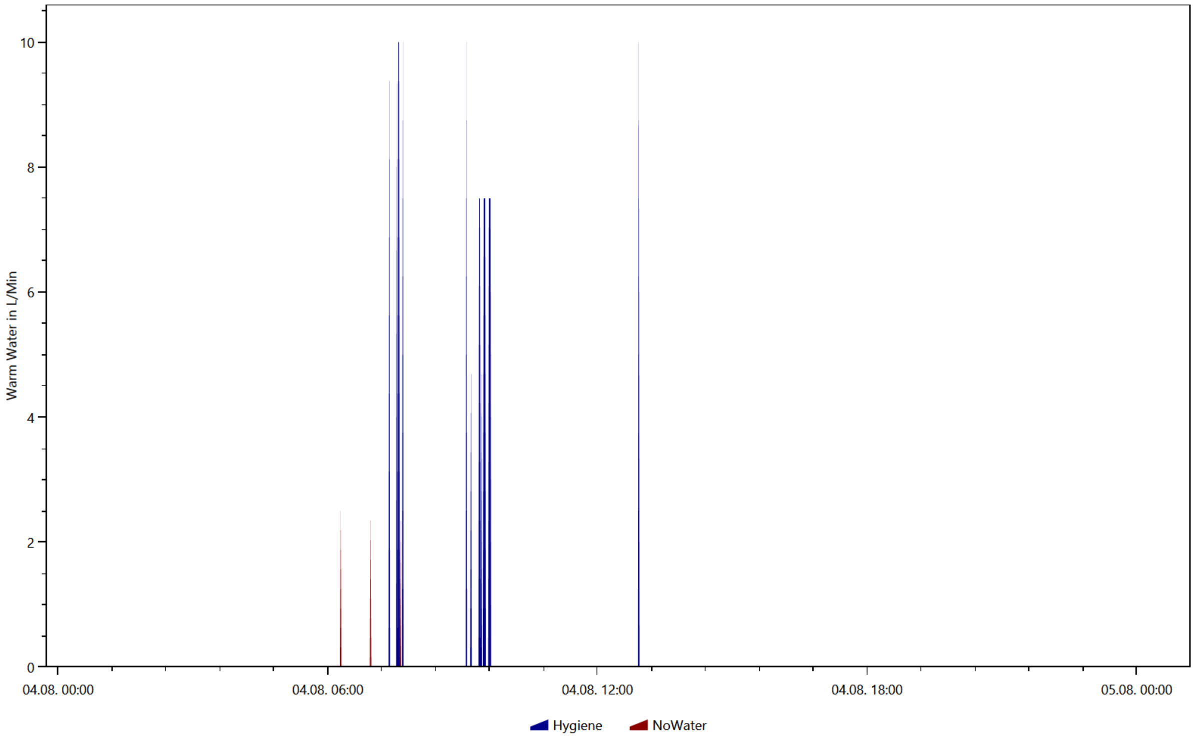
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.5



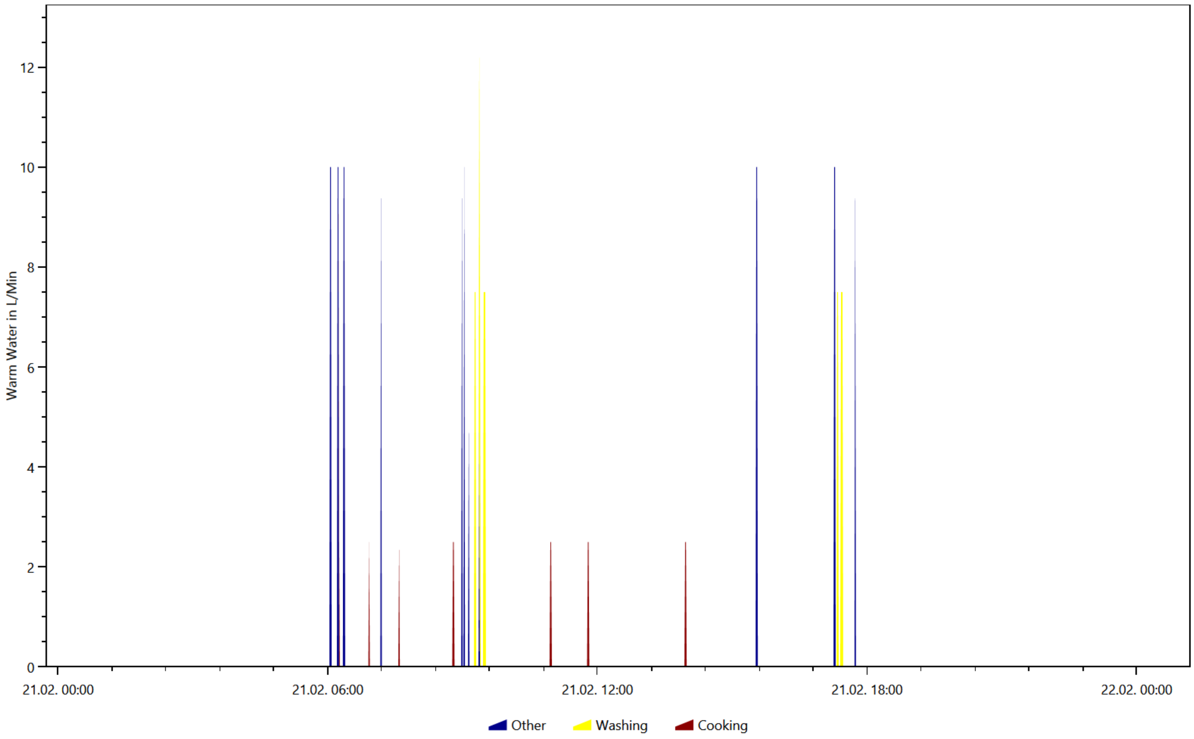
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.12



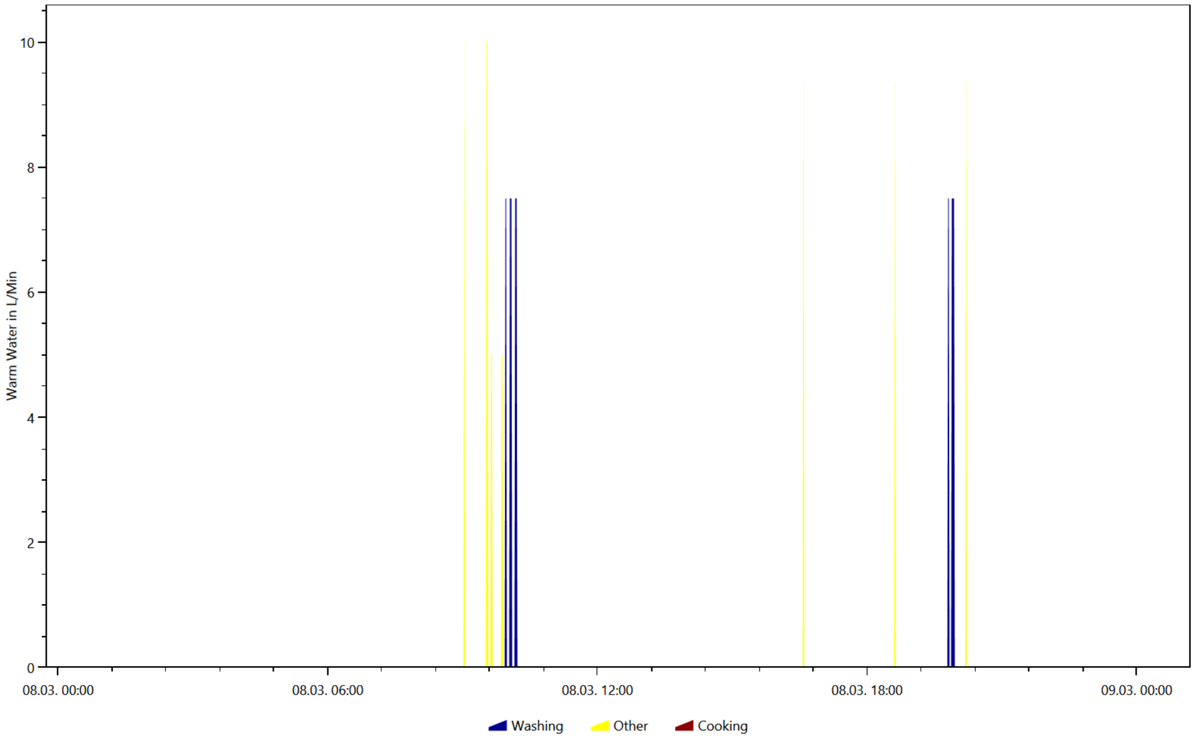
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.4



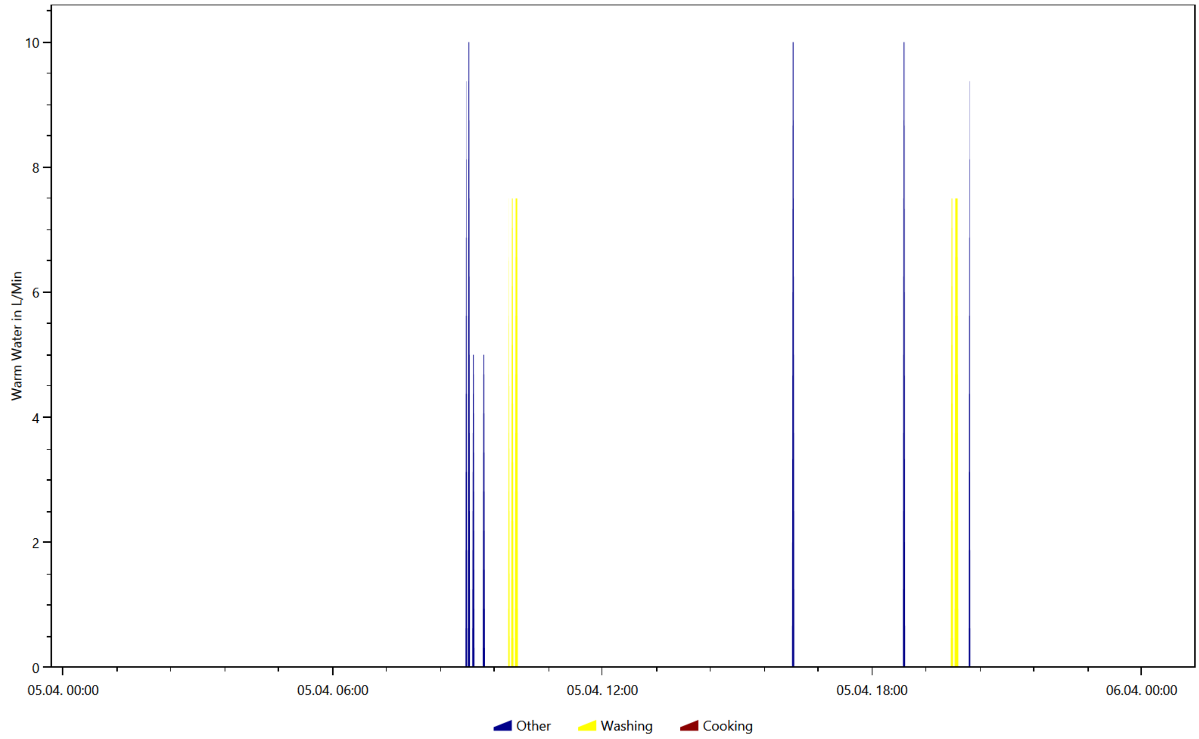
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.21



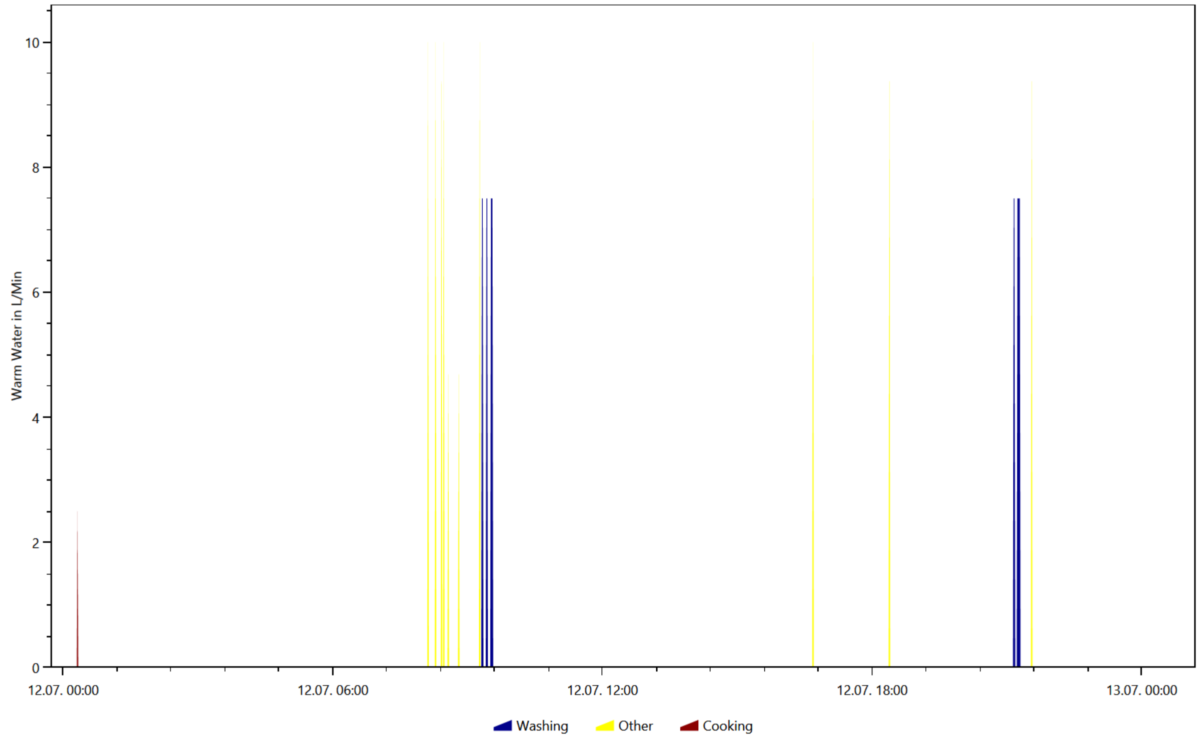
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.8



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.5



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.12

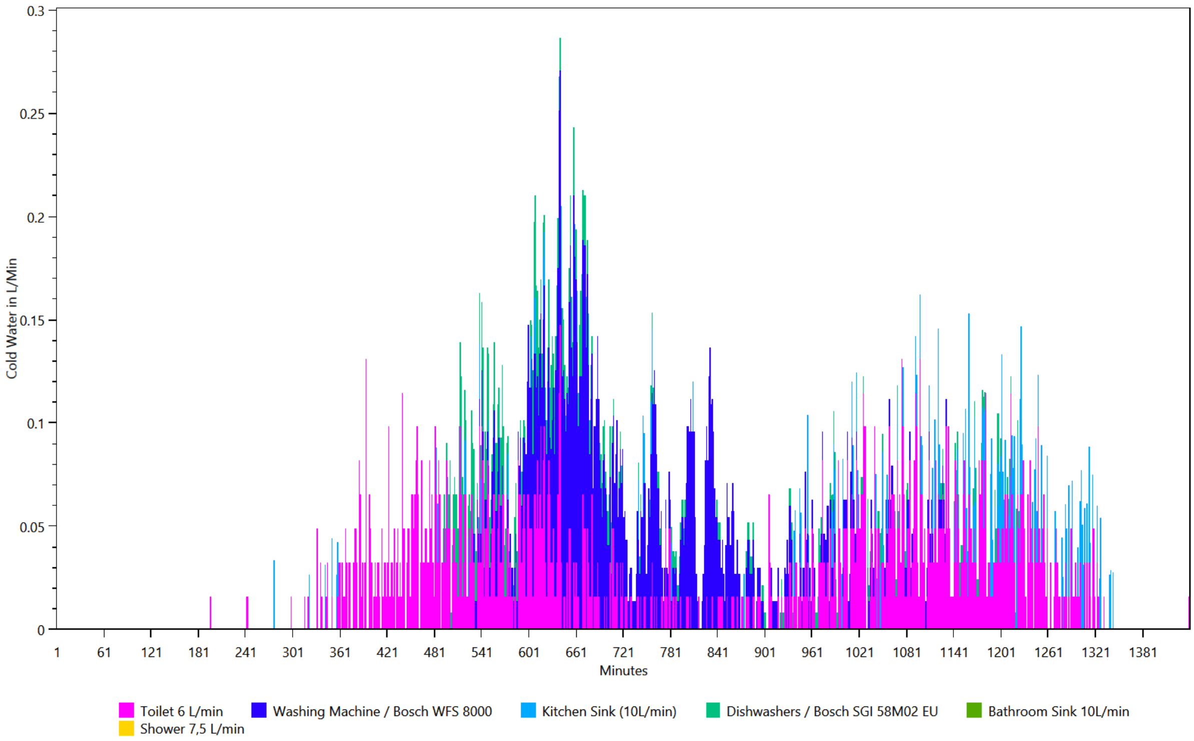


Overview of the time and power of the use per load type per device

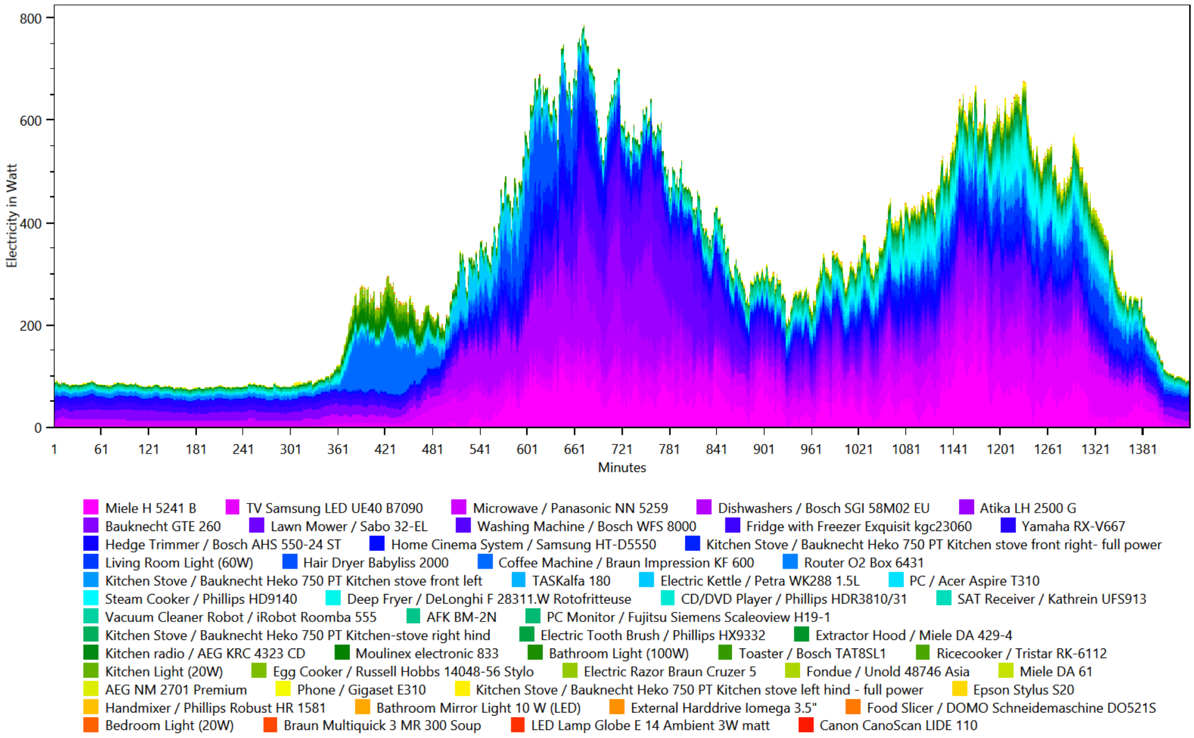
This is made from the files starting with: TimeOfUseEnergyProfiles

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

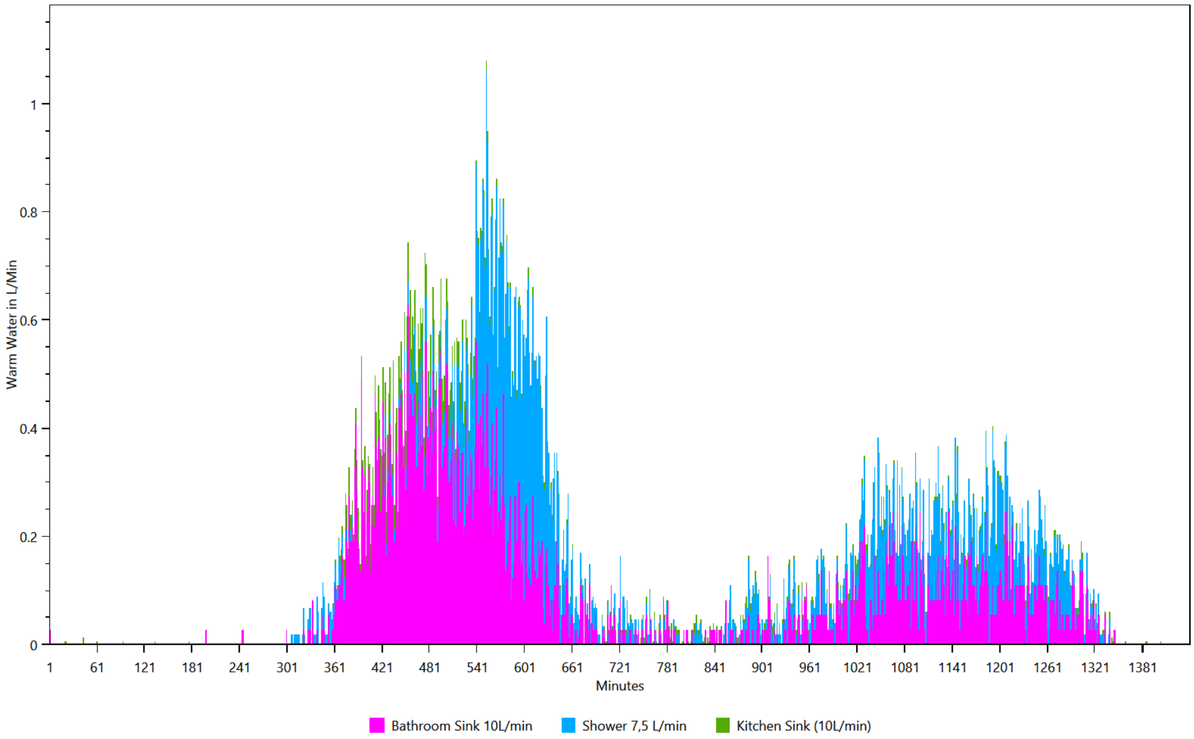
Cold Water



Electricity



Warm Water

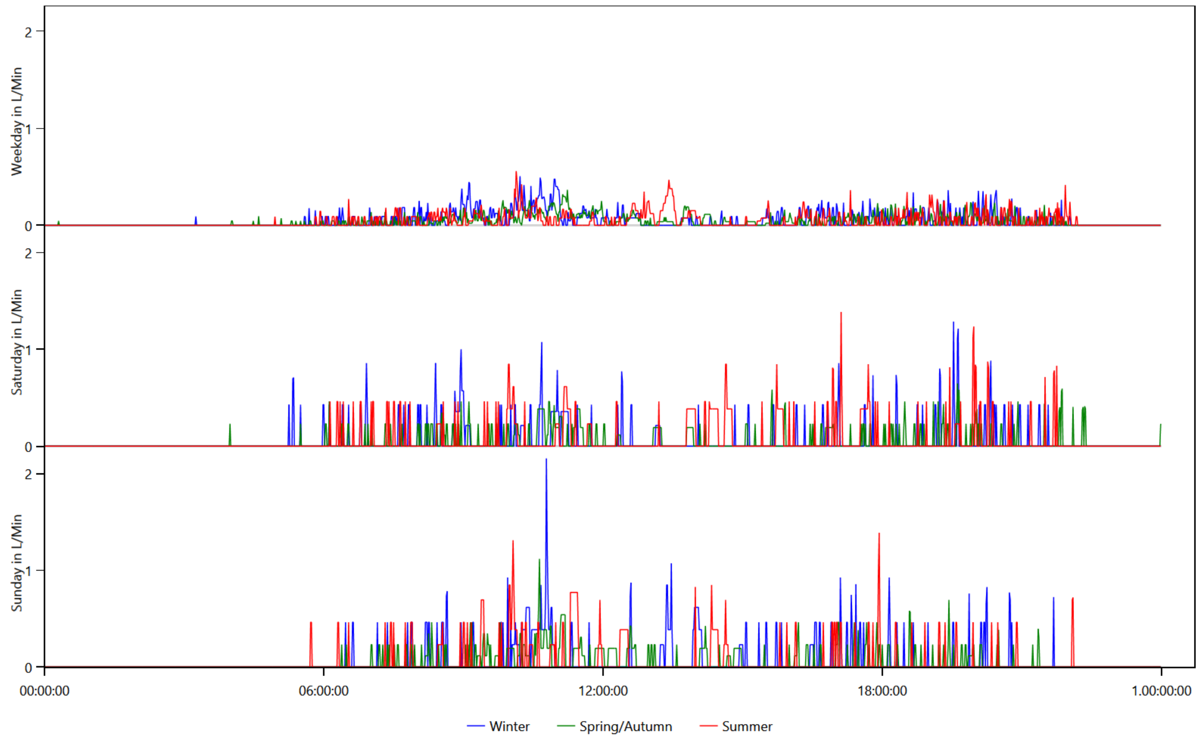


Energy use per load type during different seasons, split by weekday/saturday/sunday

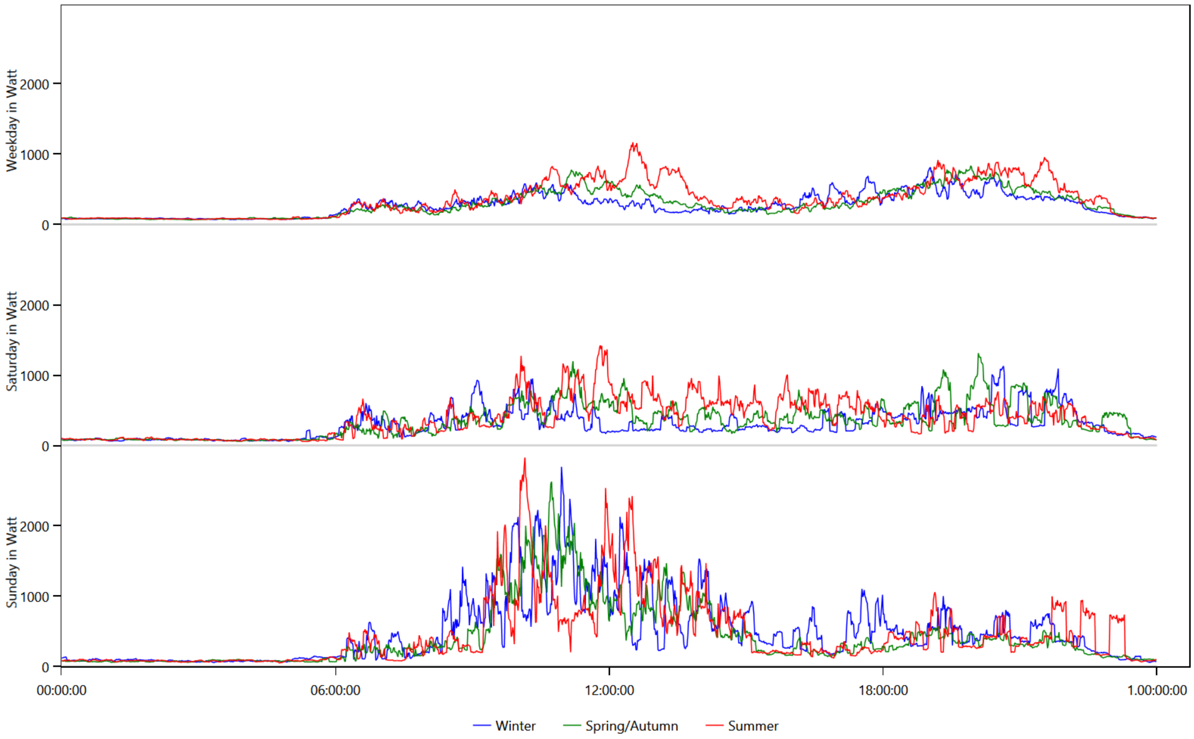
This is made from the files starting with: WeekdayProfiles

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

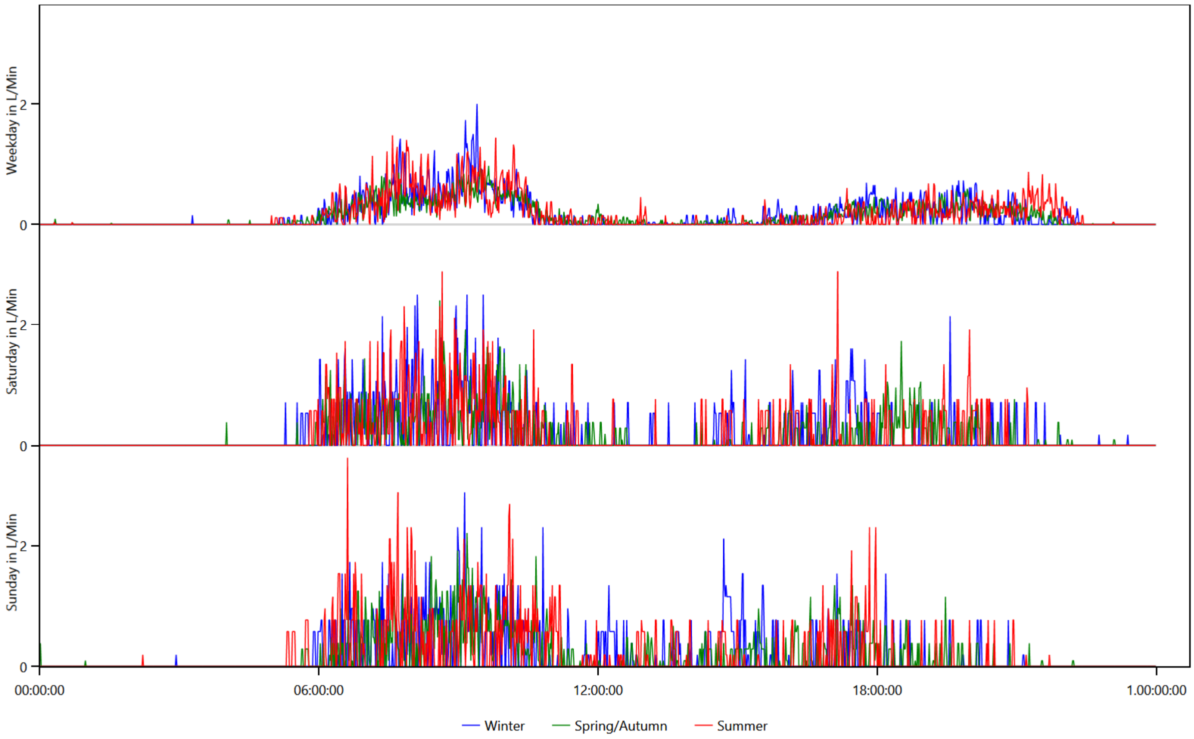
Cold Water



Electricity



Warm Water

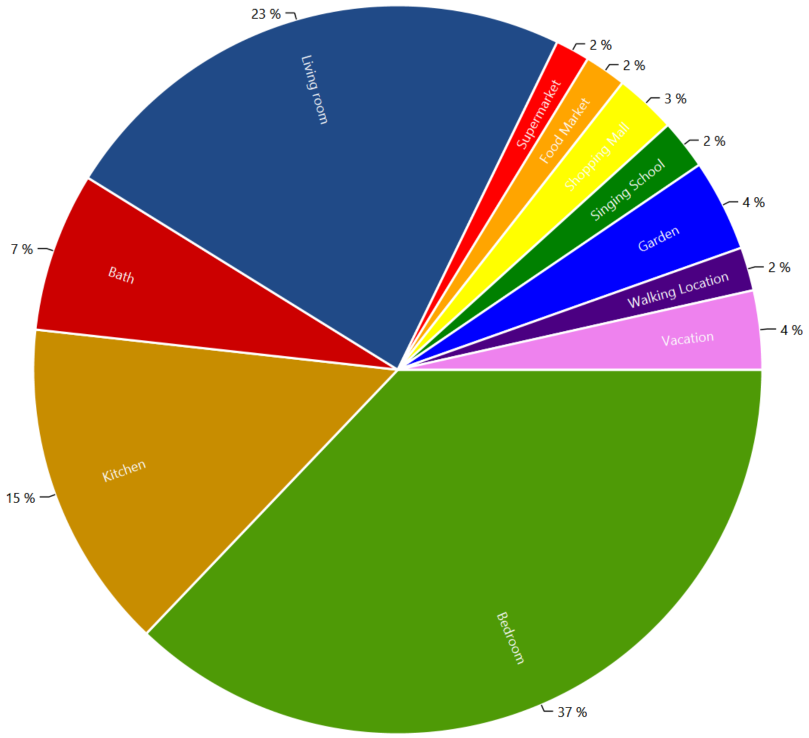


Location Distribution per Person

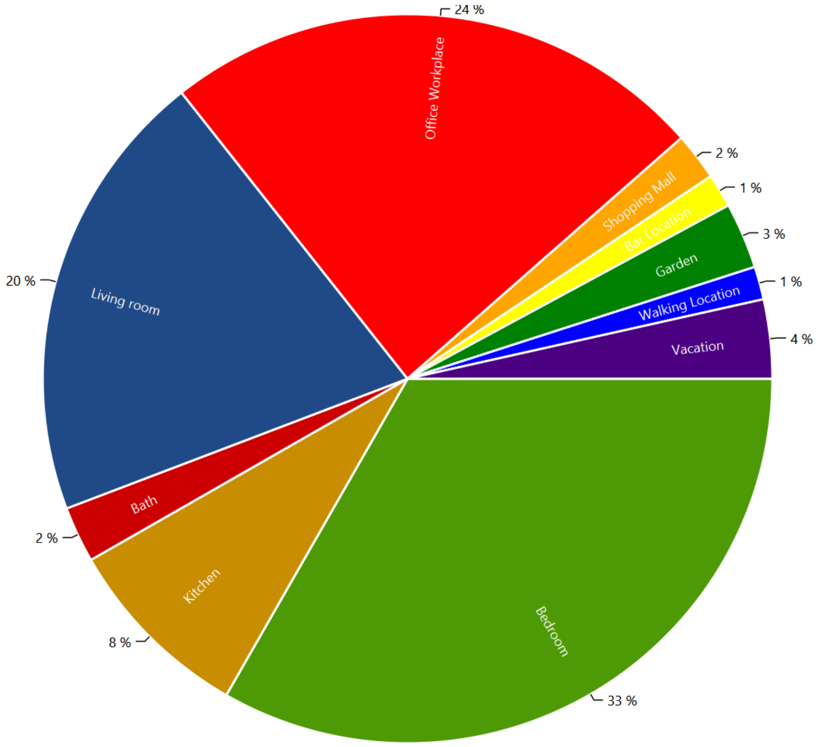
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR04 Amy (45 Female)



CHR04 Jim (50 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

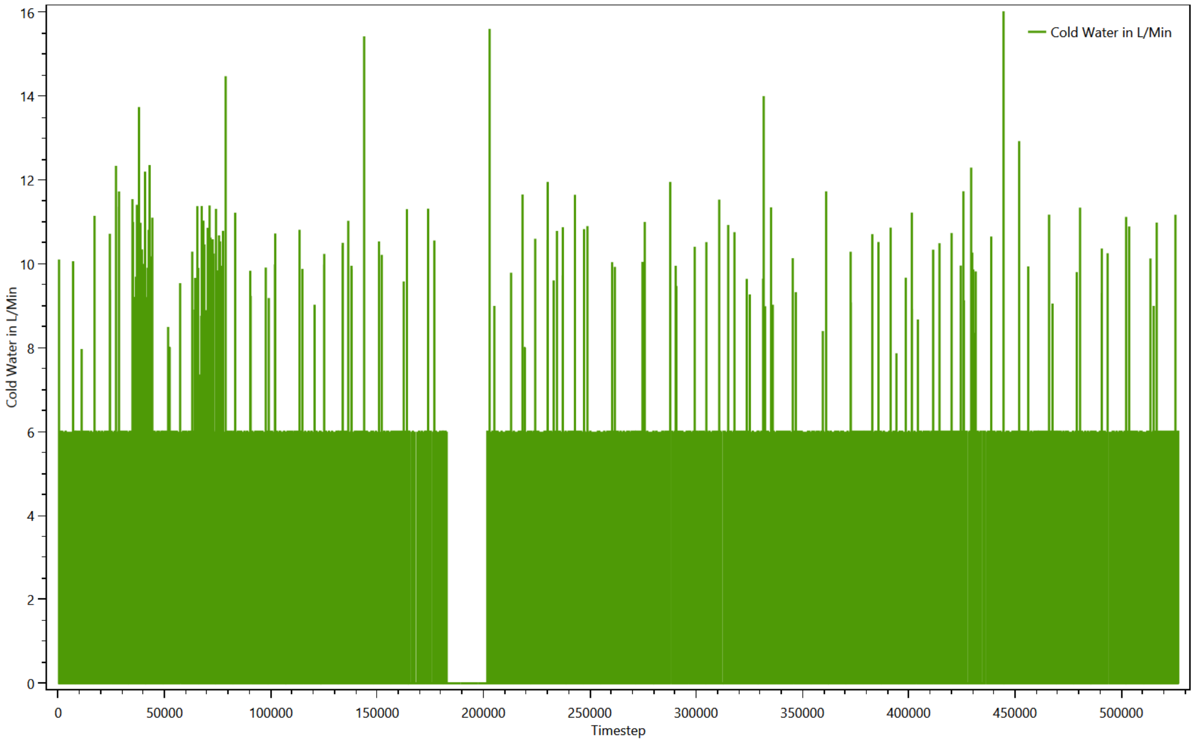
```
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHR04 Amy (45/Female);sleep bed 02 (10 h);sleep;False;
0;01.01.2016 00:00;CHR04 Jim (50/Male);sleep bed 08 (08 h);sleep;False;
349;01.01.2016 05:49;CHR04 Jim (50/Male);cook food with rice and eat it;cooking;False;
350;01.01.2016 05:50;CHR04 Amy (45/Female);eat a cooked meal (interrupting) (cook food with rice and eat it);cooking;False;
403;01.01.2016 06:43;CHR04 Amy (45/Female);sleep bed 02 (10 h);sleep;False;
403;01.01.2016 06:43;CHR04 Jim (50/Male);get ready in the morning (men);hygiene;False;
416;01.01.2016 06:56;CHR04 Jim (50/Male);eat breakfast (1 h);cooking;False;
448;01.01.2016 07:28;CHR04 Amy (45/Female);eat small breakfast (25min) interruping subaff, no alarm;cooking;False;
475;01.01.2016 07:55;CHR04 Jim (50/Male);watch a movie for 2 h with home cinema system;Passive Entertainment (TV etc.);False;
476;01.01.2016 07:56;CHR04 Amy (45/Female);go to the toilet;hygiene;False;
482;01.01.2016 08:02;CHR04 Amy (45/Female);get ready in the morning (women);hygiene;False;
502;01.01.2016 08:22;CHR04 Amy (45/Female);take a shower without hair washing (women);hygiene;False;
553;01.01.2016 09:13;CHR04 Amy (45/Female);do laundry at 30°C (by variable);cleaning;False;
570;01.01.2016 09:30;CHR04 Amy (45/Female);use the computer for recreation (2 h);Active Entertainment (Computer, Internet etc);False;
598;01.01.2016 09:58;CHR04 Jim (50/Male);work at the office from 8:00 (9 h);work;False;
700;01.01.2016 11:40;CHR04 Amy (45/Female);watch a movie for 1 h 30 min with home cinema system;Passive Entertainment (TV etc.);False;
795;01.01.2016 13:15;CHR04 Amy (45/Female);hang up laundry outside;cleaning;False;
829;01.01.2016 13:49;CHR04 Amy (45/Female);go shopping for food in the supermarket (1.5 h);shopping;False;
911;01.01.2016 15:11;CHR04 Amy (45/Female);take a nap;sleep;False;
```

Sum Profiles

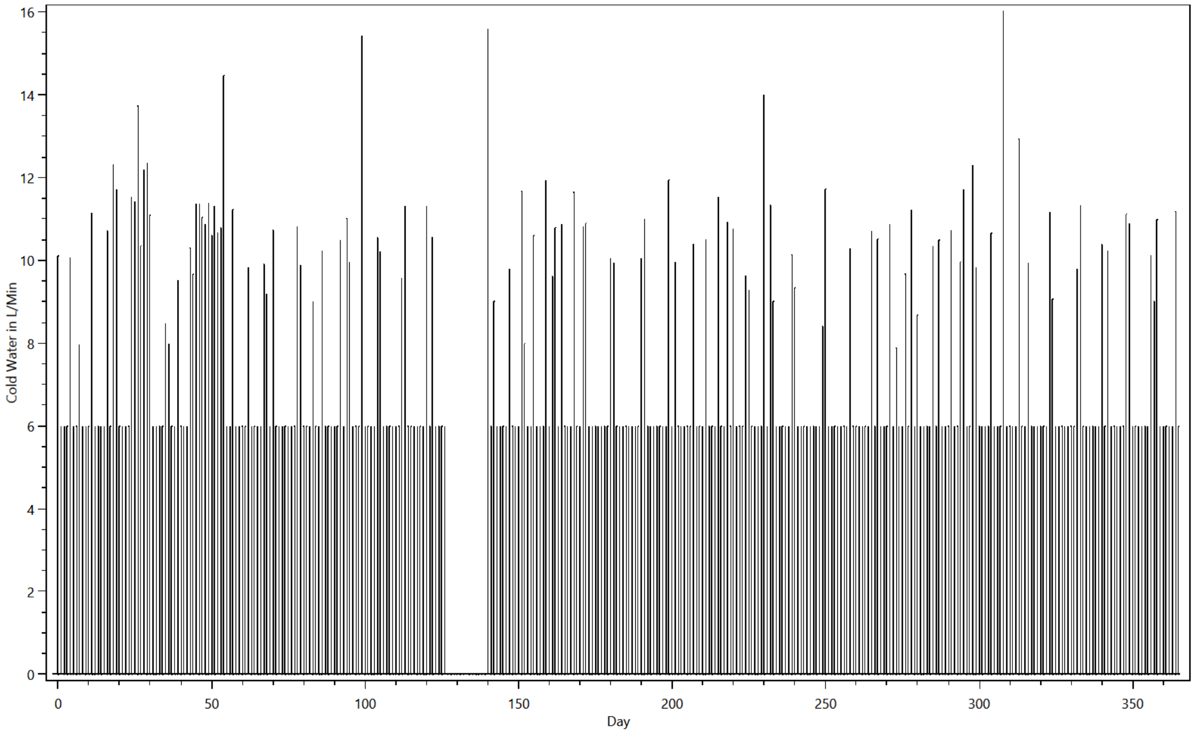
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

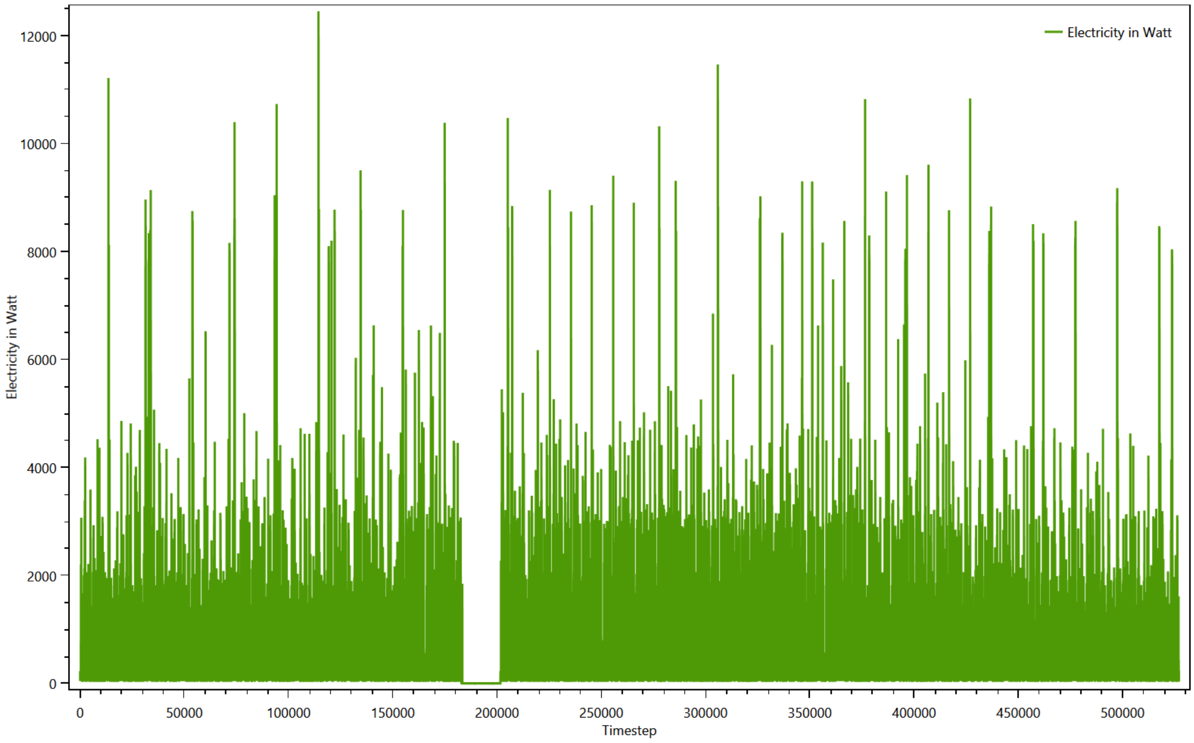
Summed up curve for Cold Water from SumProfiles.Cold Water.png



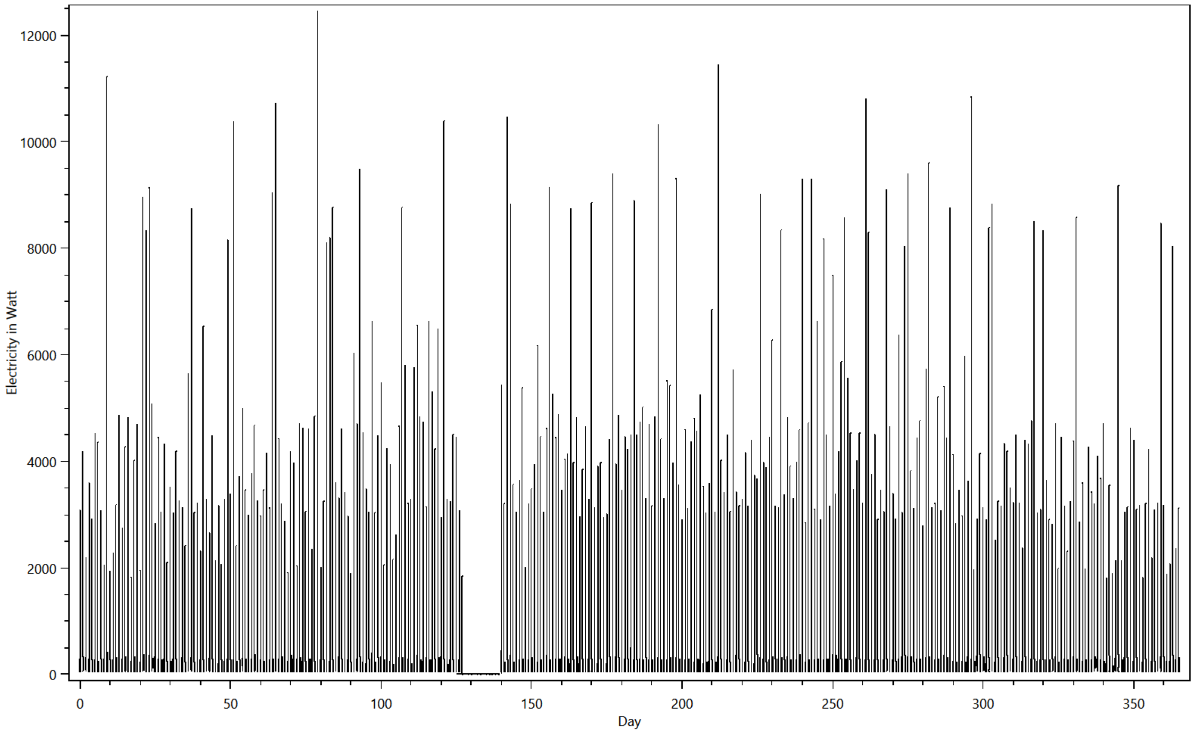
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax..png



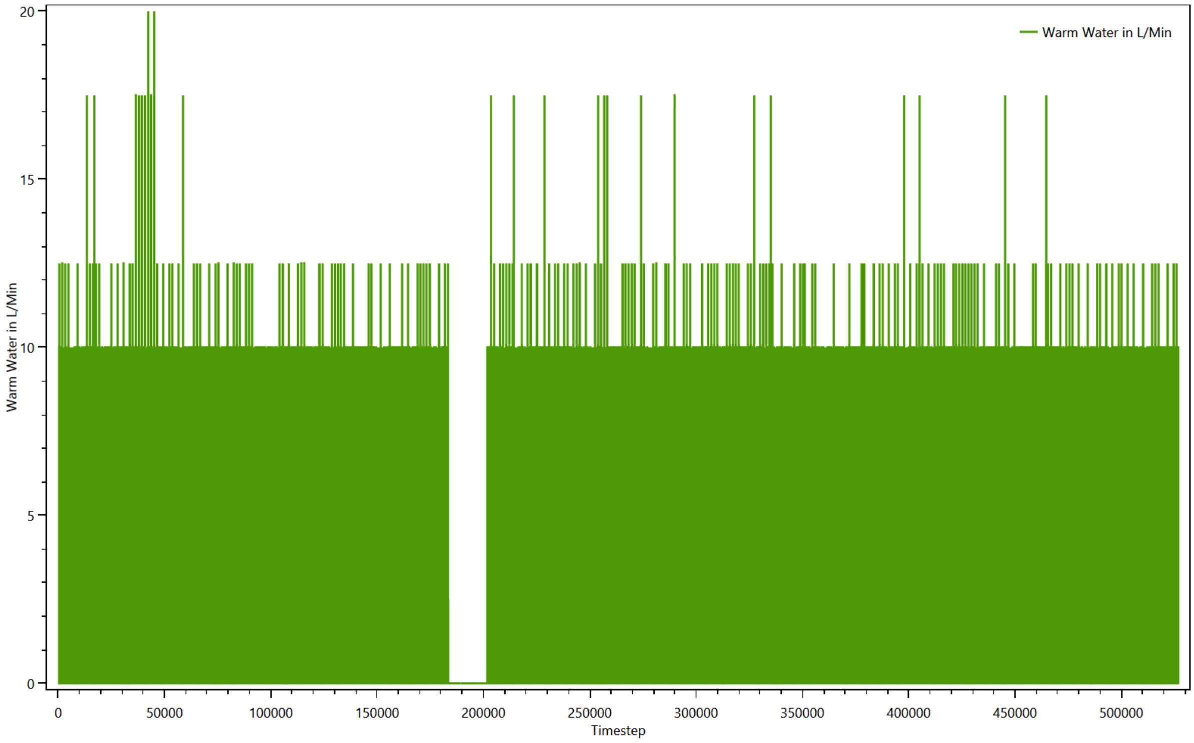
Summed up curve for Electricity from SumProfiles.Electricity.png



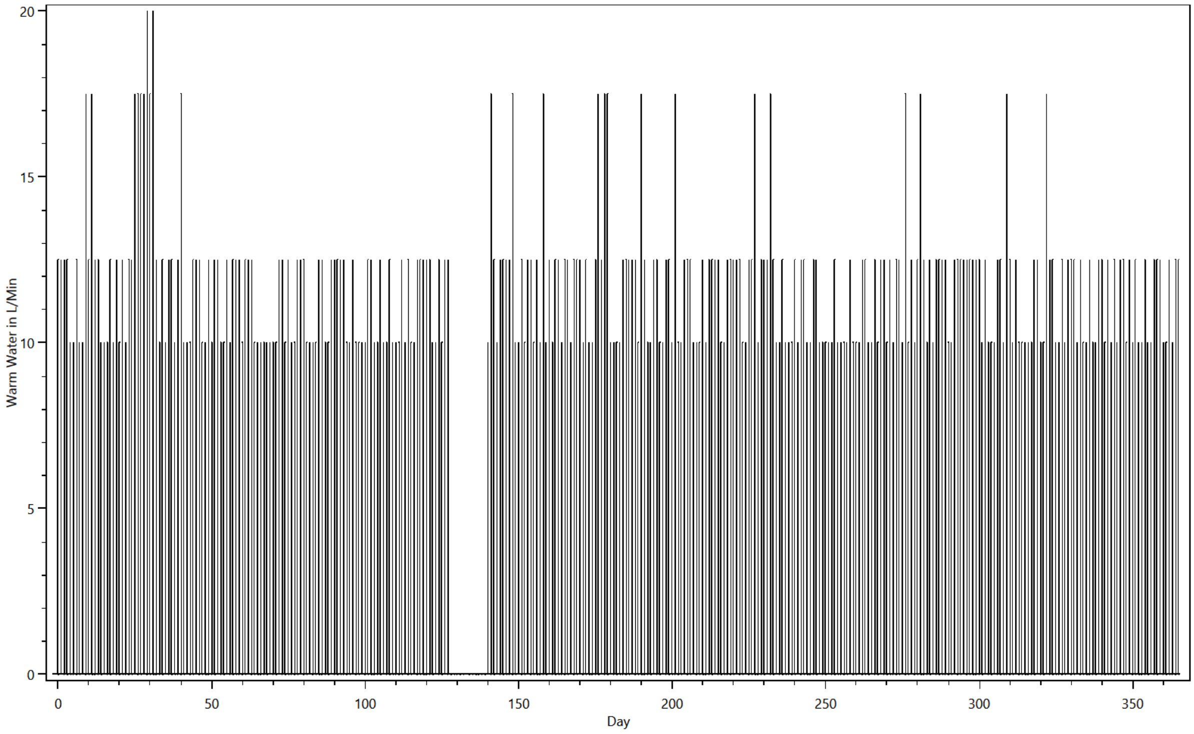
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



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.CHR04 Couple, 30 - 64 years, 1 at work, 1 at home 0.txt

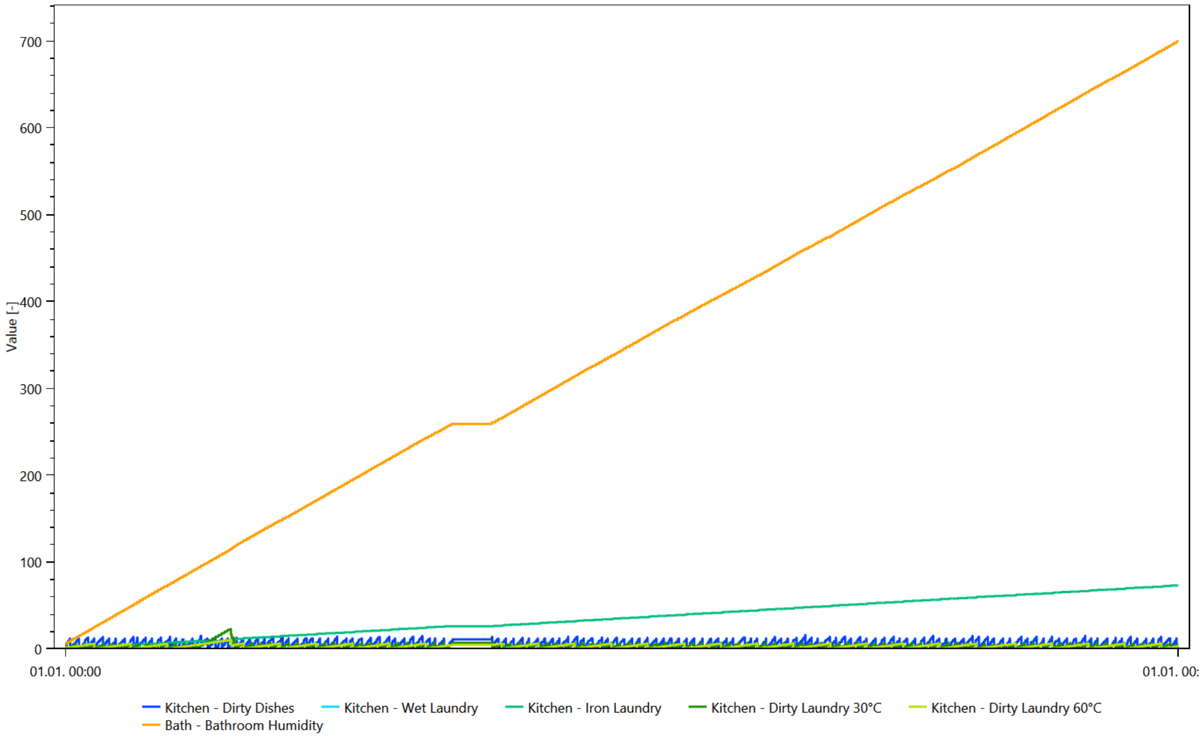
```
Device;Load Type;Profile;Number of Activations
AEG NM 2701 Premium;Electricity;01 h 0 min 100% [Synthetic];87
AFK BM-2N;Electricity;Backing profile IV Bread 45 min [Synthetic];86
Atika LH 2500 G;Electricity;0 h 15 min 100% [Synthetic];265
Bar;None;04 h 0 min 100% [Synthetic];33
Bathroom Light (100W);Electricity;Bath - light [Synthetic for Light Device];745
Bathroom Mirror Light 10 W (LED);Electricity;Bath - light [Synthetic for Light Device];745
Bathroom Sink 10L/min;Warm Water;0 h 01 min 100% [Synthetic];2806
Bathroom Sink 10L/min;Warm Water;0 h 01 min 50% [Synthetic];666
Bauknecht GTE 260;Electricity;0 h 01 min 100% [Synthetic];511
Bauknecht GTE 260;Electricity;05 h 0 min Fridge, 1h 100%, 4h 0% [Synthetic];1707
Bed 2;None;10 h 0 min 100% [Synthetic];354
Bed 8;None;08 h 0 min 100% [Synthetic];355
Bedroom Light (20W);Electricity;Bedroom - light [Synthetic for Light Device];7
Braun Multiquick 3 MR 300 Soup;Electricity;0 h 01 min 100% [Synthetic];8
CD/DVD Player / Phillips HDR3810/31;Electricity;01 h 30 min 100% [Synthetic];613
CD/DVD Player / Phillips HDR3810/31;Electricity;02 h 0 min 100% [Synthetic];98
CD/DVD Player / Phillips HDR3810/31;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8482
Canon CanoScan LIDE 110;Electricity;0 h 10 min 100% [Synthetic];112
Cleanser;None;01 h 0 min 100% [Synthetic];90
```

Variables

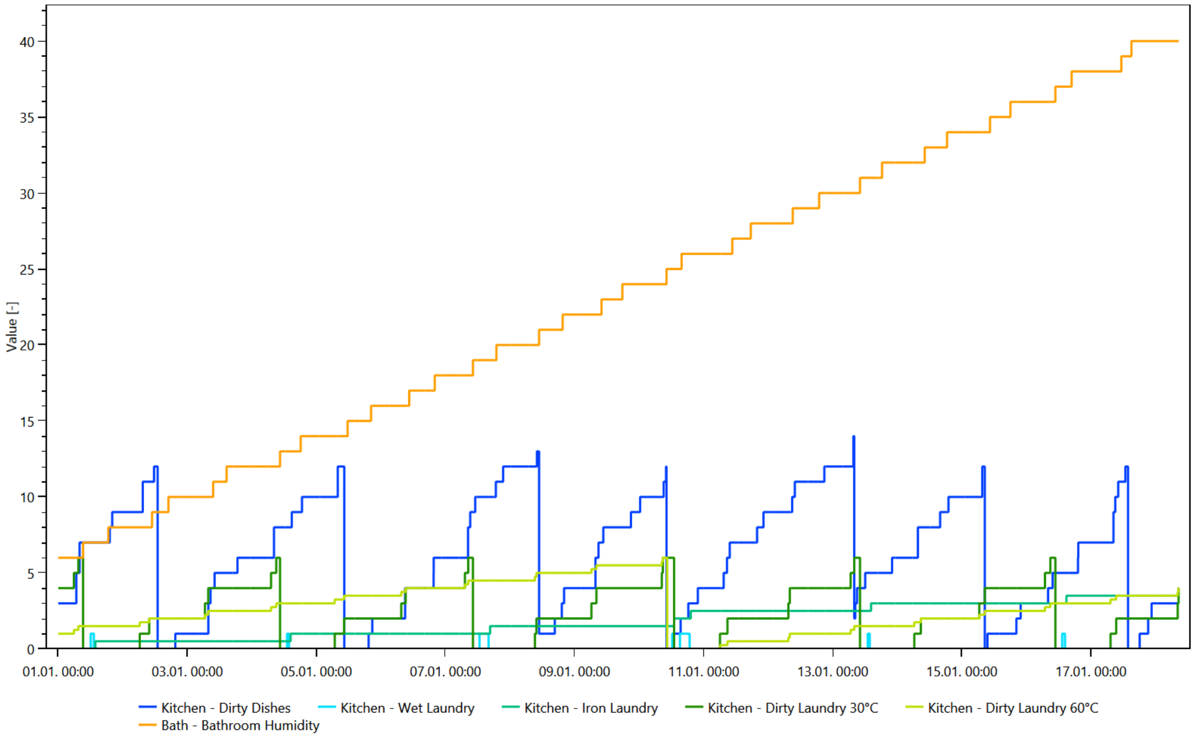
This is made from the files starting with: Variablelogfile

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


Value [-]
0
5
10
15
20
25
30
35
40
01.01. 00:00
03.01. 00:00
05.01. 00:00
07.01. 00:00
09.01. 00:00
11.01. 00:00
13.01. 00:00
15.01. 00:00
17.01. 00:00
Kitchen - Dirty Dishes
Kitchen - Wet Laundry
Kitchen - Iron Laundry
Kitchen - Dirty Laundry 30°C
Kitchen - Dirty Laundry 60°C
Bath - Bathroom Humidity